



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

Region 1

5 Post Office Square, Suite 100

BOSTON, MA 02109-3912

CERTIFIED MAIL RETURN RECEIPT REQUESTED

AUG 07 2012

Jim Grossman
Vice President
Suffolk Construction Company
65 Allerton Street
Boston, MA 02119

Richard A. Galvin
Authorized Representative
AP Channel Center Garage LLC
10 Channel Center Street, Suite 500
Boston, MA 02210

Re: Authorization to discharge under the Remediation General Permit (RGP) – MAG910000. Channel Center Parking Garage site located at 116 West First Street, South Boston, MA 02210, Suffolk County; Authorization # MAG910550

Dear Mr. Grossman and Mr. Galvin:

Based on the review of a Notice of Intent (NOI) submitted on behalf of Channel Center Garage LLC by the firm Haley & Aldrich Inc., for the site referenced above, the U.S. Environmental Protection Agency (EPA) hereby authorizes you both (Operator and Owner) as Co-Permittess, 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 you have marked "Believed Present." EPA included total petroleum hydrocarbons (TPH) and lead components of petroleum and gasoline respectively, in view of their historic presence.

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).

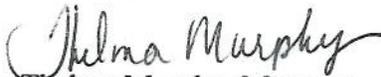
Therefore, the limits for antimony of 5.6 ug/L, arsenic of 36 ug/L, lead of 8.5 ug/L, and iron of 1,000 ug/L, are required to achieve permit compliance at your site.

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 that this project will terminate on July 31, 2015. If for any reason the discharge terminates sooner 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, Manager
Storm Water and Construction
Permits Section

Enclosure

cc: Kathleen Keohane, MassDEP
Paul Canavan, BWSC
Sandhya N. Potana, Haley & Aldrich

**2010 Remediation General Permit
Summary of Monitoring Parameters^[1]**

NPDES Authorization Number:	MAG910550
Authorization Issued:	July, 2012
Facility/Site Name:	Channel Center Parking Garage
Facility/Site Address:	116 West First Street, South Boston, MA 02210
	Email address of owner: dickgalvin4@aol.com
Legal Name of Operator:	Suffolk Construction Company
Operator contact name, title, and Address:	Jim Grossman, Vice President-65 Allerton Street, Boston, Massachusetts 02119, Suffolk County
	Email: grossman@suffolkconstruction.com
Estimated date of Completion:	July 31, 2015
Category and Sub-Category:	Category I and III respectively as follows: Petroleum Related Site Remediation. Sub-category A. Gasoline Only Sites and Contaminated Construction Dewatering. Sub-category A. General Urban Fill Sites and Sub-category B. Known Contaminated Sites
RGP Termination Date:	September 10, 2015
Receiving Water:	Boston Fort Point Channel

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

	<u>Parameter</u>	<u>Effluent Limit/Method#/ML</u> (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#60.2/ML5ug/L
	2. Total Residual Chlorine (TRC) ¹	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) ^{2, 3}	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

	<u>Parameter</u>	<u>Effluent Limit/Method#/ML</u> (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) ⁴	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 ⁵	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) ⁶	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>	<u>Effluent Limit/Method#/ML</u> (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 ⁷	0.0038 ug/L /Me#8270D/ ML 5ug/L, Me#610/ML 5ug/L& Me#625/ML 5ug/L
	b. Benzo(a) Pyrene ⁷	0.0038 ug/L /Me#8270D/ ML 5ug/L, Me#610/ML 5ug/L& Me#625/ML 5ug/L
	c. Benzo(b)Fluoranthene ⁷	0.0038 ug/L /Me#8270D/ ML 5ug/L, Me#610/ML 5ug/L& Me#625/ML 5ug/L
	d. Benzo(k)Fluoranthene ⁷	0.0038 ug/L /Me#8270D/ ML 5ug/L, Me#610/ML 5ug/L& Me#625/ML 5ug/L
	e. Chrysene ⁷	0.0038 ug/L /Me#8270D/ML 5ug/L, Me#610/ML 5ug/L& Me#625/ML 5ug/L
	f. Dibenzo(a,h)anthracene ⁷	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 ⁷	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 ⁵	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) ^{8,9}	0.000064 ug/L/Me# 608/ ML 0.5 ug/L
✓	38. Chloride	Monitor only/Me# 300.0/ ML 100 ug/L

<u>Metal parameter</u>	<u>Total Recoverable Metal Limit @ H ¹⁰ = 50 mg/l CaCO₃ for discharges in Massachusetts (ug/l) ^{11/12}</u>	<u>Minimum level=ML</u>
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		Saltwater	
√	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	0.2
	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

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

Footnotes:

¹ 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).

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

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

³ Although the maximum values for cyanide are 5.2 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).

⁴ BTEX = sum of Benzene, Toluene, Ethylbenzene, and total Xylenes.

⁵ 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.

⁶ 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.

⁷ 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.

⁸ 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 "Orochlor 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.

⁹ 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).

¹⁰ Hardness. Cadmium, Chromium III, Copper, Lead, Nickel, Silver, and Zinc are Hardness Dependent.

¹¹ 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.

¹² 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).

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

¹⁴ 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



9 July 2012
File No. 26135-900

US Environmental Protection Agency
Industrial NPDES Permits (CIP)
1 Congress Street, Suite 1100
Boston, MA 02114-2023

Attention: Ms. Shelly Puleo

Subject: Notice of Intent (NOI)
Temporary Construction Dewatering
Proposed Channel Center Parking Garage
South Boston, Massachusetts
RTN 3-1918

Dear Ms. Puleo:

On behalf of our client AP Channel Center Garage 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. Temporary dewatering is planned in support of the construction of the proposed Channel Center Garage at 116 West First Street in South Boston, Massachusetts, as shown on Figure 1, Project Locus. We anticipate construction dewatering will be conducted, as necessary, during below grade excavation and planned construction.

The site is part of a larger parcel owned by the United States Postal Service (USPS), sometimes also known as 135 A Street, and currently consists of a bituminous paved parking lot and the adjacent access road (Yard Way) running along the eastern side of the site. The site is bordered to the north by a bituminous paved parking lot beyond which are the Channel Center properties; to the south by West First Street; to the east by the South Boston Bypass Road; and to the west by the bituminous paved parking lot and remainder of the United States Postal Service parcel, beyond which is A Street as shown on Figure 2, Site and Subsurface Exploration Location Plan. There are no structures currently present on the property. The site is generally level with ground surface elevations generally ranging from El. 14 to 16 ft Boston City Base (BCB). Groundwater at the site is present at a depth ranging from 6 to 8 ft below ground surface (bgs).

Site History

Prior to the mid 1800s, the Site consisted of tidal mudflats. The site was filled between 1841 and 1866 and was originally used as part of the Boston Wharf Company shipping operations. Historically, the site has been occupied by a combination of kerosene oil distillers, railroad lines, oil companies, foundries, and storage facilities. The United States Postal Service (USPS) acquired the property in 1940 and constructed a vehicle maintenance facility used to store and service vehicles. The site has a history of above ground



storage tanks (ASTs) and underground storage tanks (USTs) that were used during historic kerosene distillation and later operations by the USPS.

Proposed Construction

The proposed development will consist of an approximately 300,000 square foot, 9-story parking garage. The ground floor will be finished between El. 15.5 and 18, and no below grade space is planned for the building. The plan configuration of the proposed parking garage is shown on Figure 2, Site and Subsurface Exploration Location Plan. All work discussed in this Notice of Intent will be undertaken after AP Channel Center Garage LLC has acquired the subject site from the USPS, which is expected to be on or about July 31, 2012.

Regulatory Background

Subsurface soil and groundwater have been impacted by historic releases of petroleum fuels and distillation oil residues. There is one RTN associated with the Site (RTN 3-1918). A Class A-3 Response Action Outcome (RAO) statement has been submitted for RTN 3-1918 in June 2009. An AUL was implemented to maintain the condition of No Significant Risk, including a requirement of a health and safety plan and soil management if soils at the site are to be disturbed. A Release Abatement Measure (RAM) Plan will be submitted to MassDEP for the management of contaminated soil prior to the start of proposed construction in August 2012.

Groundwater Sampling

In support of the NOI, one unfiltered groundwater sample was obtained from observation well CCG-4 (OW), on 1 May 2012. The groundwater sample was submitted to Alpha Analytical, Inc. of Westborough, Massachusetts (Alpha Analytical) for analysis for NPDES permit parameters including VOCs, SVOCs, PAHs, metals, TPH, pesticides, PCBs, Total Suspended Solids (TSS), chloride, total cyanide, total phenolics and total residual chlorine. The analytical results for the groundwater sample identified concentration of total iron above applicable NPDES RGP Effluent Limits but below applicable MCP RCGW-2 Reportable Concentrations. 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.

Dewatering System and Off-site Discharge

Prior to discharge, collected water will be routed through a oil/water separator and sedimentation tank with bag filters, to remove oil sheens and suspended solids and un-dissolved chemical constituents. Supplemental pretreatment is anticipated to be required to meet discharge criteria as shown in the Proposed Treatment System Schematic included in Figure 3. Supplemental pretreatment is anticipated to remove iron from the water. 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 discharge into the Fort Point Channel. The proposed discharge route is shown on Figure 4.

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 August 1, 2012. 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.

Appendices

The completed "Suggested Notice of Intent" (NOI) form as provided in the RGP is enclosed in Appendix A. The Site is currently owned by the USPS, however site ownership will be transferred to AP Channel Center Garage LLC on or about 31 July 2012. The site operator is Suffolk Construction Company (Suffolk). Haley & Aldrich will monitor the Contractor's dewatering activities on behalf of AP Channel Center Garage LLC. In accordance with the requirements for this NOI submission, AP Channel Center Garage LLC as the prospective owner and Suffolk as the operator are listed as co permittees for this NPDES RGP, and therefore both have 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 National Register of Historic Places and Endangered Species Act 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 in May 2012 is provided in Appendix F.

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 iron, 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 0.22 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. Based on recent correspondence with EPA, the Dilution Factor for discharge to the Fort Point Channel in Boston is calculated to be in the one to five (1-5) range. According to Appendix IV of the Remediation General Permit, the ceiling limitation for the calculated dilution range of 1-5 for iron is 1000 $\mu\text{g}/\text{L}$. Since the testing of the groundwater at the Site indicates that iron concentrations are greater than 1,000 $\mu\text{g}/\text{L}$, treatment to remove total iron from the dewatering effluent will be included as part of the scheduled activities.

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

P. Sandhya

Sandhya N. Potana
Assistant Project Manager

Keith E. Johnson

Keith E. Johnson, P.E., LSP
Vice President

Attachments:

- Table I – Summary of Groundwater Quality Data
- Figure 1 – Site Locus
- Figure 2 – 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: AP Channel Center Garage LLC; Attn: Richard A. Galvin; Mark MacRae; Elisha Long
Edwards Wildman Palmer LLP; Attn: Rebecca A. Lee; Robert Curry

Tables

TABLE I

Summary of Groundwater Quality Data
Proposed Channel Center Parking Garage
South Boston, Massachusetts
File No.: 26135-900

SAMPLE DESIGNATION SAMPLING DATE LABORATORY SAMPLE ID	CAS	RCGW-2 Reportable Concentration	NPDES RGP Effluent Discharge Criteria	CCG-4 5/1/2012 L1207694-01
VOCs (ug/l)				
Benzene	71-43-2	2000	BTEX	0.9
Toluene	108-88-3	40000	BTEX	ND(0.375)
Ethylbenzene	100-41-4	5000	BTEX	0.87
meta-Xylene and para-Xylene	108-38-3/106-42-3	5000	BTEX	1.1
ortho-Xylene	95-47-6	5000	BTEX	ND(0.5)
Naphthalene	91-20-3	1000	20	11
<i>BTEX</i>	NA	5000	100	2.87
Total VOCs	NA	NA	NA	13.87
VOCs by GC/MS-SIM				
1,4-Dioxane	123-91-1	6000	Monitor Only	ND(1.5)
SVOCs by GC/MS (ug/l)				
Total SVOCs (ug/l)	NA	NA	10	ND
SVOCs by GC/MS-SIM (ug/l)				
Acenaphthene	83-32-9	6000	-	0.79
Naphthalene	91-20-3	1000	-	5.3
Fluorene	86-73-7	40	-	0.22
1-Methylnaphthalene	90-12-0	---	-	0.77
Total SVOCs	NA	NA	10	7.08
Metals - ICP (ug/l)				
Antimony	7440-36-0	8000	5.6	0.7
Arsenic	7440-38-2	900	36	2
Barium	7440-39-3	50000	-	-
Cadmium	7440-43-9	4	8.9	ND(0.1)
Chromium	7440-47-3	300	100	ND(0.5)
Copper	7440-50-8	100000	3.7	ND(0.5)
Iron	7439-89-6	---	1000	3600
Lead	7439-92-1	10	8.5	ND(0.5)
Mercury	7439-97-6	20	1.1	ND(0.1)
Nickel	7440-02-0	200	8.2	2.8
Selenium	7782-49-2	100	71	ND(2.5)
Silver	7440-22-4	7	2.2	ND(0.2)
Zinc	7440-66-6	900	85.6	18.5

TABLE I

Summary of Groundwater Quality Data
Proposed Channel Center Parking Garage
South Boston, Massachusetts
File No.: 26135-900

SAMPLE DESIGNATION SAMPLING DATE LABORATORY SAMPLE ID	CAS	RCGW-2 Reportable Concentration	NPDES RGP Effluent Discharge	CCG-4 5/1/2012 L1207694-01
MA DEP EPH (ug/l)				
C9-C18 Aliphatics	NA	5000	-	ND(50)
C19-C36 Aliphatics	NA	50000	-	ND(50)
C11-C22 Aromatics	NA	5000	-	ND(50)
MA DEP VPH (ug/l)				
C5-C8 Aliphatics	NA	3000	-	51.5
C9-C12 Aliphatics	NA	5000	-	60.7
C9-C10 Aromatics	NA	7000	-	ND(25)
PCBs (ug/l)				
Total PCBs	NA	NA	0.000064	ND
Chloride (ug/l)	16887-00-6	NA	monitor only	230000
Pesticides by GC (ug/l)				
1,2-Dibromoethane	106-93-4	2	0.05	ND(0.005)
General Chemistry				
Solids, Total Suspended (ug/l)	NONE	NA	30000	ND(2500)
Cyanide, Total (ug/l)	57-12-5	30	5.2	ND(2.5)
Chlorine, Total Residual (ug/l)	NONE	NA	11	ND(10)
TPH (ug/l)	NONE	5000	5000	ND(2000)
Phenolics, Total (ug/l)	NONE	NA	300	30
Chromium, Hexavalent (ug/l)	18540-29-9	300	50.3	ND(5)

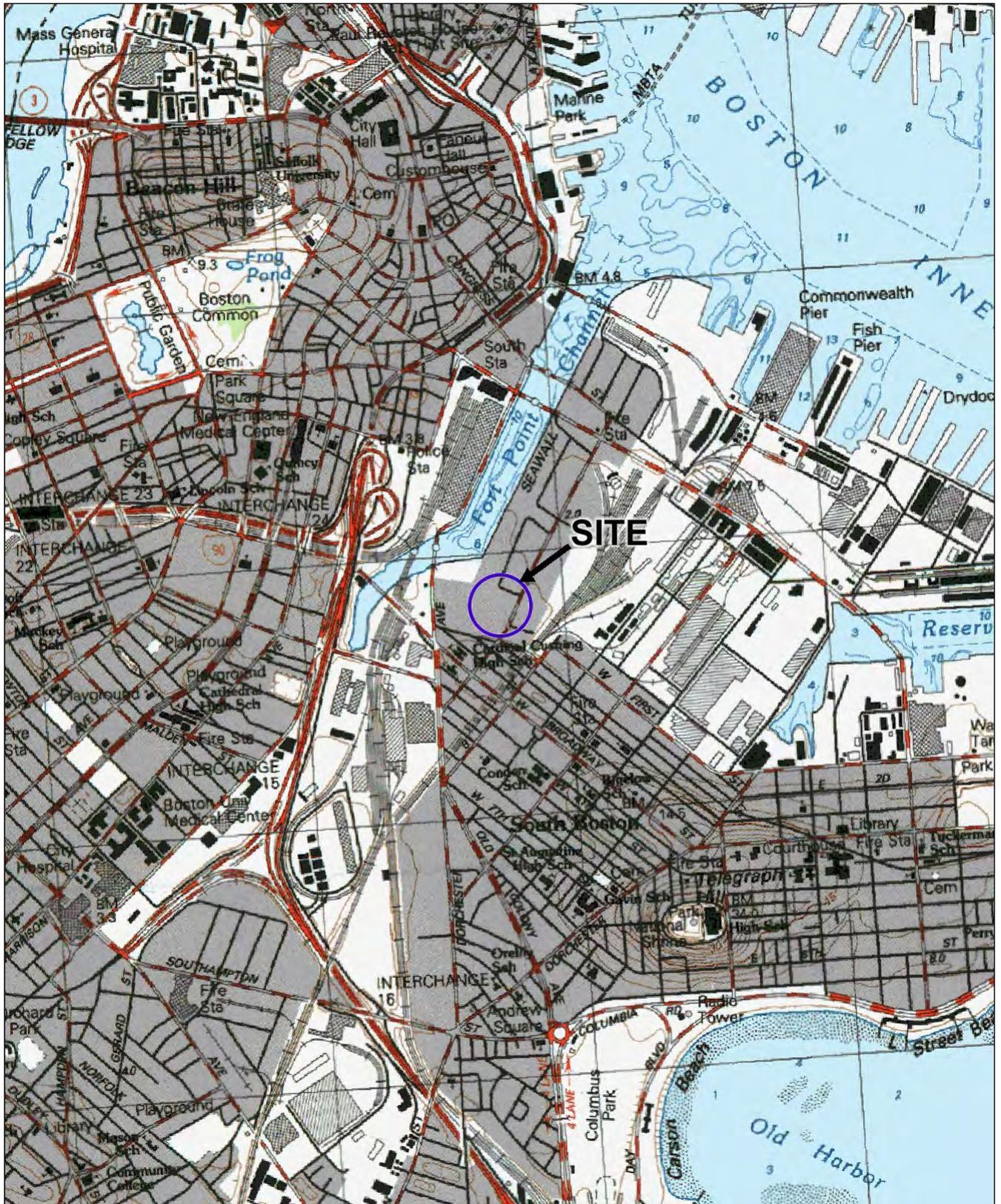
ABBREVIATIONS:

"NA" = not applicable

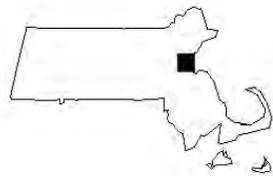
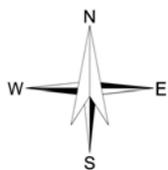
NOTES:

1. Bold values indicate value exceeds the applicable RGP Criteria.
2. ND(2.5) indicates not detected, number in parentheses is one-half the laboratory detection limit.

Figures



SITE COORDINATES: 42°20'39"N 71°3'14"W



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

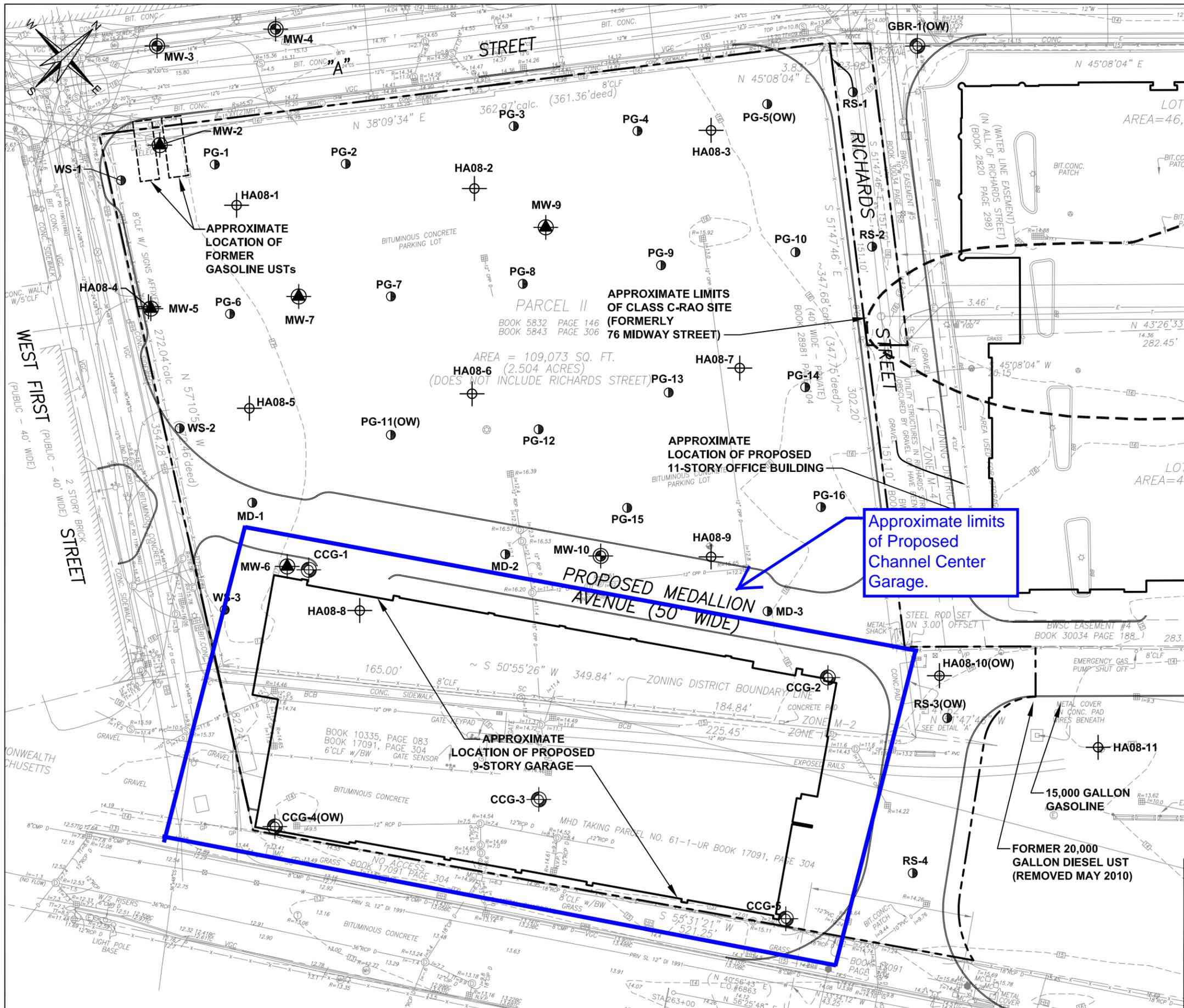
HALEY & ALDRICH

CHANNEL CENTER PARKING GARAGE
116 WEST FIRST STREET
BOSTON, MASSACHUSETTS

PROJECT LOCUS

SCALE: 1:24,000
JUNE 2012

FIGURE 1



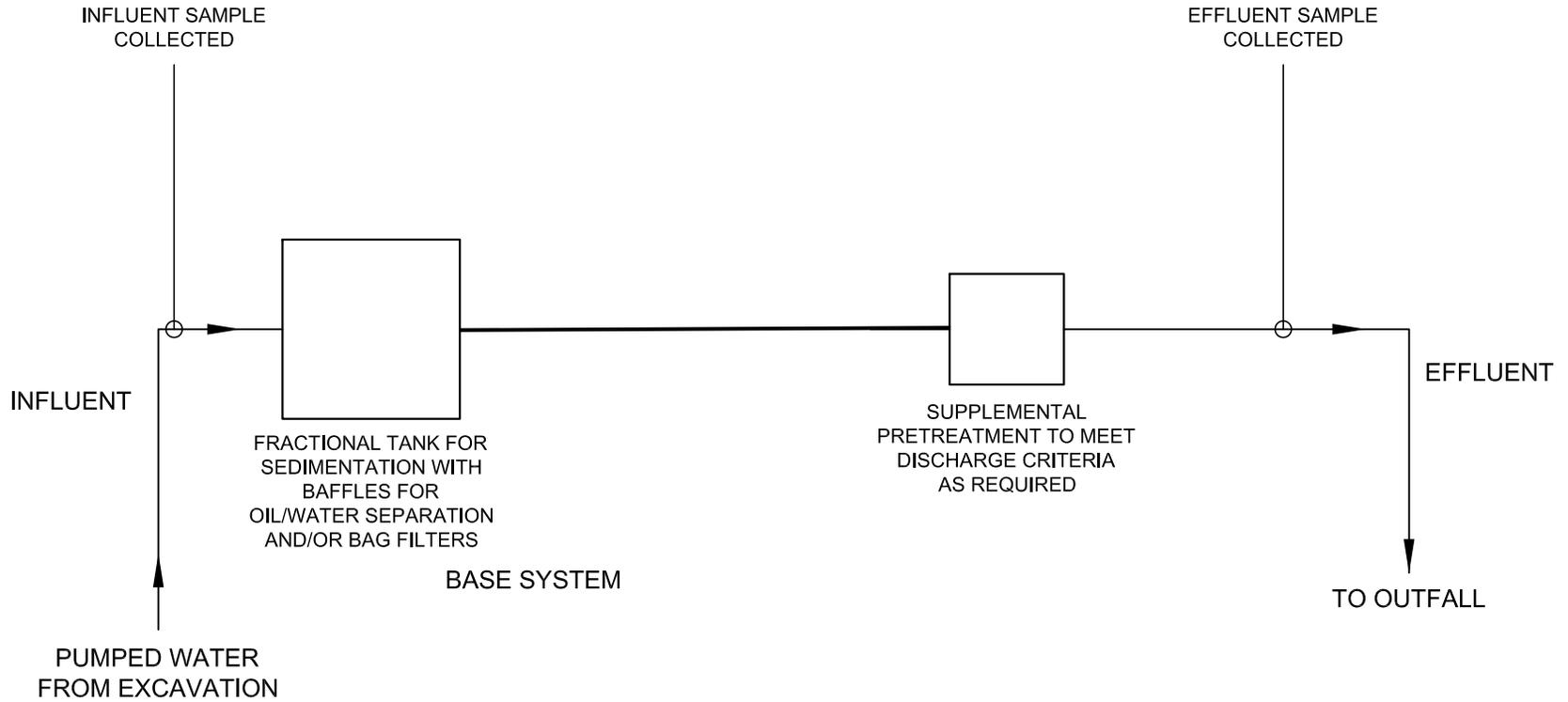
- LEGEND:**
- PG-1** ● DESIGNATION AND APPROXIMATE LOCATION OF ENVIRONMENTAL GEOPROBE COMPLETED BY NEW HAMPSHIRE BORING, INC. DURING THE PERIOD OF 22 APRIL TO 26 APRIL 2012
 - CCG-1** ● DESIGNATION AND APPROXIMATE LOCATION OF TEST BORING COMPLETED BY NEW HAMPSHIRE BORING, INC. DURING THE PERIOD OF 17 APRIL TO 26 APRIL 2012
 - HA08-1** ● DESIGNATION AND APPROXIMATE LOCATION OF ENVIRONMENTAL GEOPROBE COMPLETED BY NEW HAMPSHIRE BORING, INC. IN JULY 2008
 - MW-2** ● DESIGNATION AND APPROXIMATE LOCATION OF MONITORING WELL INSTALLED DURING 1997 THROUGH 1999
 - MW-3** ● DESIGNATION AND APPROXIMATE LOCATION OF MONITORING WELL INSTALLED DURING 1997 THROUGH 1999
 - (OW)** INDICATES OBSERVATION WELL INSTALLED IN COMPLETED EXPLORATION
- NOTES:**
1. BASE PLAN TAKEN FROM DRAWING TITLED "SCHEMATIC SITE LAYOUT PLAN", DATED 14 MAY 2012, PREPARED BY NITSCH ENGINEERING, INC.
 2. ELEVATIONS SHOWN REFER TO BOSTON CITY BASE DATUM (BCB).
 3. LOCATIONS OF SUBSURFACE EXPLORATIONS WERE DETERMINED BY FIELD MEASUREMENTS FROM EXISTING SITE FEATURES AND ARE CONSIDERED APPROXIMATE.
 4. PARCEL LIMITS OBTAINED FROM A DRAWING TITLED "PARCEL PLAN", PREPARED BY HARRY R. FELDMAN, INC., DATED 19 MARCH 2012 REVISED 18 APRIL 2012.



HALEY & ALDRICH CHANNEL CENTER PARKING GARAGE SOUTH BOSTON, MASSACHUSETTS

SITE AND SUBSURFACE EXPLORATION LOCATION PLAN

I:\BOS\GROUPS\GRAPHICS\26135\26135-810-B-106.DWG



LEGEND:

➔ DIRECTION OF FLOW

NOTE:

1. DETAILS OF TREATMENT SYSTEM MAY VARY FROM SYSTEM INDICATED ABOVE. SPECIFIC MEANS AND METHODS OF TREATMENT TO BE SELECTED BY CONTRACTOR. WATER WILL BE TREATED TO MEET REQUIRED EFFLUENT STANDARDS.

**HALEY &
ALDRICH**

CHANNEL CENTER PARKING GARAGE
116 WEST FIRST STREET
SOUTH BOSTON, MASSACHUSETTS

**PROPOSED
TREATMENT SYSTEM
SCHEMATIC**

SCALE: NONE
JULY 2012

FIGURE 3



NOTE: Spot Elevations shown are plotted in Boston City Base

500 FOOT GRID BASED ON MASSACHUSETTS STATE PLANE COORDINATE SYSTEM, NAD 83
 DATE OF PHOTOGRAPHY - MARCH 30, APRIL 1 & 17, 1995
 VERTICAL DATUM BASED ON THE BOSTON CITY BASE
 THE LANDBASE ON THIS MAP WAS COMPILED TO MEET THE ASPRS STANDARD FOR CLASS 1 MAP ACCURACY

Date Produced
 August 26, 2005



BOSTON WATER AND SEWER COMMISSION

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 facility/site : CHANNEL CENTER PARKING GARAGE		Facility/site mailing address:	
Location of facility/site : longitude: 71°3'14" W latitude: 42°20'39" N	Facility SIC code(s): 7520	Street: 116 West First Street	
b) Name of facility/site owner : AP CHANNEL CENTER GARAGE LLC (Prospective Owner)		Town: South Boston	
Email address of facility/site owner : dickgalvin4@aol.com	State: MA	Zip: 02210	County: Suffolk
Telephone no. of facility/site owner : 203.545.6660	Owner is (check one): 1. Federal <input type="radio"/> 2. State/Tribal <input type="radio"/> 3. Private <input checked="" type="radio"/> 4. Other <input type="radio"/> if so, describe:		
Fax no. of facility/site owner : 617.423.6270			
Address of owner (if different from site):			
Street: 10 Channel Center Street, Suite 500			
Town: Boston	State: MA	Zip: 02210	County: Suffolk County
c) Legal name of operator : Suffolk Construction Company		Operator telephone no.: 617-517-4520	
		Operator fax no.: 617-541-2106	Operator email: aleary@suffolkconstruction.com
Operator contact name and title: Angus Leary, Chief Operating Officer - Boston			
Address of operator (if different from owner):		Street: 65 Allerton Street	
Town: Boston	State: MA	Zip: 02119	County: Suffolk

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 <input type="checkbox"/> B. Fuel Oils and Other Oil Sites (including Residential Non-Business Remediation Discharges) <input type="checkbox"/> C. Petroleum Sites with Additional Contamination <input checked="" type="checkbox"/>
II - Non Petroleum Site Remediation	A. Volatile Organic Compound (VOC) Only Sites <input type="checkbox"/> B. VOC Sites with Additional Contamination <input type="checkbox"/> C. Primarily Heavy Metal Sites <input type="checkbox"/>
III - Contaminated Construction Dewatering	A. General Urban Fill Sites <input checked="" type="checkbox"/> B. Known Contaminated Sites <input checked="" type="checkbox"/>

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

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

a) Describe the discharge activities for which the owner/applicant is seeking coverage:	
Temporary Construction Dewatering.	
b) Provide the following information about each discharge:	
1) Number of discharge points: <input type="text" value="2"/>	2) What is the maximum and average flow rate of discharge (in cubic feet per second, ft ³ /s)? Max. flow <input type="text" value="0.22"/> Is maximum flow a design value ? Y <input type="radio"/> N <input checked="" type="radio"/> Average flow (include units) <input type="text" value="0.11"/> Is average flow a design value or estimate? <input type="text" value="estimate"/>
3) Latitude and longitude of each discharge within 100 feet:	
pt.1: lat. <input type="text" value="71308"/> long. <input type="text" value="422042"/>	pt.2: lat. <input type="text" value="71306"/> long. <input type="text" value="422041"/>
pt.3: lat. <input type="text"/> long. <input type="text"/>	pt.4: lat. <input type="text"/> long. <input type="text"/>
pt.5: lat. <input type="text"/> long. <input type="text"/>	pt.6: lat. <input type="text"/> long. <input type="text"/>
pt.7: lat. <input type="text"/> long. <input type="text"/>	pt.8: lat. <input type="text"/> long. <input type="text"/> etc.
4) If hydrostatic testing, total volume of the discharge (gals): <input type="text"/>	5) Is the discharge intermittent <input checked="" type="radio"/> or seasonal <input type="radio"/> ? Is discharge ongoing? Y <input type="radio"/> N <input checked="" type="radio"/>
c) Expected dates of discharge (mm/dd/yy): start <input type="text" value="7/31/2012"/> end <input type="text" value="7/31/2015"/>	
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). <input type="text" value="See Figures 2, 3, and 4"/>	

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)		<input checked="" type="checkbox"/>	<input type="checkbox"/>	1	GRAB	2540D	5000	ND		ND	
2. Total Residual Chlorine (TRC)		<input checked="" type="checkbox"/>	<input type="checkbox"/>	1	GRAB	4500CL-D	20	ND		ND	
3. Total Petroleum Hydrocarbons (TPH)		<input checked="" type="checkbox"/>	<input type="checkbox"/>	1	GRAB	1664A	4000	ND		ND	
4. Cyanide (CN)	57125	<input checked="" type="checkbox"/>	<input type="checkbox"/>	1	GRAB	4500CN-CE	5	ND		ND	
5. Benzene (B)	71432	<input type="checkbox"/>	<input checked="" type="checkbox"/>	1	GRAB	8260B	1	0.9		0.9	
6. Toluene (T)	108883	<input checked="" type="checkbox"/>	<input type="checkbox"/>	1	GRAB	8260B	1.5	ND		ND	
7. Ethylbenzene (E)	100414	<input type="checkbox"/>	<input checked="" type="checkbox"/>	1	GRAB	8260B	1	0.87		0.87	
8. (m,p,o) Xylenes (X)	108883; 106423; 95476; 1330207	<input type="checkbox"/>	<input checked="" type="checkbox"/>	1	GRAB	8260B	2	1.1		1.1	
9. Total BTEX ²	n/a	<input type="checkbox"/>	<input checked="" type="checkbox"/>	1	GRAB	8260B	NA	2.87		2.87	
10. Ethylene Dibromide (EDB) (1,2-Dibromoethane) ³	106934	<input checked="" type="checkbox"/>	<input type="checkbox"/>	1	GRAB	8260B	4	ND		ND	
11. Methyl-tert-Butyl Ether (MtBE)	1634044	<input checked="" type="checkbox"/>	<input type="checkbox"/>	1	GRAB	8260B	2	ND		ND	
12. tert-Butyl Alcohol (TBA) (Tertiary-Butanol)	75650	<input checked="" type="checkbox"/>	<input type="checkbox"/>	1	GRAB	8260B	20	ND		ND	

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

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

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

<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	<input checked="" type="checkbox"/>	<input type="checkbox"/>	1	GRAB	8260B	4	ND		ND	
14. Naphthalene	91203	<input type="checkbox"/>	<input checked="" type="checkbox"/>	1	GRAB	8260B	5	11		11	
15. Carbon Tetrachloride	56235	<input checked="" type="checkbox"/>	<input type="checkbox"/>	1	GRAB	8260B	1	ND		ND	
16. 1,2 Dichlorobenzene (o-DCB)	95501	<input checked="" type="checkbox"/>	<input type="checkbox"/>	1	GRAB	8260B	5	ND		ND	
17. 1,3 Dichlorobenzene (m-DCB)	541731	<input checked="" type="checkbox"/>	<input type="checkbox"/>	1	GRAB	8260B	5	ND		ND	
18. 1,4 Dichlorobenzene (p-DCB)	106467	<input checked="" type="checkbox"/>	<input type="checkbox"/>	1	GRAB	8260B	5	ND		ND	
18a. Total dichlorobenzene		<input checked="" type="checkbox"/>	<input type="checkbox"/>	1	GRAB	8260B	NA	ND		ND	
19. 1,1 Dichloroethane (DCA)	75343	<input checked="" type="checkbox"/>	<input type="checkbox"/>	1	GRAB	8260B	1.5	ND		ND	
20. 1,2 Dichloroethane (DCA)	107062	<input checked="" type="checkbox"/>	<input type="checkbox"/>	1	GRAB	8260B	1	ND		ND	
21. 1,1 Dichloroethene (DCE)	75354	<input checked="" type="checkbox"/>	<input type="checkbox"/>	1	GRAB	8260B	1	ND		ND	
22. cis-1,2 Dichloroethene (DCE)	156592	<input checked="" type="checkbox"/>	<input type="checkbox"/>	1	GRAB	8260B	1	ND		ND	
23. Methylene Chloride	75092	<input checked="" type="checkbox"/>	<input type="checkbox"/>	1	GRAB	8260B	6	ND		ND	
24. Tetrachloroethene (PCE)	127184	<input checked="" type="checkbox"/>	<input type="checkbox"/>	1	GRAB	8260B	1	ND		ND	
25. 1,1,1 Trichloro-ethane (TCA)	71556	<input checked="" type="checkbox"/>	<input type="checkbox"/>	1	GRAB	8260B	1	ND		ND	
26. 1,1,2 Trichloro-ethane (TCA)	79005	<input checked="" type="checkbox"/>	<input type="checkbox"/>	1	GRAB	8260B	1.5	ND		ND	
27. Trichloroethene (TCE)	79016	<input checked="" type="checkbox"/>	<input type="checkbox"/>	1	GRAB	8260B	1	ND		ND	

<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	<input checked="" type="checkbox"/>	<input type="checkbox"/>	1	GRAB	8260B	2	ND		ND	
29. Acetone	67641	<input checked="" type="checkbox"/>	<input type="checkbox"/>	1	GRAB	8260B	10	ND		ND	
30. 1,4 Dioxane	123911	<input checked="" type="checkbox"/>	<input type="checkbox"/>	1	GRAB	8260B	500	ND		ND	
31. Total Phenols	108952	<input type="checkbox"/>	<input checked="" type="checkbox"/>	1	GRAB	420.1	30	30		30	
32. Pentachlorophenol (PCP)	87865	<input checked="" type="checkbox"/>	<input type="checkbox"/>	1	GRAB	8270C	10	ND		ND	
33. Total Phthalates (Phthalate esters) ⁴		<input checked="" type="checkbox"/>	<input type="checkbox"/>	1	GRAB	8270C	NA	ND		ND	
34. Bis (2-Ethylhexyl) Phthalate [Di-(ethylhexyl) Phthalate]	117817	<input checked="" type="checkbox"/>	<input type="checkbox"/>	1	GRAB	8270C	3	ND		ND	
35. Total Group I Polycyclic Aromatic Hydrocarbons (PAH)		<input type="checkbox"/>	<input type="checkbox"/>								
a. Benzo(a) Anthracene	56553	<input checked="" type="checkbox"/>	<input type="checkbox"/>	1	GRAB	8270C-SIM	0.2	ND		ND	
b. Benzo(a) Pyrene	50328	<input checked="" type="checkbox"/>	<input type="checkbox"/>	1	GRAB	8270C-SIM	0.2	ND		ND	
c. Benzo(b)Fluoranthene	205992	<input checked="" type="checkbox"/>	<input type="checkbox"/>	1	GRAB	8270C-SIM	0.2	ND		ND	
d. Benzo(k)Fluoranthene	207089	<input checked="" type="checkbox"/>	<input type="checkbox"/>	1	GRAB	8270C-SIM	0.2	ND		ND	
e. Chrysene	21801	<input checked="" type="checkbox"/>	<input type="checkbox"/>	1	GRAB	8270C-SIM	0.2	ND		ND	
f. Dibenzo(a,h)anthracene	53703	<input checked="" type="checkbox"/>	<input type="checkbox"/>	1	GRAB	8270C-SIM	0.2	ND		ND	
g. Indeno(1,2,3-cd) Pyrene	193395	<input checked="" type="checkbox"/>	<input type="checkbox"/>	1	GRAB	8270C-SIM	0.2	ND		ND	
36. Total Group II Polycyclic Aromatic Hydrocarbons (PAH)		<input type="checkbox"/>	<input type="checkbox"/>	1	GRAB						

⁴The 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	<input type="checkbox"/>	<input checked="" type="checkbox"/>	1	GRAB	8270C-SIM	0.2	0.79		0.79	
i. Acenaphthylene	208968	<input checked="" type="checkbox"/>	<input type="checkbox"/>	1	GRAB	8270C-SIM	0.2	ND		ND	
j. Anthracene	120127	<input checked="" type="checkbox"/>	<input type="checkbox"/>	1	GRAB	8270C-SIM	0.2	ND		ND	
k. Benzo(ghi) Perylene	191242	<input checked="" type="checkbox"/>	<input type="checkbox"/>	1	GRAB	8270C-SIM	0.2	ND		ND	
l. Fluoranthene	206440	<input checked="" type="checkbox"/>	<input type="checkbox"/>	1	GRAB	8270C-SIM	0.2	ND		ND	
m. Fluorene	86737	<input type="checkbox"/>	<input checked="" type="checkbox"/>	1	GRAB	8270C-SIM	0.2	0.22		0.22	
n. Naphthalene	91203	<input type="checkbox"/>	<input checked="" type="checkbox"/>	1	GRAB	8270C-SIM	0.2	5.3		5.3	
o. Phenanthrene	85018	<input checked="" type="checkbox"/>	<input type="checkbox"/>	1	GRAB	8270C-SIM	0.2	ND		ND	
p. Pyrene	129000	<input checked="" type="checkbox"/>	<input type="checkbox"/>	1	GRAB	8270C-SIM	0.2	ND		ND	
37. Total Polychlorinated Biphenyls (PCBs)	85687; 84742; 117840; 84662; 131113; 117817.	<input checked="" type="checkbox"/>	<input type="checkbox"/>	1	GRAB	608	0.25	ND		ND	
38. Chloride	16887006	<input type="checkbox"/>	<input checked="" type="checkbox"/>	1	GRAB	300.0	50000	230000		230000	
39. Antimony	7440360	<input type="checkbox"/>	<input checked="" type="checkbox"/>	1	GRAB	6020	1	0.7		0.7	
40. Arsenic	7440382	<input type="checkbox"/>	<input checked="" type="checkbox"/>	1	GRAB	6020	1	2		2	
41. Cadmium	7440439	<input checked="" type="checkbox"/>	<input type="checkbox"/>	1	GRAB	6020	0.4	ND		ND	
42. Chromium III (trivalent)	16065831	<input checked="" type="checkbox"/>	<input type="checkbox"/>	1	GRAB	6020	1	ND		ND	
43. Chromium VI (hexavalent)	18540299	<input checked="" type="checkbox"/>	<input type="checkbox"/>	1	GRAB	3500CR-D	10	ND		ND	
44. Copper	7440508	<input checked="" type="checkbox"/>	<input type="checkbox"/>	1	GRAB	6020	1	ND		ND	
45. Lead	7439921	<input checked="" type="checkbox"/>	<input type="checkbox"/>	1	GRAB	6020	1	ND		ND	
46. Mercury	7439976	<input checked="" type="checkbox"/>	<input type="checkbox"/>	1	GRAB	245.1	0.2	ND		ND	
47. Nickel	7440020	<input type="checkbox"/>	<input checked="" type="checkbox"/>	1	GRAB	6020	1	2.8		2.8	
48. Selenium	7782492	<input checked="" type="checkbox"/>	<input type="checkbox"/>	1	GRAB	6020	2	ND		ND	
49. Silver	7440224	<input checked="" type="checkbox"/>	<input type="checkbox"/>	1	GRAB	6020	0.8	ND		ND	
50. Zinc	7440666	<input type="checkbox"/>	<input checked="" type="checkbox"/>	1	GRAB	6020	10	18.5		18.5	
51. Iron	7439896	<input type="checkbox"/>	<input checked="" type="checkbox"/>	1	GRAB	200.7	50	3600		3600	
Other (describe):		<input type="checkbox"/>	<input type="checkbox"/>								

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)
C5-C8 Aliphatics	NA	<input type="checkbox"/>	<input checked="" type="checkbox"/>	1	Grab	100	50	51.5		51.5	
C9-C12 Aliphatics	NA	<input type="checkbox"/>	<input checked="" type="checkbox"/>	1	Grab	100	50	60.7		60.7	

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 <input checked="" type="radio"/> N <input type="radio"/></p>	<p>If yes, which metals? Iron</p>										
<p><i>Step 2:</i> For any metals which exceed the Appendix III limits, calculate the dilution factor (DF) using the formula in Part I.A.3.c (step 2) of the NOI instructions or as determined by the State prior to the submission of this NOI. What is the dilution factor for applicable metals?</p> <table border="1"> <tr> <td>Metal: Iron</td> <td>DF: 1-5</td> </tr> <tr> <td>Metal: _____</td> <td>DF: _____</td> </tr> <tr> <td>Metal: _____</td> <td>DF: _____</td> </tr> <tr> <td>Metal: _____</td> <td>DF: _____</td> </tr> <tr> <td>Etc.</td> <td></td> </tr> </table>	Metal: Iron	DF: 1-5	Metal: _____	DF: _____	Metal: _____	DF: _____	Metal: _____	DF: _____	Etc.		<p>Look up the limit calculated at the corresponding dilution factor in Appendix IV. Do any of the metals in the influent have the potential to exceed the corresponding effluent limits in Appendix IV (i.e., is the influent concentration above the limit set at the calculated dilution factor)? Y <input checked="" type="radio"/> N <input type="radio"/> If Y, list which metals:</p>
Metal: Iron	DF: 1-5										
Metal: _____	DF: _____										
Metal: _____	DF: _____										
Metal: _____	DF: _____										
Etc.											

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>See Attached Figure 3</p>						
<p>b) Identify each applicable treatment unit (check all that apply):</p>	<p>Frac. tank <input checked="" type="checkbox"/></p>	<p>Air stripper <input type="checkbox"/></p>	<p>Oil/water separator <input checked="" type="checkbox"/></p>	<p>Equalization tanks <input type="checkbox"/></p>	<p>Bag filter <input checked="" type="checkbox"/></p>	<p>GAC filter <input type="checkbox"/></p>
	<p>Chlorination <input type="checkbox"/></p>	<p>De-chlorination <input type="checkbox"/></p>	<p>Other (please describe):</p>	<p>Additional Pretreatment as necessary to meet NPDES RGP Discharge Criteria.</p>		

c) Proposed **average** and **maximum flow rates** (gallons per minute) for the discharge and the **design flow rate(s)** (gallons per minute) of the treatment system:

Average flow rate of discharge gpm Maximum flow rate of treatment system gpm
 Design flow rate of treatment system gpm

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

NA

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

a) Identify the discharge pathway:	Direct to receiving water <input type="checkbox"/>	Within facility (sewer) <input type="checkbox"/>	Storm drain <input checked="" type="checkbox"/>	Wetlands <input type="checkbox"/>	Other (describe): <input type="text"/>
------------------------------------	--	--	---	-----------------------------------	---

b) Provide a narrative description of the discharge pathway, including the name(s) of the receiving waters:

Effluent will be discharged to storm drains located near the site which discharge into the Fort Point Channel at Outfall BOS073

c) Attach a detailed map(s) indicating the site location and location of the outfall to the receiving water:

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

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

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

f) Is the receiving water a listed 303(d) water quality impaired or limited water? Y N If yes, for which pollutant(s)?
 Fecal Coliform; PCBs in fish tissue

Is there a final TMDL? Y N If yes, for which pollutant(s)?

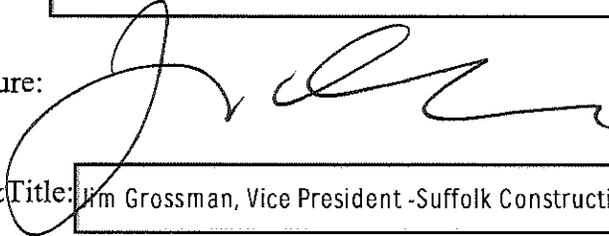
8. Signature Requirements: The Notice of Intent must be signed by the operator in accordance with the signatory requirements of 40 CFR Section 122.22, including the following certification:

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:	Channel Center Parking Garage (116 West First Street, South Boston, MA)
Operator signature:	
Printed Name & Title:	Richard A. Galvin, Authorized Representative
Date:	7/9/12

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:	Channel Center Parking Garage (135 A Street, South Boston, MA)
Operator signature:	
Printed Name & Title:	Jim Grossman, Vice President -Suffolk Construction Company
Date:	7-5-2012

APPENDIX B

Best Management Practices Plan (BMPP)

**NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM
REMEDIAION GENERAL PERMIT
TEMPORARY CONSTRUCTION DEWATERING
PROPOSED CHANNEL CENTER PARKING GARAGE
116 WEST FIRST STREET
SOUTH 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 during the proposed construction at the above referenced site 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

Construction dewatering will be conducted using a combination of drainage ditches and sumps located inside the excavation. The treatment system will be designed by the Contractor. Prior to discharge, collected water will likely be routed through an oil water separator, sedimentation tank, and bag filters to remove oil sheen, suspended solids, and un-dissolved chemical constituents. The effluent will then flow through any necessary treatment systems and discharge through hoses to storm drains located along Channel Center Street, which discharges to the Fort Point Channel. Dewatering effluent treatment may consist of granular activated carbon (GAC), ion exchange, or precipitation, as required.

Discharge Monitoring and Compliance

Regular sampling and testing of the treated effluent will be conducted by the Contractor as required by the RGP. This includes chemical testing required within the first month 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 fractionation tanks, filters, hoses, pumps, and flow meters. Equipment will be monitored daily for potential issues or unscheduled maintenance requirements.

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

**NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM
REMEDATION GENERAL PERMIT
TEMPORARY CONSTRUCTION DEWATERING
PROPOSED CHANNEL CENTER PARKING GARAGE
116 WEST FIRST STREET
SOUTH BOSTON, MASSACHUSETTS**

Miscellaneous Items

Due to the nature of the excavation, erosion control and the nature of the site and surrounding infrastructure, it is not anticipated that there will be any run off into the site from other sources, as well as no run off from the site.

Erosion control will be covered in the project specifications. Site security for the treatment system can be covered within the overall site security plan.

No adverse affects of designated water uses of surrounding surface water bodies is anticipated. The nearest surface water body, Fort Point Channel is located approximately 800 ft. to the northwest of the site. As mentioned earlier, the discharged effluent will be pumped directly to storm drains located near the site and into existing below grade infrastructure.

Management of Treatment System Materials

Groundwater at the site has iron at concentration below the applicable MCP RCGW-2 criteria but above the NPDES RGP criteria. 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 on the site for any equipment or materials storage which may be possible sources of pollution away from any dewatering activities.

Sediment from the fractionalization tank used in the treatment system will be characterized and disposed of as soil at an appropriate receiving facility in accordance with applicable laws and regulations. If used, GAC 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 placed in drums and manifested for off-site disposal.

APPENDIX C

Endangered Species Act Documentation

MASSACHUSETTS AREAS OF CRITICAL ENVIRONMENTAL CONCERN

June 2009

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**June 2009**

TOWN	ACEC	TOWN	ACEC
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		

**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	Boume (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	Raynham and 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	Glocester, Essex, Ipswich, Rowley, Revere, Newbury, Newburyport and Salisbury
Franklin	Northeastern bulrush	Endangered	Wetlands	Montague
	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.	Hadley, 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 Mattapoissett
	Northern Red-bellied cooter	Endangered	Inland Ponds and Rivers	Kingston, Middleborough, Carver, Plymouth, Bourne, and Wareham
	Roseate Tern	Endangered	Coastal beaches and the Atlantic Ocean	Plymouth, Marion, Wareham, and Mattapoissett.
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.

7/31/2008



MassWildlife
Massachusetts Division of Fisheries & Wildlife

Wayne F. MacCallum, Director



Natural Heritage & Endangered Species



Rare Species by Town

MESA (Massachusetts Endangered Species Act) and Federal Status

Quick Links

- » Town Index
- » MESA List
- » Contact Us

E = Endangered T = Threatened SC = Special Concern

Most Recent Observation

This field represents the most recent observation of that species in a town. However, because they are rare, many MESA-listed species are difficult to detect even when they are present. Natural Heritage does not have the resources to be able to conduct methodical species surveys in each town on a regular basis. Therefore, the fact that the 'Most Recent Observation' recorded for a species may be several years old should not be interpreted as meaning that the species no longer occurs in a town. However, Natural Heritage regards records older than twenty-five years historic.

Click on a town below to view MESA-listed species for that town. To print the species for a particular town, highlight the species using your mouse, go to Print under the File Menu, click on 'Selection' under 'Print Range' and click OK.

For more information about a particular species, view the list of [Natural Heritage Fact Sheets](#).

These data were extracted from the database of the Natural Heritage and Endangered Species Program in September 2009.

[Barnstable](#) | [Barre](#) | [Becket](#) | [Bedford](#) | [Belchertown](#) | [Bellingham](#) | [Belmont](#) | [Berkley](#) | [Berlin](#) | [Bernardston](#) | [Beverly](#) | [Billerica](#) | [Blackstone](#) | [Blandford](#) | [Bolton](#) | [Boston](#) | [Bourne](#) | [Boxborough](#) | [Boxford](#) | [Boylston](#) | [Braintree](#) | [Brewster](#) | [Bridgewater](#) | [Brimfield](#) | [Brockton](#) | [Brookfield](#) | [Brookline](#) | [Buckland](#) | [Burlington](#)

Town	Taxonomic Group	Scientific Name	Common Name	MESA Status	Federal Status	Most Recent Observation
BARNSTABLE	Amphibian	Scaphiopus holbrookii	Eastern Spadefoot	T		2009
BARNSTABLE	Bird	Ammodramus savannarum	Grasshopper Sparrow	T		1993
BARNSTABLE	Bird	Asio flammeus	Short-eared Owl	E		Historic

BARNSTABLE	Bird	<i>Asio otus</i>	Long-eared Owl	SC		1978
BARNSTABLE	Bird	<i>Charadrius melodus</i>	Piping Plover	T	T	2006
BARNSTABLE	Bird	<i>Parula americana</i>	Northern Parula	T		1989
BARNSTABLE	Bird	<i>Sterna dougallii</i>	Roseate Tern	E	E	2008
BARNSTABLE	Bird	<i>Sterna hirundo</i>	Common Tern	SC		2008
BARNSTABLE	Bird	<i>Sterna paradisaea</i>	Arctic Tern	SC		1901
BARNSTABLE	Bird	<i>Sternula antillarum</i>	Least Tern	SC		2007
BARNSTABLE	Butterfly/Moth	<i>Abagrotis nefascia</i>	Coastal Heathland Cutworm	SC		1982
BARNSTABLE	Butterfly/Moth	<i>Bagisara rectifascia</i>	Straight Lined Mallow Moth	SC		1951
BARNSTABLE	Butterfly/Moth	<i>Cingilia catenaria</i>	Chain Dot Geometer	SC		1954
BARNSTABLE	Butterfly/Moth	<i>Hemileuca maia</i>	Barrens Buckmoth	SC		1994
BARNSTABLE	Butterfly/Moth	<i>Itame</i> sp. 1 nr. <i>inextricata</i>	Pine Barrens Itame	SC		1968
BARNSTABLE	Butterfly/Moth	<i>Papaipema stenocelis</i>	Chain Fern Borer Moth	T		1950
BARNSTABLE	Butterfly/Moth	<i>Papaipema sulphurata</i>	Water-willow Stem Borer	T		2004
BARNSTABLE	Butterfly/Moth	<i>Pieris oleracea</i>	Mustard White	T		1949
BARNSTABLE	Butterfly/Moth	<i>Satyrrium favonius</i>	Oak Hairstreak	SC		1982
BARNSTABLE	Butterfly/Moth	<i>Zale</i> sp. 1 nr. <i>lunifera</i>	Pine Barrens Zale	SC		1951
BARNSTABLE	Crustacean	<i>Eulimnadia agassizii</i>	Agassiz's Clam Shrimp	E		2009
BARNSTABLE	Dragonfly/Damselfly	<i>Anax longipes</i>	Comet Darner	SC		2004
BARNSTABLE	Dragonfly/Damselfly	<i>Enallagma carunculatum</i>	Tule Bluet	SC		1941
BARNSTABLE	Dragonfly/Damselfly	<i>Enallagma laterale</i>	New England Bluet	SC		1989
BARNSTABLE	Dragonfly/Damselfly	<i>Enallagma pictum</i>	Scarlet Bluet	T		2005
BARNSTABLE	Dragonfly/Damselfly	<i>Enallagma recurvatum</i>	Pine Barrens Bluet	T		2004
BARNSTABLE	Fish	<i>Notropis bifrenatus</i>	Bridle Shiner	SC		1993
BARNSTABLE	Mussel	<i>Alasmidonta undulata</i>	Triangle Floater	SC		2007
BARNSTABLE	Mussel	<i>Leptodea ochracea</i>	Tidewater Mucket	SC		2007
BARNSTABLE	Mussel	<i>Ligumia nasuta</i>	Eastern Pondmussel	SC		2007
BARNSTABLE	Reptile	<i>Malaclemys terrapin</i>	Diamond-backed Terrapin	T		2007
BARNSTABLE	Reptile	<i>Terrapene carolina</i>	Eastern Box Turtle	SC		2007
BARNSTABLE	Snail	<i>Ferrissia walkeri</i>	Walker's Limpet	SC		2006

BARNSTABLE	Vascular Plant	Amelanchier nantucketensis	Nantucket Shadbush	SC	1993
BARNSTABLE	Vascular Plant	Aristida purpurascens	Purple Needlegrass	T	1916
BARNSTABLE	Vascular Plant	Carex mitchelliana	Mitchell's Sedge	T	1988
BARNSTABLE	Vascular Plant	Corema conradii	Broom Crowberry	SC	1916
BARNSTABLE	Vascular Plant	Crocianthemum dumosum	Bushy Rockrose	SC	1999
BARNSTABLE	Vascular Plant	Dichanthelium ovale ssp. pseudopubescens	Commons's Panic-grass	SC	1986
BARNSTABLE	Vascular Plant	Dichanthelium wrightianum	Wright's Panic- grass	SC	2004
BARNSTABLE	Vascular Plant	Lachnanthes caroliana	Redroot	SC	2004
BARNSTABLE	Vascular Plant	Liatris scariosa var. novae-angliae	New England Blazing Star	SC	2006
BARNSTABLE	Vascular Plant	Linum intercursum	Sandplain Flax	SC	1989
BARNSTABLE	Vascular Plant	Linum medium var. texanum	Rigid Flax	T	1983
BARNSTABLE	Vascular Plant	Lipocarpha micrantha	Dwarf Bulrush	T	1898
BARNSTABLE	Vascular Plant	Listera cordata	Heartleaf Twayblade	E	1916
BARNSTABLE	Vascular Plant	Malaxis bayardii	Bayard's Green Adder's-mouth	E	1989
BARNSTABLE	Vascular Plant	Ophioglossum pusillum	Adder's-tongue Fern	T	1960s
BARNSTABLE	Vascular Plant	Panicum philadelphicum ssp. philadelphicum	Philadelphia Panic-grass	SC	1989
BARNSTABLE	Vascular Plant	Polygonum puritanorum	Pondshore Knotweed	SC	2003
BARNSTABLE	Vascular Plant	Rhexia mariana	Maryland Meadow Beauty	E	1967
BARNSTABLE	Vascular Plant	Rhynchospora nitens	Short-beaked Bald-sedge	T	2002
BARNSTABLE	Vascular Plant	Rhynchospora scirpoides	Long-beaked Bald-sedge	SC	1995
BARNSTABLE	Vascular Plant	Rhynchospora torreyana	Torrey's Beak- sedge	E	2007
BARNSTABLE	Vascular Plant	Sabatia campanulata	Slender Marsh Pink	E	2008
BARNSTABLE	Vascular Plant	Sabatia kennedyana	Plymouth Gentian	SC	2008
BARNSTABLE	Vascular Plant	Sagittaria teres	Terete Arrowhead	SC	2004
BARNSTABLE	Vascular Plant	Scleria pauciflora	Papillose Nut Sedge	E	1986
BARNSTABLE	Vascular Plant	Setaria parviflora	Bristly Foxtail	SC	1919
BARNSTABLE	Vascular Plant	Sphenopholis pennsylvanica	Swamp Oats	T	1988

BARNSTABLE	Vascular Plant	<i>Spiranthes vernalis</i>	Grass-leaved Ladies'-tresses	T	1986
BARNSTABLE	Vascular Plant	<i>Tipularia discolor</i>	Cranefly Orchid	E	1983
BARNSTABLE	Vascular Plant	<i>Utricularia subulata</i>	Subulate Bladderwort	SC	1918

Town	Taxonomic Group	Scientific Name	Common Name	MESA Status	Federal Status	Most Recent Observation
BARRE	Beetle	<i>Cicindela duodecimguttata</i>	Twelve-spotted Tiger Beetle	SC		2007
BARRE	Bird	<i>Botaurus lentiginosus</i>	American Bittern	E		1930
BARRE	Bird	<i>Ixobrychus exilis</i>	Least Bittern	E		2005
BARRE	Butterfly/Moth	<i>Psectraglaea carnosus</i>	Pink Sallow	SC		2007
BARRE	Dragonfly/Damselfly	<i>Neurocordulia yamaskanensis</i>	Stygian Shadowdragon	SC		2004
BARRE	Fish	<i>Notropis bifrenatus</i>	Bridle Shiner	SC		2005
BARRE	Mussel	<i>Alasmidonta undulata</i>	Triangle Floater	SC		1999
BARRE	Mussel	<i>Strophitus undulatus</i>	Creeper	SC		1999
BARRE	Reptile	<i>Glyptemys insculpta</i>	Wood Turtle	SC		2006
BARRE	Reptile	<i>Terrapene carolina</i>	Eastern Box Turtle	SC		2005
BARRE	Vascular Plant	<i>Asclepias purpurascens</i>	Purple Milkweed	E		1865
BARRE	Vascular Plant	<i>Clematis occidentalis</i>	Purple Clematis	SC		2008
BARRE	Vascular Plant	<i>Liatris scariosa</i> var. <i>novae-angliae</i>	New England Blazing Star	SC		1950
BARRE	Vascular Plant	<i>Ophioglossum pusillum</i>	Adder's-tongue Fern	T		1870
BARRE	Vascular Plant	<i>Viola adunca</i>	Sand Violet	SC		2006

Town	Taxonomic Group	Scientific Name	Common Name	MESA Status	Federal Status	Most Recent Observation
BECKET	Bird	<i>Botaurus lentiginosus</i>	American Bittern	E		1991
BECKET	Butterfly/Moth	<i>Erora laeta</i>	Early Hairstreak	T		2005
BECKET	Dragonfly/Damselfly	<i>Boyeria grafiana</i>	Ocellated Darner	SC		2004
BECKET	Dragonfly/Damselfly	<i>Somatochlora forcipata</i>	Forcipate Emerald	SC		1973
BECKET	Fish	<i>Catostomus catostomus</i>	Longnose Sucker	SC		1979
BECKET	Fish	<i>Notropis bifrenatus</i>	Bridle Shiner	SC		1994
BECKET	Reptile	<i>Glyptemys insculpta</i>	Wood Turtle	SC		2006
BECKET	Vascular Plant	<i>Arceuthobium pusillum</i>	Dwarf Mistletoe	SC		1904
BECKET	Vascular Plant	<i>Carex livida</i>	Glaucous Sedge	E		Historic
BECKET	Vascular Plant	<i>Carex pauciflora</i>	Few-flowered Sedge	E		Historic
BECKET	Vascular Plant	<i>Lygodium palmatum</i>	Climbing Fern	SC		Historic
BECKET	Vascular Plant	<i>Sisyrinchium mucronatum</i>	Slender Blue-eyed Grass	E		2001

Town	Taxonomic Group	Scientific Name	Common Name	MESA Status	Federal Status	Most Recent Observation
BEDFORD	Amphibian	Ambystoma laterale	Blue-spotted Salamander	SC		2009
BEDFORD	Bird	Accipiter striatus	Sharp-shinned Hawk	SC		1902
BEDFORD	Bird	Bartramia longicauda	Upland Sandpiper	E		2000
BEDFORD	Fish	Notropis bifrenatus	Bridle Shiner	SC		1998
BEDFORD	Reptile	Emydoidea blandingii	Blanding's Turtle	T		2008
BEDFORD	Reptile	Glyptemys insculpta	Wood Turtle	SC		1995
BEDFORD	Reptile	Terrapene carolina	Eastern Box Turtle	SC		2004
BEDFORD	Vascular Plant	Aristida purpurascens	Purple Needlegrass	T		1884
BEDFORD	Vascular Plant	Bolboschoenus fluviatilis	River Bulrush	SC		2002
BEDFORD	Vascular Plant	Carex oligosperma	Few-fruited Sedge	E		2007
BEDFORD	Vascular Plant	Gentiana andrewsii	Andrews' Bottle Gentian	E		1882
BEDFORD	Vascular Plant	Liatrix scariosa var. novae-angliae	New England Blazing Star	SC		1899
BEDFORD	Vascular Plant	Ludwigia sphaerocarpa	Round-fruited False-loosestrife	E		1885
BEDFORD	Vascular Plant	Nabalus serpentarius	Lion's Foot	E		1883
BEDFORD	Vascular Plant	Nuphar microphylla	Tiny Cow-lily	E		1883
BEDFORD	Vascular Plant	Ophioglossum pusillum	Adder's-tongue Fern	T		1900
BEDFORD	Vascular Plant	Platanthera flava var. herbiola	Pale Green Orchis	T		1888
BEDFORD	Vascular Plant	Scirpus longii	Long's Bulrush	T		2007
BEDFORD	Vascular Plant	Senna hebecarpa	Wild Senna	E		1883
BEDFORD	Vascular Plant	Viola brittoniana	Britton's Violet	T		2007

Town	Taxonomic Group	Scientific Name	Common Name	MESA Status	Federal Status	Most Recent Observation
BELCHERTOWN	Amphibian	Ambystoma opacum	Marbled Salamander	T		2006
BELCHERTOWN	Beetle	Cicindela purpurea	Purple Tiger Beetle	SC		1941
BELCHERTOWN	Bird	Botaurus lentiginosus	American Bittern	E		2008
BELCHERTOWN	Bird	Gallinula chloropus	Common Moorhen	SC		1932
BELCHERTOWN	Bird	Haliaeetus leucocephalus	Bald Eagle	E		2008
BELCHERTOWN	Bird	Ixobrychus exilis	Least Bittern	E		2007
BELCHERTOWN	Bird	Podilymbus podiceps	Pied-billed Grebe	E		1932

BELCHERTOWN	Bird	<i>Tyto alba</i>	Barn Owl	SC	1951
BELCHERTOWN	Crustacean	<i>Eubbranchipus intricatus</i>	Intricate Fairy Shrimp	SC	1970s
BELCHERTOWN	Dragonfly/Damselfly	<i>Enallagma laterale</i>	New England Bluet	SC	2008
BELCHERTOWN	Fish	<i>Notropis bifrenatus</i>	Bridle Shiner	SC	1998
BELCHERTOWN	Mammal	<i>Synaptomys cooperi</i>	Southern Bog Lemming	SC	1974
BELCHERTOWN	Reptile	<i>Glyptemys insculpta</i>	Wood Turtle	SC	2007
BELCHERTOWN	Reptile	<i>Terrapene carolina</i>	Eastern Box Turtle	SC	2006
BELCHERTOWN	Vascular Plant	<i>Acer nigrum</i>	Black Maple	SC	1891
BELCHERTOWN	Vascular Plant	<i>Asclepias purpurascens</i>	Purple Milkweed	E	1875
BELCHERTOWN	Vascular Plant	<i>Blephilia ciliata</i>	Downy Wood-mint	E	1891
BELCHERTOWN	Vascular Plant	<i>Lygodium palmatum</i>	Climbing Fern	SC	2000
BELCHERTOWN	Vascular Plant	<i>Ophioglossum pusillum</i>	Adder's-tongue Fern	T	1883
BELCHERTOWN	Vascular Plant	<i>Podostemum ceratophyllum</i>	Threadfoot	SC	1925
BELCHERTOWN	Vascular Plant	<i>Ranunculus pensylvanicus</i>	Bristly Buttercup	SC	1871
BELCHERTOWN	Vascular Plant	<i>Scheuchzeria palustris</i>	Pod-grass	E	1872
BELCHERTOWN	Vascular Plant	<i>Utricularia resupinata</i>	Resupinate Bladderwort	T	1873

Town	Taxonomic Group	Scientific Name	Common Name	MESA Status	Federal Status	Most Recent Observation
BELLINGHAM	Amphibian	<i>Ambystoma opacum</i>	Marbled Salamander	T		2007
BELLINGHAM	Fish	<i>Lampetra appendix</i>	American Brook Lamprey	T		2001
BELLINGHAM	Vascular Plant	<i>Aristida purpurascens</i>	Purple Needlegrass	T		1894
BELLINGHAM	Vascular Plant	<i>Goodyera repens</i>	Dwarf Rattlesnake-plantain	E		1886
BELLINGHAM	Vascular Plant	<i>Panicum philadelphicum</i> ssp. <i>philadelphicum</i>	Philadelphia Panic-grass	SC		1986

Town	Taxonomic Group	Scientific Name	Common Name	MESA Status	Federal Status	Most Recent Observation
BELMONT	Amphibian	<i>Ambystoma</i>	Jefferson Salamander	SC		1800s

		jeffersonianum			
BELMONT	Beetle	Cicindela purpurea	Purple Tiger Beetle	SC	Historic
BELMONT	Bird	Tyto alba	Barn Owl	SC	1952
BELMONT	Bird	Gallinula chloropus	Common Moorhen	SC	Historic
BELMONT	Bird	Cistothorus platensis	Sedge Wren	E	1868
BELMONT	Dragonfly/Damselfly	Somatochlora linearis	Mocha Emerald	SC	2005
BELMONT	Vascular Plant	Aristida purpurascens	Purple Needlegrass	T	1852
BELMONT	Vascular Plant	Carex gracilescens	Slender Woodland Sedge	E	1932

Town	Taxonomic Group	Scientific Name	Common Name	MESA Status	Federal Status	Most Recent Observation
BERKLEY	Beetle	Cicindela duodecimguttata	Twelve-spotted Tiger Beetle	SC		1913
BERKLEY	Beetle	Cicindela purpurea	Purple Tiger Beetle	SC		1912
BERKLEY	Reptile	Glyptemys insculpta	Wood Turtle	SC		1991
BERKLEY	Reptile	Malaclemys terrapin	Diamond-backed Terrapin	T		1982
BERKLEY	Reptile	Terrapene carolina	Eastern Box Turtle	SC		2007
BERKLEY	Vascular Plant	Bidens eatonii	Eaton's Beggar-ticks	E		1923
BERKLEY	Vascular Plant	Cardamine longii	Long's Bitter-cress	E		1997
BERKLEY	Vascular Plant	Carex polymorpha	Variable Sedge	E		1908

Town	Taxonomic Group	Scientific Name	Common Name	MESA Status	Federal Status	Most Recent Observation
BERLIN	Amphibian	Ambystoma laterale	Blue-spotted Salamander	SC		1800s
BERLIN	Amphibian	Ambystoma opacum	Marbled Salamander	T		2000
BERLIN	Bird	Accipiter striatus	Sharp-shinned Hawk	SC		1936
BERLIN	Bird	Ammodramus henslowii	Henslow's Sparrow	E		Historic
BERLIN	Mussel	Alasmidonta varicosa	Brook Floater (Swollen Wedgemussel)	E		1859
BERLIN	Reptile	Glyptemys insculpta	Wood Turtle	SC		1993
BERLIN	Reptile	Terrapene carolina	Eastern Box Turtle	SC		1991
BERLIN	Vascular Plant	Asclepias purpurascens	Purple Milkweed	E		1915
BERLIN	Vascular Plant	Panicum philadelphicum ssp. philadelphicum	Philadelphia Panic-grass	SC		1944

Town	Taxonomic Group	Scientific Name	Common Name	MESA Status	Federal Status	Most Recent Observation
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BERNARDSTON	Butterfly/Moth	<i>Erora laeta</i>	Early Hairstreak	T	1988
BERNARDSTON	Vascular Plant	<i>Actaea racemosa</i>	Black Cohosh	E	1998

Town	Taxonomic Group	Scientific Name	Common Name	MESA Status	Federal Status	Most Recent Observation
BEVERLY	Beetle	<i>Cicindela purpurea</i>	Purple Tiger Beetle	SC		1925
BEVERLY	Bird	<i>Vermivora chrysoptera</i>	Golden-winged Warbler	E		1987
BEVERLY	Vascular Plant	<i>Magnolia virginiana</i>	Sweetbay Magnolia	E		1995
BEVERLY	Vascular Plant	<i>Ophioglossum pusillum</i>	Adder's-tongue Fern	T		1874
BEVERLY	Vascular Plant	<i>Potamogeton vaseyi</i>	Vasey's Pondweed	E		1878
BEVERLY	Vascular Plant	<i>Suaeda calceoliformis</i>	American Sea-blite	SC		1902

Town	Taxonomic Group	Scientific Name	Common Name	MESA Status	Federal Status	Most Recent Observation
BILLERICA	Amphibian	<i>Ambystoma laterale</i>	Blue-spotted Salamander	SC		2008
BILLERICA	Fish	<i>Notropis bifrenatus</i>	Bridle Shiner	SC		1961
BILLERICA	Reptile	<i>Emydoidea blandingii</i>	Blanding's Turtle	T		1992
BILLERICA	Vascular Plant	<i>Liatris scariosa</i> var. <i>novae-angliae</i>	New England Blazing Star	SC		1917
BILLERICA	Vascular Plant	<i>Ludwigia sphaerocarpa</i>	Round-fruited False-loosestrife	E		1889
BILLERICA	Vascular Plant	<i>Nabalus serpentarius</i>	Lion's Foot	E		1871
BILLERICA	Vascular Plant	<i>Nuphar microphylla</i>	Tiny Cow-lily	E		1869
BILLERICA	Vascular Plant	<i>Ophioglossum pusillum</i>	Adder's-tongue Fern	T		1900
BILLERICA	Vascular Plant	<i>Viola brittoniana</i>	Britton's Violet	T		1915

Town	Taxonomic Group	Scientific Name	Common Name	MESA Status	Federal Status	Most Recent Observation
BLACKSTONE	Fish	<i>Lampetra appendix</i>	American Brook Lamprey	T		2001
BLACKSTONE	Mussel	<i>Alasmidonta undulata</i>	Triangle Floater	SC		1999
BLACKSTONE	Mussel	<i>Strophitus undulatus</i>	Creeper	SC		1999

Town	Taxonomic Group	Scientific Name	Common Name	MESA Status	Federal Status	Most Recent Observation
BLANDFORD	Bird	<i>Bartramia longicauda</i>	Upland Sandpiper	E		Historic
BLANDFORD	Bird	<i>Botaurus lentiginosus</i>	American Bittern	E		2005

BLANDFORD	Bird	<i>Circus cyaneus</i>	Northern Harrier	T	1923
BLANDFORD	Bird	<i>Cistothorus platensis</i>	Sedge Wren	E	1982
BLANDFORD	Dragonfly/Damselfly	<i>Enallagma laterale</i>	New England Bluet	SC	2008
BLANDFORD	Reptile	<i>Glyptemys insculpta</i>	Wood Turtle	SC	1995
BLANDFORD	Vascular Plant	<i>Rhododendron maximum</i>	Great Laurel	T	1946
BLANDFORD	Vascular Plant	<i>Sisyrinchium mucronatum</i>	Slender Blue-eyed Grass	E	1919

Town	Taxonomic Group	Scientific Name	Common Name	MESA Status	Federal Status	Most Recent Observation
BOLTON	Amphibian	<i>Ambystoma laterale</i>	Blue-spotted Salamander	SC		2006
BOLTON	Amphibian	<i>Ambystoma opacum</i>	Marbled Salamander	T		2008
BOLTON	Beetle	<i>Cicindela duodecimguttata</i>	Twelve-spotted Tiger Beetle	SC		2007
BOLTON	Bird	<i>Botaurus lentiginosus</i>	American Bittern	E		1990
BOLTON	Bird	<i>Ixobrychus exilis</i>	Least Bittern	E		1985
BOLTON	Bird	<i>Podilymbus podiceps</i>	Pied-billed Grebe	E		1984
BOLTON	Bird	<i>Rallus elegans</i>	King Rail	T		1999
BOLTON	Reptile	<i>Emydoidea blandingii</i>	Blanding's Turtle	T		2009
BOLTON	Reptile	<i>Glyptemys insculpta</i>	Wood Turtle	SC		1999
BOLTON	Reptile	<i>Terrapene carolina</i>	Eastern Box Turtle	SC		1989
BOLTON	Vascular Plant	<i>Carex typhina</i>	Cat-tail Sedge	T		1999
BOLTON	Vascular Plant	<i>Corallorhiza odontorhiza</i>	Autumn Coralroot	SC		2006

Town	Taxonomic Group	Scientific Name	Common Name	MESA Status	Federal Status	Most Recent Observation
BOSTON	Amphibian	<i>Ambystoma laterale</i>	Blue-spotted Salamander	SC		2003
BOSTON	Amphibian	<i>Scaphiopus holbrookii</i>	Eastern Spadefoot	T		1932
BOSTON	Beetle	<i>Cicindela duodecimguttata</i>	Twelve-spotted Tiger Beetle	SC		1910
BOSTON	Beetle	<i>Cicindela purpurea</i>	Purple Tiger Beetle	SC		1928
BOSTON	Beetle	<i>Cicindela rufiventris hentzii</i>	Hentz's Redbelly Tiger Beetle	T		1927
BOSTON	Bird	<i>Accipiter striatus</i>	Sharp-shinned Hawk	SC		1898
BOSTON	Bird	<i>Ammodramus savannarum</i>	Grasshopper Sparrow	T		1993

BOSTON	Bird	<i>Bartramia longicauda</i>	Upland Sandpiper	E	1993
BOSTON	Bird	<i>Falco peregrinus</i>	Peregrine Falcon	E	2007
BOSTON	Bird	<i>Gavia immer</i>	Common Loon	SC	1824
BOSTON	Bird	<i>Poocetes gramineus</i>	Vesper Sparrow	T	1985
BOSTON	Bird	<i>Sterna hirundo</i>	Common Tern	SC	2008
BOSTON	Bird	<i>Sternula antillarum</i>	Least Tern	SC	2007
BOSTON	Bird	<i>Tyto alba</i>	Barn Owl	SC	1989
BOSTON	Bird	<i>Vermivora chrysoptera</i>	Golden-winged Warbler	E	Historic
BOSTON	Butterfly/Moth	<i>Apodrepanulatrix liberaria</i>	New Jersey Tea Inchworm	E	Historic
BOSTON	Butterfly/Moth	<i>Abagrotis nefascia</i>	Coastal Heathland Cutworm	SC	2001
BOSTON	Butterfly/Moth	<i>Metarranthis apiciaria</i>	Barrens Metarranthis Moth	E	1934
BOSTON	Butterfly/Moth	<i>Rhodoecia aurantiago</i>	Orange Sallow Moth	T	1988
BOSTON	Dragonfly/Damselfly	<i>Somatochlora linearis</i>	Mocha Emerald	SC	2009
BOSTON	Fish	<i>Gasterosteus aculeatus</i>	Threespine Stickleback	T	2000
BOSTON	Mussel	<i>Alasmidonta undulata</i>	Triangle Floater	SC	2005
BOSTON	Mussel	<i>Ligumia nasuta</i>	Eastern Pondmussel	SC	1841
BOSTON	Reptile	<i>Terrapene carolina</i>	Eastern Box Turtle	SC	1939
BOSTON	Vascular Plant	<i>Ageratina aromatica</i>	Lesser Snakeroot	E	1896
BOSTON	Vascular Plant	<i>Aristida purpurascens</i>	Purple Needlegrass	T	1800s
BOSTON	Vascular Plant	<i>Aristida tuberculosa</i>	Seabeach Needlegrass	T	1877
BOSTON	Vascular Plant	<i>Asclepias verticillata</i>	Linear-leaved Milkweed	T	1878
BOSTON	Vascular Plant	<i>Boechera missouriensis</i>	Green Rock-cress	T	1930
BOSTON	Vascular Plant	<i>Carex striata</i>	Walter's Sedge	E	Historic
BOSTON	Vascular Plant	<i>Desmodium cuspidatum</i>	Large-bracted Tick-trefoil	T	1896
BOSTON	Vascular Plant	<i>Eriophorum gracile</i>	Slender Cottongrass	T	1885
BOSTON	Vascular Plant	<i>Houstonia longifolia</i>	Long-leaved Bluet	E	1918
BOSTON	Vascular Plant	<i>Liatris scariosa</i> var. <i>novae-angliae</i>	New England Blazing Star	SC	1933
BOSTON	Vascular Plant	<i>Linum medium</i> var. <i>texanum</i>	Rigid Flax	T	1909
BOSTON	Vascular Plant	<i>Lycopus rubellus</i>	Gypsywort	E	1896
BOSTON	Vascular Plant	<i>Myriophyllum alterniflorum</i>	Alternate-flowered Water-milfoil	E	Historic
BOSTON	Vascular Plant	<i>Ophioglossum pusillum</i>	Adder's-tongue Fern	T	1884
BOSTON	Vascular Plant	<i>Platanthera flava</i> var. <i>herbiola</i>	Pale Green Orchis	T	1908

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	Vascular Plant	Scirpus longii	Long's Bulrush	T		1907
BOSTON	Vascular Plant	Setaria parviflora	Bristly Foxtail	SC		2001
BOSTON	Vascular Plant	Suaeda calceoliformis	American Sea-blite	SC		1909
BOSTON	Vascular Plant	Viola brittoniana	Britton's Violet	T		1909

Town	Taxonomic Group	Scientific Name	Common Name	MESA Status	Federal Status	Most Recent Observation
BOURNE	Amphibian	Ambystoma opacum	Marbled Salamander	T		1936
BOURNE	Amphibian	Scaphiopus holbrookii	Eastern Spadefoot	T		2003
BOURNE	Beetle	Cicindela purpurea	Purple Tiger Beetle	SC		1935
BOURNE	Bird	Accipiter striatus	Sharp-shinned Hawk	SC		2001
BOURNE	Bird	Ammodramus savannarum	Grasshopper Sparrow	T		2007
BOURNE	Bird	Charadrius melodus	Piping Plover	T	T	2006
BOURNE	Bird	Circus cyaneus	Northern Harrier	T		2007
BOURNE	Bird	Poocetes gramineus	Vesper Sparrow	T		2006
BOURNE	Bird	Sterna dougallii	Roseate Tern	E	E	2008
BOURNE	Bird	Sterna hirundo	Common Tern	SC		2008
BOURNE	Bird	Sternula antillarum	Least Tern	SC		2007
BOURNE	Bird	Tyto alba	Barn Owl	SC		1974
BOURNE	Butterfly/Moth	Abagrotis nefascia	Coastal Heathland Cutworm	SC		1996
BOURNE	Butterfly/Moth	Acrionicta albarufa	Barrens Daggermoth	T		1998
BOURNE	Butterfly/Moth	Bagisara rectifascia	Straight Lined Mallow Moth	SC		1998
BOURNE	Butterfly/Moth	Catocala herodias gerhardi	Gerhard's Underwing Moth	SC		1999
BOURNE	Butterfly/Moth	Cicinnus melsheimeri	Melsheimer's Sack Bearer	T		1998
BOURNE	Butterfly/Moth	Cingilia catenaria	Chain Dot Geometer	SC		2006
BOURNE	Butterfly/Moth	Hemileuca maia	Barrens Buckmoth	SC		2006
BOURNE	Butterfly/Moth	Itame sp. 1 nr. inextricata	Pine Barrens Itame	SC		1998
BOURNE	Butterfly/Moth	Metarranthis pilosaria	Coastal Swamp Metarranthis Moth	SC		1998
BOURNE	Butterfly/Moth	Papaipema sulphurata	Water-willow Stem Borer	T		1994
BOURNE	Butterfly/Moth	Zale sp. 1 nr. lunifera	Pine Barrens Zale	SC		1997
BOURNE	Dragonfly/Damselfly	Anax longipes	Comet Darner	SC		2007
BOURNE	Dragonfly/Damselfly	Enallagma laterale	New England Bluet	SC		2004
BOURNE	Dragonfly/Damselfly	Enallagma	Pine Barrens Bluet	T		1998

		recurvatum				
BOURNE	Dragonfly/Damselfly	Rhionaeschna mutata	Spatterdock Darner	SC		2007
BOURNE	Fish	Notropis bifrenatus	Bridle Shiner	SC		1993
BOURNE	Mussel	Leptodea ochracea	Tidewater Mucket	SC		1996
BOURNE	Mussel	Ligumia nasuta	Eastern Pondmussel	SC		1997
BOURNE	Reptile	Malaclemys terrapin	Diamond-backed Terrapin	T		2004
BOURNE	Reptile	Pseudemys rubriventris pop. 1	Northern Red-bellied Cooter	E	E	2003
BOURNE	Reptile	Terrapene carolina	Eastern Box Turtle	SC		2009
BOURNE	Vascular Plant	Aristida purpurascens	Purple Needlegrass	T		1901
BOURNE	Vascular Plant	Asclepias verticillata	Linear-leaved Milkweed	T		1915
BOURNE	Vascular Plant	Crocanthemum dumosum	Bushy Rockrose	SC		2000
BOURNE	Vascular Plant	Eleocharis ovata	Ovate Spike-sedge	E		1992
BOURNE	Vascular Plant	Hypericum adpressum	Creeping St. John's-wort	T		2007
BOURNE	Vascular Plant	Juncus debilis	Weak Rush	E		1993
BOURNE	Vascular Plant	Liatris scariosa var. novae-angliae	New England Blazing Star	SC		2005
BOURNE	Vascular Plant	Lygodium palmatum	Climbing Fern	SC		1992
BOURNE	Vascular Plant	Malaxis bayardii	Bayard's Green Adder's-mouth	E		1919
BOURNE	Vascular Plant	Ophioglossum pusillum	Adder's-tongue Fern	T		2006
BOURNE	Vascular Plant	Polygonum glaucum	Sea-beach Knotweed	SC		1913
BOURNE	Vascular Plant	Polygonum puritanorum	Pondshore Knotweed	SC		1994
BOURNE	Vascular Plant	Rhynchospora scirpoides	Long-beaked Bald-sedge	SC		1986
BOURNE	Vascular Plant	Sabatia kennedyana	Plymouth Gentian	SC		1996
BOURNE	Vascular Plant	Sagittaria teres	Terete Arrowhead	SC		1994
BOURNE	Vascular Plant	Setaria parviflora	Bristly Foxtail	SC		1913
BOURNE	Vascular Plant	Spiranthes vernalis	Grass-leaved Ladies'-tresses	T		1896
BOURNE	Vascular Plant	Suaeda calceoliformis	American Sea-blite	SC		1995
BOURNE	Vascular Plant	Triosteum perfoliatum	Broad Tinker's-weed	E		2004

Town	Taxonomic Group	Scientific Name	Common Name	MESA Status	Federal Status	Most Recent Observation
BOXBOROUGH	Amphibian	Ambystoma laterale	Blue-spotted Salamander	SC		2007
BOXBOROUGH	Reptile	Emydoidea blandingii	Blanding's Turtle	T		2003
BOXBOROUGH	Reptile	Glyptemys insculpta	Wood Turtle	SC		2002
BOXBOROUGH	Reptile	Terrapene carolina	Eastern Box Turtle	SC		2001

Town	Taxonomic Group	Scientific Name	Common Name	MESA Status	Federal Status	Most Recent Observation
BOXFORD	Amphibian	Ambystoma laterale	Blue-spotted Salamander	SC		2008
BOXFORD	Amphibian	Ambystoma opacum	Marbled Salamander	T		1983
BOXFORD	Bird	Tyto alba	Barn Owl	SC		1957
BOXFORD	Fish	Notropis bifrenatus	Bridle Shiner	SC		1999
BOXFORD	Mussel	Ligumia nasuta	Eastern Pondmussel	SC		Historic
BOXFORD	Reptile	Emydoidea blandingii	Blanding's Turtle	T		2008
BOXFORD	Reptile	Glyptemys insculpta	Wood Turtle	SC		2000
BOXFORD	Vascular Plant	Asclepias purpurascens	Purple Milkweed	E		1883
BOXFORD	Vascular Plant	Carex livida	Glaucous Sedge	E		1890
BOXFORD	Vascular Plant	Eriophorum gracile	Slender Cottongrass	T		1909
BOXFORD	Vascular Plant	Gentiana andrewsii	Andrews' Bottle Gentian	E		1881
BOXFORD	Vascular Plant	Houstonia longifolia	Long-leaved Bluet	E		1882
BOXFORD	Vascular Plant	Liatris scariosa var. novae-angliae	New England Blazing Star	SC		2004
BOXFORD	Vascular Plant	Myriophyllum alterniflorum	Alternate-flowered Water-milfoil	E		2004
BOXFORD	Vascular Plant	Ophioglossum pusillum	Adder's-tongue Fern	T		1905
BOXFORD	Vascular Plant	Panicum philadelphicum ssp. philadelphicum	Philadelphia Panic-grass	SC		1953
BOXFORD	Vascular Plant	Platanthera flava var. herbiola	Pale Green Orchis	T		1881
BOXFORD	Vascular Plant	Potamogeton vaseyi	Vasey's Pondweed	E		2004
BOXFORD	Vascular Plant	Senna hebecarpa	Wild Senna	E		1882
BOXFORD	Vascular Plant	Sparganium natans	Small Bur-reed	E		1997
BOXFORD	Vascular Plant	Viola adunca	Sand Violet	SC		2004

Town	Taxonomic Group	Scientific Name	Common Name	MESA Status	Federal Status	Most Recent Observation
BOYLSTON	Amphibian	Ambystoma opacum	Marbled Salamander	T		1995
BOYLSTON	Bird	Gavia immer	Common Loon	SC		2008
BOYLSTON	Bird	Haliaeetus leucocephalus	Bald Eagle	E		2009
BOYLSTON	Bird	Podilymbus podiceps	Pied-billed Grebe	E		1978
BOYLSTON	Butterfly/Moth	Rhodoecia aurantiago	Orange Sallow Moth	T		2008
BOYLSTON	Fish	Notropis bifrenatus	Bridle Shiner	SC		1951
BOYLSTON	Reptile	Glyptemys insculpta	Wood Turtle	SC		1983
BOYLSTON	Vascular Plant	Hydrophyllum canadense	Broad Waterleaf	E		1943

BOYLSTON	Vascular Plant	<i>Liatris scariosa</i> var. <i>novae-angliae</i>	New England Blazing Star	SC		1932
BOYLSTON	Vascular Plant	<i>Ophioglossum pusillum</i>	Adder's-tongue Fern	T		2000

Town	Taxonomic Group	Scientific Name	Common Name	MESA Status	Federal Status	Most Recent Observation
BRAINTREE	Dragonfly/Damselfly	<i>Anax longipes</i>	Comet Darner	SC		1970
BRAINTREE	Dragonfly/Damselfly	<i>Enallagma laterale</i>	New England Bluet	SC		1969
BRAINTREE	Dragonfly/Damselfly	<i>Somatochlora linearis</i>	Mocha Emerald	SC		1989
BRAINTREE	Mussel	<i>Ligumia nasuta</i>	Eastern Pondmussel	SC		2000
BRAINTREE	Reptile	<i>Terrapene carolina</i>	Eastern Box Turtle	SC		1997
BRAINTREE	Vascular Plant	<i>Asclepias purpurascens</i>	Purple Milkweed	E		1922
BRAINTREE	Vascular Plant	<i>Houstonia longifolia</i>	Long-leaved Bluet	E		1886

Town	Taxonomic Group	Scientific Name	Common Name	MESA Status	Federal Status	Most Recent Observation
BREWSTER	Bird	<i>Charadrius melodus</i>	Piping Plover	T	T	2006
BREWSTER	Bird	<i>Parula americana</i>	Northern Parula	T		2006
BREWSTER	Bird	<i>Sterna dougallii</i>	Roseate Tern	E	E	2008
BREWSTER	Bird	<i>Sterna hirundo</i>	Common Tern	SC		2008
BREWSTER	Butterfly/Moth	<i>Abagrotis nefascia</i>	Coastal Heathland Cutworm	SC		1981
BREWSTER	Butterfly/Moth	<i>Apamea inebriata</i>	Drunk Apamea Moth	SC		1981
BREWSTER	Butterfly/Moth	<i>Bagisara rectifascia</i>	Straight Lined Mallow Moth	SC		1982
BREWSTER	Butterfly/Moth	<i>Papaipema sulphurata</i>	Water-willow Stem Borer	T		1994
BREWSTER	Dragonfly/Damselfly	<i>Enallagma laterale</i>	New England Bluet	SC		2000
BREWSTER	Dragonfly/Damselfly	<i>Enallagma pictum</i>	Scarlet Bluet	T		2003
BREWSTER	Dragonfly/Damselfly	<i>Enallagma recurvatum</i>	Pine Barrens Bluet	T		2005
BREWSTER	Dragonfly/Damselfly	<i>Rhionaeschna mutata</i>	Spatterdock Darner	SC		1987
BREWSTER	Fish	<i>Notropis bifrenatus</i>	Bridle Shiner	SC		1961
BREWSTER	Reptile	<i>Malaclemys terrapin</i>	Diamond-backed Terrapin	T		2002
BREWSTER	Reptile	<i>Terrapene carolina</i>	Eastern Box Turtle	SC		2008
BREWSTER	Vascular Plant	<i>Carex mitchelliana</i>	Mitchell's Sedge	T		2006
BREWSTER	Vascular Plant	<i>Corema conradii</i>	Broom Crowberry	SC		1994
BREWSTER	Vascular Plant	<i>Crocianthemum dumosum</i>	Bushy Rockrose	SC		2006

BREWSTER	Vascular Plant	Dichantherium dichotomum ssp. mattamuskeetense	Mattamuskeet Panic-grass	E	1918
BREWSTER	Vascular Plant	Dichantherium ovale ssp. pseudopubescens	Commons's Panic-grass	SC	2006
BREWSTER	Vascular Plant	Gamochaeta purpurea	Purple Cudweed	E	1924
BREWSTER	Vascular Plant	Isoetes acadensis	Acadian Quillwort	E	1989
BREWSTER	Vascular Plant	Lachnanthes caroliana	Redroot	SC	2002
BREWSTER	Vascular Plant	Liatris scariosa var. novae-angliae	New England Blazing Star	SC	1931
BREWSTER	Vascular Plant	Lipocarpa micrantha	Dwarf Bulrush	T	2006
BREWSTER	Vascular Plant	Mertensia maritima	Oysterleaf	E	2001
BREWSTER	Vascular Plant	Ophioglossum pusillum	Adder's-tongue Fern	T	1992
BREWSTER	Vascular Plant	Opuntia humifusa	Prickly Pear	E	1989
BREWSTER	Vascular Plant	Polygonum puritanorum	Pondshore Knotweed	SC	2003
BREWSTER	Vascular Plant	Rhexia mariana	Maryland Meadow Beauty	E	2008
BREWSTER	Vascular Plant	Rhynchospora scirpoides	Long-beaked Bald-sedge	SC	1986
BREWSTER	Vascular Plant	Rumex pallidus	Seabeach Dock	T	1994
BREWSTER	Vascular Plant	Sabatia kennedyana	Plymouth Gentian	SC	2004
BREWSTER	Vascular Plant	Sagittaria teres	Terete Arrowhead	SC	2008
BREWSTER	Vascular Plant	Spartina cynosuroides	Salt Reedgrass	T	2004
BREWSTER	Vascular Plant	Utricularia resupinata	Resupinate Bladderwort	T	2002

Town	Taxonomic Group	Scientific Name	Common Name	MESA Status	Federal Status	Most Recent Observation
BRIDGEWATER	Bird	Ammodramus savannarum	Grasshopper Sparrow	T		1997
BRIDGEWATER	Bird	Asio otus	Long-eared Owl	SC		1978
BRIDGEWATER	Bird	Bartramia longicauda	Upland Sandpiper	E		1980
BRIDGEWATER	Bird	Tyto alba	Barn Owl	SC		1981
BRIDGEWATER	Butterfly/Moth	Papaipema sulphurata	Water-willow Stem Borer	T		1994
BRIDGEWATER	Dragonfly/Damselfly	Enallagma laterale	New England Bluet	SC		1994
BRIDGEWATER	Dragonfly/Damselfly	Enallagma	Scarlet Bluet	T		2004

BRIDGEWATER	Mussel	<i>Alasmidonta pictum undulata</i>	Triangle Floater	SC		1999
BRIDGEWATER	Mussel	<i>Leptodea ochracea</i>	Tidewater Mucket	SC		1997
BRIDGEWATER	Mussel	<i>Ligumia nasuta</i>	Eastern Pondmussel	SC		1997
BRIDGEWATER	Reptile	<i>Glyptemys insculpta</i>	Wood Turtle	SC		2004
BRIDGEWATER	Reptile	<i>Pseudemys rubriventris</i> pop. 1	Northern Red-bellied Cooter	E	E	2005
BRIDGEWATER	Reptile	<i>Terrapene carolina</i>	Eastern Box Turtle	SC		2009
BRIDGEWATER	Vascular Plant	<i>Ludwigia sphaerocarpa</i>	Round-fruited False-loosestrife	E		2005
BRIDGEWATER	Vascular Plant	<i>Platanthera flava</i> var. <i>herbiola</i>	Pale Green Orchis	T		1912
BRIDGEWATER	Vascular Plant	<i>Sabatia kennedyana</i>	Plymouth Gentian	SC		2005
BRIDGEWATER	Vascular Plant	<i>Scirpus longii</i>	Long's Bulrush	T		1988

Town	Taxonomic Group	Scientific Name	Common Name	MESA Status	Federal Status	Most Recent Observation
BRIMFIELD	Amphibian	<i>Ambystoma laterale</i>	Blue-spotted Salamander	SC		2000
BRIMFIELD	Bird	<i>Botaurus lentiginosus</i>	American Bittern	E		1997
BRIMFIELD	Bird	<i>Ixobrychus exilis</i>	Least Bittern	E		2007
BRIMFIELD	Dragonfly/Damselfly	<i>Ophiogomphus aspersus</i>	Brook Snaketail	SC		2004
BRIMFIELD	Fish	<i>Notropis bifrenatus</i>	Bridle Shiner	SC		1999
BRIMFIELD	Mussel	<i>Alasmidonta undulata</i>	Triangle Floater	SC		1982
BRIMFIELD	Mussel	<i>Strophitus undulatus</i>	Creeper	SC		1982
BRIMFIELD	Reptile	<i>Glyptemys insculpta</i>	Wood Turtle	SC		2006
BRIMFIELD	Vascular Plant	<i>Isoetes lacustris</i>	Lake Quillwort	E		1930

Town	Taxonomic Group	Scientific Name	Common Name	MESA Status	Federal Status	Most Recent Observation
BROCKTON	Butterfly/Moth	<i>Metarranthis apiciaria</i>	Barrens Metarranthis Moth	E		1909
BROCKTON	Dragonfly/Damselfly	<i>Enallagma laterale</i>	New England Bluet	SC		2003
BROCKTON	Vascular Plant	<i>Liatris scariosa</i> var. <i>novae-angliae</i>	New England Blazing Star	SC		1900

BROCKTON	Vascular Plant	Platanthera flava var. herbiola	Pale Green Orchis	T		1902
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Town	Taxonomic Group	Scientific Name	Common Name	MESA Status	Federal Status	Most Recent Observation
BROOKFIELD	Amphibian	Ambystoma laterale	Blue-spotted Salamander	SC		1990
BROOKFIELD	Amphibian	Ambystoma opacum	Marbled Salamander	T		1996
BROOKFIELD	Bird	Bartramia longicauda	Upland Sandpiper	E		Historic
BROOKFIELD	Bird	Botaurus lentiginosus	American Bittern	E		2008
BROOKFIELD	Bird	Cistothorus platensis	Sedge Wren	E		1992
BROOKFIELD	Bird	Haliaeetus leucocephalus	Bald Eagle	E		2008
BROOKFIELD	Bird	Ixobrychus exilis	Least Bittern	E		2007
BROOKFIELD	Bird	Podilymbus podiceps	Pied-billed Grebe	E		1993
BROOKFIELD	Bird	Rallus elegans	King Rail	T		2007
BROOKFIELD	Dragonfly/Damselfly	Rhionaeschna mutata	Spatterdock Darner	SC		2003
BROOKFIELD	Fish	Notropis bifrenatus	Bridle Shiner	SC		2003
BROOKFIELD	Mussel	Alasmidonta undulata	Triangle Floater	SC		1999
BROOKFIELD	Vascular Plant	Carex polymorpha	Variable Sedge	E		2004
BROOKFIELD	Vascular Plant	Clematis occidentalis	Purple Clematis	SC		2007
BROOKFIELD	Vascular Plant	Lipocarpa micrantha	Dwarf Bulrush	T		2007
BROOKFIELD	Vascular Plant	Myriophyllum alterniflorum	Alternate-flowered Water-milfoil	E		1898
BROOKFIELD	Vascular Plant	Poa saltuensis ssp. languida	Drooping Speargrass	E		2000
BROOKFIELD	Vascular Plant	Potamogeton vaseyi	Vasey's Pondweed	E		1998
BROOKFIELD	Vascular Plant	Ranunculus pennsylvanicus	Bristly Buttercup	SC		2007
BROOKFIELD	Vascular Plant	Scirpus longii	Long's Bulrush	T		2000

Town	Taxonomic Group	Scientific Name	Common Name	MESA Status	Federal Status	Most Recent Observation
BROOKLINE	Beetle	Cicindela purpurea	Purple Tiger Beetle	SC		Historic

BROOKLINE	Beetle	<i>Cicindela rufiventris hentzii</i>	Hentz's Redbelly Tiger Beetle	T	Historic
BROOKLINE	Bird	<i>Accipiter striatus</i>	Sharp-shinned Hawk	SC	1905
BROOKLINE	Bird	<i>Vermivora chrysoptera</i>	Golden-winged Warbler	E	1932
BROOKLINE	Vascular Plant	<i>Houstonia longifolia</i>	Long-leaved Bluet	E	1897
BROOKLINE	Vascular Plant	<i>Linum medium var. texanum</i>	Rigid Flax	T	1903
BROOKLINE	Vascular Plant	<i>Lipocarpa micrantha</i>	Dwarf Bulrush	T	1902
BROOKLINE	Vascular Plant	<i>Platanthera flava var. herbiola</i>	Pale Green Orchis	T	1912
BROOKLINE	Vascular Plant	<i>Viola brittoniana</i>	Britton's Violet	T	1913

Town	Taxonomic Group	Scientific Name	Common Name	MESA Status	Federal Status	Most Recent Observation
BUCKLAND	Amphibian	<i>Ambystoma jeffersonianum</i>	Jefferson Salamander	SC		1989
BUCKLAND	Beetle	<i>Cicindela duodecimguttata</i>	Twelve-spotted Tiger Beetle	SC		2001
BUCKLAND	Butterfly/Moth	<i>Erora laeta</i>	Early Hairstreak	T		1988
BUCKLAND	Dragonfly/Damselfly	<i>Boyeria grafiana</i>	Ocellated Darner	SC		2004
BUCKLAND	Dragonfly/Damselfly	<i>Gomphus abbreviatus</i>	Spine-crowned Clubtail	E		2004
BUCKLAND	Dragonfly/Damselfly	<i>Neurocordulia yamaskanensis</i>	Stygian Shadowdragon	SC		2004
BUCKLAND	Dragonfly/Damselfly	<i>Rhionaeschna mutata</i>	Spatterdock Darner	SC		2004
BUCKLAND	Fish	<i>Catostomus catostomus</i>	Longnose Sucker	SC		1989
BUCKLAND	Reptile	<i>Glyptemys insculpta</i>	Wood Turtle	SC		2007
BUCKLAND	Vascular Plant	<i>Alnus viridis ssp. crispa</i>	Mountain Alder	T		2004
BUCKLAND	Vascular Plant	<i>Amelanchier sanguinea</i>	Roundleaf Shadbush	SC		1911
BUCKLAND	Vascular Plant	<i>Aplectrum hyemale</i>	Putty-root	E		1904
BUCKLAND	Vascular Plant	<i>Corallorhiza odontorhiza</i>	Autumn Coralroot	SC		2006
BUCKLAND	Vascular Plant	<i>Huperzia selago</i>	Mountain Firmoss	E		1899
BUCKLAND	Vascular Plant	<i>Ophioglossum pusillum</i>	Adder's-tongue Fern	T		1913
BUCKLAND	Vascular Plant	<i>Platanthera dilatata</i>	Leafy White Orchis	T		1932
BUCKLAND	Vascular Plant	<i>Sanicula odorata</i>	Long-styled Sanicle	T		1907
BUCKLAND	Vascular Plant	<i>Symphyotrichum tradescantii</i>	Tradescant's Aster	T		2002

Town	Taxonomic Group	Scientific Name	Common Name	MESA Status	Federal Status	Most Recent
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					Observation
BURLINGTON	Fish	Notropis bifrenatus	Bridle Shiner	SC	1994
BURLINGTON	Reptile	Terrapene carolina	Eastern Box Turtle	SC	1998
BURLINGTON	Vascular Plant	Carex polymorpha	Variable Sedge	E	2008
BURLINGTON	Vascular Plant	Nabalus serpentarius	Lion's Foot	E	1906

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Updated: October 27, 2009

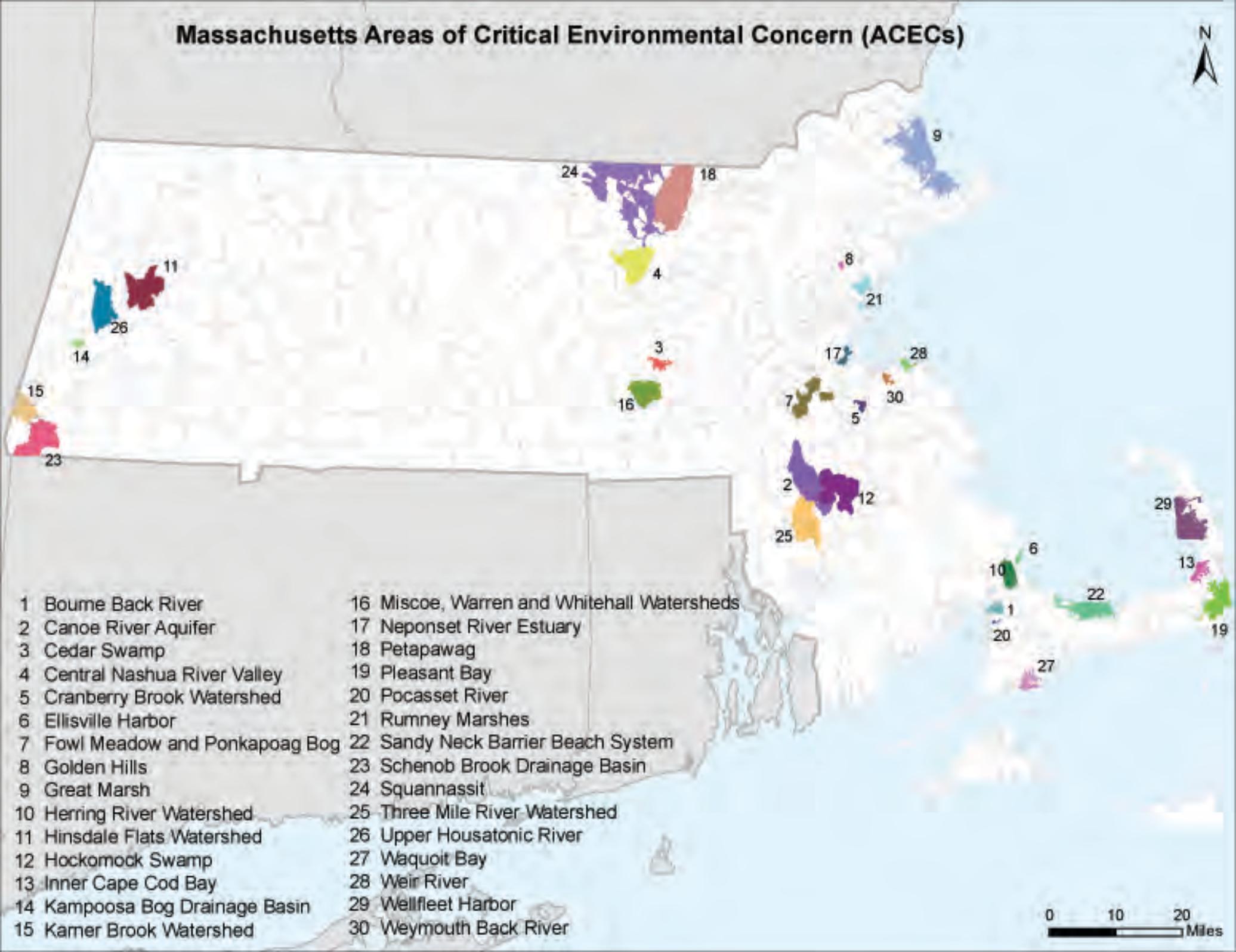
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Massachusetts Division of Fisheries and Wildlife, 1 Rabbit Hill Rd, Westborough, MA 01581

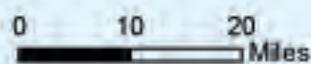
Tel: (508) 389-6300; Fax: (508) 389-7890

Natural Heritage & Endangered Species Program Tel: (508) 389-6360; Fax: (508) 389-7891

Massachusetts Areas of Critical Environmental Concern (ACECs)



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



MassDEP - Bureau of Waste Site Cleanup

MCP Numerical Ranking System Map: 500 feet & 0.5 Mile Radii

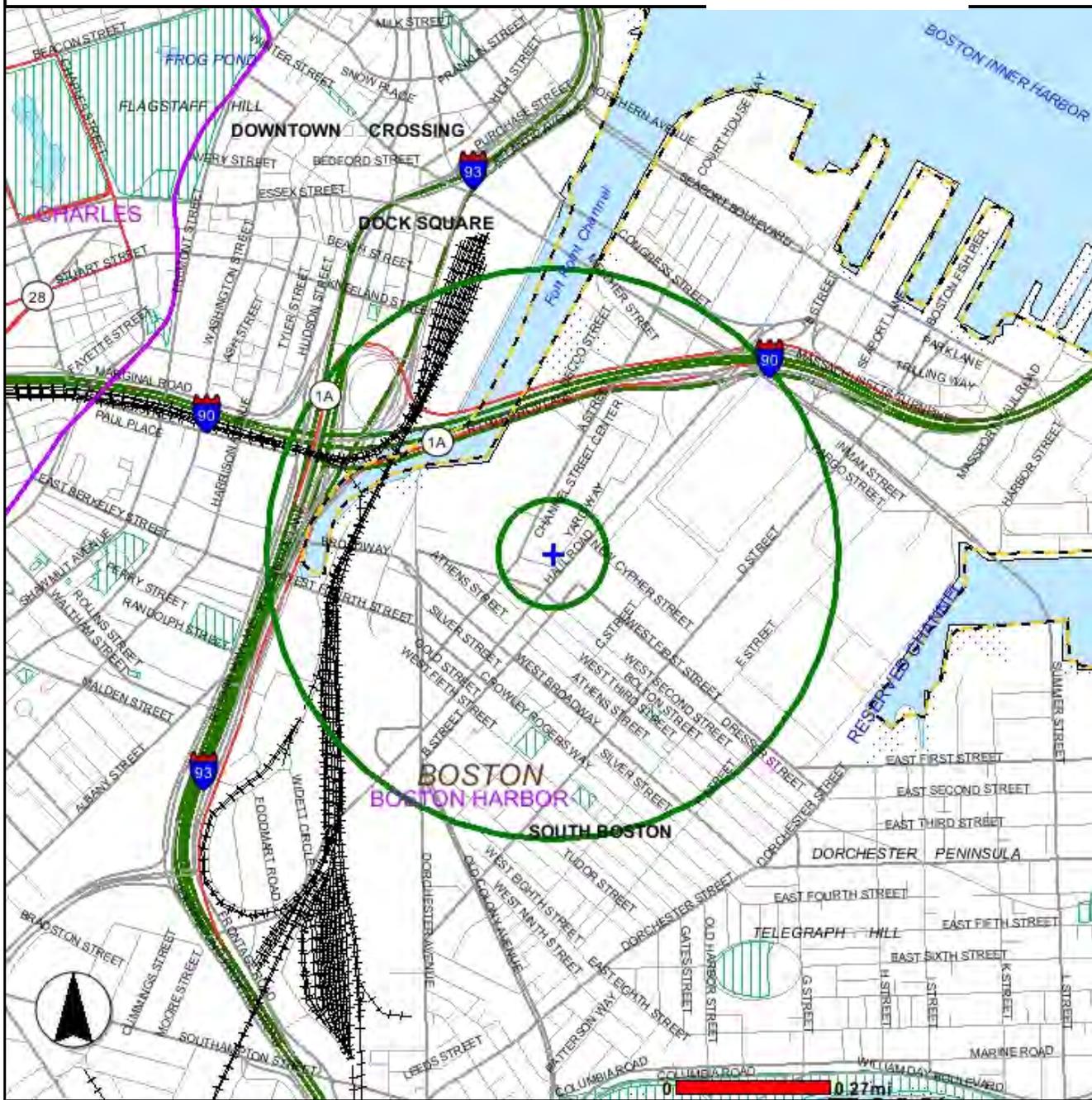
Site Name:
Channel Center Parking Garage
116 West First Street
Boston-South Boston, MA
RTN: 3-00001918
NAD83 MA Coordinates:
236668ME, 899313mN



The information shown on this map is the best available at the date of printing. For more information please refer to www.mass.gov/mgis/massgis.htm



June 12, 2012



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, Sub; 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)	NHESP: Est Rare Wetland Habitat, Certified Vernal Pool			
	DEP Permitted Solid Waste Landfill			

APPENDIX D

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

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Keywords: Underwood,Gilbert Stanley;Grade & Volpe,Inc.;1940;1941

Place: MASSACHUSETTS -- Suffolk County -- South Boston

Record Number: 403342

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Massachusetts Cultural Resource Information System

MACRIS

MACRIS Search Results

Search Criteria: Town(s): Boston; Place: Fort Point Channel; Resource Type(s): Area, Building;

Inv. No.	Property Name	Street	Town	Year
BOS.CX	Fort Point Channel District		Boston	
BOS.WZ	Fort Point Channel Historic District		Boston	
BOS.ZG	Fort Point Channel Landmark District		Boston	
BOS.5498	Boston Wharf Company Warehouse	168-170 A St	Boston	1897
BOS.5499	Boston Wharf Company Warehouse	169 A St	Boston	1919
BOS.5500	Boston Wharf Company Warehouse	172-174 A St	Boston	1897
BOS.5501	Boston Wharf Company Warehouse	176-178 A St	Boston	1897
BOS.5502	Boston Wharf Company Warehouse	191-205 A St	Boston	1919
BOS.5503	Boston Wharf Company Building	207-209 A St	Boston	1916
BOS.5504	Boston Wharf Company Building	211-213 A St	Boston	1915
BOS.5505	Boston Wharf Company Warehouse	215-225 A St	Boston	1922
BOS.5506	Boston Wharf Company Warehouse	227-229 A St	Boston	1903
BOS.5507	Barlow, Frederick Building	239-241 A St	Boston	1895
BOS.5508	Factory Buildings Trust Industrial Building #5	249-255 A St	Boston	1895
BOS.5509	Keith, George E. Shoe Factory	288-304 A St	Boston	1912
BOS.5510	Boston Wharf Company Warehouse	289-293 A St	Boston	1893
BOS.5511	Boston Wharf Company Warehouse	319-321 A St	Boston	1913
BOS.15340	Dwinell - Wright Company Warehouse	319R A St	Boston	1923
BOS.15341	Dwinell - Wright Company Warehouse	323 A St	Boston	1904
BOS.15342	A Street Deli	324 A St	Boston	1945
BOS.15343	Boston Button Company Warehouse	326 A St	Boston	1889
BOS.5512	Factory Buildings Trust Industrial Building #1	14-18 Binford St	Boston	1895
BOS.5513	Factory Buildings Trust Industrial Building #2	22-30 Binford St	Boston	1895
BOS.5514	Factory Buildings Trust Industrial Building #3	32-40 Binford St	Boston	1895
BOS.5515	Factory Buildings Trust Industrial Building #4	42-48 Binford St	Boston	1895
BOS.5546	Boston Wharf Company Warehouse	1-5 Channel Center St	Boston	1916
BOS.5547	Boston Wharf Company Warehouse	1-5 Channel Center St	Boston	1914
BOS.5548	Abbott, W. Herbert, Inc. Building	1-5 Channel Center St	Boston	1913
BOS.5543	Boston Wharf Company Warehouse	15 Channel Center St	Boston	1914

Massachusetts Cultural Resource Information System

MACRIS

MACRIS Search Results

Search Criteria: Town(s): Boston; Place: Fort Point Channel; Resource Type(s): Area, Building;

Inv. No.	Property Name	Street	Town	Year
BOS.5544	Boston Wharf Company Warehouse	15 Channel Center St	Boston	1911
BOS.5545	Boston Wharf Company Warehouse	15 Channel Center St	Boston	1912
BOS.5541	Boston Wharf Company Warehouse	35 Channel Center St	Boston	1902
BOS.15344	Congress Street Bridge Tenders House	Congress St	Boston	1930
BOS.15345		305 Congress St	Boston	1983
BOS.5516	New Haven Terminal Stores	308-316 Congress St	Boston	1890
BOS.15346	Hood, H. P. Milk Bottle	308 Congress St	Boston	1934
BOS.15347	Lombard's Congress Street Stores	313 Congress St	Boston	1886
BOS.5517	Boston Wharf Company Building	320-324 Congress St	Boston	1888
BOS.5518	Boston Wharf Company Warehouse	326-330 Congress St	Boston	1888
BOS.5519	Boston Wharf Company Warehouse	332-336 Congress St	Boston	1892
BOS.5520	American Railway Express Company Stable	343 Congress St	Boston	1888
BOS.5521	Congress Street Fire Station	344-346 Congress St	Boston	1891
BOS.5522	Chase and Company Candy Company Factory	347-351 Congress St	Boston	1887
BOS.5523	Boston Wharf Company Warehouse	348-352 Congress St	Boston	1894
BOS.5524	Boston Wharf Company Warehouse	354-358 Congress St	Boston	1900
BOS.5525	Tremont Electric Lighting Company	355-359 Congress St	Boston	1905
BOS.5526	Boston Wharf Company Building	364-372 Congress St	Boston	1901
BOS.5527	Boston Wharf Company Wool Warehouse	369-375 Congress St	Boston	1918
BOS.5528	Boston Wharf Company Building	374-384 Congress St	Boston	1903
BOS.5529	Boston Wharf Company Building	381-389 Congress St	Boston	1907
BOS.5530	Boston Wharf Company Wool Warehouse	11-15 Farnsworth St	Boston	1893
BOS.5531	Boston Wharf Company Building	12-22 Farnsworth St	Boston	1917
BOS.15348	Farnsworth Street Garage	17-31 Farnsworth St	Boston	1987
BOS.5532	Boston Wharf Company Building	24-32 Farnsworth St	Boston	1895
BOS.5533	Boston Wharf Company Building	33-39 Farnsworth St	Boston	1909
BOS.5534	Boston Wharf Company Building	34-36 Farnsworth St	Boston	1909
BOS.5535	Boston Wharf Company Building	41-45 Farnsworth St	Boston	1908
BOS.5536	Boston Wharf Company Building	44-54 Farnsworth St	Boston	1915
BOS.5537	Boston Wharf Company Warehouse	47-53 Farnsworth St	Boston	1895
BOS.5576	Boston Wharf Company Wool Warehouse	10 Melcher St	Boston	1903
BOS.15349	Boston Wharf Company Offices	10 Melcher St	Boston	1905
BOS.15350	New England Confectionary Company	11-17 Melcher St	Boston	1902

Massachusetts Cultural Resource Information System

MACRIS

MACRIS Search Results

Search Criteria: Town(s): Boston; Place: Fort Point Channel; Resource Type(s): Area, Building;

Inv. No.	Property Name	Street	Town	Year
BOS.15351	New England Confectionary Company	19-27 Melcher St	Boston	1902
BOS.15352	New England Confectionary Company	29-37 Melcher St	Boston	1902
BOS.5538	Boston Wharf Company Building	49 Melcher St	Boston	1910
BOS.5539	Boston Wharf Company Building	51-61 Melcher St	Boston	1916
BOS.5540	French, Shriner and Urner Shoe Manufacturing Co.	63 Melcher St	Boston	1909
BOS.5542	Boston Wharf Company Warehouse	18-22 Midway St	Boston	1912
BOS.5549	Boston Wharf Company Warehouse	76-82 Midway St	Boston	1905
BOS.5551	Boston Wharf Company Building	5 Necco Ct	Boston	1907
BOS.15353	New England Confectionary Company	5 Necco Ct	Boston	1907
BOS.5550	Boston Wharf Company Building	6 Necco Ct	Boston	1907
BOS.15354	New England Confectionary Company	6 Necco Ct	Boston	1907
BOS.15355	Necco Street Garage	10 Necco St	Boston	1992
BOS.15356	Northern Avenue Draw Bridge Tenders House	Northern Ave	Boston	1908
BOS.5561	Boston Wharf Company Building	15-21 Sleeper St	Boston	1911
BOS.5562	Boston Wharf Company Building	29-31 Sleeper St	Boston	1915
BOS.5563	Boston Wharf Company Building	35-37 Sleeper St	Boston	1911
BOS.5564	United Shoe Machine Corporation	51 Sleeper St	Boston	1929
BOS.5565	Boston Wharf Company Iron Warehouse	5-9 Stillings St	Boston	1907
BOS.5566	Boston Wharf Company Paint Warehouse	11-15 Stillings St	Boston	1907
BOS.15364	Stillings Street Garage	11-23 Stillings St	Boston	2001
BOS.5567	Boston Wharf Company Radiator Warehouse	17-27 Stillings St	Boston	1905
BOS.5568	Boston Wharf Company Warehouse	29 Stillings St	Boston	1926
BOS.5569	Boston Wharf Company Iron Warehouse	35-37 Stillings St	Boston	1913
BOS.5570	Boston Wharf Company Warehouse	38-40 Stillings St	Boston	1913
BOS.5572	Boston Wharf Company Iron and Oil Warehouse	43 Stillings St	Boston	1904
BOS.5571	Boston Wharf Company Wholesale Grocery Warehouse	44-48 Stillings St	Boston	1914
BOS.5573	Boston Wharf Company Wool Warehouse	250-254 Summer St	Boston	1899
BOS.5574	New England Confectionary Company Factory	253 Summer St	Boston	1902
BOS.5575	Boston Wharf Company Wool Warehouse	256-260 Summer St	Boston	1899
BOS.5577	Boston Wharf Company Wool Warehouse	262-266 Summer St	Boston	1899
BOS.5578	Boston Wharf Company Wool Warehouse	268-272 Summer St	Boston	1898
BOS.5579	Boston Wharf Company Wool Warehouse	269-273 Summer St	Boston	1910
BOS.5580	Boston Wharf Company Wool Warehouse	274-278 Summer St	Boston	1898

Massachusetts Cultural Resource Information System

MACRIS

MACRIS Search Results

Search Criteria: Town(s): Boston; Place: Fort Point Channel; Resource Type(s): Area, Building;

Inv. No.	Property Name	Street	Town	Year
BOS.5581	United States Rubber Company Warehouse	280-290 Summer St	Boston	1898
BOS.5582	Boston Wharf Company Wool Warehouse	281-283 Summer St	Boston	1904
BOS.5583	Boston Wharf Company Wool Warehouse	285-297 Summer St	Boston	1903
BOS.5584	Williams, J. and Company Wool Warehouse	292-302 Summer St	Boston	1898
BOS.5585	Dwinell-Wright Coffee Importing Company Warehouse	311-319 Summer St	Boston	1904
BOS.5586	Boston Wharf Company Wool Warehouse	312-320 Summer St	Boston	1904
BOS.5587	Howes Brothers Tanning Company	321-325 Summer St	Boston	1911
BOS.5588	Foster, F. A. Dry Goods - Puritan Drapery Fabrics	322-330 Summer St	Boston	1910
BOS.5589	Daylight Baking Supplies Factory	327-333 Summer St	Boston	1911
BOS.15357	Middleby, Joseph Jr. Warehouse	337-347 Summer St	Boston	1907
BOS.5552	Boston Wharf Company Building	12-18 Thomson Pl	Boston	1907
BOS.5553	Boston Wharf Company Paint and Varnish Warehouse	19-23 Thomson Pl	Boston	1907
BOS.15358	Thomson Financial Offices	22-24 Thomson Pl	Boston	1992
BOS.5554	Boston Wharf Company Warehouse	25-27 Thomson Pl	Boston	1909
BOS.5555	Boston Wharf Company Building	26-28 Thomson Pl	Boston	1908
BOS.15359	Boston Wharf Company Building	29-33 Thomson Pl	Boston	1912
BOS.5556	Boston Wharf Company Building	30-34 Thomson Pl	Boston	1916
BOS.15360	Boston Wharf Company Building	35-37 Thomson Pl	Boston	1913
BOS.5557	Boston Wharf Company Building	36-40 Thomson Pl	Boston	1900
BOS.5558	Boston Wharf Company Warehouse	41-45 Thomson Pl	Boston	1924
BOS.5559	Pittsburgh Plate Glass Company Warehouse	42-56 Thomson Pl	Boston	1909
BOS.5560	Boston Wharf Company Warehouse	47-55 Thomson Pl	Boston	1924
BOS.15361	Factory Buildings Trust Industrial Building #2	21 Wormwood St	Boston	1896
BOS.15365	Factory Buildings Trust Industrial Building #3	23-27 Wormwood St	Boston	1896
BOS.15362	Factory Buildings Trust Industrial Building #4	33-37 Wormwood St	Boston	1897
BOS.15363	Factory Buildings Trust Industrial Building #5	41-45 Wormwood St	Boston	1896

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National Register of Historic Places Program: Research

The National Register of Historic Places is the official list of the Nation's historic places worthy of preservation. Authorized by the National Historic Preservation Act of 1966, the National Park Service's National Register of Historic Places is part of a national program to coordinate and support public and private efforts to identify, evaluate, and protect America's historic and archeological resources.

To search for properties listed in the National Register use the

National Register of Historic Places database

Since its inception in 1966, more than 80,000 properties have been listed in the National Register. Together these records hold information on more than 1.4 million individual resources--buildings, sites, districts, structures, and objects--and therefore provide a link to the country's heritage at the national, state, and local levels.

The Documentation consists of

- National Register registration form, which provides a physical description of the place, information about its history and significance, and a bibliography.
- Photographs
- Maps (We are plotting our properties into [Google Earth layers](#))
- Use of photographs and forms is available under Fair Use, see our [Content and Copyright](#) page for more information

Examine sample National Register nominations by looking at our [Sample Nominations](#) page or a highlighted property in our [weekly list](#).

Research our Collection:

- We are currently digitizing our records and have put many of them online in our [database at: <http://nrhp.focus.nps.gov/>](#)
- Our database contains digitized files for National Historic Landmarks, National Park properties that are listed in the National Register, Multiple Property (MPS) Covers, and the files for many states.
- The [download center](#) has many useful finding aids: for historic contexts (MPS Covers), all listed properties, and Determinations of Eligibility.
- Visit our archives. Open Monday through Friday 9:00am to noon. For security reasons, an appointment is necessary to access our building. To schedule an appointment please contact Jeff Joeckel: 202-354-2225 or [e-mail](#)
- Many State Historic Preservation Offices (SHPOs) have digitized their files and put them online. The depth of information available varies from state to state, but ranges from basic locational information to searchable databases with downloadable narrative descriptions and photos. You can check their websites to see if they have the information you need. [List of SHPOs extended information](#).
- Request copies of individual nominations either via [e-mail](#) please include your mailing address and the property name, county, and state. or postal mail:

National Register of Historic Places
National Park Service
1849 C St., NW (MS 2280)
Washington, DC 20240

Please note, due to irradiation of USPS mail in Washington, DC, we recommend sending official correspondence to us by direct or overnight mail at the following address:

1201 Eye St., NW
8th Floor (MS 2280)
Washington, DC 20005

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Find Out About: [Bethel Baptist Church, Parsonage, and Guard House](#)

Even dynamite couldn't stop this Birmingham, Alabama, community! Here you can explore the infamous Bethel Baptist Church and its prominent place in Civil Rights history.



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NATIONAL REGISTER OF HISTORIC PLACES

the official list of the Nation's historic places worthy of preservation

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National Register Research

National Register of Historic Places database

Since its inception in 1966, more than 80,000 properties have been listed in the National Register.

Together these records hold information on more than 1.4 million individual resources--buildings, sites, districts, structures, and objects--and therefore provide a link to the country's heritage at the national, state, and local levels.

The Documentation consists of

- National Register registration form, which provides a physical description of the place, information about its history and significance, and a bibliography.
- Photographs
- Maps (We are plotting our properties into [Google Earth layers](#))

Examine sample National Register nominations by looking at our [Sample Nominations](#) page or a highlighted property in our [weekly list](#).

Research our Collection:

- We are currently digitizing our records and have put many of them online in our [database at: <http://nrhp.focus.nps.gov/>](#)
- Our older database, the NRIS, is still online at: <http://www.nr.nps.gov/>. The NRIS is good for looking at MPS covers.
- Visit our archives. Open Monday through Friday 9:00am to noon . For security reasons, an appointment is necessary to access our building. To schedule an appointment please contact Ricah Marquez: 202-354-2226 or [e-mail](#)
- Many State Historic Preservation Offices (SHPOs) have digitized their files and put them online. The depth of information available varies from state to state, but ranges from basic locational information to searchable databases with downloadable narrative descriptions and photos. You can check their websites to see if they have the information you need. [List of SHPOs extended information.](#)
- Request copies of individual nominations either via [e-mail](#) please include your mailing address and the property name, county, and state. or postal mail:
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Did You Know? [Joachim de Brum House](#)

The Joachim de Brum House is the only plantation home in the Marshall Islands. Wealthy foreigners and their servants used Brum House over the years. It reflects the architecture and style of the native culture.

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APPENDIX E

**Boston Water and Sewer Commission
Dewatering Permit Application**



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

DEWATERING DISCHARGE PERMIT APPLICATION

OWNER / AUTHORIZED APPLICANT PROVIDE INFORMATION HERE:

AP CHANNEL CENTER GARAGE LLC

Company Name: (Prospective Owner) _____ Address: 10 Channel Center Street, Suite 500, Boston, MA 02210

Phone number: 617-423-6205 Fax number: 617-423-6270

Contact person name: Richard A. Galvin Title: Authorized Representative

Cell number: 203-545-6660 Email address: dickgalvin4@aol.com

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

Owner's Information (if different from above):

Owner of property being dewatered: AP CHANNEL CENTER GARAGE LLC (prospective owner)

Owner's mailing address: 10 Channel Center Street, Boston, MA 02210 Phone number: 617-423-6205

Location of Discharge & Proposed Treatment System(s):

Street number and name: 116 West First Street Neighborhood South Boston, MA

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

OIL WATER SEPARATOR, SEDIMENTATION TANK, BAG FILTERS, & TREATMENT TO

Describe Proposed Pre-Treatment System(s): REMOVE IRON

BWSC Outfall No. BOS073 Receiving Waters Fort Point Channel

Temporary Discharges (Provide Anticipated Dates of Discharge): From 1 AUGUST 2012 To 31 AUGUST 2015

- | | | |
|--|--|---|
| <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 checked="" type="checkbox"/> Trench Excavation |
| <input 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.
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.
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
Phone: 617-989-7208 Fax: 617-989-7716

BWSC Use Only: Date Received _____ Comments: _____

APPENDIX F

Laboratory Data Reports



ANALYTICAL REPORT

Lab Number:	L1207694
Client:	Haley & Aldrich, Inc. 465 Medford St S-2200 Charlestown, MA 02129-1400
ATTN:	Mark Balfe
Phone:	(617) 886-7304
Project Name:	CHANNEL CENTER GARAGE
Project Number:	26135-900
Report Date:	05/07/12

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.

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



Project Name: CHANNEL CENTER GARAGE
Project Number: 26135-900

Lab Number: L1207694
Report Date: 05/07/12

Alpha Sample ID	Client ID	Sample Location	Collection Date/Time
L1207694-01	CCG-4	Not Specified	05/01/12 14:00

Project Name: CHANNEL CENTER GARAGE
Project Number: 26135-900

Lab Number: L1207694
Report Date: 05/07/12

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 free of charge for 30 days from the date the project is completed. After 30 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.

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

Project Name: CHANNEL CENTER GARAGE
Project Number: 26135-900

Lab Number: L1207694
Report Date: 05/07/12

Case Narrative (continued)

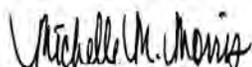
Metals

The WG533121-3 Laboratory Duplicate RPD, performed on L1207694-01, is above the acceptance criteria for Antimony (23%); however, the sample and duplicate results are less than five times the reporting limit.

Therefore, the RPD is valid.

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

Authorized Signature:

 Michelle M. Morris

Title: Technical Director/Representative

Date: 05/07/12

ORGANICS

VOLATILES

Project Name: CHANNEL CENTER GARAGE**Lab Number:** L1207694**Project Number:** 26135-900**Report Date:** 05/07/12**SAMPLE RESULTS**

Lab ID: L1207694-01
Client ID: CCG-4
Sample Location: Not Specified
Matrix: Water
Analytical Method: 1,8260B
Analytical Date: 05/02/12 09:41
Analyst: PD

Date Collected: 05/01/12 14:00
Date Received: 05/01/12
Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
Methylene chloride	ND		ug/l	3.0	--	1
1,1-Dichloroethane	ND		ug/l	0.75	--	1
Chloroform	ND		ug/l	0.75	--	1
Carbon tetrachloride	ND		ug/l	0.50	--	1
1,2-Dichloropropane	ND		ug/l	1.8	--	1
Dibromochloromethane	ND		ug/l	0.50	--	1
1,1,2-Trichloroethane	ND		ug/l	0.75	--	1
Tetrachloroethene	ND		ug/l	0.50	--	1
Chlorobenzene	ND		ug/l	0.50	--	1
Trichlorofluoromethane	ND		ug/l	2.5	--	1
1,2-Dichloroethane	ND		ug/l	0.50	--	1
1,1,1-Trichloroethane	ND		ug/l	0.50	--	1
Bromodichloromethane	ND		ug/l	0.50	--	1
trans-1,3-Dichloropropene	ND		ug/l	0.50	--	1
cis-1,3-Dichloropropene	ND		ug/l	0.50	--	1
1,1-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	0.90		ug/l	0.50	--	1
Toluene	ND		ug/l	0.75	--	1
Ethylbenzene	0.87		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
Trichloroethene	ND		ug/l	0.50	--	1
1,2-Dichlorobenzene	ND		ug/l	2.5	--	1
1,3-Dichlorobenzene	ND		ug/l	2.5	--	1
1,4-Dichlorobenzene	ND		ug/l	2.5	--	1

Project Name: CHANNEL CENTER GARAGE**Lab Number:** L1207694**Project Number:** 26135-900**Report Date:** 05/07/12**SAMPLE RESULTS**

Lab ID: L1207694-01

Date Collected: 05/01/12 14:00

Client ID: CCG-4

Date Received: 05/01/12

Sample Location: Not Specified

Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
Methyl tert butyl ether	ND		ug/l	1.0	--	1
p/m-Xylene	1.1		ug/l	1.0	--	1
o-Xylene	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	11		ug/l	2.5	--	1
n-Propylbenzene	ND		ug/l	0.50	--	1
1,2,3-Trichlorobenzene	ND		ug/l	2.5	--	1
1,2,4-Trichlorobenzene	ND		ug/l	2.5	--	1
1,3,5-Trimethylbenzene	ND		ug/l	2.5	--	1
1,2,4-Trimethylbenzene	ND		ug/l	2.5	--	1

Project Name: CHANNEL CENTER GARAGE**Lab Number:** L1207694**Project Number:** 26135-900**Report Date:** 05/07/12**SAMPLE RESULTS**

Lab ID: L1207694-01

Date Collected: 05/01/12 14:00

Client ID: CCG-4

Date Received: 05/01/12

Sample Location: Not Specified

Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
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Volatile Organics by GC/MS - Westborough Lab

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	97		70-130
Toluene-d8	98		70-130
4-Bromofluorobenzene	97		70-130
Dibromofluoromethane	96		70-130

Project Name: CHANNEL CENTER GARAGE**Lab Number:** L1207694**Project Number:** 26135-900**Report Date:** 05/07/12**SAMPLE RESULTS**

Lab ID: L1207694-01

Date Collected: 05/01/12 14:00

Client ID: CCG-4

Date Received: 05/01/12

Sample Location: Not Specified

Field Prep: Not Specified

Matrix: Water

Analytical Method: 1,8260B(M)

Analytical Date: 05/02/12 09:41

Analyst: PD

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: CHANNEL CENTER GARAGE**Lab Number:** L1207694**Project Number:** 26135-900**Report Date:** 05/07/12**SAMPLE RESULTS**

Lab ID: L1207694-01

Date Collected: 05/01/12 14:00

Client ID: CCG-4

Date Received: 05/01/12

Sample Location: Not Specified

Field Prep: Not Specified

Matrix: Water

Analytical Method: 14,504.1

Extraction Date: 05/03/12 09:00

Analytical Date: 05/03/12 11:53

Analyst: SH

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

Project Name: CHANNEL CENTER GARAGE
Project Number: 26135-900

Lab Number: L1207694
Report Date: 05/07/12

Method Blank Analysis
Batch Quality Control

Analytical Method: 1,8260B(M)
Analytical Date: 05/02/12 08:34
Analyst: PD

Parameter	Result	Qualifier	Units	RL	MDL
Volatile Organics by GC/MS-SIM - Westborough Lab for sample(s): 01 Batch: WG533156-3					
1,4-Dioxane	ND		ug/l	3.0	--

Project Name: CHANNEL CENTER GARAGE
Project Number: 26135-900

Lab Number: L1207694
Report Date: 05/07/12

Method Blank Analysis
Batch Quality Control

Analytical Method: 1,8260B
Analytical Date: 05/02/12 08:34
Analyst: PD

Parameter	Result	Qualifier	Units	RL	MDL
Volatile Organics by GC/MS - Westborough Lab for sample(s): 01 Batch: WG533157-3					
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	--
1,1-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	--
Trichloroethene	ND		ug/l	0.50	--
1,2-Dichlorobenzene	ND		ug/l	2.5	--
1,3-Dichlorobenzene	ND		ug/l	2.5	--
1,4-Dichlorobenzene	ND		ug/l	2.5	--

Project Name: CHANNEL CENTER GARAGE
Project Number: 26135-900

Lab Number: L1207694
Report Date: 05/07/12

Method Blank Analysis
Batch Quality Control

Analytical Method: 1,8260B
Analytical Date: 05/02/12 08:34
Analyst: PD

Parameter	Result	Qualifier	Units	RL	MDL
Volatile Organics by GC/MS - Westborough Lab for sample(s): 01 Batch: WG533157-3					
Methyl tert butyl ether	ND		ug/l	1.0	--
p/m-Xylene	ND		ug/l	1.0	--
o-Xylene	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	--
p-Chlorotoluene	ND		ug/l	2.5	--
1,2-Dibromo-3-chloropropane	ND		ug/l	2.5	--
Hexachlorobutadiene	ND		ug/l	0.50	--



Project Name: CHANNEL CENTER GARAGE
Project Number: 26135-900

Lab Number: L1207694
Report Date: 05/07/12

Method Blank Analysis
Batch Quality Control

Analytical Method: 1,8260B
Analytical Date: 05/02/12 08:34
Analyst: PD

Parameter	Result	Qualifier	Units	RL	MDL
Volatile Organics by GC/MS - Westborough Lab for sample(s): 01 Batch: WG533157-3					
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	98		70-130
Toluene-d8	99		70-130
4-Bromofluorobenzene	99		70-130
Dibromofluoromethane	94		70-130

Project Name: CHANNEL CENTER GARAGE**Lab Number:** L1207694**Project Number:** 26135-900**Report Date:** 05/07/12**Method Blank Analysis
Batch Quality Control**

Analytical Method: 14,504.1

Analytical Date: 05/03/12 11:08

Analyst: SH

Extraction Date: 05/03/12 09:00

Parameter	Result	Qualifier	Units	RL	MDL
Pesticides by GC - Westborough Lab for sample(s): 01 Batch: WG533379-1					
1,2-Dibromoethane	ND		ug/l	0.010	--

Lab Control Sample Analysis

Batch Quality Control

Project Name: CHANNEL CENTER GARAGE

Project Number: 26135-900

Lab Number: L1207694

Report Date: 05/07/12

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Volatile Organics by GC/MS-SIM - Westborough Lab Associated sample(s): 01 Batch: WG533156-1 WG533156-2								
1,4-Dioxane	75		75		70-130	0		25

Volatile Organics by GC/MS - Westborough Lab Associated sample(s): 01 Batch: WG533157-1 WG533157-2								
Methylene chloride	95		85		70-130	11		20
1,1-Dichloroethane	97		88		70-130	10		20
Chloroform	97		86		70-130	12		20
Carbon tetrachloride	82		79		63-132	4		20
1,2-Dichloropropane	97		89		70-130	9		20
Dibromochloromethane	77		71		63-130	8		20
1,1,2-Trichloroethane	89		80		70-130	11		20
Tetrachloroethene	93		86		70-130	8		20
Chlorobenzene	92		87		75-130	6		25

Lab Control Sample Analysis

Batch Quality Control

Project Name: CHANNEL CENTER GARAGE

Lab Number: L1207694

Project Number: 26135-900

Report Date: 05/07/12

Parameter	LCS		LCSD		%Recovery Limits	RPD	Qual	RPD Limits
	%Recovery	Qual	%Recovery	Qual				
Volatile Organics by GC/MS - Westborough Lab Associated sample(s): 01 Batch: WG533157-1 WG533157-2								
Trichlorofluoromethane	91		82		62-150	10		20
1,2-Dichloroethane	92		81		70-130	13		20
1,1,1-Trichloroethane	89		82		67-130	8		20
Bromodichloromethane	84		76		67-130	10		20
trans-1,3-Dichloropropene	75		71		70-130	5		20
cis-1,3-Dichloropropene	82		75		70-130	9		20
1,1-Dichloropropene	90		79		70-130	13		20
Bromoform	66		66		54-136	0		20
1,1,1,2-Tetrachloroethane	80		70		67-130	13		20
Benzene	97		86		70-130	12		25
Toluene	94		86		70-130	9		25
Ethylbenzene	94		86		70-130	9		20
Chloromethane	95		88		64-130	8		20
Bromomethane	148	Q	128		39-139	14		20
Vinyl chloride	96		86		55-140	11		20
Chloroethane	92		77		55-138	18		20
1,1-Dichloroethene	94		83		61-145	12		25
trans-1,2-Dichloroethene	90		81		70-130	11		20
Trichloroethene	100		91		70-130	9		25
1,2-Dichlorobenzene	90		84		70-130	7		20
1,3-Dichlorobenzene	91		86		70-130	6		20

Lab Control Sample Analysis

Batch Quality Control

Project Name: CHANNEL CENTER GARAGE

Lab Number: L1207694

Project Number: 26135-900

Report Date: 05/07/12

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Volatile Organics by GC/MS - Westborough Lab Associated sample(s): 01 Batch: WG533157-1 WG533157-2								
1,4-Dichlorobenzene	90		86		70-130	5		20
Methyl tert butyl ether	84		75		63-130	11		20
p/m-Xylene	95		87		70-130	9		20
o-Xylene	95		88		70-130	8		20
cis-1,2-Dichloroethene	98		85		70-130	14		20
Dibromomethane	90		81		70-130	11		20
1,4-Dichlorobutane	84		78		70-130	7		20
1,2,3-Trichloropropane	85		76		64-130	11		20
Styrene	95		88		70-130	8		20
Dichlorodifluoromethane	63		56		36-147	12		20
Acetone	114		97		58-148	16		20
Carbon disulfide	88		81		51-130	8		20
2-Butanone	84		71		63-138	17		20
Vinyl acetate	99		86		70-130	14		20
4-Methyl-2-pentanone	82		70		59-130	16		20
2-Hexanone	87		77		57-130	12		20
Ethyl methacrylate	69	Q	61	Q	70-130	12		20
Acrylonitrile	88		77		70-130	13		20
Bromochloromethane	98		86		70-130	13		20
Tetrahydrofuran	79		67		58-130	16		20
2,2-Dichloropropane	92		89		63-133	3		20

Lab Control Sample Analysis

Batch Quality Control

Project Name: CHANNEL CENTER GARAGE

Lab Number: L1207694

Project Number: 26135-900

Report Date: 05/07/12

Parameter	LCS		LCSD		%Recovery Limits	RPD	Qual	RPD Limits
	%Recovery	Qual	%Recovery	Qual				
Volatile Organics by GC/MS - Westborough Lab Associated sample(s): 01 Batch: WG533157-1 WG533157-2								
1,2-Dibromoethane	82		76		70-130	8		20
1,3-Dichloropropane	90		83		70-130	8		20
1,1,1,2-Tetrachloroethane	76		72		64-130	5		20
Bromobenzene	94		88		70-130	7		20
n-Butylbenzene	90		84		53-136	7		20
sec-Butylbenzene	93		88		70-130	6		20
tert-Butylbenzene	89		86		70-130	3		20
o-Chlorotoluene	91		86		70-130	6		20
p-Chlorotoluene	91		87		70-130	4		20
1,2-Dibromo-3-chloropropane	61		60		41-144	2		20
Hexachlorobutadiene	85		84		63-130	1		20
Isopropylbenzene	90		84		70-130	7		20
p-Isopropyltoluene	93		88		70-130	6		20
Naphthalene	81		75		70-130	8		20
n-Propylbenzene	85		80		69-130	6		20
1,2,3-Trichlorobenzene	82		78		70-130	5		20
1,2,4-Trichlorobenzene	83		81		70-130	2		20
1,3,5-Trimethylbenzene	94		90		64-130	4		20
1,2,4-Trimethylbenzene	92		87		70-130	6		20
trans-1,4-Dichloro-2-butene	90		82		70-130	9		20
Ethyl ether	90		75		59-134	18		20

Lab Control Sample Analysis Batch Quality Control

Project Name: CHANNEL CENTER GARAGE
Project Number: 26135-900

Lab Number: L1207694
Report Date: 05/07/12

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Volatile Organics by GC/MS - Westborough Lab Associated sample(s): 01 Batch: WG533157-1 WG533157-2								
tert-Butyl Alcohol	64	Q	58	Q	70-130	10		20
Tertiary-Amyl Methyl Ether	84		75		66-130	11		20

Surrogate	LCS %Recovery	Qual	LCSD %Recovery	Qual	Acceptance Criteria
1,2-Dichloroethane-d4	94		92		70-130
Toluene-d8	96		98		70-130
4-Bromofluorobenzene	98		100		70-130
Dibromofluoromethane	100		95		70-130

Pesticides by GC - Westborough Lab Associated sample(s): 01 Batch: WG533379-2								
1,2-Dibromoethane	113		-		70-130	-		20

Matrix Spike Analysis

Batch Quality Control

Project Name: CHANNEL CENTER GARAGE
Project Number: 26135-900

Lab Number: L1207694
Report Date: 05/07/12

Parameter	Native Sample	MS Added	MS Found	MS %Recovery	Qual	MSD Found	MSD %Recovery	Qual	Recovery Limits	RPD	Qual	RPD Limits
Pesticides by GC - Westborough Lab Associated sample(s): 01 QC Batch ID: WG533379-3 QC Sample: L1207694-01 Client ID: CCG-4												
1,2-Dibromoethane	ND	0.254	0.284	112		-	-		70-130	-		20

SEMIVOLATILES

Project Name: CHANNEL CENTER GARAGE**Lab Number:** L1207694**Project Number:** 26135-900**Report Date:** 05/07/12**SAMPLE RESULTS**

Lab ID: L1207694-01
Client ID: CCG-4
Sample Location: Not Specified
Matrix: Water
Analytical Method: 1,8270C
Analytical Date: 05/04/12 21:52
Analyst: RC

Date Collected: 05/01/12 14:00
Date Received: 05/01/12
Field Prep: Not Specified
Extraction Method: EPA 3510C
Extraction Date: 05/04/12 04:37

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Semivolatile Organics by GC/MS - Westborough Lab						
Benzidine	ND		ug/l	20	--	1
1,2,4-Trichlorobenzene	ND		ug/l	5.0	--	1
Bis(2-chloroethyl)ether	ND		ug/l	2.0	--	1
1,2-Dichlorobenzene	ND		ug/l	2.0	--	1
1,3-Dichlorobenzene	ND		ug/l	2.0	--	1
1,4-Dichlorobenzene	ND		ug/l	2.0	--	1
3,3'-Dichlorobenzidine	ND		ug/l	5.0	--	1
2,4-Dinitrotoluene	ND		ug/l	5.0	--	1
2,6-Dinitrotoluene	ND		ug/l	5.0	--	1
Azobenzene	ND		ug/l	2.0	--	1
4-Chlorophenyl phenyl ether	ND		ug/l	2.0	--	1
4-Bromophenyl phenyl ether	ND		ug/l	2.0	--	1
Bis(2-chloroisopropyl)ether	ND		ug/l	2.0	--	1
Bis(2-chloroethoxy)methane	ND		ug/l	5.0	--	1
Hexachlorocyclopentadiene	ND		ug/l	20	--	1
Isophorone	ND		ug/l	5.0	--	1
Nitrobenzene	ND		ug/l	2.0	--	1
NitrosoDiPhenylAmine(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: CHANNEL CENTER GARAGE**Lab Number:** L1207694**Project Number:** 26135-900**Report Date:** 05/07/12**SAMPLE RESULTS**

Lab ID: L1207694-01

Date Collected: 05/01/12 14:00

Client ID: CCG-4

Date Received: 05/01/12

Sample Location: Not Specified

Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Semivolatile Organics by GC/MS - Westborough Lab						
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	52		21-120
Phenol-d6	39		10-120
Nitrobenzene-d5	82		23-120
2-Fluorobiphenyl	80		15-120
2,4,6-Tribromophenol	115		10-120
4-Terphenyl-d14	110		41-149

Project Name: CHANNEL CENTER GARAGE
Project Number: 26135-900

Lab Number: L1207694
Report Date: 05/07/12

SAMPLE RESULTS

Lab ID: L1207694-01
 Client ID: CCG-4
 Sample Location: Not Specified
 Matrix: Water
 Analytical Method: 1,8270C-SIM
 Analytical Date: 05/06/12 00:40
 Analyst: AS

Date Collected: 05/01/12 14:00
 Date Received: 05/01/12
 Field Prep: Not Specified
 Extraction Method: EPA 3510C
 Extraction Date: 05/03/12 19:09

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Semivolatile Organics by GC/MS-SIM - Westborough Lab						
Acenaphthene	0.79		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	5.3		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	0.22		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	0.77		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	45		21-120
Phenol-d6	32		10-120
Nitrobenzene-d5	68		23-120
2-Fluorobiphenyl	62		15-120
2,4,6-Tribromophenol	77		10-120
4-Terphenyl-d14	88		41-149



Project Name: CHANNEL CENTER GARAGE
Project Number: 26135-900

Lab Number: L1207694
Report Date: 05/07/12

Method Blank Analysis
Batch Quality Control

Analytical Method: 1,8270C
Analytical Date: 05/04/12 11:33
Analyst: RC

Extraction Method: EPA 3510C
Extraction Date: 05/04/12 04:37

Parameter	Result	Qualifier	Units	RL	MDL
Semivolatile Organics by GC/MS - Westborough Lab for sample(s): 01 Batch: WG533614-1					
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	--
NitrosoDiPhenylAmine(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: CHANNEL CENTER GARAGE
Project Number: 26135-900

Lab Number: L1207694
Report Date: 05/07/12

**Method Blank Analysis
Batch Quality Control**

Analytical Method: 1,8270C
Analytical Date: 05/04/12 11:33
Analyst: RC

Extraction Method: EPA 3510C
Extraction Date: 05/04/12 04:37

Parameter	Result	Qualifier	Units	RL	MDL
Semivolatile Organics by GC/MS - Westborough Lab for sample(s): 01 Batch: WG533614-1					
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	54		21-120
Phenol-d6	41		10-120
Nitrobenzene-d5	85		23-120
2-Fluorobiphenyl	82		15-120
2,4,6-Tribromophenol	99		10-120
4-Terphenyl-d14	110		41-149

Project Name: CHANNEL CENTER GARAGE
Project Number: 26135-900

Lab Number: L1207694
Report Date: 05/07/12

Method Blank Analysis
Batch Quality Control

Analytical Method: 1,8270C-SIM
Analytical Date: 05/07/12 15:02
Analyst: AS

Extraction Method: EPA 3510C
Extraction Date: 05/03/12 19:09

Parameter	Result	Qualifier	Units	RL	MDL
Semivolatile Organics by GC/MS-SIM - Westborough Lab for sample(s): 01 Batch: WG533616-1					
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: CHANNEL CENTER GARAGE**Lab Number:** L1207694**Project Number:** 26135-900**Report Date:** 05/07/12**Method Blank Analysis
Batch Quality Control**

Analytical Method: 1,8270C-SIM
 Analytical Date: 05/07/12 15:02
 Analyst: AS

Extraction Method: EPA 3510C
 Extraction Date: 05/03/12 19:09

Parameter	Result	Qualifier	Units	RL	MDL
Semivolatile Organics by GC/MS-SIM - Westborough Lab for sample(s): 01 Batch: WG533616-1					

Surrogate	%Recovery	Qualifier	Acceptance Criteria
2-Fluorophenol	56		21-120
Phenol-d6	40		10-120
Nitrobenzene-d5	76		23-120
2-Fluorobiphenyl	72		15-120
2,4,6-Tribromophenol	90		10-120
4-Terphenyl-d14	95		41-149

Lab Control Sample Analysis

Batch Quality Control

Project Name: CHANNEL CENTER GARAGE

Lab Number: L1207694

Project Number: 26135-900

Report Date: 05/07/12

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: WG533614-2 WG533614-3								
Benzidine	20		22		10-75	10		30
1,2,4-Trichlorobenzene	76		66		39-98	14		30
Bis(2-chloroethyl)ether	78		71		40-140	9		30
1,2-Dichlorobenzene	71		64		40-140	10		30
1,3-Dichlorobenzene	64		61		40-140	5		30
1,4-Dichlorobenzene	66		63		36-97	5		30
3,3'-Dichlorobenzidine	85		72		40-140	17		30
2,4-Dinitrotoluene	109	Q	93		24-96	16		30
2,6-Dinitrotoluene	104		89		40-140	16		30
Azobenzene	130		108		40-140	18		30
4-Chlorophenyl phenyl ether	101		82		40-140	21		30
4-Bromophenyl phenyl ether	109		91		40-140	18		30
Bis(2-chloroisopropyl)ether	81		76		40-140	6		30
Bis(2-chloroethoxy)methane	84		77		40-140	9		30
Hexachlorocyclopentadiene	61		55		40-140	10		30
Isophorone	91		84		40-140	8		30
Nitrobenzene	95		82		40-140	15		30
NitrosoDiPhenylAmine(NDPA)/DPA	92		78		40-140	16		30
Bis(2-Ethylhexyl)phthalate	109		100		40-140	9		30
Butyl benzyl phthalate	111		96		40-140	14		30
Di-n-butylphthalate	114		98		40-140	15		30

Lab Control Sample Analysis

Batch Quality Control

Project Name: CHANNEL CENTER GARAGE

Lab Number: L1207694

Project Number: 26135-900

Report Date: 05/07/12

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: WG533614-2 WG533614-3								
Di-n-octylphthalate	112		99		40-140	12		30
Diethyl phthalate	112		93		40-140	19		30
Dimethyl phthalate	104		88		40-140	17		30
Aniline	44		47		40-140	7		30
4-Chloroaniline	101		85		40-140	17		30
2-Nitroaniline	107		91		52-143	16		30
3-Nitroaniline	93		83		25-145	11		30
4-Nitroaniline	94		82		51-143	14		30
Dibenzofuran	92		75		40-140	20		30
n-Nitrosodimethylamine	54		48		22-74	12		30
2,4,6-Trichlorophenol	108		89		30-130	19		30
P-Chloro-M-Cresol	110	Q	95		23-97	15		30
2-Chlorophenol	85		80		27-123	6		30
2,4-Dichlorophenol	103		91		30-130	12		30
2,4-Dimethylphenol	91		89		30-130	2		30
2-Nitrophenol	91		85		30-130	7		30
4-Nitrophenol	73		61		10-80	18		30
2,4-Dinitrophenol	87		77		20-130	12		30
4,6-Dinitro-o-cresol	104		84		20-164	21		30
Phenol	44		37		12-110	17		30
2-Methylphenol	80		74		30-130	8		30

Lab Control Sample Analysis

Batch Quality Control

Project Name: CHANNEL CENTER GARAGE

Lab Number: L1207694

Project Number: 26135-900

Report Date: 05/07/12

Parameter	LCS		LCSD		%Recovery Limits	RPD	Qual	RPD Limits
	%Recovery	Qual	%Recovery	Qual				
Semivolatile Organics by GC/MS - Westborough Lab Associated sample(s): 01 Batch: WG533614-2 WG533614-3								
3-Methylphenol/4-Methylphenol	80		71		30-130	12		30
2,4,5-Trichlorophenol	114		95		30-130	18		30
Benzoic Acid	26		25		10-164	4		30
Benzyl Alcohol	89		84		26-116	6		30
Carbazole	100		85		55-144	16		30
Pyridine	25		26		10-66	4		30

Surrogate	LCS		LCSD		Acceptance Criteria
	%Recovery	Qual	%Recovery	Qual	
2-Fluorophenol	60		56		21-120
Phenol-d6	48		41		10-120
Nitrobenzene-d5	94		87		23-120
2-Fluorobiphenyl	89		72		15-120
2,4,6-Tribromophenol	110		97		10-120
4-Terphenyl-d14	115		100		41-149

Lab Control Sample Analysis

Batch Quality Control

Project Name: CHANNEL CENTER GARAGE

Lab Number: L1207694

Project Number: 26135-900

Report Date: 05/07/12

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: WG533616-2 WG533616-3								
Acenaphthene	51		47		37-111	8		40
2-Chloronaphthalene	58		56		40-140	4		40
Fluoranthene	58		57		40-140	2		40
Hexachlorobutadiene	45		44		40-140	2		40
Naphthalene	55		52		40-140	6		40
Benzo(a)anthracene	70		64		40-140	9		40
Benzo(a)pyrene	50		47		40-140	6		40
Benzo(b)fluoranthene	59		56		40-140	5		40
Benzo(k)fluoranthene	58		53		40-140	9		40
Chrysene	56		52		40-140	7		40
Acenaphthylene	59		59		40-140	0		40
Anthracene	48		48		40-140	0		40
Benzo(ghi)perylene	59		55		40-140	7		40
Fluorene	50		48		40-140	4		40
Phenanthrene	47		49		40-140	4		40
Dibenzo(a,h)anthracene	61		57		40-140	7		40
Indeno(1,2,3-cd)Pyrene	59		55		40-140	7		40
Pyrene	55		55		26-127	0		40
1-Methylnaphthalene	57		52		40-140	9		40
2-Methylnaphthalene	51		50		40-140	2		40
Pentachlorophenol	60		58		9-103	3		40

Lab Control Sample Analysis

Batch Quality Control

Project Name: CHANNEL CENTER GARAGE

Lab Number: L1207694

Project Number: 26135-900

Report Date: 05/07/12

Parameter	LCS		LCSD		%Recovery Limits	RPD	Qual	RPD Limits
	%Recovery	Qual	%Recovery	Qual				
Semivolatile Organics by GC/MS-SIM - Westborough Lab Associated sample(s): 01 Batch: WG533616-2 WG533616-3								
Hexachlorobenzene	45		46		40-140	2		40
Hexachloroethane	51		48		40-140	6		40

Surrogate	LCS		LCSD		Acceptance Criteria
	%Recovery	Qual	%Recovery	Qual	
2-Fluorophenol	40		38		21-120
Phenol-d6	32		29		10-120
Nitrobenzene-d5	60		58		23-120
2-Fluorobiphenyl	53		52		15-120
2,4,6-Tribromophenol	54		54		10-120
4-Terphenyl-d14	57		56		41-149

PETROLEUM HYDROCARBONS

Project Name: CHANNEL CENTER GARAGE**Lab Number:** L1207694**Project Number:** 26135-900**Report Date:** 05/07/12**SAMPLE RESULTS**

Lab ID: L1207694-01
 Client ID: CCG-4
 Sample Location: Not Specified
 Matrix: Water
 Analytical Method: 100, VPH-04-1.1
 Analytical Date: 05/02/12 13:07
 Analyst: TB

Date Collected: 05/01/12 14:00
 Date Received: 05/01/12
 Field Prep: Not Specified

Quality Control Information

Condition of sample received: Satisfactory
 Aqueous Preservative: Laboratory Provided Preserved Container
 Sample Temperature upon receipt: Received on Ice

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
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Volatile Petroleum Hydrocarbons - Westborough Lab

C5-C8 Aliphatics	51.5		ug/l	50.0	--	1
C9-C12 Aliphatics	60.7		ug/l	50.0	--	1
C9-C10 Aromatics	ND		ug/l	50.0	--	1
C5-C8 Aliphatics, Adjusted	51.5		ug/l	50.0	--	1
C9-C12 Aliphatics, Adjusted	60.7		ug/l	50.0	--	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
2,5-Dibromotoluene-PID	107		70-130
2,5-Dibromotoluene-FID	114		70-130

Project Name: CHANNEL CENTER GARAGE**Lab Number:** L1207694**Project Number:** 26135-900**Report Date:** 05/07/12**SAMPLE RESULTS**

Lab ID: L1207694-01
 Client ID: CCG-4
 Sample Location: Not Specified
 Matrix: Water
 Analytical Method: 98,EPH-04-1.1
 Analytical Date: 05/04/12 16:02
 Analyst: MW

Date Collected: 05/01/12 14:00
 Date Received: 05/01/12
 Field Prep: Not Specified
 Extraction Method: EPA 3510C
 Extraction Date: 05/03/12 13:54
 Cleanup Method1: EPH-04-1
 Cleanup Date1: 05/04/12

Quality Control Information

Condition of sample received: Satisfactory
 Aqueous Preservative: Laboratory Provided Preserved Container
 Sample Temperature upon receipt: Received on Ice
 Sample Extraction method: Extracted Per the Method

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Extractable Petroleum Hydrocarbons - Westborough Lab						
C9-C18 Aliphatics	ND		ug/l	100	--	1
C19-C36 Aliphatics	ND		ug/l	100	--	1
C11-C22 Aromatics	ND		ug/l	100	--	1
C11-C22 Aromatics, Adjusted	ND		ug/l	100	--	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
Chloro-Octadecane	80		40-140
o-Terphenyl	80		40-140
2-Fluorobiphenyl	81		40-140
2-Bromonaphthalene	77		40-140

Project Name: CHANNEL CENTER GARAGE

Lab Number: L1207694

Project Number: 26135-900

Report Date: 05/07/12

Method Blank Analysis
Batch Quality Control

Analytical Method: 100, VPH-04-1.1

Analytical Date: 05/02/12 09:09

Analyst: TB

Parameter	Result	Qualifier	Units	RL	MDL
Volatile Petroleum Hydrocarbons - Westborough Lab for sample(s): 01 Batch: WG533039-3					
C5-C8 Aliphatics	ND		ug/l	50.0	--
C9-C12 Aliphatics	ND		ug/l	50.0	--
C9-C10 Aromatics	ND		ug/l	50.0	--
C5-C8 Aliphatics, Adjusted	ND		ug/l	50.0	--
C9-C12 Aliphatics, Adjusted	ND		ug/l	50.0	--

Surrogate	%Recovery	Qualifier	Acceptance Criteria
2,5-Dibromotoluene-PID	111		70-130
2,5-Dibromotoluene-FID	118		70-130

Project Name: CHANNEL CENTER GARAGE

Lab Number: L1207694

Project Number: 26135-900

Report Date: 05/07/12

Method Blank Analysis
Batch Quality Control

Analytical Method: 98,EPH-04-1.1

Extraction Method: EPA 3510C

Analytical Date: 05/04/12 14:29

Extraction Date: 05/03/12 13:54

Analyst: MW

Cleanup Method1: EPH-04-1

Cleanup Date1: 05/04/12

Parameter	Result	Qualifier	Units	RL	MDL
Extractable Petroleum Hydrocarbons - Westborough Lab for sample(s): 01 Batch: WG533539-1					
C9-C18 Aliphatics	ND		ug/l	100	--
C19-C36 Aliphatics	ND		ug/l	100	--
C11-C22 Aromatics	ND		ug/l	100	--
C11-C22 Aromatics, Adjusted	ND		ug/l	100	--

Surrogate	%Recovery	Qualifier	Acceptance Criteria
Chloro-Octadecane	96		40-140
o-Terphenyl	96		40-140
2-Fluorobiphenyl	93		40-140
2-Bromonaphthalene	89		40-140

Lab Control Sample Analysis

Batch Quality Control

Project Name: CHANNEL CENTER GARAGE

Lab Number: L1207694

Project Number: 26135-900

Report Date: 05/07/12

Parameter	LCS		LCSD		%Recovery Limits	RPD	Qual	RPD Limits
	%Recovery	Qual	%Recovery	Qual				
Volatile Petroleum Hydrocarbons - Westborough Lab Associated sample(s): 01 Batch: WG533039-1 WG533039-2								
C5-C8 Aliphatics	113		116		70-130	3		25
C9-C12 Aliphatics	106		101		70-130	5		25
C9-C10 Aromatics	111		112		70-130	1		25
Benzene	109		108		70-130	1		25
Toluene	111		112		70-130	1		25
Ethylbenzene	114		115		70-130	1		25
p/m-Xylene	115		116		70-130	1		25
o-Xylene	112		114		70-130	2		25
Methyl tert butyl ether	107		113		70-130	5		25
Naphthalene	90		109		70-130	19		25
1,2,4-Trimethylbenzene	111		112		70-130	1		25
Pentane	108		111		70-130	3		25
2-Methylpentane	117		120		70-130	3		25
2,2,4-Trimethylpentane	108		111		70-130	3		25
n-Nonane	103		102		30-130	1		25
n-Decane	100		94		70-130	7		25
n-Butylcyclohexane	110		107		70-130	3		25

Lab Control Sample Analysis

Batch Quality Control

Project Name: CHANNEL CENTER GARAGE
Project Number: 26135-900

Lab Number: L1207694
Report Date: 05/07/12

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
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Volatile Petroleum Hydrocarbons - Westborough Lab Associated sample(s): 01 Batch: WG533039-1 WG533039-2

Surrogate	LCS %Recovery	Qual	LCSD %Recovery	Qual	Acceptance Criteria
2,5-Dibromotoluene-PID	81		90		70-130
2,5-Dibromotoluene-FID	83		97		70-130

Extractable Petroleum Hydrocarbons - Westborough Lab Associated sample(s): 01 Batch: WG533539-2 WG533539-3

C9-C18 Aliphatics	64		72		40-140	12	25
C19-C36 Aliphatics	68		80		40-140	16	25
C11-C22 Aromatics	84		92		40-140	9	25
Naphthalene	77		84		40-140	9	25
2-Methylnaphthalene	84		92		40-140	9	25
Acenaphthylene	73		80		40-140	9	25
Acenaphthene	82		89		40-140	8	25
Fluorene	80		89		40-140	11	25
Phenanthrene	84		93		40-140	10	25

Lab Control Sample Analysis

Batch Quality Control

Project Name: CHANNEL CENTER GARAGE

Lab Number: L1207694

Project Number: 26135-900

Report Date: 05/07/12

Parameter	LCS		LCSD		%Recovery Limits	RPD	Qual	RPD Limits
	%Recovery	Qual	%Recovery	Qual				
Extractable Petroleum Hydrocarbons - Westborough Lab Associated sample(s): 01 Batch: WG533539-2 WG533539-3								
Anthracene	81		90		40-140	11		25
Fluoranthene	86		94		40-140	9		25
Pyrene	88		97		40-140	10		25
Benzo(a)anthracene	81		89		40-140	9		25
Chrysene	82		90		40-140	9		25
Benzo(b)fluoranthene	86		94		40-140	9		25
Benzo(k)fluoranthene	85		93		40-140	9		25
Benzo(a)pyrene	79		87		40-140	10		25
Indeno(1,2,3-cd)Pyrene	86		94		40-140	9		25
Dibenzo(a,h)anthracene	84		92		40-140	9		25
Benzo(ghi)perylene	86		94		40-140	9		25
Nonane (C9)	53		59		30-140	11		25
Decane (C10)	61		68		40-140	11		25
Dodecane (C12)	66		74		40-140	11		25
Tetradecane (C14)	69		77		40-140	11		25
Hexadecane (C16)	74		83		40-140	11		25
Octadecane (C18)	80		91		40-140	13		25
Nonadecane (C19)	82		92		40-140	11		25
Eicosane (C20)	82		92		40-140	11		25
Docosane (C22)	83		93		40-140	11		25
Tetracosane (C24)	84		94		40-140	11		25

Lab Control Sample Analysis

Batch Quality Control

Project Name: CHANNEL CENTER GARAGE

Project Number: 26135-900

Lab Number: L1207694

Report Date: 05/07/12

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Extractable Petroleum Hydrocarbons - Westborough Lab Associated sample(s): 01 Batch: WG533539-2 WG533539-3								
Hexacosane (C26)	79		90		40-140	13		25
Octacosane (C28)	68		80		40-140	16		25
Triacontane (C30)	57		70		40-140	20		25
Hexatriacontane (C36)	11	Q	30	Q	40-140	93	Q	25

Surrogate	LCS %Recovery	Qual	LCSD %Recovery	Qual	Acceptance Criteria
Chloro-Octadecane	87		90		40-140
o-Terphenyl	93		100		40-140
2-Fluorobiphenyl	87		91		40-140
2-Bromonaphthalene	86		88		40-140
% Naphthalene Breakthrough	0		0		
% 2-Methylnaphthalene Breakthrough	0		0		

PCBS

Project Name: CHANNEL CENTER GARAGE
Project Number: 26135-900

Lab Number: L1207694
Report Date: 05/07/12

SAMPLE RESULTS

Lab ID: L1207694-01
 Client ID: CCG-4
 Sample Location: Not Specified
 Matrix: Water
 Analytical Method: 5,608
 Analytical Date: 05/04/12 17:02
 Analyst: KB

Date Collected: 05/01/12 14:00
 Date Received: 05/01/12
 Field Prep: Not Specified
 Extraction Method: EPA 608
 Extraction Date: 05/03/12 11:33
 Cleanup Method1: EPA 3665A
 Cleanup Date1: 05/04/12
 Cleanup Method2: EPA 3660B
 Cleanup Date2: 05/04/12

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Polychlorinated Biphenyls by GC - Westborough Lab						
Aroclor 1016	ND		ug/l	0.256	--	1
Aroclor 1221	ND		ug/l	0.256	--	1
Aroclor 1232	ND		ug/l	0.256	--	1
Aroclor 1242	ND		ug/l	0.256	--	1
Aroclor 1248	ND		ug/l	0.256	--	1
Aroclor 1254	ND		ug/l	0.256	--	1
Aroclor 1260	ND		ug/l	0.256	--	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
2,4,5,6-Tetrachloro-m-xylene	56		30-150
Decachlorobiphenyl	45		30-150

Project Name: CHANNEL CENTER GARAGE
Project Number: 26135-900

Lab Number: L1207694
Report Date: 05/07/12

Method Blank Analysis
Batch Quality Control

Analytical Method: 5,608
 Analytical Date: 05/04/12 16:09
 Analyst: KB

Extraction Method: EPA 608
 Extraction Date: 05/03/12 11:33
 Cleanup Method1: EPA 3665A
 Cleanup Date1: 05/04/12
 Cleanup Method2: EPA 3660B
 Cleanup Date2: 05/04/12

Parameter	Result	Qualifier	Units	RL	MDL
Polychlorinated Biphenyls by GC - Westborough Lab for sample(s): 01 Batch: WG533471-1					
Aroclor 1016	ND		ug/l	0.250	--
Aroclor 1221	ND		ug/l	0.250	--
Aroclor 1232	ND		ug/l	0.250	--
Aroclor 1242	ND		ug/l	0.250	--
Aroclor 1248	ND		ug/l	0.250	--
Aroclor 1254	ND		ug/l	0.250	--
Aroclor 1260	ND		ug/l	0.250	--

Surrogate	%Recovery	Qualifier	Acceptance Criteria
2,4,5,6-Tetrachloro-m-xylene	53		30-150
Decachlorobiphenyl	58		30-150

Matrix Spike Analysis

Batch Quality Control

Project Name: CHANNEL CENTER GARAGE
Project Number: 26135-900

Lab Number: L1207694
Report Date: 05/07/12

Parameter	Native Sample	MS Added	MS Found	MS %Recovery	Qual	MSD Found	MSD %Recovery	Qual	Recovery Limits	RPD	Qual	RPD Limits
Polychlorinated Biphenyls by GC - Westborough Lab Associated sample(s): 01 QC Batch ID: WG533471-3 QC Sample: L1207694-01 Client ID: CCG-4												
Aroclor 1016	ND	2.22	1.26	57		-	-		40-140	-		50
Aroclor 1260	ND	2.22	1.09	49		-	-		40-140	-		50

Surrogate	MS % Recovery	MS Qualifier	MSD % Recovery	MSD Qualifier	Acceptance Criteria
2,4,5,6-Tetrachloro-m-xylene	59				30-150
Decachlorobiphenyl	48				30-150

Lab Control Sample Analysis

Batch Quality Control

Project Name: CHANNEL CENTER GARAGE

Project Number: 26135-900

Lab Number: L1207694

Report Date: 05/07/12

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Polychlorinated Biphenyls by GC - Westborough Lab Associated sample(s): 01 Batch: WG533471-2								
Aroclor 1016	48		-		40-140	-		50
Aroclor 1260	45		-		40-140	-		50

Surrogate	LCS %Recovery	Qual	LCSD %Recovery	Qual	Acceptance Criteria
2,4,5,6-Tetrachloro-m-xylene	48				30-150
Decachlorobiphenyl	49				30-150

Lab Duplicate Analysis

Batch Quality Control

Project Name: CHANNEL CENTER GARAGE

Project Number: 26135-900

Lab Number: L1207694

Report Date: 05/07/12

Parameter	Native Sample	Duplicate Sample	Units	RPD	Qual	RPD Limits
Polychlorinated Biphenyls by GC - Westborough Lab Associated sample(s): 01 QC Batch ID: WG533471-4 QC Sample: L1207694-01 Client ID: CCG-4						
Aroclor 1016	ND	ND	ug/l	NC		50
Aroclor 1221	ND	ND	ug/l	NC		50
Aroclor 1232	ND	ND	ug/l	NC		50
Aroclor 1242	ND	ND	ug/l	NC		50
Aroclor 1248	ND	ND	ug/l	NC		50
Aroclor 1254	ND	ND	ug/l	NC		50
Aroclor 1260	ND	ND	ug/l	NC		50

Surrogate	%Recovery	Qualifier	%Recovery	Qualifier	Acceptance Criteria
2,4,5,6-Tetrachloro-m-xylene	56		70		30-150
Decachlorobiphenyl	45		63		30-150

METALS

Project Name: CHANNEL CENTER GARAGE
Project Number: 26135-900

Lab Number: L1207694
Report Date: 05/07/12

SAMPLE RESULTS

Lab ID: L1207694-01
 Client ID: CCG-4
 Sample Location: Not Specified
 Matrix: Water

Date Collected: 05/01/12 14:00
 Date Received: 05/01/12
 Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Prep Method	Analytical Method	Analyst
Total Metals - Westborough Lab											
Antimony, Total	0.0007		mg/l	0.0005	--	1	05/02/12 14:20	05/04/12 10:56	EPA 3005A	1,6020	AK
Arsenic, Total	0.0020		mg/l	0.0005	--	1	05/02/12 14:20	05/04/12 10:56	EPA 3005A	1,6020	AK
Cadmium, Total	ND		mg/l	0.0002	--	1	05/02/12 14:20	05/04/12 10:56	EPA 3005A	1,6020	AK
Chromium, Total	ND		mg/l	0.0010	--	1	05/02/12 14:20	05/04/12 10:56	EPA 3005A	1,6020	AK
Copper, Total	ND		mg/l	0.0010	--	1	05/02/12 14:20	05/04/12 10:56	EPA 3005A	1,6020	AK
Iron, Total	3.6		mg/l	0.05	--	1	05/02/12 14:20	05/07/12 15:40	EPA 3005A	19,200.7	AI
Lead, Total	ND		mg/l	0.0010	--	1	05/02/12 14:20	05/04/12 10:56	EPA 3005A	1,6020	AK
Mercury, Total	ND		mg/l	0.0002	--	1	05/03/12 13:45	05/04/12 09:23	EPA 245.1	3,245.1	KL
Nickel, Total	0.0028		mg/l	0.0005	--	1	05/02/12 14:20	05/04/12 10:56	EPA 3005A	1,6020	AK
Selenium, Total	ND		mg/l	0.005	--	1	05/02/12 14:20	05/04/12 10:56	EPA 3005A	1,6020	AK
Silver, Total	ND		mg/l	0.0004	--	1	05/02/12 14:20	05/04/12 10:56	EPA 3005A	1,6020	AK
Zinc, Total	0.0185		mg/l	0.0100	--	1	05/02/12 14:20	05/04/12 10:56	EPA 3005A	1,6020	AK



Project Name: CHANNEL CENTER GARAGE
Project Number: 26135-900

Lab Number: L1207694
Report Date: 05/07/12

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: WG533121-1									
Antimony, Total	ND	mg/l	0.0005	--	1	05/02/12 14:20	05/04/12 10:48	1,6020	AK
Arsenic, Total	ND	mg/l	0.0005	--	1	05/02/12 14:20	05/04/12 10:48	1,6020	AK
Cadmium, Total	ND	mg/l	0.0002	--	1	05/02/12 14:20	05/04/12 10:48	1,6020	AK
Chromium, Total	ND	mg/l	0.0010	--	1	05/02/12 14:20	05/04/12 10:48	1,6020	AK
Copper, Total	ND	mg/l	0.0010	--	1	05/02/12 14:20	05/04/12 10:48	1,6020	AK
Lead, Total	ND	mg/l	0.0010	--	1	05/02/12 14:20	05/04/12 10:48	1,6020	AK
Nickel, Total	ND	mg/l	0.0005	--	1	05/02/12 14:20	05/04/12 10:48	1,6020	AK
Selenium, Total	ND	mg/l	0.005	--	1	05/02/12 14:20	05/04/12 10:48	1,6020	AK
Silver, Total	ND	mg/l	0.0004	--	1	05/02/12 14:20	05/04/12 10:48	1,6020	AK
Zinc, Total	ND	mg/l	0.0100	--	1	05/02/12 14:20	05/04/12 10:48	1,6020	AK

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: WG533124-1									
Iron, Total	ND	mg/l	0.05	--	1	05/02/12 14:20	05/07/12 15:34	19,200.7	AI

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: WG533427-1									
Mercury, Total	ND	mg/l	0.0002	--	1	05/03/12 13:45	05/04/12 08:59	3,245.1	KL

Prep Information

Digestion Method: EPA 245.1



Lab Control Sample Analysis

Batch Quality Control

Project Name: CHANNEL CENTER GARAGE

Project Number: 26135-900

Lab Number: L1207694

Report Date: 05/07/12

Parameter	LCS		LCSD		%Recovery Limits	RPD	Qual	RPD Limits
	%Recovery	Qual	%Recovery	Qual				
Total Metals - Westborough Lab Associated sample(s): 01 Batch: WG533121-2								
Antimony, Total	98		-		80-120	-		
Arsenic, Total	113		-		80-120	-		
Cadmium, Total	114		-		80-120	-		
Chromium, Total	106		-		80-120	-		
Copper, Total	110		-		80-120	-		
Lead, Total	110		-		80-120	-		
Nickel, Total	111		-		80-120	-		
Selenium, Total	111		-		80-120	-		
Silver, Total	104		-		80-120	-		
Zinc, Total	112		-		80-120	-		
Total Metals - Westborough Lab Associated sample(s): 01 Batch: WG533124-2								
Iron, Total	100		-		85-115	-		
Total Metals - Westborough Lab Associated sample(s): 01 Batch: WG533427-2								
Mercury, Total	104		-		85-115	-		

Matrix Spike Analysis Batch Quality Control

Project Name: CHANNEL CENTER GARAGE
Project Number: 26135-900

Lab Number: L1207694
Report Date: 05/07/12

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: WG533121-4 QC Sample: L1207694-01 Client ID: CCG-4												
Antimony, Total	0.0007	0.5	0.5236	104		-	-		80-120	-		20
Arsenic, Total	0.0020	0.12	0.1403	115		-	-		80-120	-		20
Cadmium, Total	ND	0.051	0.0584	114		-	-		80-120	-		20
Chromium, Total	ND	0.2	0.2139	107		-	-		80-120	-		20
Copper, Total	ND	0.25	0.2754	110		-	-		80-120	-		20
Lead, Total	ND	0.51	0.5670	111		-	-		80-120	-		20
Nickel, Total	0.0028	0.5	0.5475	109		-	-		80-120	-		20
Selenium, Total	ND	0.12	0.123	102		-	-		80-120	-		20
Silver, Total	ND	0.05	0.0521	104		-	-		80-120	-		20
Zinc, Total	0.0185	0.5	0.5804	112		-	-		80-120	-		20
Total Metals - Westborough Lab Associated sample(s): 01 QC Batch ID: WG533124-4 QC Sample: L1207694-01 Client ID: CCG-4												
Iron, Total	3.6	1	4.7	110		-	-		75-125	-		20
Total Metals - Westborough Lab Associated sample(s): 01 QC Batch ID: WG533427-4 QC Sample: L1207579-01 Client ID: MS Sample												
Mercury, Total	0.0035	0.001	0.0046	114		-	-		70-130	-		20

Lab Duplicate Analysis Batch Quality Control

Project Name: CHANNEL CENTER GARAGE
Project Number: 26135-900

Lab Number: L1207694
Report Date: 05/07/12

Parameter	Native Sample	Duplicate Sample	Units	RPD	Qual	RPD Limits
Total Metals - Westborough Lab Associated sample(s): 01 QC Batch ID: WG533121-3 QC Sample: L1207694-01 Client ID: CCG-4						
Antimony, Total	0.0007	0.0006	mg/l	23	Q	20
Arsenic, Total	0.0020	0.0021	mg/l	4		20
Cadmium, Total	ND	ND	mg/l	NC		20
Chromium, Total	ND	ND	mg/l	NC		20
Copper, Total	ND	ND	mg/l	NC		20
Lead, Total	ND	ND	mg/l	NC		20
Nickel, Total	0.0028	0.0028	mg/l	1		20
Selenium, Total	ND	ND	mg/l	NC		20
Silver, Total	ND	ND	mg/l	NC		20
Zinc, Total	0.0185	0.0177	mg/l	4		20
Total Metals - Westborough Lab Associated sample(s): 01 QC Batch ID: WG533124-3 QC Sample: L1207694-01 Client ID: CCG-4						
Iron, Total	3.6	3.6	mg/l	0		20
Total Metals - Westborough Lab Associated sample(s): 01 QC Batch ID: WG533427-3 QC Sample: L1207579-01 Client ID: DUP Sample						
Mercury, Total	0.0035	0.0033	mg/l	4		20



INORGANICS & MISCELLANEOUS

Project Name: CHANNEL CENTER GARAGE
Project Number: 26135-900

Lab Number: L1207694
Report Date: 05/07/12

SAMPLE RESULTS

Lab ID: L1207694-01
Client ID: CCG-4
Sample Location: Not Specified
Matrix: Water

Date Collected: 05/01/12 14:00
Date Received: 05/01/12
Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Westborough Lab										
Solids, Total Suspended	ND		mg/l	5.0	NA	1	-	05/04/12 13:30	30,2540D	DW
Cyanide, Total	ND		mg/l	0.005	--	1	05/02/12 10:15	05/04/12 16:24	30,4500CN-CE	JO
Chlorine, Total Residual	ND		mg/l	0.02	--	1	-	05/01/12 18:30	30,4500CL-D	ML
TPH	ND		mg/l	4.00	--	1	05/02/12 10:30	05/03/12 14:00	74,1664A	JO
Phenolics, Total	0.03		mg/l	0.03	--	1	05/04/12 09:45	05/04/12 12:12	4,420.1	MP
Chromium, Hexavalent	ND		mg/l	0.010	--	1	05/02/12 00:05	05/02/12 00:19	30,3500CR-D	JT
Anions by Ion Chromatography - Westborough Lab										
Chloride	230		mg/l	5.0	--	10	-	05/01/12 22:46	44,300.0	AU



Project Name: CHANNEL CENTER GARAGE
Project Number: 26135-900

Lab Number: L1207694
Report Date: 05/07/12

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: WG532936-2										
Chlorine, Total Residual	ND		mg/l	0.02	--	1	-	05/01/12 18:30	30,4500CL-D	ML
General Chemistry - Westborough Lab for sample(s): 01 Batch: WG532995-1										
Chromium, Hexavalent	ND		mg/l	0.010	--	1	05/02/12 00:05	05/02/12 00:17	30,3500CR-D	JT
General Chemistry - Westborough Lab for sample(s): 01 Batch: WG533077-1										
Cyanide, Total	ND		mg/l	0.005	--	1	05/02/12 10:15	05/04/12 15:46	30,4500CN-CE	JO
General Chemistry - Westborough Lab for sample(s): 01 Batch: WG533118-2										
TPH	ND		mg/l	4.00	--	1	05/02/12 10:30	05/03/12 14:00	74,1664A	JO
Anions by Ion Chromatography - Westborough Lab for sample(s): 01 Batch: WG533310-1										
Chloride	ND		mg/l	0.50	--	1	-	05/01/12 17:58	44,300.0	AU
General Chemistry - Westborough Lab for sample(s): 01 Batch: WG533761-1										
Solids, Total Suspended	ND		mg/l	5.0	NA	1	-	05/04/12 13:30	30,2540D	DW
General Chemistry - Westborough Lab for sample(s): 01 Batch: WG533843-1										
Phenolics, Total	ND		mg/l	0.03	--	1	05/04/12 09:45	05/04/12 12:03	4,420.1	MP

Lab Control Sample Analysis

Batch Quality Control

Project Name: CHANNEL CENTER GARAGE

Project Number: 26135-900

Lab Number: L1207694

Report Date: 05/07/12

Parameter	LCS		LCSD		%Recovery Limits	RPD	Qual	RPD Limits
	%Recovery	Qual	%Recovery	Qual				
General Chemistry - Westborough Lab Associated sample(s): 01 Batch: WG532936-1								
Chlorine, Total Residual	97		-		90-110	-		
General Chemistry - Westborough Lab Associated sample(s): 01 Batch: WG532995-2								
Chromium, Hexavalent	96		-		85-115	-		20
General Chemistry - Westborough Lab Associated sample(s): 01 Batch: WG533077-2								
Cyanide, Total	107		-		90-110	-		
General Chemistry - Westborough Lab Associated sample(s): 01 Batch: WG533118-1								
TPH	85		-		64-132	-		34
Anions by Ion Chromatography - Westborough Lab Associated sample(s): 01 Batch: WG533310-2								
Chloride	110		-		90-110	-		
General Chemistry - Westborough Lab Associated sample(s): 01 Batch: WG533843-2								
Phenolics, Total	99		-		82-111	-		12

Matrix Spike Analysis Batch Quality Control

Project Name: CHANNEL CENTER GARAGE
Project Number: 26135-900

Lab Number: L1207694
Report Date: 05/07/12

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: WG532995-4 QC Sample: L1207694-01 Client ID: CCG-4												
Chromium, Hexavalent	ND	0.1	0.103	103		-	-		85-115	-		20
General Chemistry - Westborough Lab Associated sample(s): 01 QC Batch ID: WG533077-4 QC Sample: L1207676-03 Client ID: MS Sample												
Cyanide, Total	ND	0.2	0.238	119	Q	-	-		90-110	-		30
General Chemistry - Westborough Lab Associated sample(s): 01 QC Batch ID: WG533118-3 QC Sample: L1207689-07 Client ID: MS Sample												
TPH	ND	22	15.9	72		-	-		64-132	-		34
Anions by Ion Chromatography - Westborough Lab Associated sample(s): 01 QC Batch ID: WG533310-3 QC Sample: L1207690-01 Client ID: MS Sample												
Chloride	45	20	67	110		-	-		40-151	-		18
General Chemistry - Westborough Lab Associated sample(s): 01 QC Batch ID: WG533843-4 QC Sample: L1207726-02 Client ID: MS Sample												
Phenolics, Total	ND	0.8	0.83	104		-	-		77-124	-		12

Lab Duplicate Analysis

Batch Quality Control

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Parameter	Native Sample	Duplicate Sample	Units	RPD	Qual	RPD Limits
General Chemistry - Westborough Lab Associated sample(s): 01 QC Batch ID: WG532936-3 QC Sample: L1207690-01 Client ID: DUP Sample						
Chlorine, Total Residual	ND	ND	mg/l	NC		20
General Chemistry - Westborough Lab Associated sample(s): 01 QC Batch ID: WG532995-3 QC Sample: L1207694-01 Client ID: CCG-4						
Chromium, Hexavalent	ND	ND	mg/l	NC		20
General Chemistry - Westborough Lab Associated sample(s): 01 QC Batch ID: WG533077-3 QC Sample: L1207676-02 Client ID: DUP Sample						
Cyanide, Total	ND	ND	mg/l	NC		30
General Chemistry - Westborough Lab Associated sample(s): 01 QC Batch ID: WG533118-4 QC Sample: L1207689-04 Client ID: DUP Sample						
TPH	ND	ND	mg/l	NC		34
Anions by Ion Chromatography - Westborough Lab Associated sample(s): 01 QC Batch ID: WG533310-4 QC Sample: L1207690-01 Client ID: DUP Sample						
Chloride	45	44	mg/l	2		18
General Chemistry - Westborough Lab Associated sample(s): 01 QC Batch ID: WG533761-2 QC Sample: L1207642-01 Client ID: DUP Sample						
Solids, Total Suspended	230	240	mg/l	4		20
General Chemistry - Westborough Lab Associated sample(s): 01 QC Batch ID: WG533843-3 QC Sample: L1207694-01 Client ID: CCG-4						
Phenolics, Total	0.03	0.03	mg/l	0		12

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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(*)
L1207694-01A	Vial HCl preserved	A	N/A	4.5	Y	Absent	8260-SIM(14),8260(14)
L1207694-01B	Vial HCl preserved	A	N/A	4.5	Y	Absent	8260-SIM(14),8260(14)
L1207694-01C	Vial Na2S2O3 preserved	A	N/A	4.5	Y	Absent	504(14)
L1207694-01D	Vial Na2S2O3 preserved	A	N/A	4.5	Y	Absent	504(14)
L1207694-01E	Plastic 500ml HNO3 preserved	A	<2	4.5	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)
L1207694-01F	Amber 1000ml Na2S2O3	A	7	4.5	Y	Absent	PCB-608(7)
L1207694-01G	Amber 1000ml Na2S2O3	A	7	4.5	Y	Absent	PCB-608(7)
L1207694-01H	Amber 1000ml unpreserved	A	7	4.5	Y	Absent	8270TCL(7),8270TCL-SIM(7)
L1207694-01I	Amber 1000ml unpreserved	A	7	4.5	Y	Absent	8270TCL(7),8270TCL-SIM(7)
L1207694-01J	Plastic 250ml unpreserved	A	7	4.5	Y	Absent	CL-300(28),TRC-4500(1)
L1207694-01K	Amber 1000ml H2SO4 preserved	A	<2	4.5	Y	Absent	TPHENOL-420(28)
L1207694-01L	Amber 1000ml H2SO4 preserved	A	<2	4.5	Y	Absent	TPHENOL-420(28)
L1207694-01M	Amber 1000ml HCl preserved	A	N/A	4.5	Y	Absent	TPH-1664(28)
L1207694-01N	Amber 1000ml HCl preserved	A	N/A	4.5	Y	Absent	TPH-1664(28)
L1207694-01O	Plastic 250ml NaOH preserved	A	>12	4.5	Y	Absent	TCN-4500(14)
L1207694-01P	Plastic 500ml unpreserved	A	7	4.5	Y	Absent	HEXCR-3500(1)
L1207694-01Q	Plastic 1000ml unpreserved	A	7	4.5	Y	Absent	TSS-2540(7)
L1207694-01R	Vial HCl preserved	A	N/A	4.5	Y	Absent	VPH-10(14)
L1207694-01S	Vial HCl preserved	A	N/A	4.5	Y	Absent	VPH-10(14)
L1207694-01T	Amber 1000ml HCl preserved	A	<2	4.5	Y	Absent	EPH-10(14)
L1207694-01U	Amber 1000ml HCl preserved	A	<2	4.5	Y	Absent	EPH-10(14)

*Values in parentheses indicate holding time in days



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GLOSSARY

Acronyms

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

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 five times (5x) 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.
H	- The analysis of pH was performed beyond the regulatory-required holding time of 15 minutes from the time of sample collection.
I	- The RPD between the results for the two columns exceeds the method-specified criteria; however, the lower value 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.

Report Format: Data Usability Report



Project Name: CHANNEL CENTER GARAGE
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Data Qualifiers

- 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.
- J** - Estimated value. This represents an estimated concentration for Tentatively Identified Compounds (TICs).
- ND** - Not detected at the reporting limit (RL) for the sample.

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REFERENCES

- 1 Test Methods for Evaluating Solid Waste: Physical/Chemical Methods. EPA SW-846. Third Edition. Updates I - IIIA, 1997.
- 3 Methods for the Determination of Metals in Environmental Samples, Supplement I. EPA/600/R-94/111. May 1994.
- 4 Methods for Chemical Analysis of Water and Wastes. EPA 600/4-79-020. Revised March 1983.
- 5 Methods for the Organic Chemical Analysis of Municipal and Industrial Wastewater. Appendix A, Part 136, 40 CFR (Code of Federal Regulations).
- 14 Methods for the Determination of Organic Compounds in Finished Drinking Water and Raw Source Water. EPA/600/4-88/039, Revised July 1991.
- 19 Inductively Coupled Plasma Atomic Emission Spectrometric Method for Trace Element Analysis of Water and Wastes. Appendix C, Part 136, 40 CFR (Code of Federal Regulations). July 1, 1999 edition.
- 30 Standard Methods for the Examination of Water and Wastewater. APHA-AWWA-WPCF. 18th Edition. 1992.
- 44 Methods for the Determination of Inorganic Substances in Environmental Samples, EPA/600/R-93/100, August 1993.
- 74 Method 1664, Revision A: N-Hexane Extractable Material (HEM; Oil & Grease) and Silica Gel Treated N-Hexane Extractable Material (SGT-HEM; Non-polar Material) by Extraction and Gravimetry, EPA-821-R-98-002, February 1999.
- 98 Method for the Determination of Extractable Petroleum Hydrocarbons (EPH), MassDEP, May 2004, Revision 1.1 with QC Requirements & Performance Standards for the Analysis of EPH under the Massachusetts Contingency Plan, WSC-CAM-IVB, July 2010.
- 100 Method for the Determination of Volatile Petroleum Hydrocarbons (VPH), MassDEP, May 2004, Revision 1.1 with QC Requirements & Performance Standards for the Analysis of VPH under the Massachusetts Contingency Plan, WSC-CAM-IVA, July 2010.

LIMITATION OF LIABILITIES

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

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



Certificate/Approval Program Summary

Last revised January 30, 2012 - Westboro Facility

The following list includes only those analytes/methods for which certification/approval is currently held.
For a complete listing of analytes for the referenced methods, please contact your Alpha Customer Service Representative.

Connecticut Department of Public Health Certificate/Lab ID: PH-0574. **NELAP Accredited Solid Waste/Soil.**

Drinking Water (Inorganic Parameters: Color, pH, Turbidity, Conductivity, Alkalinity, Chloride, Free Residual Chlorine, Fluoride, Calcium Hardness, Sulfate, Nitrate, Nitrite, Aluminum, Antimony, Arsenic, Barium, Beryllium, Cadmium, Calcium, Chromium, Copper, Iron, Lead, Magnesium, Manganese, Mercury, Molybdenum, Nickel, Potassium, Selenium, Silver, Sodium, Thallium, Vanadium, Zinc, Total Dissolved Solids, Total Organic Carbon, Total Cyanide, Perchlorate. Organic Parameters: Volatile Organics 524.2, Total Trihalomethanes 524.2, 1,2-Dibromo-3-chloropropane (DBCP), Ethylene Dibromide (EDB), 1,4-Dioxane (Mod 8270). Microbiology Parameters: Total Coliform-MF mEndo (SM9222B), Total Coliform – Colilert (SM9223 P/A), E. Coli. – Colilert (SM9223 P/A), HPC – Pour Plate (SM9215B), Fecal Coliform – MF m-FC (SM9222D))

Wastewater/Non-Potable Water (Inorganic Parameters: Color, pH, Conductivity, Acidity, Alkalinity, Chloride, Total Residual Chlorine, Fluoride, Total Hardness, Silica, Sulfate, Sulfide, Ammonia, Kjeldahl Nitrogen, Nitrate, Nitrite, O-Phosphate, Total Phosphorus, Aluminum, Antimony, Arsenic, Barium, Beryllium, Boron, Cadmium, Calcium, Chromium, Hexavalent Chromium, Cobalt, Copper, Iron, Lead, Magnesium, Manganese, Mercury, Molybdenum, Nickel, Potassium, Selenium, Silver, Sodium, Strontium, Thallium, Tin, Titanium, Vanadium, Zinc, Total Residue (Solids), Total Dissolved Solids, Total Suspended Solids (non-filterable), BOD, CBOD, COD, TOC, Total Cyanide, Phenolics, Foaming Agents (MBAS), Bromide, Oil and Grease. Organic Parameters: PCBs, Organochlorine Pesticides, Technical Chlordane, Toxaphene, 2,4-D, 2,4,5-T, 2,4,5-TP(Silvex), Acid Extractables (Phenols), Benzidines, Phthalate Esters, Nitrosamines, Nitroaromatics & Isophorone, Polynuclear Aromatic Hydrocarbons, Haloethers, Chlorinated Hydrocarbons, Volatile Organics, TPH (HEM/SGT), Extractable Petroleum Hydrocarbons (ETPH), MA-EPH, MA-VPH. Microbiology Parameters: Total Coliform – MF mEndo (SM9222B), Total Coliform – MTF (SM9221B), HPC – Pour Plate (SM9215B), Fecal Coliform – MF m-FC (SM9222D), Fecal Coliform – A-1 Broth (SM9221E).)

Solid Waste/Soil (Inorganic Parameters: pH, Sulfide, Aluminum, Antimony, Arsenic, Barium, Beryllium, Boron, Cadmium, Calcium, Chromium, Hexavalent Chromium, Cobalt, Copper, Iron, Lead, Magnesium, Manganese, Mercury, Molybdenum, Nickel, Potassium, Selenium, Silver, Sodium, Thallium, Tin, Vanadium, Zinc, Total Cyanide, Ignitability, Phenolics, Corrosivity, TCLP Leach (1311), SPLP Leach (1312 metals only), Reactivity. Organic Parameters: PCBs, PCBs in Oil, Organochlorine Pesticides, Technical Chlordane, Toxaphene, Extractable Petroleum Hydrocarbons (ETPH), MA-EPH, MA-VPH, Dicamba, 2,4-D, 2,4,5-T, 2,4,5-TP(Silvex), Volatile Organics, Acid Extractables (Phenols), 3,3'-Dichlorobenzidine, Phthalates, Nitrosamines, Nitroaromatics & Cyclic Ketones, PAHs, Haloethers, Chlorinated Hydrocarbons.)

Maine Department of Human Services Certificate/Lab ID: 2009024.

Drinking Water (Inorganic Parameters: SM9215B, 9222D, 9223B, EPA 180.1, 353.2, SM2130B, 2320B, 2540C, 4500CI-D, 4500CN-C, 4500CN-E, 4500F-C, 4500H+B, 4500NO3-F, EPA 200.7, EPA 200.8, 245.1, EPA 300.0. Organic Parameters: 504.1, 524.2.)

Wastewater/Non-Potable Water (Inorganic Parameters: EPA 120.1, 1664A, 350.1, 351.1, 353.2, 410.4, 420.1, SM2320B, 2510B, 2540C, 2540D, 426C, 4500CI-D, 4500CI-E, 4500CN-C, 4500CN-E, 4500F-B, 4500F-C, 4500H+B, 4500Norg-B, 4500Norg-C, 4500NH3-B, 4500NH3-G, 4500NH3-H, 4500NO3-F, 4500P-B, 4500P-E, 5210B, 5220D, 5310C, 9010B, 9040B, 9030B, 7470A, 7196A, 2340B, EPA 200.7, 6010, 200.8, 6020, 245.1, 1311, 1312, 3005A, Enterolert, 9223D, 9222D. Organic Parameters: 608, 8081, 8082, 8330, 8151A, 624, 8260, 3510C, 3630C, 5030B, ME-DRO, ME-GRO, MA-EPH, MA-VPH.)

Solid Waste/Soil (Inorganic Parameters: 9010B, 9012A, 9014A, 9040B, 9045C, 6010B, 7471A, 7196A, 9050A, 1010, 1030, 9065, 1311, 1312, 3005A, 3050B. Organic Parameters: ME-DRO, ME-GRO, MA-EPH, MA-VPH, 8260B, 8270C, 8330, 8151A, 8081A, 8082, 3540C, 3546, 3580A, 3630C, 5030B, 5035.)

Massachusetts Department of Environmental Protection Certificate/Lab ID: M-MA086.

Drinking Water (Inorganic Parameters: (EPA 200.8 for: Sb,As,Ba,Be,Cd,Cr,Cu,Pb,Ni,Se,Tl) (EPA 200.7 for: Ba,Be,Ca,Cd,Cr,Cu,Na,Ni) 245.1, (300.0 for: Nitrate-N, Fluoride, Sulfate); (EPA 353.2 for: Nitrate-N, Nitrite-N); (SM4500NO3-F for: Nitrate-N and Nitrite-N); 4500F-C, 4500CN-CE, EPA 180.1, SM2130B, SM4500CI-D, 2320B, SM2540C, SM4500H-B. Organic Parameters: (EPA 524.2 for: Trihalomethanes, Volatile Organics); (504.1 for: 1,2-Dibromoethane, 1,2-Dibromo-3-Chloropropane), EPA 332. Microbiology Parameters: SM9215B; ENZ. SUB. SM9223; ColilertQT SM9223B; MF-SM9222D.)

SM2510B, 2540C, 2340B, 2320B, 4500CL-E, 4500F-BC, 426C, SM4500NH3-BH, (EPA 350.1 for: Ammonia-N), LACHAT 10-107-06-1-B for Ammonia-N, SM4500NO3-F, 353.2 for Nitrate-N, SM4500NH3-BC-NES, EPA 351.1, SM4500P-E, 4500P-B,E, 5220D, EPA 410.4, SM 5210B, 5310C, 4500CL-D, EPA 1664, SM14 510AC, EPA 420.1, SM4500-CN-CE, SM2540D.

Organic Parameters: (EPA 624 for Volatile Halocarbons, Volatile Aromatics),(608 for: 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-Water), (EPA 625 for SVOC Acid Extractables and SVOC Base/Neutral Extractables), 600/4-81-045-PCB-Oil. Microbiology Parameters: (ColilertQT SM9223B;Enterolert-QT: SM9222D-MF.)

New Hampshire Department of Environmental Services Certificate/Lab ID: 200307. *NELAP Accredited.*

Drinking Water (Inorganic Parameters: SM 9222B, 9223B, 9215B, EPA 200.7, 200.8, 245.2, 300.0, SM4500CN-E, 4500H+B, 4500NO3-F, 2320B, 2510B, 2540C, 4500F-C, 5310C, 2120B, EPA 332.0. Organic Parameters: 504.1, 524.2.)

Non-Potable Water (Inorganic Parameters: SM9222D, 9221B, 9222B, 9221E-EC, EPA 3005A, 200.7, 200.8, 245.1, 245.2, SW-846 6010B, 6020, 7196A, 7470A, SM3500-CR-D, EPA 120.1, 300.0, 350.1, 350.2, 351.1, 353.2, 410.4, 420.1, 1664A, SW-846 9010, 9030, 9040B, SM426C, SM2120B, 2310B, 2320B, 2540B, 2540D, 4500H+B, 4500CL-E, 4500CN-E, 4500NH3-H, 4500NO3-F, 4500NO2-B, 4500P-E, 4500-S2-D, 5210B, 5220D, 2510B, 2540C, 4500F-C, 5310C, 5540C, LACHAT 10-204-00-1-A, LACHAT 10-107-06-2-D. Organic Parameters: SW-846 3510C, 3630C, 5030B, 8260B, 8270C, 8330, EPA 624, 625, 608, SW-846 8082, 8081A, 8151A.)

Solid & Chemical Materials (Inorganic Parameters: SW-846 6010B, 7196A, 7471A, 1010, 1030, 9010, 9012A, 9014, 9030B, 9040B, 9045C, 9050C, 9065,1311, 1312, 3005A, 3050B. Organic Parameters: SW-846 3540C, 3546, 3550B, 3580A, 3630C, 5030B, 5035, 8260B, 8270C, 8330, 8151A, 8015B, 8082, 8081A.)

New Jersey Department of Environmental Protection Certificate/Lab ID: MA935. *NELAP Accredited.*

Drinking Water (Inorganic Parameters: SM9222B, 9221E, 9223B, 9215B, 4500CN-CE, 4500NO3-F, 4500F-C, EPA 300.0, 200.7, 200.8, 245.2, 2540C, SM2120B, 2320B, 2510B, 5310C, SM4500H-B. Organic Parameters: EPA 332, 504.1, 524.2.)

Non-Potable Water (Inorganic Parameters: SM5210B, EPA 410.4, SM5220D, 4500CI-E, EPA 300.0, SM2120B, SM4500F-BC, EPA 200.7, 351.1, LACHAT 10-107-06-2-D, EPA 353.2, SM4500NO3-F, 4500NO2-B, EPA 1664A, SM5310B, C or D, 4500-PE, EPA 420.1, SM510ABC, SM4500P-B5+E, 2540B, 2540C, 2540D, EPA 120.1, SM2510B, SM15 426C, 9222D, 9221B, 9221C, 9221E, 9222B, 9215B, 2310B, 2320B, 4500NH3-H, 4500-S D, EPA 350.1, 350.2, SW-846 1312, 6020, 6020A, 7470A, 5540C, 4500H-B, EPA 200.8, SM3500Cr-D, 4500CN-CE, EPA 245.1, 245.2, SW-846 9040B, 3005A, 3015, EPA 6010B, 6010C, 7196A, 3060A, SW-846 9010B, 9030B. Organic Parameters: SW-846 8260B, 8270C, 8270D, 8270C-SIM, 8270D-SIM, 3510C, EPA 608, 624, 625, SW-846 3630C, 5030B, 8081A, 8081B, 8082, 8082A, 8151A, 8330, NJ OQA-QAM-025 Rev.7, NJ EPH.)

Solid & Chemical Materials (Inorganic Parameters: SW-846, 6010B, 6010C, 7196A, 3060A, 9010B, 9030B, 1010, 1030, 1311, 1312, 3005A, 3050B, 7471A, 7471B, 9014, 9012A, 9040B, 9045C, 9050A, 9065. Organic Parameters: SW-846 8015B, 8015C, 8081A, 8081B, 8082, 8082A, 8151A, 8330, 8260B, 8270C, 8270D, 8270C-SIM, 8270D-SIM, 3540C, 3545, 3546, 3550B, 3580A, 3630C, 5030B, 5035L, 5035H, NJ OQA-QAM-025 Rev.7, NJ EPH.)

New York Department of Health Certificate/Lab ID: 11148. *NELAP Accredited.*

Drinking Water (Inorganic Parameters: SM9223B, 9222B, 9215B, EPA 200.8, 200.7, 245.2, SM5310C, EPA 332.0, SM2320B, EPA 300.0, SM2120B, 4500CN-E, 4500F-C, 4500H-B, 4500NO3-F, 2540C, SM 2510B. Organic Parameters: EPA 524.2, 504.1.)

Non-Potable Water (Inorganic Parameters: SM9221E, 9222D, 9221B, 9222B, 9215B, 5210B, 5310C, EPA 410.4, SM5220D, 2310B-4a, 2320B, EPA 200.7, 300.0, SM4500CL-E, 4500F-C, SM15 426C, EPA 350.1, SM4500NH3-BH, EPA 351.1, LACHAT 10-107-06-2, EPA 353.2, LACHAT 10-107-04-1-C, SM4500-NO3-F, 4500-NO2-B, 4500P-E, 2540C, 2540B, 2540D, EPA 200.8, EPA 6010B, 6020, EPA 7196A, SM3500Cr-D, EPA 245.1, 245.2, 7470A, SM2120B, LACHAT 10-204-00-1-A, EPA 9040B, SM4500-HB, EPA 1664A, EPA 420.1, SM14 510C, EPA 120.1, SM2510B, SM4500S-D, SM5540C, EPA 3005A, 9010B, 9030B.. Organic Parameters: EPA 624, 8260B, 8270C, 625, 608, 8081A, 8151A, 8330, 8082, EPA 3510C, 5030B.)

Solid & Hazardous Waste (Inorganic Parameters: 1010, 1030, EPA 6010B, 7196A, 7471A, 9012A, 9014, 9040B, 9045C, 9065, 9050, EPA 1311, 1312, 3005A, 3050B, 9010B, 9030B. Organic Parameters: EPA 8260B, 8270C, 8015B, 8081A, 8151A, 8330, 8082, 3540C, 3545, 3546, 3580, 5030B, 5035.)

North Carolina Department of the Environment and Natural Resources Certificate/Lab ID : 666. Organic Parameters: MA-EPH, MA-VPH.

Pennsylvania Department of Environmental Protection Certificate/Lab ID : 68-03671. **NELAP Accredited.**
Drinking Water (Organic Parameters: EPA 524.2, 504.1)

Non-Potable Water (Inorganic Parameters: EPA 1312, 200.7, 410.4, 1664A, SM2540D, 5210B, 5220D, 4500-P,BE.
Organic Parameters: EPA 3510C, 3005A, 3630C, 5030B, 625, 624, 608, 8081A, 8081B, 8082, 802A, 8151A, 8260B, 8270C, 8270D, 8330)

Solid & Hazardous Waste (Inorganic Parameters: EPA 350.1, 1010, 1030, 1311, 1312, 3050B, 3060A, 6010B, 6010C, 7196A, 7471A, 9010B, 9012A, 9014, 9040B, 9045C, 9050, 9065, SM 4500NH3-H. Organic Parameters: 3540C, 3546, 3580A, 3630C, 5035, 8015B, 8015C, 8081A, 8081B, 8082, 8082A, 8151A, 8260B, 8270C, 8270D, 8330)

Rhode Island Department of Health Certificate/Lab ID: LAO00065. **NELAP Accredited via NY-DOH.**
 Refer to MA-DEP Certificate for Potable and Non-Potable Water.
 Refer to NJ-DEP Certificate for Potable and Non-Potable Water.

Texas Commission on Environmental Quality Certificate/Lab ID: T104704476-09-1. **NELAP Accredited.**

Non-Potable Water (Inorganic Parameters: EPA 120.1, 1664, 200.7, 200.8, 245.1, 245.2, 300.0, 350.1, 351.1, 353.2, 410.4, 420.1, 6010, 6020, 7196, 7470, 9040, SM 2120B, 2310B, 2320B, 2510B, 2540B, 2540C, 2540D, 426C, 4500CL-E, 4500CN-E, 4500F-C, 4500H+B, 4500NH3-H, 4500NO2B, 4500P-E, 4500 S²⁻ D, 510C, 5210B, 5220D, 5310C, 5540C. Organic Parameters: EPA 608, 624, 625, 8081, 8082, 8151, 8260, 8270, 8330.)

Solid & Hazardous Waste (Inorganic Parameters: EPA 1311, 1312, 9012, 9014, 9040, 9045, 9050, 9065.)

Virginia Division of Consolidated Laboratory Services Certificate/Lab ID: 460195. **NELAP Accredited.**

Non-Potable Water (Inorganic Parameters: EPA 3005A,3015,1312,6010B,6010C,SM4500S-D, SM4500-CN-CE, Lachat 10-204-00-1-X. Organic Parameters: EPA 8260B)

Solid & Hazardous Waste (Inorganic Parameters: EPA 3050B, 1311, 1312, 6010B, 6010C, 9030B, 9010B, 9012A, 9014. Organic Parameters: EPA 5035, 5030B, 8260B.)

Department of Defense, L-A-B Certificate/Lab ID: L2217.

Drinking Water (Inorganic Parameters: SM 4500H-B. Organic Parameters: EPA 524.2, 504.1.)

Non-Potable Water (Inorganic Parameters: EPA 200.7, 200.8, 6010B, 6020, 245.1, 245.2, 7470A, 9040B, 300.0, 332.0, 6860, 353.2, 410.4, 9060, 1664A, SM 4500CN-E, 4500H-B, 4500NO3-F, 5220D, 5310C, 2320B, 2540C, 3005A, 3015, 9010B, 9056. Organic Parameters: EPA 8260B, 8270C, 8330A, 625, 8082, 8081A, 3510C, 5030B, MassDEP EPH, MassDEP VPH.)

Solid & Hazardous Waste (Inorganic Parameters: EPA 200.7, 6010B, 7471A, 9010, 9012A, 6860, 1311, 1312, 3050B, 7196A, 9010B, 3500-CR-D, 4500CN-CE, 2540G, Organic Parameters: EPA 8260B, 8270C, 8330A/B-prep, 8082, 8081A, 3540C, 3546, 3580A, 5035A, MassDEP EPH, MassDEP VPH.)

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

EPA 8260B: Freon-113, 1,2,4,5-Tetramethylbenzene, 4-Ethyltoluene. **EPA 8330A:** PETN, Picric Acid, Nitroglycerine, 2,6-DANT, 2,4-DANT. **EPA 8270C:** Methyl naphthalene, Dimethyl naphthalene, Total Methylnaphthalenes, Total Dimethylnaphthalenes, 1,4-Diphenylhydrazine (Azobenzene). **EPA 625:** 4-Chloroaniline, 4-Methylphenol. Total Phosphorus in a soil matrix, Chloride in a soil matrix, TKN in a soil matrix, NO₂ in a soil matrix, NO₃ in a soil matrix, SO₄ in a soil matrix.

