



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

Region 1

5 Post Office Square, Suite 100
BOSTON, MA 02109-3912

CERTIFIED MAIL RETURN RECEIPT REQUESTED

SEP 03 2013

Tom Burns
Project Manager
Callahan Construction Management
80 First Street
Bridgewater, MA 02324

Re: Authorization to discharge under the Remediation General Permit (RGP) –
MAG910000. Building Construction site located at 165 Cambridgepark Drive,
Cambridge, MA 02140 Middlesex County; Authorization # MAG910596

Dear Mr. Burns:

Based on the review of a Notice of Intent (NOI) submitted by Mr. Timothy S. Baker, Project Engineer at Haley & Aldrich on behalf of Hines MIP Cambridgepark Drive LLC, for the site referenced above, the U.S. Environmental Protection Agency (EPA) hereby authorizes you, as the named Operator, to discharge in accordance with the provisions of the RGP at that site. Your authorization number is listed above.

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

Please note the enclosed checklist includes parameters that exceeded Appendix III limits. The checklist also includes a precaution to prevent contamination from petroleum hydrocarbons, and VOC compounds detected in soil analysis taken at the site in the year 2012.

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. For each parameter the dilution factor 6.0 for this site is within a dilution range greater than five to ten (>5-10), established in the RGP. (See the RGP Appendix IV for Massachusetts facilities). Therefore, the limits for arsenic of 50 ug/L,

copper of 26 ug/L, lead of 6.5 ug/L, zinc of 333 ug/L and iron of 5,000 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 August 25, 2014. You are required to submit a Notice of Termination (NOT) to the attention of the contact person indicated below within 30 days of project completion.

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

Sincerely,



Thelma Murphy, Chief
Storm Water and Construction
Permits Section

Enclosure

cc: Robert Kubit, MassDEP
Owen O'Riordan, City of Cambridge DPW
Timothy S. Baker, Haley&Aldrich

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

NPDES Authorization Number:	MAG910596
Authorization Issued:	August, 2013
Facility/Site Name:	Building Construction site
Facility/Site Address:	165 Cambridgepark Drive, in Cambridge MA 02140, Middlesex County
	Email address of owner: Matthew.Tryder@hines.com
Legal Name of Operator:	Callahan Construction Management
Operator contact name, title, and Address:	Tom Burns, Project Manager, address: 80 First Street, Bridgewater, MA 02324. Haley & Aldrich will be supervising the operator. Call Haley & Aldrich with any questions at 6178867400
	Email: Not provided
Estimated date of Completion:	8/25/2014
Category and Sub-Category:	Category III. Contaminated Construction Dewatering. Sub-category A. General Urban Fill Sites
RGP Termination Date:	September 10, 2015
Receiving Water:	Alewife Brook

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#160.2/ML 5ug/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/

	<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)
		ML 2ug/L
✓	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

	Parameter	Effluent Limit/Method#/ML (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/ML 5ug/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/ML 5ug/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

	Metal parameter	Total Recoverable MA/Metal Limit $H^{10} = 50 \text{ mg/l}$ CaCO_3, Units = $\text{ug/l}^{(11/12)}$		Minimum level=ML	
		Freshwater Limits			
	39. Antimony	5.6		ML	10
✓	40. Arsenic **	50		ML	20
	41. Cadmium **	0.2		ML	10
	42. Chromium III (trivalent) **	48.8		ML	15
	43. Chromium VI (hexavalent) **	48.8		ML	10
✓	44. Copper **	26		ML	15
✓	45. Lead **	6.53		ML	20
	46. Mercury **	0.9		ML	02
	47. Nickel **	29		ML	20
	48. Selenium **	5		ML	20
	49. Silver	1.2		ML	10
✓	50. Zinc **	333		ML	15
✓	51. Iron	5,000		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.

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

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

Haley & Aldrich, Inc.
465 Medford St.
Suite 2200
Boston, MA 02129
Tel: 617.886.7400
Fax: 617.886.7600
HaleyAldrich.com

9 August 2013
File No. 38625-024

MAG910596

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

Attention: Ms. Shelly Puleo

Subject: Notice of Intent (NOI)
Temporary Construction Dewatering
165 and 181 Cambridgepark Drive
Cambridge, Massachusetts

Dear Ms. Puleo:

On behalf of our client, Hines MIP CambridgePark Drive 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. The site is located on the north side of Cambridgepark Drive, about 1,000 ft west of its intersection with Alewife Brook Parkway near Fresh Pond in Cambridge, Massachusetts as shown on Figure 1- Project Locus. Temporary dewatering may be required during the proposed site development which includes construction of a four- to five-story residential building. We anticipate construction dewatering will be conducted, as necessary, during foundation construction for new building footings, elevator pits, and utility installations.

Figure 2 - Site and Subsurface Exploration Plan shows the location of the site. Site grades range from approximately El. 17 to El. 20¹. The site is currently occupied by an asphalt-paved parking lot and two abandoned office and warehouse buildings.

SITE HISTORY

Past usage of the project site was assessed through a review of previous environmental reports prepared for the Project site, aerial photographs dated 1938, 1955, 1960, 1978, 1980, 1995, Sanborn Fire Insurance Maps dated 1986, 1990, 1992, and 1995, and information obtained at the City of Cambridge municipal offices.

The 1938 aerial photograph depicted the subject site as vacant, undeveloped land. According to the 1985 evaluation conducted at the site, from 1919 until 1939, the site was owned by the Boston and Maine

¹ Elevations reported herein are in feet and reference the Cambridge City Base (CCB) datum.

Railroad and remained vacant until the Brown and Wales Steel Company bought the property and constructed a building (at 165 Cambridgepark Drive) utilized as a warehouse and offices. In 1949, the Brown and Wales Company erected an additional one-story warehouse and office building, presently known as 181 Cambridgepark Drive. In 1955, Brown and Wales Company constructed an addition to the larger warehouse thereby achieving the present building configuration at the subject site. The building located at 165 Cambridgepark Drive was primarily used by Brown and Wales Company to store steel, with some steel cutting and welding operations occurring on site. The 1960 aerial photograph depicts the subject site in its current configuration.

Dodge Chemical Company first occupied the subject site in the early 1970s. In 1973, a building permit was issued to the Dodge Chemical Company for the purpose of renovating and repairing the warehouses and offices on site. Energy Resources occupied the neighboring warehouse located at 181 Cambridgepark Drive from 1979-1983. Energy Resources reportedly used solvents and other compounds which may have produced pyrolytic oil and other waste products. The 181 Cambridgepark Drive property also utilized Power Recovery Systems from 1983 through 1988 for the manufacturing of fluid bed gasification systems used to convert biomass to a low BTU gas used in conjunction with an internal combustion engine to produce electricity. Power Recover Systems vacated the 181 Cambridgepark Drive building in 1988 and the structure remained vacant for approximately three years. Thomas Cook Travel Services leased the 181 Cambridgepark Drive building in 1991 and utilized it as a warehouse for storage and distribution of office furniture, office decorating furnishings, office supplies, stationery and various paper products. Dodge Chemical occupied the building at 181 Cambridgepark Drive in the mid-1990s as a warehousing facility. No significant changes were depicted in aerial photographs and Sanborn Maps dated through 2008. Dodge Chemical vacated the site in January 2013.

CURRENT SITE CONDITIONS

The subject site consists of an approximately 2.76-acre parcel of land developed with one stand-alone building and two interconnected buildings. A one-story 20,525 square foot building occupies the 181 Cambridgepark Drive portion of the property, and a two-story 16,728 square foot building connected to a one-story 37,956 square foot building is located at 165 Cambridgepark Drive. Portions of the subject site not occupied by the subject buildings consist of landscaped areas and asphalt paved driveways used for surface parking. The subject site is currently vacant. The existing buildings will be demolished prior to the start of construction activities associated with the proposed site development.

MASSACHUSETTS MCP REGULATORY BACKGROUND

Results of the soil analytical testing conducted by Haley & Aldrich in 2012 indicated the presence of volatile organic compounds (VOCs), extractable petroleum hydrocarbons (EPHs), volatile petroleum hydrocarbons (VPHs), semi-volatile organic compounds (SVOCs), and metals (lead and nickel) in site soil at concentrations exceeding the applicable MCP RCS-1 Reportable Concentrations. Accordingly, a Release Notification Form (RNF) was submitted to MassDEP on 28 May 2013. MassDEP subsequently issued RTN 3-31559 to the site. Groundwater testing conducted at the site indicated that all the compounds are below the applicable MCP RCGW-2 concentrations.

In accordance with the MCP, soil management and dewatering activities at the site will be conducted under a Release Abatement Measure (RAM) Plan. The RAM Plan will be filed with the MassDEP prior to commencement of proposed construction activities in accordance with the 310 CMR 40.442 (3) and 310 CMR 40.0444.

TEMPORARY CONSTRUCTION DEWATERING NOTICE OF INTENT

In support of the NOI, one groundwater sample was obtained from observation well HA12-08(OW) on 15 July 2013. The groundwater sample was submitted to Alpha Analytical, Inc. of Westborough, Massachusetts (Alpha Analytical) for analysis for NPDES Category III Contaminated Construction Dewatering Permit parameters including VOCs, SVOCs, PAHs, total 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 concentrations of total iron above applicable NPDES RGP Category III 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 HA12-08(OW) is shown on Figure 2.

Dewatering will be conducted from sumps or wells located inside the proposed development area. Dewatering is necessary to control groundwater, seepage, precipitation, and surface water runoff and construction-generated water to enable below-grade construction activities in-the-dry. Construction activities are scheduled to begin late August 2013. Construction dewatering effluent will be recharged on-site to the extent possible.

Prior to discharge under this NOI, collected water will be routed through a sedimentation tank and/or bag filters, at a minimum, to remove suspended solids and undissolved chemical constituents. Supplemental pretreatment may be required to meet discharge criteria as shown in the Proposed Treatment System Schematic included in Figure 3. Supplemental pretreatment may include Oil/Water Separators, Ion Exchange, granular activated carbon, and/or other treatment technologies as required to meet the NPDES discharge criteria. Treated construction dewatering effluent under this RGP NOI will be discharged to a storm drain along Cambridge Park Drive through catch basins located near the site. This storm drain travels east along Cambridgepark Drive and discharges to outfall "D45" which then discharges to Alewife Brook. The proposed discharge route is shown on Figure 4.

APPENDICES

The completed "Suggested Notice of Intent" NOI form as provided in the RGP is enclosed in Appendix A. The site developer is Hines MIP CambridgePark Drive LLC. Hines MIP CambridgePark Drive LLC will hire a subcontractor to conduct the Site work, including dewatering activities. The excavation subcontractor will operate the dewatering system. Haley & Aldrich, Inc. will monitor the Contractor's dewatering activities on behalf of Hines MIP CambridgePark Drive LLC in accordance with the requirements for this NOI submission.

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 the National Register of Historic Places and Endangered Species Act Documentation, respectively. Appendix E provides the City of Cambridge Dewatering Permit Application to be submitted separately to the City of Cambridge. A copy of the groundwater testing laboratory results are 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, lead and arsenic, 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, estimated to be 100 gallons per minute (GPM) or approximately 0.223 cubic feet per second (cfs), and Q_s is the receiving water flow rate, minimum for 7

consecutive days with a recurrence interval of 10 years, calculated to be 1.0 cfs. Using these estimated/calculated values, the DF is equal to 5.5. According to Appendix IV of the Remediation General Permit, the ceiling limitation for the calculated dilution factor of 5.5 for iron is 5000 ug/L. If testing of the dewatering effluent indicates that the iron, lead or arsenic concentrations are greater than 5000ug/L, pretreatment of the dewatering effluent will include an ion exchange unit or other technology to remove dissolved metals as shown on Figure 3.

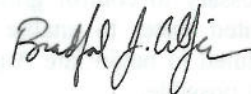
CLOSING

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.



Timothy S. Becker
Project Engineer



Bradford J. Aldinger, P.E.
Senior Project Manager

Attachments:

Table I – Summary of Groundwater Quality Data

Figure 1 – Project Locus

Figure 2 – Site and Subsurface Exploration Location Plan

Figure 3 – Proposed Treatment System Schematic

Figure 4 – Proposed Dewatering Discharge Route

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

Appendix B – Best Management Practices Plan (BMPP)

Appendix C – National Register of Historic Places and Massachusetts
Historical Commission Documentation

Appendix D – Endangered Species Act Documentation

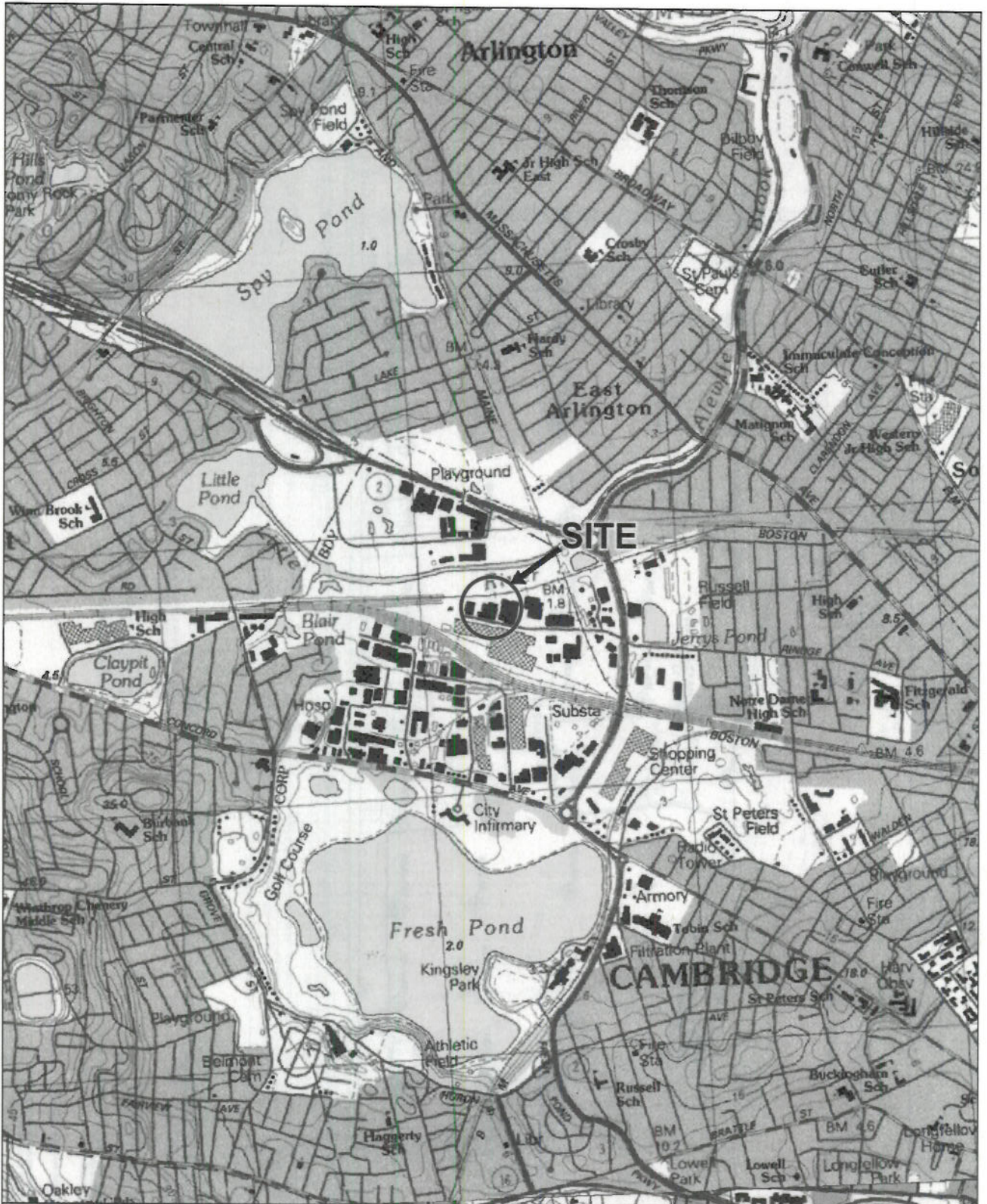
Appendix E – City of Cambridge Dewatering Permit Application

Appendix F – Laboratory Data Reports

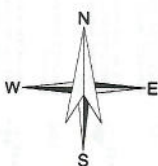
Appendix G – Fish and Wildlife

c: Hines MIP CambridgePark Drive LLC; Attn: Matt Tryder
Massachusetts Department of Environmental Protection; Attn: Division of Watershed Management
City of Cambridge

G:\38625\024-NPDES\e-Report\2013_0813_HAI_NPDES RGP Text-EPA-F.docx



SITE COORDINATES: 42°23'44"N 71°8'50"W



U.S.G.S. QUADRANGLE: LEXINGTON, MA

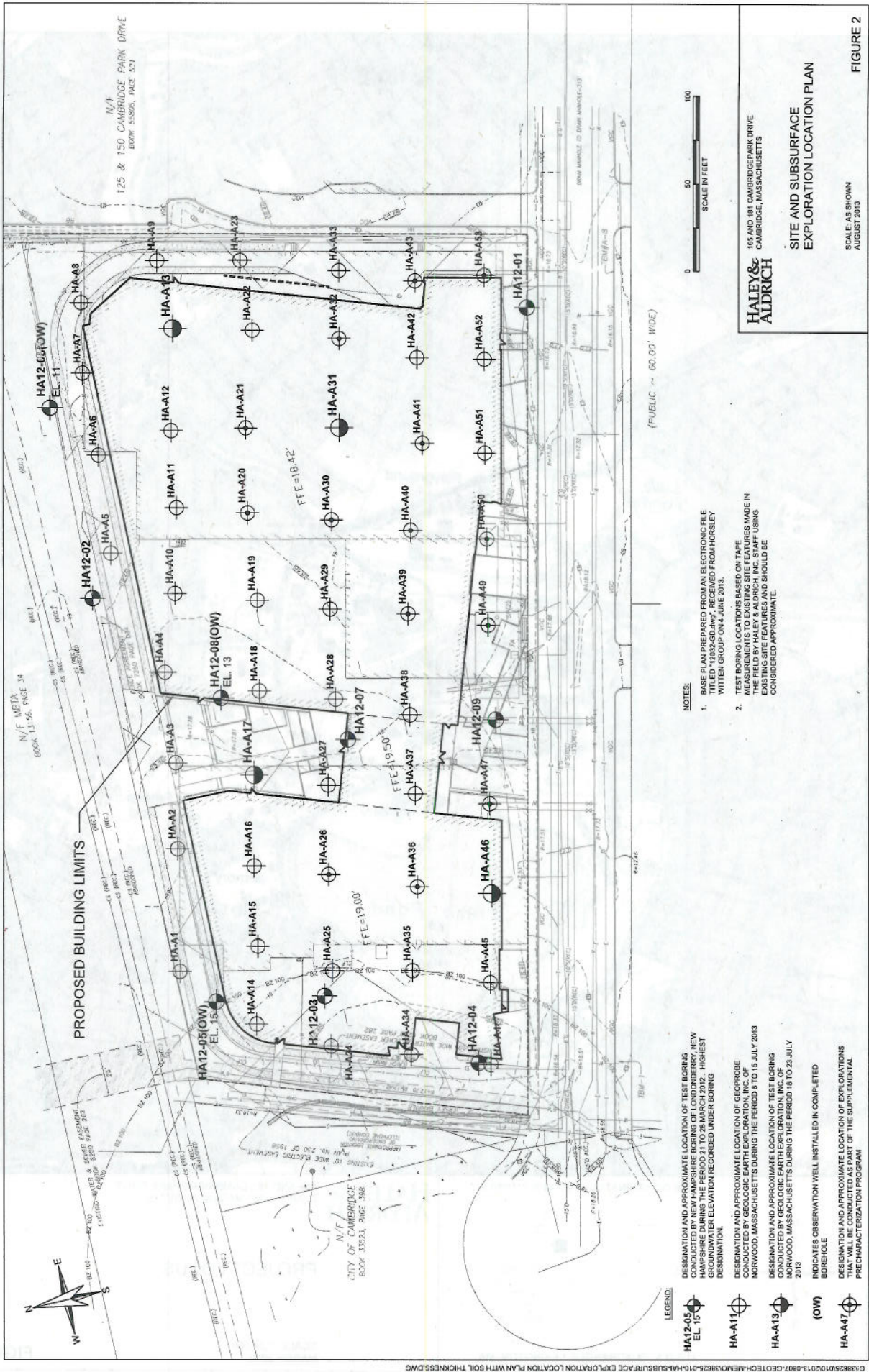
HALEY & ALDRICH

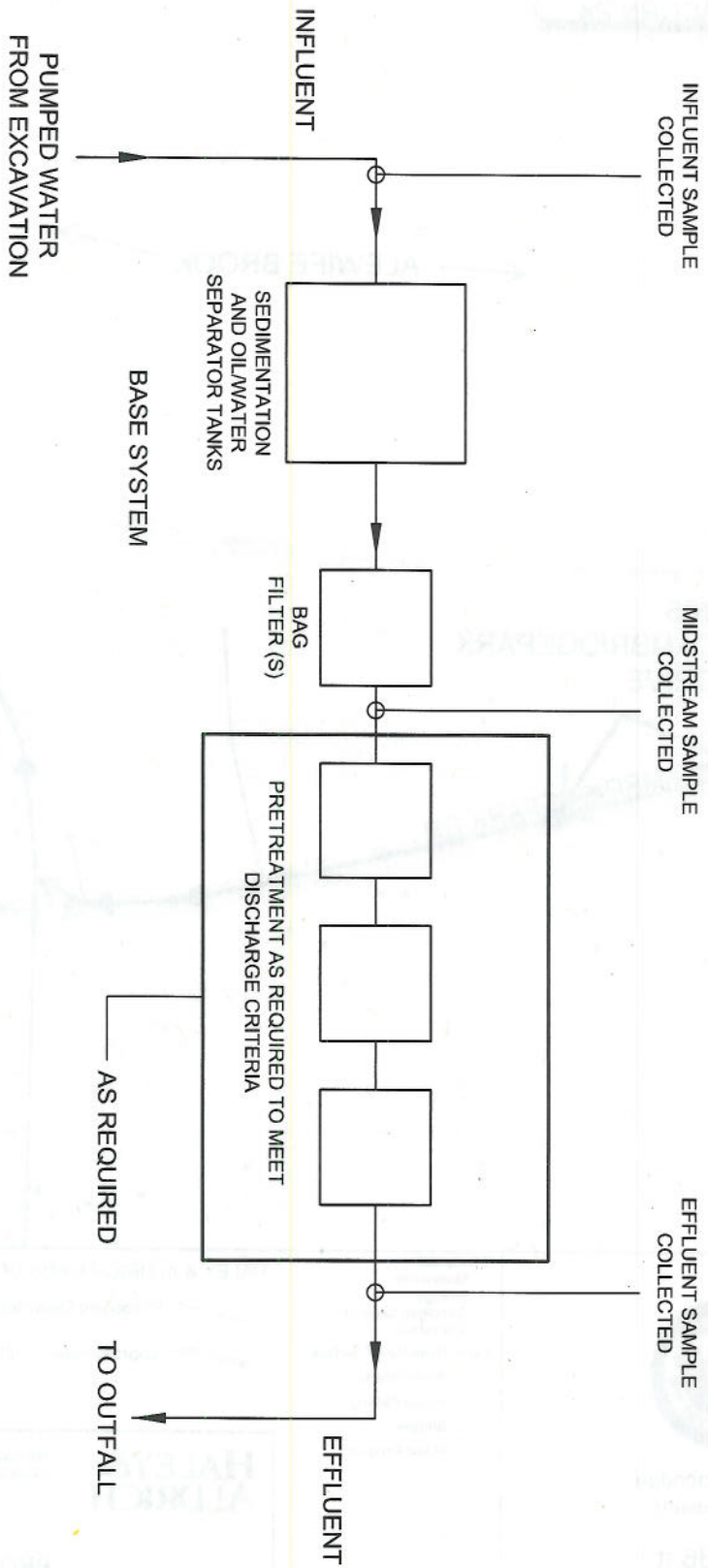
165 AND 181 CAMBRIDGEPARK DRIVE
CAMBRIDGE, MASSACHUSETTS

PROJECT LOCUS

SCALE: 1:24,000
MARCH 2013

FIGURE 1





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.

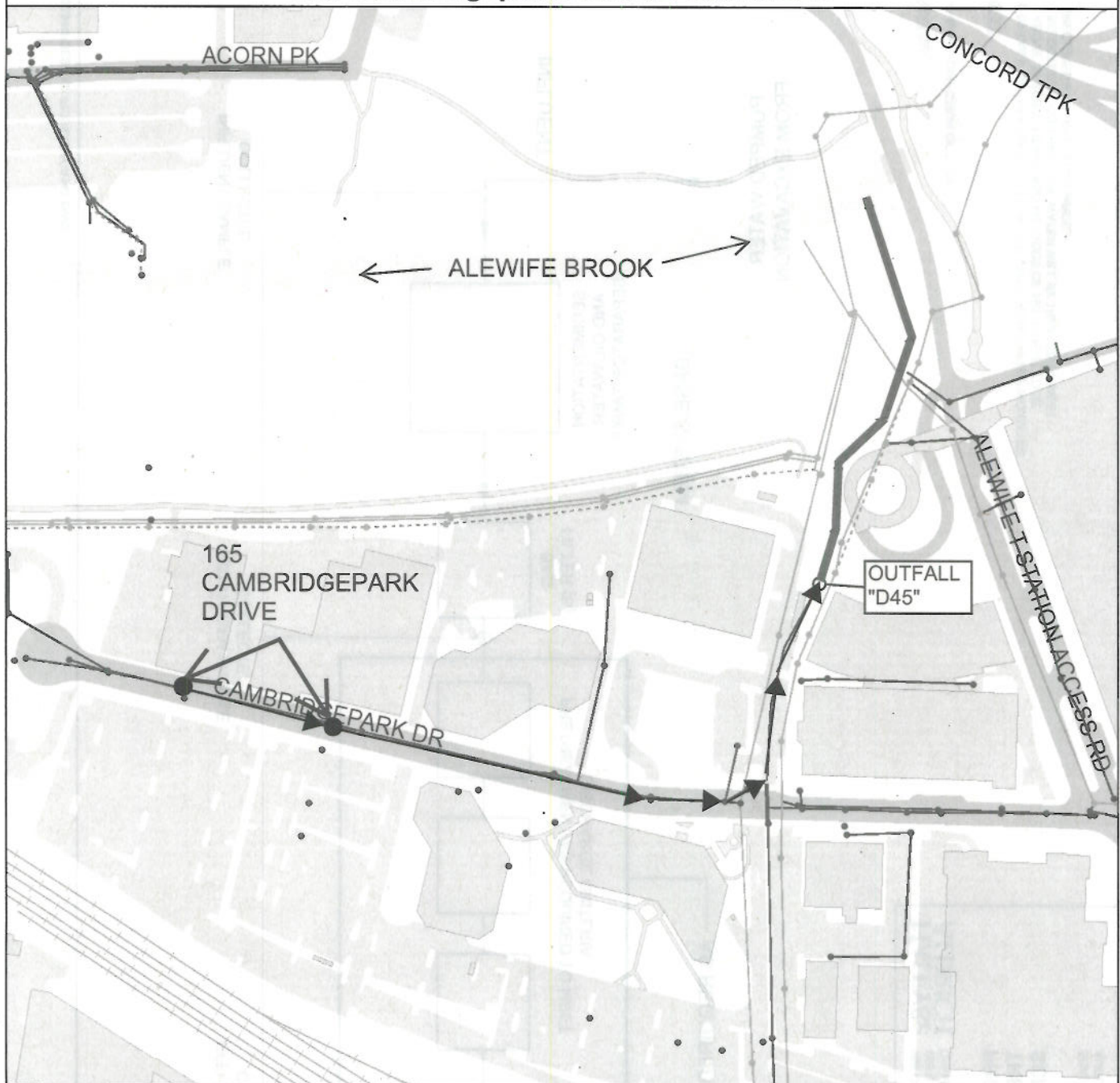
HALEY & ALDRICH
 165 CAMBRIDGE PARK DRIVE
 CAMBRIDGE, MASSACHUSETTS

**PROPOSED
 TREATMENT SYSTEM
 SCHEMATIC**

SCALE: NONE
 AUGUST 2013

FIGURE 3

165 Cambridgepark Drive to Outfall D45



City of Cambridge
Massachusetts

1" = 236 ft

All data is provided for graphic representation only. The City of Cambridge expressly disclaims all warranties of any type, expressed or implied, including, but not limited to, any warranty as to the accuracy of the data, merchantability, or fitness for a particular purpose.

- Gravity Mail
— Stormwater
— Sewage
— Combined Sewage
... Abandoned
- Zoom Three Paved Surfaces
- Paved Roads
 - Paved Parking
 - Bridges
 - Public Footpath

HALEY & ALDRICH MARK UPS:

- Proposed Dewatering Discharge Route
- Approximate Limits of Drainage Ditch

**HALEY &
ALDRICH**

165 CAMBRIDGEPARK DRIVE
CAMBRIDGE, MASSACHUSETTS

PROPOSED DEWATERING DISCHARGE ROUTE

SCALE: AS SHOWN
AUGUST 2013

FIGURE 4

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: 165 Cambridgepark Drive		Facility/site mailing address:	
Location of facility/site:		Street: 165 Cambridgepark Drive	
longitude: 42 23 44	Facility SIC code(s): NA		
latitude: 71 8 50			
b) Name of facility/site owner: Hines MIP CambridgePark Drive LLC		Town: Cambridge	
Email address of facility/site owner: Matthew.Tryder@hines.com		State: MA	Zip: 02140
Telephone no. of facility/site owner: (617) 261-2260		County: Middlesex	
Fax no. of facility/site owner:	Owner is (check one): 1. Federal ☐ 2. State/Tribal ☐		
Address of owner (if different from site):	3. Private ☒ 4. Other ☐ if so, describe:		
Street: One International Place, 11th Floor			
Town: Boston	State: MA	Zip: 02110	County: Suffolk
c) Legal name of operator: Callahan Construction Management		Operator telephone no.:	
Operator contact name and title: Tom Burns		Operator fax no.:	
Address of operator (if different from owner):		Operator email:	
Street: 80 First Street			
Town: Bridgewater	State: MA	Zip: 02324	County: Somerset

d) Check Y for "yes" or N for "no" for the following:

1. Has a prior NPDES permit exclusion been granted for the discharge? Y ☐ N ☒, if Y, number:
2. Has a prior NPDES application (Form 1 & 2C) ever been filed for the discharge? Y ☐ N ☒, if Y, date and tracking #:
3. Is the discharge a "new discharge" as defined by 40 CFR 122.2? Y ☒ N ☐
4. For sites in Massachusetts, is the discharge covered under the Massachusetts Contingency Plan (MCP) and exempt from state permitting? Y ☒ N ☐

e) Is site/facility subject to any State permitting, license, or other action which is causing the generation of discharge? Y ☐ N ☒

If Y, please list:

1. site identification # assigned by the state of NH or MA:
2. permit or license # assigned:
3. state agency contact information: name, location, and telephone number:

f) Is the site/facility covered by any other EPA permit, including:

1. Multi-Sector General Permit? Y ☐ N ☒, if Y, number:
2. Final Dewatering General Permit? Y ☐ N ☒, if Y, number:
3. EPA Construction General Permit? Y ☐ N ☒, if Y, number:
4. Individual NPDES permit? Y ☐ N ☒, if Y, number:
5. any other water quality related individual or general permit? Y ☐ N ☒, if Y, number:

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

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

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

IV - Miscellaneous Related Discharges

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

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

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

Temporary construction dewatering in support of new foundation construction for new building

b) Provide the following information about each discharge:

1) Number of discharge points: 1

2) What is the **maximum** and **average flow rate** of discharge (in cubic feet per second, ft³/s)?
 Max. flow 0.223 Is maximum flow a design value? Y ☐ N ☒
 Average flow (include units) 0.223 Is average flow a design value or estimate? average

3) Latitude and longitude of each discharge within 100 feet:

pt.1: lat	42 23 41	long	71 8 22	pt.2: lat	42 23 42.9	long	71 8 52
pt.3: lat		long		pt.4: lat		long	
pt.5: lat		long		pt.6: lat		long	
pt.7: lat		long		pt.8: lat		long	
				etc.			

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

5) Is the discharge intermittent ☒ or seasonal ☐?
 Is discharge ongoing? Y ☐ N ☒

c) Expected dates of discharge (mm/dd/yy): start 8/25/13 end 8/25/14

d) Please attach a line drawing or flow schematic showing water flow through the facility including:

1. sources of intake water. 2. contributing flow from the operation. 3. treatment units, and 4. discharge points and receiving waters(s). See Figures 3 & 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.

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 concentration (ug/l)	mass (kg)	Average daily value concentration (ug/l)	mass (kg)
1. Total Suspended Solids (TSS)		☐	☒	1	Grab	32,2540D	1000	39000			
2. Total Residual Chlorine (TRC)		☒	☐	1	Grab	30,4500CL-D	20	ND			
3. Total Petroleum Hydrocarbons (TPH)		☒	☐	1	Grab	74,1664A	4000	ND			
4. Cyanide (CN)	57125	☒	☐	1	Grab	30,4500CN-CE	5	ND			
5. Benzene (B)	71432	☒	☐	1	Grab	1,8260B	0.5	ND			
6. Toluene (T)	108883	☒	☐	1	Grab	1,8260B	0.75	ND			
7. Ethylbenzene (E)	100414	☒	☐	1	Grab	1,8260B	0.5	ND			
8. (m,p,o) Xylenes (X)	108883; 106423; 95476; 1330207	☒	☐	1	Grab	1,8260B	1.0	ND			
9. Total BTEX ²	n/a	☒	☐	1	Grab	NA	NA	ND			
10. Ethylene Dibromide (EDB) (1,2-Dibromoethane) ³	106934	☒	☐	1	Grab	1,8260B	2.0	ND			
11. Methyl-tert-Butyl Ether (MTBE)	1634044	☒	☐	1	Grab	1,8260B	1.0	ND			
12. tert-Butyl Alcohol (TBA) (Tertiary-Butanol)	75650	☒	☐	1	Grab	1,8260B	2.0	ND			

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

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

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

Parameter *	CAS Number	Believed Absent	Believed Present	# of Samples	Sample Type (e.g., grab)	Analytical Method Used (method #)	Minimum Level (ML) of Test Method	Maximum daily value		Average daily value	
								concentration (ug/l)	mass (kg)	concentration (ug/l)	mass (kg)
13. tert-Amyl Methyl Ether (TAME)	9940508	☒	☐	1	Grab	1,8260B	2	ND			
14. Naphthalene	91203	☒	☐	1	Grab	1,8260B	2.5	ND			
15. Carbon Tetrachloride	56235	☒	☐	1	Grab	1,8260B	0.5	ND			
16. 1,2 Dichlorobenzene (o-DCB)	95501	☒	☐	1	Grab	97,8270D	2	ND			
17. 1,3 Dichlorobenzene (m-DCB)	541731	☒	☐	1	Grab	97,8270D	2	ND			
18. 1,4 Dichlorobenzene (p-DCB)	106467	☒	☐	1	Grab	97,8270D	2	ND			
18a. Total dichlorobenzene		☒	☐	1	Grab	97,8270D	NA	ND			
19. 1,1 Dichloroethane (DCA)	75343	☒	☐	1	Grab	1,8260B	0.75	ND			
20. 1,2 Dichloroethane (DCA)	107062	☒	☐	1	Grab	1,8260B	0.5	ND			
21. 1,1 Dichloroethene (DCE)	75354	☒	☐	1	Grab	1,8260B	0.5	ND			
22. cis-1,2 Dichloroethene (DCE)	156592	☒	☐	1	Grab	1,8260B	0.5	ND			
23. Methylene Chloride	75092	☒	☐	1	Grab	1,8260B	3	ND			
24. Tetrachloroethene (PCE)	127184	☒	☐	1	Grab	1,8260B	0.5	ND			
25. 1,1,1 Trichloro-ethane (TCA)	71556	☒	☐	1	Grab	1,8260B	0.5	ND			
26. 1,1,2 Trichloro-ethane (TCA)	79005	☒	☐	1	Grab	1,8260B	0.75	ND			
27. Trichloroethene (TCE)	79016	☒	☐	1	Grab	1,8260B	0.5	ND			

Parameter *	CAS Number	Believed Absent	Believed Present	# of Samples	Sample Type (e.g., grab)	Analytical Method Used (method #)	Minimum Level (ML) of Test Method	Maximum daily value concentration (ug/l)	mass (kg)	Average daily value concentration (ug/l)	mass (kg)
28. Vinyl Chloride (Chloroethene)	75014	☒	☐	1	Grab	1,8260B	1	ND			
29. Acetone	67641	☒	☐	1	Grab	1,8260B	5	ND			
30. 1,4 Dioxane	123911	☒	☐	1	Grab	1,8260B(M)	3	ND			
31. Total Phenols	108952	☒	☐	1	Grab	1,8270C	NA	ND			
32. Pentachlorophenol (PCP)	87865	☒	☐	1	Grab	1,8270C-SIM	0.8	ND			
33. Total Phthalates (Phthalate esters) ⁴		☒	☐	1	Grab	1,8270C	NA	ND			
34. Bis (2-Ethylhexyl) Phthalate [DI-(ethylhexyl) Phthalate]	117817	☒	☐	1	Grab	1,8270C	3.0	ND			
35. Total Group I Polycyclic Aromatic Hydrocarbons (PAH)		☒	☐	1	Grab	NA	NA				
a. Benzo(a) Anthracene	56553	☒	☐	1	Grab	1,8270C-SIM	0.2	ND			
b. Benzo(a) Pyrene	50328	☒	☐	1	Grab	1,8270C-SIM	0.2	ND			
c. Benzo(b) Fluoranthene	205992	☒	☐	1	Grab	1,8270C-SIM	0.2	ND			
d. Benzo(k) Fluoranthene	207089	☒	☐	1	Grab	1,8270C-SIM	0.2	ND			
e. Chrysene	21801	☒	☐	1	Grab	1,8270C-SIM	0.2	ND			
f. Dibenzo(a,h)anthracene	53703	☒	☐	1	Grab	1,8270C-SIM	0.2	ND			
g. Indeno(1,2,3-cd) Pyrene	193395	☒	☐	1	Grab	1,8270C-SIM	0.2	ND			
36. Total Group II Polycyclic Aromatic Hydrocarbons (PAH)		☒	☐	1	Grab	NA	NA	ND			

⁴ The sum of individual phthalate compounds.

Parameter *	CAS Number	Believed Absent	Believed Present	# of Samples	Sample Type (e.g. grab)	Analytical Method Used (method #)	Minimum Level (ML) of Test Method	Maximum daily value		Average daily value	
								concentration (ug/l)	mass (kg)	concentration (ug/l)	mass (kg)
h. Acenaphthene	83329	☒	☐	1	Grab	1,8270C-SIM	0.2	ND			
i. Acenaphthylene	208968	☒	☐	1	Grab	1,8270C-SIM	0.2	ND			
j. Anthracene	120127	☒	☐	1	Grab	1,8270C-SIM	0.2	ND			
k. Benzo(g,h,i) Perylene	191242	☒	☐	1	Grab	1,8270C-SIM	0.2	ND			
l. Fluoranthene	206440	☐	☒	1	Grab	1,8270C-SIM	0.2	0.33			
m. Fluorene	86737	☒	☐	1	Grab	1,8270C-SIM	0.2	ND			
n. Naphthalene	91203	☒	☐	1	Grab	1,8270C-SIM	0.2	ND			
o. Phenanthrene	85018	☒	☐	1	Grab	1,8270C-SIM	0.2	ND			
p. Pyrene	129000	☒	☐	1	Grab	1,8270C-SIM	0.2	ND			
37. Total Polychlorinated Biphenyls (PCBs)	85687; 84742; 117840; 84662; 131113; 117817.	☒	☐	1	Grab	5,608	0.250	ND			
38. Chloride	16887006	☒	☐	1	Grab	44,300.0	25000	ND			
39. Antimony	7440360	☒	☐	1	Grab	1,6020	0.5	ND			
40. Arsenic	7440382	☐	☒	1	Grab	1,6020	0.5	0.98			
41. Cadmium	7440439	☒	☐	1	Grab	1,6020	0.2	ND			
42. Chromium III (trivalent)	16065831	☒	☐	1	Grab	1,6020	1	ND			
43. Chromium VI (hexavalent)	18540299	☒	☐	1	Grab	30,3500CR-D	10	ND			
44. Copper	7440508	☐	☒	1	Grab	1,6020	1	2.67			
45. Lead	7439921	☐	☒	1	Grab	3,245.1	0.5	7.71			
46. Mercury	7439976	☒	☐	1	Grab	1,6020	0.2	ND			
47. Nickel	7440020	☐	☒	1	Grab	1,6020	0.5	1.2			
48. Selenium	7782492	☒	☐	1	Grab	1,6020	5	ND			
49. Silver	7440224	☒	☐	1	Grab	1,6020	0.4	ND			
50. Zinc	7440666	☐	☒	1	Grab	1,6020	10	29.8			
51. Iron	7439896	☐	☒	1	Grab	19,200.7	50	5200			
Other (describe):		☐	☐								

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

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

Step 1: Do any of the metals in the influent exceed the effluent limits in Appendix III (i.e., the limits set at zero dilution)? Y ☒ N ☐

If yes, which metals?
Iron

Step 2: For any metals which exceed the **Appendix III** limits, calculate the **dilution factor (DF)** using the formula in Part I.A.3.c (step 2) of the NOI instructions or as determined by the State prior to the submission of this NOI. What is the dilution factor for applicable metals?

Metal: Iron DF: 5.5
Metal: DF:
Metal: DF:
Metal: DF:
Etc.

Look up the limit calculated at the corresponding dilution factor in **Appendix IV**. Do any of the metals in the influent have the potential to exceed the corresponding effluent limits in Appendix IV (i.e., is the influent concentration above the limit set at the calculated dilution factor)? Y ☒ N ☐ If Y, list which metals:
Iron

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

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

See attached Figure 3

b) Identify each applicable treatment unit (check all that apply):	Frac. tank ☒	Air stripper ☐	Oil/water separator ☐	Equalization tanks ☐	Bag filter ☒	GAC filter ☐
	Chlorination ☐	De-chlorination ☐	Other (please describe): Ion Exchange, Oil/Water Separator, GAC Filter, as required			

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 ☐	Within facility (sewer) ☐	Storm drain ☒	Wetlands ☐	Other (describe):
------------------------------------	--	--	---	-----------------------------------	--

b) Provide a narrative description of the discharge pathway, including the name(s) of the receiving waters:
Effluent will be discharged to a storm drain located within or near the site, which discharges into the Alewife Brook.

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 discharges, 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)?

Is there a final TMDL? Y ☒ N ☐ If yes, for which pollutant(s)?
Phosphorus (Total); Lead; Oxygen, Dissolved; Foam/Flocs/Scum/Oil Slicks; Fecal Coliform; Copper
Phosphorus (Total); Lead; Oxygen, Dissolved; Foam/Flocs/Scum/Oil Slicks; Fecal Coliform; Copper

6. ESA and NHPA Eligibility.

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

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

7. Supplemental information.

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

See attachments

6. Results of Consultation with Federal Services: Please provide the following information according to requirements of Part I.B.4 and Appendices II and VII.

a) Are any listed threatened or endangered species, or designated critical habitat, in proximity to the discharge? Yes ☐ No ☒
Has any consultation with the federal services been completed? Yes ☐ No ☒ or is consultation underway? Yes ☐ No ☒
What were the results of the consultation with the U.S. Fish and Wildlife Service and/or National Marine Fisheries Service (check one):
a "no jeopardy" opinion? ☐ or written concurrence ☐ on a finding that the discharges are not likely to adversely affect any endangered species or critical habitat?
b) Are any historic properties listed or eligible for listing on the National Register of Historic Places located on the facility or site or in proximity to the discharge?
Yes ☐ No ☒ Have any state or tribal historic preservation officer been consulted in this determination (Massachusetts only)? Yes ☐ No ☒

7. Supplemental information :

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

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: 165 & 181 Cambridgepark Drive
Owner signature: 
Title: St. Germain, Manager
Date: 8/9/13

6. Results of Consultation with Federal Services: Please provide the following information according to requirements of Part I.B.4 and Appendices II and VII.

a) Are any listed threatened or endangered species, or designated critical habitat, in proximity to the discharge? Yes ☐ No ☒
Has any consultation with the federal services been completed? Yes ☐ No ☒ or is consultation underway? Yes ☐ No ☒
What were the results of the consultation with the U.S. Fish and Wildlife Service and/or National Marine Fisheries Service (check one):
a "no jeopardy" opinion? ☐ or written concurrence ☐ on a finding that the discharges are not likely to adversely affect any endangered species or critical habitat?
b) Are any historic properties listed or eligible for listing on the National Register of Historic Places located on the facility or site or in proximity to the discharge?
Yes ☐ No ☒ Have any state or tribal historic preservation officer been consulted in this determination (Massachusetts only)? Yes ☐ No ☒

7. Supplemental information :

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

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: 165 & 181 Cambridgepark Drive
Operator signature: 
Title: PROJECT MANAGER
Date: 8.9.13

HALEY & ALDRICH

Calculations

File No.	38625-001
Sheet	1 of 1
Date	8/2/13
Computed By	T.B.
Checked By	T.B.

USGS STATION 01103025 (Alefwe Brook near Arlington)
Location: Brookway @ Alewife Brook

PER (RELIABILITY 100%, 7010 Flow AT STATION 01103025
IS 2.1 CFS

ASSUME LINEAR RELATIONSHIP BETWEEN 7010 FLOW AND LENGTH
OF STREAM BETWEEN LITTLE POND * STATION 01103025

DISTANCE: LITTLE POND OUTFALL TO STATION 01103025
IS APPROXIMATELY 9000 FEET

LITTLE POND OUTFALL TO DISCHARGE POINT
IS APPROXIMATELY 4500 FEET

$$4500/9000 = 50\%$$

$$2.1 \text{ CFS} \times 0.5 = 1.05 \text{ CFS}$$

→ USE 1.0 CFS FOR
7010 DISCHARGE PT.

$$DF = \frac{Q_1}{Q_1 + Q_2}$$

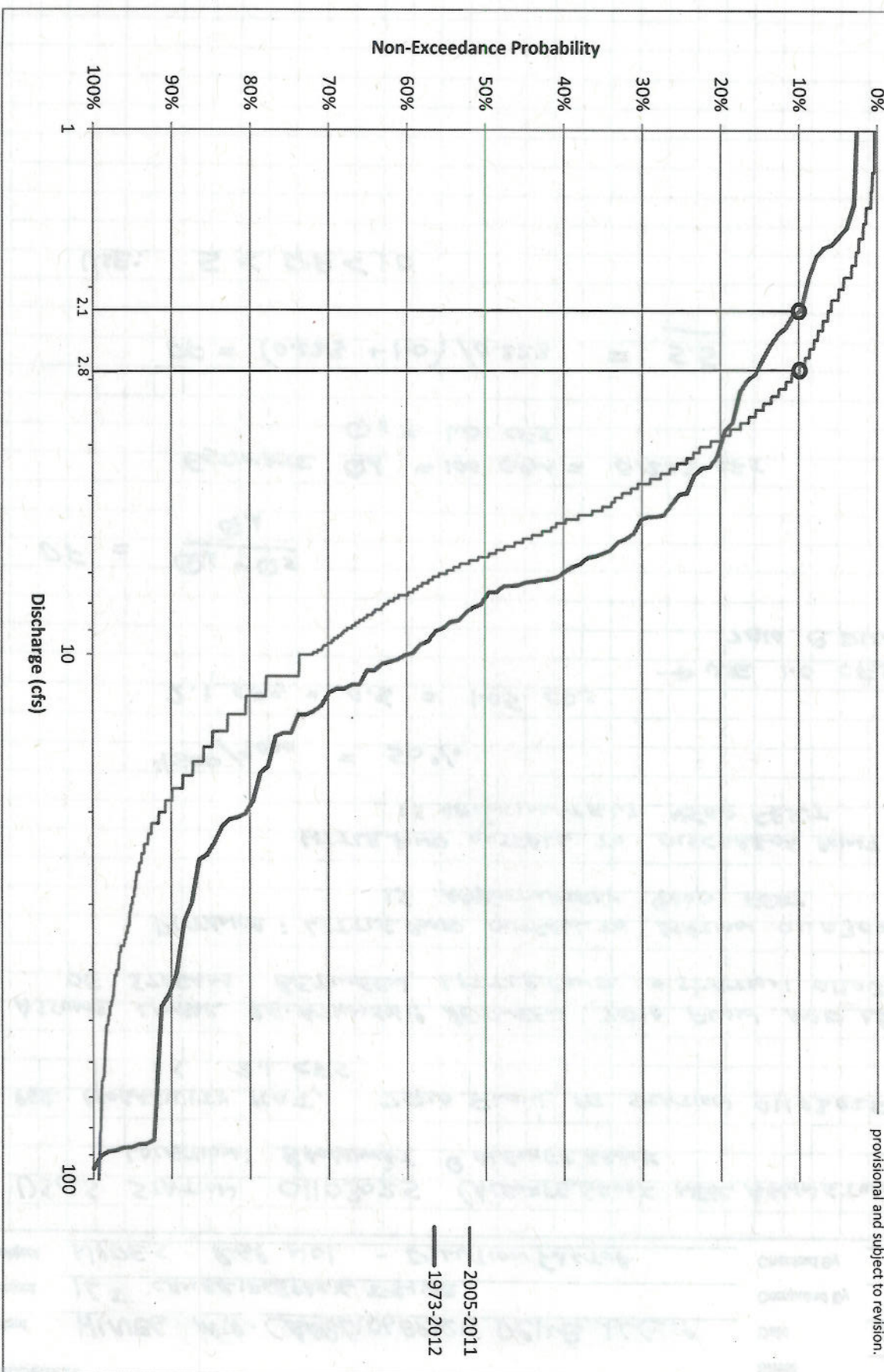
$$\text{ESTIMATE } Q_1 = 100 \text{ GPM} = 0.223 \text{ CFS} \\ Q_2 = 1.0 \text{ CFS}$$

$$DF = (0.223 + 1.0) / 0.223 = 5.5$$

USE: $5 < DF < 10$

Alewife Brook near Arlington, MA USGS 01103025

Data obtained from an automated U.S. Geological Survey database (<http://waterdata.usgs.gov/nwis>) on 20 September 2012. Data is provisional and subject to revision.



**NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM
REMEDIAL GENERAL PERMIT
165 CAMBRIDGE PARK DRIVE
CAMBRIDGE, MASSACHUSETTS**

Best Management Practices Plan

A Notice of Intent for a Remediation General Permit (RGP) under the National Pollutant Discharge Elimination System (NPDES) has been submitted to the US Environmental Protection Agency (EPA) in anticipation of temporary construction dewatering planned to occur at the 165 Cambridgepark Drive project site located in Cambridge, 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 effluent is anticipated to be pumped from well points installed in sump pits within the excavation, through hoses, and directly into a tank for sedimentation control. The effluent will then flow through any necessary treatment systems and discharge through hoses to the catch basin on site that discharges to outfall D45 which discharges into Alewife Brook. Dewatering effluent treatment may consist of bag filters, granular activated carbon (GAC), ion exchange, or precipitation, as required.

Discharge Monitoring and Compliance

Regular sampling and testing will be conducted at the influent to the system and the treated effluent as required by the RGP. This includes chemical testing required within the first 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
REMEDIAL GENERAL PERMIT
165 CAMBRIDGE PARK DRIVE
CAMBRIDGE, MASSACHUSETTS**

Miscellaneous Items

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

No adverse effects on designated uses of surrounding surface water bodies is anticipated. The nearest surface water body is the Alewife Brook, which is north of the project site. Dewatering effluent will be pumped to a sedimentation tank and bag filter, at a minimum, prior to discharge to the storm drains.

Management of Treatment System Materials

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

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

G:\38625\NPDES\Appendix B - BMPP\2013-0730-HAI-165 CPD BMPP-D.doc

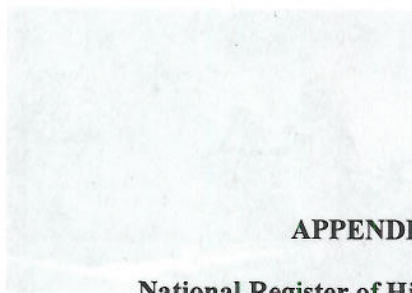
Massachusetts Historical Commission

William Francis Gavin, Secretary of the Commission

Massachusetts Cultural Resource Information System

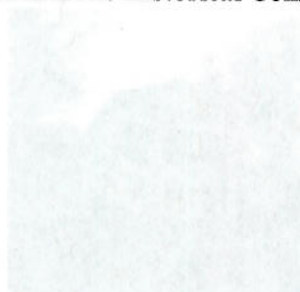
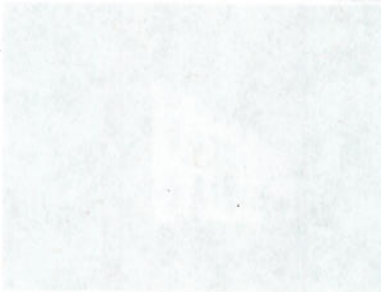
MAIRIS

MAIRIS is a web-based system that provides information on historic places and properties in the Commonwealth.



APPENDIX C

National Register of Historic Places and Massachusetts Historical Commission Documentation



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

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

Click here to learn more about the MAIRIS database.

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Massachusetts Historical Commission

William Francis Galvin, Secretary of the Commonwealth

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[MHC Home](#)

Massachusetts Cultural Resource Information System **MACRIS**

Scanned forms and photos now available for selected towns!

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

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

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



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



National Register of Historic Places



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Education & Interpretation

FULL RECORD DISPLAY

Current Record: 1 of 18 in NPS Digital Library

Go back to: [Title List](#) | [Revise Search](#)[Next Record](#)For advanced viewing install **DjVu browser plugin**.

1. Choose the option for Autoinstallation
2. takes about 20 seconds
3. About DjVu and plugin help

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[JPG](#) | [DjVu](#)[Begin DjVu install](#)For advanced viewing install **DjVu browser plugin**.

1. Choose the option for Autoinstallation
2. takes about 20 seconds
3. About DjVu and plugin help

Choose format:

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Harvard Houses Historic District [Image]

URL: <http://pdfhost.focus.nps.gov/docs/NRHP/Text/86002073.pdf>

Link will open in a new browser window

URL: <http://pdfhost.focus.nps.gov/docs/NRHP/Photos/86002073.pdf>

Link will open in a new browser window

Publisher: National Park Service

Published: 09/12/1986

Access: Public access

Restrictions: All Rights Reserved

Is Part Of: Cambridge MRA

Format/Size: Physical document with text, photos and map

Language: eng: English

Note: Roughly bounded by Mt. Auburn & Grant & Cowperwaite Sts., Banks St. & Putman Ave., the Memorial River, & Boyleston St.

Item No.: 86002073 NRIS (National Register Information System)

Subject: EVENT

Subject: ARCHITECTURE/ENGINEERING

Subject: ARCHITECTURE

Subject: EDUCATION

Subject: GEORGIAN
Subject: DISTRICT
Subject: 1925-1949
Subject: 1900-1924
Subject: 1875-1899
Subject: 1850-1874
Subject: 1750-1799
Keywords: Shepley,Rutan & Coolidge;Et al.
Place: MASSACHUSETTS -- Middlesex County -- Cambridge

Record Number: 404009

Record Owner: National Register of Historic Places

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Last updated: 01/28/13

73

Massachusetts Cultural Resource Information System

MACRIS

MACRIS Search Results

Search Criteria: Town(s): Cambridge; Street No: 165; Street Name: Cambridgepark Dr; Resource Type(s): Area, Building, Structure;

Inv. No.	Property Name	Street	Town	Year
----------	---------------	--------	------	------

165-001	165 Cambridgepark Dr	Cambridgepark Dr	Cambridge	1975
165-002	165 Cambridgepark Dr	Cambridgepark Dr	Cambridge	1975
165-003	165 Cambridgepark Dr	Cambridgepark Dr	Cambridge	1975
165-004	165 Cambridgepark Dr	Cambridgepark Dr	Cambridge	1975
165-005	165 Cambridgepark Dr	Cambridgepark Dr	Cambridge	1975
165-006	165 Cambridgepark Dr	Cambridgepark Dr	Cambridge	1975
165-007	165 Cambridgepark Dr	Cambridgepark Dr	Cambridge	1975
165-008	165 Cambridgepark Dr	Cambridgepark Dr	Cambridge	1975
165-009	165 Cambridgepark Dr	Cambridgepark Dr	Cambridge	1975
165-010	165 Cambridgepark Dr	Cambridgepark Dr	Cambridge	1975

Massachusetts Cultural Resource Information System

MACRIS

MACRIS Search Results

Search Criteria: Town(s): Cambridge; Place: Fresh Pond; Resource Type(s): Area, Building, Burial Ground, Object, Structure;

Inv. No.	Property Name	Street	Town	Year
CAM.AL	Fresh Pond		Cambridge	
CAM.AS	Metropolitan Park System of Greater Boston		Cambridge	
CAM.AX	Fresh Pond Parkway		Cambridge	
CAM.1365	Cambridge Home for the Aged and Infirm	650 Concord Ave	Cambridge	1928
CAM.919	Fresh Pond Lane over B & M Railroad	Fresh Pond Ln	Cambridge	1926
CAM.9014	Fresh Pond Parkway	Fresh Pond Pkwy	Cambridge	1899
CAM.9015	Fresh Pond Parkway - Concord Avenue Rotary Islands	Fresh Pond Pkwy	Cambridge	1928
CAM.904	Huron Avenue Bridge over B & M Railroad	Huron Ave	Cambridge	1892

NPS.GOV

search

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RegisterSearch
nps.gov

go

National Park Service
U.S. Department of the Interior

NATIONAL REGISTER OF HISTORIC PLACES

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

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[DATABASE/ RESEARCH](#)
[NR DATABASE](#)
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[WHAT'S NEW](#)
[FREQUENTLY ASKED
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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:
National Register of Historic Places
National Park Service
1839 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



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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Endangered Species Act Documentation

Documentation

MASSACHUSETTS AREAS OF CRITICAL ENVIRONMENTAL CONCERN

November 2010

Total Approximate Acreage: 268,000 acres

Approximate acreage and designation date follow ACEC names below.

Bourne Back River

(1,850 acres, 1989) Bourne

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

Cedar Swamp

(1,650 acres, 1975) Hopkinton and Westborough

Central Nashua River Valley

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

Cranberry Brook Watershed

(1,050 acres, 1983) Braintree and Holbrook

Ellisville Harbor

(600 acres, 1980) Plymouth

Fowl Meadow and Ponkapoag Bog

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

Golden Hills

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

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

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

Herring River Watershed

(4,450 acres, 1991) Bourne and Plymouth

Hinsdale Flats Watershed

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

Hockomock Swamp

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

Inner Cape Cod Bay

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

Kampoosa Bog Drainage Basin

(1,350 acres, 1995) Lee and Stockbridge

Karner Brook Watershed

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

Miscoe, Warren, and Whitehall Watersheds

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

Neponset River Estuary

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

Petapawag

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

Pleasant Bay

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

Pocasset River

(160 acres, 1980) Bourne

Rumney Marshes

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

Sandy Neck Barrier Beach System

(9,130 acres, 1978) Barnstable and Sandwich

Schenob Brook Drainage Basin

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

Squannassit

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

Three Mile River Watershed

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

Upper Housatonic River

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

Waquoit Bay

(2,580 acres, 1979) Falmouth and Mashpee

Weir River

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

Wellfleet Harbor

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

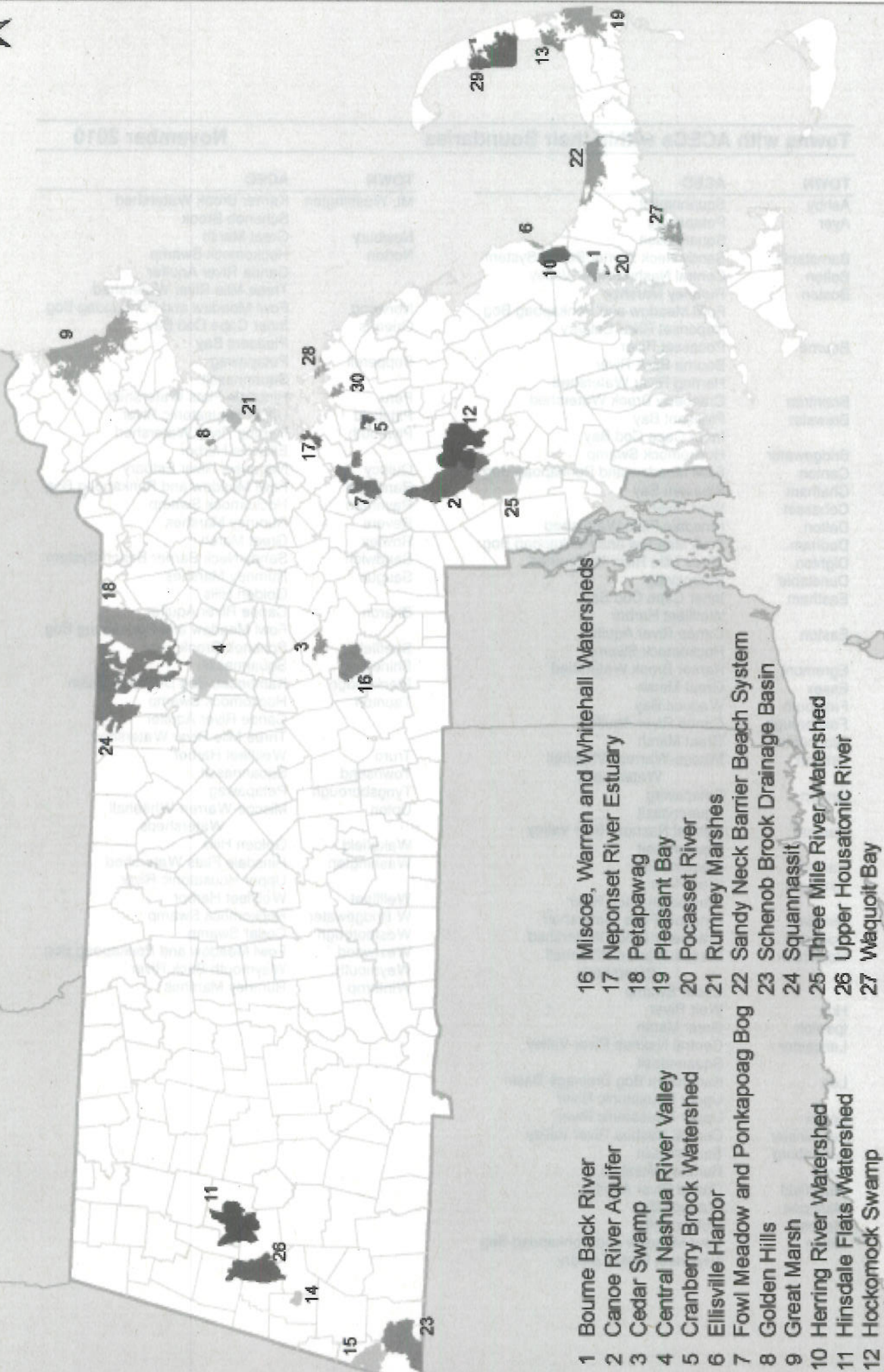
Weymouth Back River

(800 acres, 1982) Hingham and Weymouth

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

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		

Massachusetts Areas of Critical Environmental Concern (ACECs)



- | | |
|---------------------------------|--|
| 1 Borne 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 Kamposa Bog Drainage Basin | 29 Wellfleet Harbor |
| 15 Kame Brook Watershed | 30 Weymouth Back River |

PERMIT TO DRAIN WATER



City of Cambridge

City of Cambridge, Massachusetts

City of Cambridge



City of Cambridge

City of Cambridge

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APPENDIX E

City of Cambridge Dewatering Permit Application

City of Cambridge

City of Cambridge

City of Cambridge

City of Cambridge

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City of Cambridge



PERMIT TO DEWATER

Location: 165 Cambridgepark Drive, Cambridge MA 02140
Owner: Hines
Contractor: Callahan Inc.

Temporary



Permanent



The property owner, Hines agrees to hold harmless and indemnify the City of Cambridge for any liability on the part of the City directly or indirectly arising out of the dewatering operation.

The issuance of this permit is based in part in the submission packet of the applicant with documentation as follows:



In addition, the application has been reviewed by the City under third party agreement as documented in the following reports:



All activities conducted in conjunction with the issuance of this permit must be in accordance with the provisions of the aforementioned reports. Any deviations in conditions must be reported to and approved by the Commissioner of Public Works.

This permit is in addition to any other street permit issued by the Department in connection with any street excavation or obstruction; and all conditions as specified in the Discharge Permit for Dewatering.

For the entire period of time the groundwater is being discharged to a storm drain, the property owner shall provide copies of each Discharge Monitoring Report Form submitted to the EPA, pursuant to the owner's discharge permit.

If in the future the EPA requires the City of Cambridge to bring existing stormwater drainage into compliance with EPA quality standards, as a condition to the continuation of discharge of that stormwater (also including groundwater) into an EPA regulated system into which the Hines (property owner) drains, the owner will agree to maintain its water discharge with such EPA water quality standards.

The property owner and contractor shall at all times meet the conditions specified in the requisite legal agreement/affidavits.

All groundwater pumped from the work shall be disposed of without damage to pavements, other surfaces or property.

Where material or debris has washed or flowed into or has been placed in existing gutters, drains, pipes or structures, such material or debris shall be entirely removed and satisfactorily disposed of by the

Contractor during the progress of work as directed by the Public Works Department.

Any flooding or damage of property and possessions caused by siltation of existing gutters, pipes or structures shall be the responsibility of the Contractor.

Provisions shall be made to insure that no material, water or solid, will freeze on any pavement or in any location which will cause inconvenience or hazard to the general public.

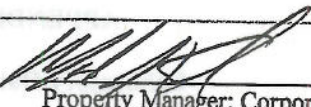
Upon completion of the work, existing gutters, drains, pipes and structures shall be (bucket) cleaned and material disposed of satisfactorily prior to release by the Public Works Department.

Any permit issued by the City of Cambridge shall be revoked upon transfer of any ownership interest unless and until subsequent owner(s) or parties of interest agree to the foregoing terms.

This permit shall remain in effect for one year and shall be renewable thereafter at the agreement of the parties.

The following special conditions as set forth below are part of the permit.

City Manager



Property Manager: Corporate Entity
President, General Partner or Trustee
Trustee with Instrument of Authority

Date

8/12/13

Date

City Solicitor



Contractor

Date

8/12/13

Date

Commissioner of Public

Contractor

Date

Date

CC: Engineering
Supervisor of Sewer Maintenance and Engineering
Superintendent of Streets
Commissioner of Inspectional Services

...the project is to be carried out by the Public Works Department.

Any liability or damage to property and possession caused by the use of the project, or any other cause, shall be the responsibility of the contractor.

Provision shall be made to ensure that no material, water or solid, will be used in any way which is in violation of the laws of the Commonwealth of Massachusetts or to the general public.

Upon completion of the work, existing rights, claims, pipes and structures shall be returned to the original owner, and the contractor shall be responsible for the return of the same.

Any amount paid by the City of Cambridge shall be subject to the terms of any contract between the City and the contractor, and shall be subject to the terms of the contract.

The project shall remain in effect for one year and shall be subject to the terms of the contract of the project.

The following special conditions shall apply to the project:



APPENDIX F

Laboratory Data Reports

Project Manager	
Project Engineer	
Project Surveyor	
Project Inspector	
Project Assistant	
Project Clerk	
Project Driver	
Project Operator	
Project Maintainer	
Project Repairer	

...the project is to be carried out by the Public Works Department.



ANALYTICAL REPORT

Lab Number: L1313186

Client: Haley & Aldrich, Inc.
465 Medford Street, Suite 2200
Charlestown, MA 02129-1400

ATTN: Brad Aldinger
Phone: (617) 886-7532

Project Name: 165 CAMBRIDGE PARK DRIVE

Project Number: 38625-021

Report Date: 07/21/13

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: 165 CAMBRIDGE PARK DRIVE
Project Number: 38625-021

Lab Number: L1313186
Report Date: 07/21/13

Alpha Sample ID	Client ID	Sample Location	Collection Date/Time
L1313186-01	HA12-08(OW)-NPDES	Not Specified	07/15/13 13:30

Project Name: 165 CAMBRIDGE PARK DRIVE**Lab Number:** L1313186**Project Number:** 38625-021**Report Date:** 07/21/13

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: 165 CAMBRIDGE PARK DRIVE
Project Number: 38625-021

Lab Number: L1313186
Report Date: 07/21/13

Case Narrative (continued)

Sample Receipt

The analysis of Total Residual Chlorine was performed with the method required holding time exceeded at the client's request.

Total Metals

The WG621820-4 MS recovery for Iron (0%), performed on L1313186-01 (HA12-08(OW)-NPDES), does not apply because the sample concentration is greater than four times the spike amount added.

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:

 Cynthia McQueen

Title: Technical Director/Representative

Date: 07/21/13

ORGANICS

VOLATILES

Project Name: 165 CAMBRIDGE PARK DRIVE

Lab Number: L1313186

Project Number: 38625-021

Report Date: 07/21/13

SAMPLE RESULTS

Lab ID: L1313186-01
 Client ID: HA12-08(OW)-NPDES
 Sample Location: Not Specified
 Matrix: Water
 Analytical Method: 1,8260C
 Analytical Date: 07/19/13 07:27
 Analyst: MM

Date Collected: 07/15/13 13:30
 Date Received: 07/15/13
 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	ND		ug/l	0.50	--	1
Toluene	ND		ug/l	0.75	--	1
Ethylbenzene	ND		ug/l	0.50	--	1
Chloromethane	ND		ug/l	2.5	--	1
Bromomethane	ND		ug/l	1.0	--	1
Vinyl chloride	ND		ug/l	1.0	--	1
Chloroethane	ND		ug/l	1.0	--	1
1,1-Dichloroethene	ND		ug/l	0.50	--	1
trans-1,2-Dichloroethene	ND		ug/l	0.75	--	1
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: 165 CAMBRIDGE PARK DRIVE

Lab Number: L1313186

Project Number: 38625-021

Report Date: 07/21/13

SAMPLE RESULTS

Lab ID: L1313186-01

Date Collected: 07/15/13 13:30

Client ID: HA12-08(OW)-NPDES

Date Received: 07/15/13

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	ND		ug/l	1.0	--	1
o-Xylene	ND		ug/l	1.0	--	1
Xylenes, Total	ND		ug/l	1.0	--	1
cis-1,2-Dichloroethene	ND		ug/l	0.50	--	1
Dibromomethane	ND		ug/l	5.0	--	1
1,4-Dichlorobutane	ND		ug/l	5.0	--	1
1,2,3-Trichloropropane	ND		ug/l	5.0	--	1
Styrene	ND		ug/l	1.0	--	1
Dichlorodifluoromethane	ND		ug/l	5.0	--	1
Acetone	ND		ug/l	5.0	--	1
Carbon disulfide	ND		ug/l	5.0	--	1
2-Butanone	ND		ug/l	5.0	--	1
Vinyl acetate	ND		ug/l	5.0	--	1
4-Methyl-2-pentanone	ND		ug/l	5.0	--	1
2-Hexanone	ND		ug/l	5.0	--	1
Ethyl methacrylate	ND		ug/l	5.0	--	1
Acrylonitrile	ND		ug/l	5.0	--	1
Bromochloromethane	ND		ug/l	2.5	--	1
Tetrahydrofuran	ND		ug/l	5.0	--	1
2,2-Dichloropropane	ND		ug/l	2.5	--	1
1,2-Dibromoethane	ND		ug/l	2.0	--	1
1,3-Dichloropropane	ND		ug/l	2.5	--	1
1,1,1,2-Tetrachloroethane	ND		ug/l	0.50	--	1
Bromobenzene	ND		ug/l	2.5	--	1
n-Butylbenzene	ND		ug/l	0.50	--	1
sec-Butylbenzene	ND		ug/l	0.50	--	1
tert-Butylbenzene	ND		ug/l	2.5	--	1
o-Chlorotoluene	ND		ug/l	2.5	--	1
p-Chlorotoluene	ND		ug/l	2.5	--	1
1,2-Dibromo-3-chloropropane	ND		ug/l	2.5	--	1
Hexachlorobutadiene	ND		ug/l	0.50	--	1
Isopropylbenzene	ND		ug/l	0.50	--	1
p-Isopropyltoluene	ND		ug/l	0.50	--	1
Naphthalene	ND		ug/l	2.5	--	1
n-Propylbenzene	ND		ug/l	0.50	--	1
1,2,3-Trichlorobenzene	ND		ug/l	2.5	--	1
1,2,4-Trichlorobenzene	ND		ug/l	2.5	--	1
1,3,5-Trimethylbenzene	ND		ug/l	2.5	--	1

Project Name: 165 CAMBRIDGE PARK DRIVE

Lab Number: L1313186

Project Number: 38625-021

Report Date: 07/21/13

SAMPLE RESULTS

Lab ID: L1313186-01

Date Collected: 07/15/13 13:30

Client ID: HA12-08(OW)-NPDES

Date Received: 07/15/13

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

1,2,4-Trimethylbenzene	ND		ug/l	2.5	--	1
trans-1,4-Dichloro-2-butene	ND		ug/l	2.5	--	1
Ethyl ether	ND		ug/l	2.5	--	1
Tert-Butyl Alcohol	ND		ug/l	10	--	1
Tertiary-Amyl Methyl Ether	ND		ug/l	2.0	--	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	102		70-130
Toluene-d8	103		70-130
4-Bromofluorobenzene	103		70-130
Dibromofluoromethane	97		70-130

Project Name: 165 CAMBRIDGE PARK DRIVE

Lab Number: L1313186

Project Number: 38625-021

Report Date: 07/21/13

SAMPLE RESULTS

Lab ID: L1313186-01
Client ID: HA12-08(OW)-NPDES
Sample Location: Not Specified
Matrix: Water
Analytical Method: 1,8260C-SIM(M)
Analytical Date: 07/19/13 07:27
Analyst: MM

Date Collected: 07/15/13 13:30
Date Received: 07/15/13
Field Prep: Not Specified

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

Project Name: 165 CAMBRIDGE PARK DRIVE**Lab Number:** L1313186**Project Number:** 38625-021**Report Date:** 07/21/13**SAMPLE RESULTS****Lab ID:** L1313186-01**Date Collected:** 07/15/13 13:30**Client ID:** HA12-08(OW)-NPDES**Date Received:** 07/15/13**Sample Location:** Not Specified**Field Prep:** Not Specified**Matrix:** Water**Extraction Date:** 07/17/13 08:30**Analytical Method:** 14,504.1**Analytical Date:** 07/17/13 21:35**Analyst:** SR

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

Project Name: 165 CAMBRIDGE PARK DRIVE

Lab Number: L1313186

Project Number: 38625-021

Report Date: 07/21/13

Method Blank Analysis
Batch Quality Control

Analytical Method: 14,504.1

Analytical Date: 07/17/13 20:47

Analyst: SR

Extraction Date: 07/17/13 08:30

Parameter	Result	Qualifier	Units	RL	MDL
Microextractables by GC - Westborough Lab for sample(s): 01 Batch: WG622131-1					
1,2-Dibromoethane	ND		ug/l	0.010	--
1,2-Dibromo-3-chloropropane	ND		ug/l	0.010	--

Lab Number: L1313186

Report Date: 07/21/13

Batch Quality Control

Parameter	Result	Qualifier	Units	RL	MDL
Volatile Organics by GC/MS-SIM - Westborough Lab for sample(s): 01 Batch: WG622796-3					
1,4-Dioxane	ND		ug/l	3.0	--

Project Name: 165 CAMBRIDGE PARK DRIVE

Lab Number: L1313186

Project Number: 38625-021

Report Date: 07/21/13

Method Blank Analysis

Batch Quality Control

Analytical Method: 1,8260C
 Analytical Date: 07/19/13 06:22
 Analyst: MM

Parameter	Result	Qualifier	Units	RL	MDL
Volatile Organics by GC/MS - Westborough Lab for sample(s): 01 Batch: WG622797-3					
Methylene chloride	ND		ug/l	3.0	--
1,1-Dichloroethane	ND		ug/l	0.75	--
Chloroform	ND		ug/l	0.75	--
Carbon tetrachloride	ND		ug/l	0.50	--
1,2-Dichloropropane	ND		ug/l	1.8	--
Dibromochloromethane	ND		ug/l	0.50	--
1,1,2-Trichloroethane	ND		ug/l	0.75	--
2-Chloroethylvinyl ether	ND		ug/l	10	--
Tetrachloroethene	ND		ug/l	0.50	--
Chlorobenzene	ND		ug/l	0.50	--
Trichlorofluoromethane	ND		ug/l	2.5	--
1,2-Dichloroethane	ND		ug/l	0.50	--
1,1,1-Trichloroethane	ND		ug/l	0.50	--
Bromodichloromethane	ND		ug/l	0.50	--
trans-1,3-Dichloropropene	ND		ug/l	0.50	--
cis-1,3-Dichloropropene	ND		ug/l	0.50	--
1,1-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	--



Project Name: 165 CAMBRIDGE PARK DRIVE

Lab Number: L1313186

Project Number: 38625-021

Report Date: 07/21/13

Method Blank Analysis Batch Quality Control

Analytical Method: 1,8260C

Analytical Date: 07/19/13 06:22

Analyst: MM

Parameter	Result	Qualifier	Units	RL	MDL
Volatile Organics by GC/MS - Westborough Lab for sample(s): 01 Batch: WG622797-3					
1,4-Dichlorobenzene	ND		ug/l	2.5	--
Methyl tert butyl ether	ND		ug/l	1.0	--
p/m-Xylene	ND		ug/l	1.0	--
o-Xylene	ND		ug/l	1.0	--
Xylenes, Total	ND		ug/l	1.0	--
cis-1,2-Dichloroethene	ND		ug/l	0.50	--
Dibromomethane	ND		ug/l	5.0	--
1,4-Dichlorobutane	ND		ug/l	5.0	--
1,2,3-Trichloropropane	ND		ug/l	5.0	--
Styrene	ND		ug/l	1.0	--
Dichlorodifluoromethane	ND		ug/l	5.0	--
Acetone	ND		ug/l	5.0	--
Carbon disulfide	ND		ug/l	5.0	--
2-Butanone	ND		ug/l	5.0	--
Vinyl acetate	ND		ug/l	5.0	--
4-Methyl-2-pentanone	ND		ug/l	5.0	--
2-Hexanone	ND		ug/l	5.0	--
Ethyl methacrylate	ND		ug/l	5.0	--
Acrylonitrile	ND		ug/l	5.0	--
Bromochloromethane	ND		ug/l	2.5	--
Tetrahydrofuran	ND		ug/l	5.0	--
2,2-Dichloropropane	ND		ug/l	2.5	--
1,2-Dibromoethane	ND		ug/l	2.0	--
1,3-Dichloropropane	ND		ug/l	2.5	--
1,1,1,2-Tetrachloroethane	ND		ug/l	0.50	--
Bromobenzene	ND		ug/l	2.5	--
n-Butylbenzene	ND		ug/l	0.50	--
sec-Butylbenzene	ND		ug/l	0.50	--
tert-Butylbenzene	ND		ug/l	2.5	--
o-Chlorotoluene	ND		ug/l	2.5	--
p-Chlorotoluene	ND		ug/l	2.5	--

Project Name: 165 CAMBRIDGE PARK DRIVE

Lab Number: L1313186

Project Number: 38625-021

Report Date: 07/21/13

Method Blank Analysis Batch Quality Control

Analytical Method: 1,8260C
 Analytical Date: 07/19/13 06:22
 Analyst: MM

Parameter	Result	Qualifier	Units	RL	MDL
Volatile Organics by GC/MS - Westborough Lab for sample(s): 01 Batch: WG622797-3					
1,2-Dibromo-3-chloropropane	ND		ug/l	2.5	--
Hexachlorobutadiene	ND		ug/l	0.50	--
Isopropylbenzene	ND		ug/l	0.50	--
p-Isopropyltoluene	ND		ug/l	0.50	--
Naphthalene	ND		ug/l	2.5	--
n-Propylbenzene	ND		ug/l	0.50	--
1,2,3-Trichlorobenzene	ND		ug/l	2.5	--
1,2,4-Trichlorobenzene	ND		ug/l	2.5	--
1,3,5-Trimethylbenzene	ND		ug/l	2.5	--
1,3,5-Trichlorobenzene	ND		ug/l	2.0	--
1,2,4-Trimethylbenzene	ND		ug/l	2.5	--
trans-1,4-Dichloro-2-butene	ND		ug/l	2.5	--
Ethyl ether	ND		ug/l	2.5	--
Methyl Acetate	ND		ug/l	10	--
Ethyl Acetate	ND		ug/l	10	--
Isopropyl Ether	ND		ug/l	2.0	--
Cyclohexane	ND		ug/l	10	--
Tert-Butyl Alcohol	ND		ug/l	10	--
Ethyl-Tert-Butyl-Ether	ND		ug/l	2.0	--
Tertiary-Amyl Methyl Ether	ND		ug/l	2.0	--
1,1,2-Trichloro-1,2,2-Trifluoroethane	ND		ug/l	10	--
Methyl cyclohexane	ND		ug/l	10	--
p-Diethylbenzene	ND		ug/l	2.0	--
4-Ethyltoluene	ND		ug/l	2.0	--
1,2,4,5-Tetramethylbenzene	ND		ug/l	2.0	--

Project Name: 165 CAMBRIDGE PARK DRIVE

Lab Number: L1313186

Project Number: 38625-021

Report Date: 07/21/13

Method Blank Analysis
Batch Quality Control

Analytical Method: 1,8260C

Analytical Date: 07/19/13 06:22

Analyst: MM

Parameter	Result	Qualifier	Units	RL	MDL
Volatile Organics by GC/MS - Westborough Lab for sample(s): 01 Batch: WG622797-3					

Surrogate	%Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	100		70-130
Toluene-d8	102		70-130
4-Bromofluorobenzene	104		70-130
Dibromofluoromethane	95		70-130

Lab Control Sample Analysis
Batch Quality Control

Project Name: 165 CAMBRIDGE PARK DRIVE
Project Number: 38625-021

Lab Number: L1313186
Report Date: 07/21/13

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Microextractables by GC - Westborough Lab Associated sample(s): 01 Batch: WG622131-2								
1,2-Dibromoethane	118		-		70-130	-		20
1,2-Dibromo-3-chloropropane	114		-		70-130	-		20

Volatile Organics by GC/MS-SIM - Westborough Lab Associated sample(s): 01 Batch: WG622796-1 WG622796-2

1,4-Dioxane	81		84		70-130	4		25
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Lab Control Sample Analysis

Batch Quality Control

Project Name: 165 CAMBRIDGE PARK DRIVE

Project Number: 38625-021

Lab Number: L1313186

Report Date: 07/21/13

Parameter	LCS		LCSD		%Recovery		RPD	Qual	RPD Limits
	%Recovery	Qual	%Recovery	Qual	%Recovery	Limits			
Volatile Organics by GC/MS - Westborough Lab Associated sample(s): 01 Batch: WG622797-1 WG622797-2									
Methylene chloride	100		103			70-130	3		20
1,1-Dichloroethane	94		95			70-130	1		20
Chloroform	96		98			70-130	2		20
Carbon tetrachloride	84		88			63-132	5		20
1,2-Dichloropropane	96		99			70-130	3		20
Dibromochloromethane	86		89			63-130	3		20
1,1,2-Trichloroethane	101		102			70-130	1		20
2-Chloroethylvinyl ether	75		72			70-130	4		20
Tetrachloroethene	86		87			70-130	1		20
Chlorobenzene	94		95			75-130	1		25
Trichlorofluoromethane	91		93			62-150	2		20
1,2-Dichloroethane	102		106			70-130	4		20
1,1,1-Trichloroethane	89		91			67-130	2		20
Bromodichloromethane	90		92			67-130	2		20
trans-1,3-Dichloropropene	89		91			70-130	2		20
cis-1,3-Dichloropropene	90		93			70-130	3		20
1,1-Dichloropropene	89		91			70-130	2		20
Bromoform	80		81			54-136	1		20
1,1,2,2-Tetrachloroethane	97		99			67-130	2		20
Benzene	97		100			70-130	3		25
Toluene	94		92			70-130	2		25

Lab Control Sample Analysis

Batch Quality Control

Project Name: 165 CAMBRIDGE PARK DRIVE
Project Number: 38625-021

Lab Number: L1313186
Report Date: 07/21/13

Parameter	LCS		LCSD		%Recovery		Limits		RPD	Qual	RPD Limits
	%Recovery	Qual	%Recovery	Qual	%Recovery	Qual	%Recovery	Qual			
Volatile Organics by GC/MS - Westborough Lab Associated sample(s): 01 Batch: WG622797-1 WG622797-2											
Ethylbenzene	92		91		70-130		1				20
Chloromethane	87		87		64-130		0				20
Bromomethane	79		89		39-139		12				20
Vinyl chloride	90		91		55-140		1				20
Chloroethane	92		93		55-138		1				20
1,1-Dichloroethene	95		96		61-145		1				25
trans-1,2-Dichloroethene	94		98		70-130		4				20
Trichloroethene	92		94		70-130		2				25
1,2-Dichlorobenzene	95		95		70-130		0				20
1,3-Dichlorobenzene	91		95		70-130		4				20
1,4-Dichlorobenzene	92		94		70-130		2				20
Methyl tert butyl ether	100		103		63-130		3				20
p/m-Xylene	93		93		70-130		0				20
o-Xylene	96		97		70-130		1				20
cis-1,2-Dichloroethene	98		100		70-130		2				20
Dibromomethane	103		103		70-130		0				20
1,4-Dichlorobutane	88		89		70-130		1				20
1,2,3-Trichloropropane	96		98		64-130		2				20
Styrene	98		96		70-130		2				20
Dichlorodifluoromethane	97		98		36-147		1				20
Acetone	92		95		58-148		3				20

Lab Number: L1313186

Report Date: 07/21/13

Parameter	LCS		LCSD		%Recovery		RPD Limits
	%Recovery	Qual	%Recovery	Qual	%Recovery	Qual	
Volatile Organics by GC/MS - Westborough Lab Associated sample(s): 01 Batch: WG622797-1 WG622797-2							
Carbon disulfide	77		81		51-130	5	20
2-Butanone	112		113		63-138	1	20
Vinyl acetate	97		99		70-130	2	20
4-Methyl-2-pentanone	104		106		59-130	2	20
2-Hexanone	99		96		57-130	3	20
Ethyl methacrylate	97		98		70-130	1	20
Acrylonitrile	102		112		70-130	9	20
Bromochloromethane	103		107		70-130	4	20
Tetrahydrofuran	107		115		58-130	7	20
2,2-Dichloropropane	85		90		63-133	6	20
1,2-Dibromoethane	100		96		70-130	4	20
1,3-Dichloropropane	99		101		70-130	2	20
1,1,1,2-Tetrachloroethane	95		96		64-130	1	20
Bromobenzene	88		92		70-130	4	20
n-Butylbenzene	81		78		53-136	4	20
sec-Butylbenzene	79		81		70-130	3	20
tert-Butylbenzene	82		83		70-130	1	20
o-Chlorotoluene	85		87		70-130	2	20
p-Chlorotoluene	89		89		70-130	0	20
1,2-Dibromo-3-chloropropane	82		92		41-144	11	20
Hexachlorobutadiene	77		76		63-130	1	20

Project Name: 165 CAMBRIDGE PARK DRIVE
Project Number: 38625-021

Lab Number: L1313186
Report Date: 07/21/13

Parameter	LCS		LCSD		%Recovery		RPD	Qual	RPD Limits
	%Recovery	Qual	%Recovery	Qual	%Recovery	Limits			
Volatile Organics by GC/MS - Westborough Lab Associated sample(s): 01 Batch: WG622797-1 WG622797-2									
Isopropylbenzene	82		82		70-130		0		20
p-Isopropyltoluene	82		84		70-130		2		20
Naphthalene	92		95		70-130		3		20
n-Propylbenzene	82		83		69-130		1		20
1,2,3-Trichlorobenzene	92		97		70-130		5		20
1,2,4-Trichlorobenzene	83		85		70-130		2		20
1,3,5-Trimethylbenzene	84		84		64-130		0		20
1,3,5-Trichlorobenzene	84		83		70-130		1		20
1,2,4-Trimethylbenzene	86		87		70-130		1		20
trans-1,4-Dichloro-2-butene	79		84		70-130		6		20
Ethyl ether	107		106		59-134		1		20
Methyl Acetate	112		112		70-130		0		20
Ethyl Acetate	106		110		70-130		4		20
Isopropyl Ether	96		98		70-130		2		20
Cyclohexane	80		82		70-130		2		20
Tert-Butyl Alcohol	137	Q	157	Q	70-130		14		20
Ethyl-Ter-Butyl-Ether	98		98		70-130		0		20
Tertiary-Amyl Methyl Ether	100		102		66-130		2		20
1,1,2-Trichloro-1,2,2-Trifluoroethane	89		92		70-130		3		20
Methyl cyclohexane	71		72		70-130		1		20
p-Diethylbenzene	82		82		70-130		0		20

Lab Control Sample Analysis

Project Name: 165 CAMBRIDGE PARK DRIVE
Project Number: 38625-021

Lab Number: L1313186
Report Date: 07/21/13

Parameter	LCS		LCSD		%Recovery		RPD Limits		RPD		Qual		RPD Limits	
	%Recovery	Qual	%Recovery	Qual	%Recovery	Qual	%Recovery	Qual	%Recovery	Qual	%Recovery	Qual	%Recovery	Qual
4-Ethyltoluene	85		85		70-130		0		20					
1,2,4,5-Tetramethylbenzene	80		82		70-130		2		20					

Volatile Organics by GC/MS - Westborough Lab Associated sample(s): 01 Batch: WG622797-1 WG622797-2

Surrogate	LCS		LCSD		Acceptance Criteria	
	%Recovery	Qual	%Recovery	Qual	%Recovery	Qual
1,2-Dichloroethane-d4	101		100		70-130	
Toluene-d8	99		99		70-130	
4-Bromofluorobenzene	92		91		70-130	
Dibromofluoromethane	100		101		70-130	

Matrix Spike Analysis

Batch Quality Control

Project Name: 165 CAMBRIDGE PARK DRIVE
Project Number: 38625-021

Lab Number: L1313186
Report Date: 07/21/13

Parameter	Native Sample	MS Added	MS Found	MS %Recovery	MSD Found	MSD %Recovery	MSD Qual	Recovery Limits	RPD Qual	RPD Limits
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Microextractables by GC - Westborough Lab Associated sample(s): 01 QC Batch ID: WG622131-3 QC Sample: L1313186-01 Client ID: HA12-08(OW)-NPDES

1,2-Dibromoethane	ND	0.252	0.288	114	-	-	-	70-130	-	20
1,2-Dibromo-3-chloropropane	ND	0.252	0.265	105	-	-	-	70-130	-	20

SAMPLE RESULTS

Date Collected: 07/21/13
Date Reported: 07/21/13
Field Pres: Not Specified
Extraction Method: EPA 8210C
Extraction Date: 07/18/13 08:28

Lab ID: 13/12/18-01
Client ID: HAT-08/OWH-0022
Sample Location: Not Specified
Matrix: Water
Analytical Method: 18210C
Analysis Date: 07/20/13 15:44
Analyst: RCL

SEMIVOLATILES

Parameter	Result	Unit	MDL	Original Factor
Acetone	ND	ug/L	1.0	1.0
1,2-Dichloroethane	ND	ug/L	1.0	1.0
2,4-Dichlorophenol	ND	ug/L	1.0	1.0
2,6-Dichlorophenol	ND	ug/L	1.0	1.0
1,1-Dichloroethene	ND	ug/L	1.0	1.0
1,2-Dichlorobenzene	ND	ug/L	1.0	1.0
1,1-Dibromochloroethane	ND	ug/L	1.0	1.0
1,1-Dibromochloroethene	ND	ug/L	1.0	1.0
1,1-Dibromodichloroethane	ND	ug/L	1.0	1.0
1,1-Dibromodichloroethene	ND	ug/L	1.0	1.0
1,1-Dibromo-2,2-dichloroethane	ND	ug/L	1.0	1.0
1,1-Dibromo-2,2-dichloroethene	ND	ug/L	1.0	1.0
1,1-Dibromo-2,2,2-trichloroethane	ND	ug/L	1.0	1.0
1,1-Dibromo-2,2,2-trichloroethene	ND	ug/L	1.0	1.0
1,1-Dibromo-2,2,3-trichloroethane	ND	ug/L	1.0	1.0
1,1-Dibromo-2,2,3-trichloroethene	ND	ug/L	1.0	1.0
1,1-Dibromo-2,2,3,3-tetrachloroethane	ND	ug/L	1.0	1.0
1,1-Dibromo-2,2,3,3-tetrachloroethene	ND	ug/L	1.0	1.0
1,1-Dibromo-2,2,3,3,3-pentachloroethane	ND	ug/L	1.0	1.0
1,1-Dibromo-2,2,3,3,3-pentachloroethene	ND	ug/L	1.0	1.0
1,1-Dibromo-2,2,3,3,3,3-hexachloroethane	ND	ug/L	1.0	1.0
1,1-Dibromo-2,2,3,3,3,3-hexachloroethene	ND	ug/L	1.0	1.0
1,1-Dibromo-2,2,3,3,3,3,3-heptachloroethane	ND	ug/L	1.0	1.0
1,1-Dibromo-2,2,3,3,3,3,3-heptachloroethene	ND	ug/L	1.0	1.0
1,1-Dibromo-2,2,3,3,3,3,3,3-octachloroethane	ND	ug/L	1.0	1.0
1,1-Dibromo-2,2,3,3,3,3,3,3-octachloroethene	ND	ug/L	1.0	1.0
1,1-Dibromo-2,2,3,3,3,3,3,3,3-nonachloroethane	ND	ug/L	1.0	1.0
1,1-Dibromo-2,2,3,3,3,3,3,3,3-nonachloroethene	ND	ug/L	1.0	1.0
1,1-Dibromo-2,2,3,3,3,3,3,3,3,3-decachloroethane	ND	ug/L	1.0	1.0
1,1-Dibromo-2,2,3,3,3,3,3,3,3,3-decachloroethene	ND	ug/L	1.0	1.0
1,1-Dibromo-2,2,3,3,3,3,3,3,3,3,3-undecachloroethane	ND	ug/L	1.0	1.0
1,1-Dibromo-2,2,3,3,3,3,3,3,3,3,3-undecachloroethene	ND	ug/L	1.0	1.0
1,1-Dibromo-2,2,3,3,3,3,3,3,3,3,3,3-dodecachloroethane	ND	ug/L	1.0	1.0
1,1-Dibromo-2,2,3,3,3,3,3,3,3,3,3,3-dodecachloroethene	ND	ug/L	1.0	1.0
1,1-Dibromo-2,2,3,3,3,3,3,3,3,3,3,3,3-tridecachloroethane	ND	ug/L	1.0	1.0
1,1-Dibromo-2,2,3,3,3,3,3,3,3,3,3,3,3-tridecachloroethene	ND	ug/L	1.0	1.0
1,1-Dibromo-2,2,3,3,3,3,3,3,3,3,3,3,3,3-tetradecachloroethane	ND	ug/L	1.0	1.0
1,1-Dibromo-2,2,3,3,3,3,3,3,3,3,3,3,3,3-tetradecachloroethene	ND	ug/L	1.0	1.0
1,1-Dibromo-2,2,3,3,3,3,3,3,3,3,3,3,3,3,3-pentadecachloroethane	ND	ug/L	1.0	1.0
1,1-Dibromo-2,2,3,3,3,3,3,3,3,3,3,3,3,3,3-pentadecachloroethene	ND	ug/L	1.0	1.0
1,1-Dibromo-2,2,3,3,3,3,3,3,3,3,3,3,3,3,3,3-hexadecachloroethane	ND	ug/L	1.0	1.0
1,1-Dibromo-2,2,3,3,3,3,3,3,3,3,3,3,3,3,3,3-hexadecachloroethene	ND	ug/L	1.0	1.0
1,1-Dibromo-2,2,3,3,3,3,3,3,3,3,3,3,3,3,3,3,3-heptadecachloroethane	ND	ug/L	1.0	1.0
1,1-Dibromo-2,2,3,3,3,3,3,3,3,3,3,3,3,3,3,3,3-heptadecachloroethene	ND	ug/L	1.0	1.0
1,1-Dibromo-2,2,3,3,3,3,3,3,3,3,3,3,3,3,3,3,3,3-octadecachloroethane	ND	ug/L	1.0	1.0
1,1-Dibromo-2,2,3,3,3,3,3,3,3,3,3,3,3,3,3,3,3,3-octadecachloroethene	ND	ug/L	1.0	1.0
1,1-Dibromo-2,2,3,3,3,3,3,3,3,3,3,3,3,3,3,3,3,3,3-nonadecachloroethane	ND	ug/L	1.0	1.0
1,1-Dibromo-2,2,3,3,3,3,3,3,3,3,3,3,3,3,3,3,3,3,3-nonadecachloroethene	ND	ug/L	1.0	1.0
1,1-Dibromo-2,2,3,3,3,3,3,3,3,3,3,3,3,3,3,3,3,3,3,3-eicadecachloroethane	ND	ug/L	1.0	1.0
1,1-Dibromo-2,2,3,3,3,3,3,3,3,3,3,3,3,3,3,3,3,3,3,3-eicadecachloroethene	ND	ug/L	1.0	1.0
1,1-Dibromo-2,2,3,3,3,3,3,3,3,3,3,3,3,3,3,3,3,3,3,3,3-triacontachloroethane	ND	ug/L	1.0	1.0
1,1-Dibromo-2,2,3,3,3,3,3,3,3,3,3,3,3,3,3,3,3,3,3,3,3-triacontachloroethene	ND	ug/L	1.0	1.0



Project Name: 165 CAMBRIDGE PARK DRIVE

Lab Number: L1313186

Project Number: 38625-021

Report Date: 07/21/13

SAMPLE RESULTS

Lab ID: L1313186-01

Date Collected: 07/15/13 13:30

Client ID: HA12-08(OW)-NPDES

Date Received: 07/15/13

Sample Location: Not Specified

Field Prep: Not Specified

Matrix: Water

Extraction Method: EPA 3510C

Analytical Method: 1,8270D

Extraction Date: 07/18/13 05:26

Analytical Date: 07/20/13 15:44

Analyst: RC

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Semivolatile Organics by GC/MS - Westborough Lab						
Benzidine	ND		ug/l	19	--	1
1,2,4-Trichlorobenzene	ND		ug/l	4.8	--	1
Bis(2-chloroethyl)ether	ND		ug/l	1.9	--	1
1,2-Dichlorobenzene	ND		ug/l	1.9	--	1
1,3-Dichlorobenzene	ND		ug/l	1.9	--	1
1,4-Dichlorobenzene	ND		ug/l	1.9	--	1
3,3'-Dichlorobenzidine	ND		ug/l	4.8	--	1
2,4-Dinitrotoluene	ND		ug/l	4.8	--	1
2,6-Dinitrotoluene	ND		ug/l	4.8	--	1
Azobenzene	ND		ug/l	1.9	--	1
4-Chlorophenyl phenyl ether	ND		ug/l	1.9	--	1
4-Bromophenyl phenyl ether	ND		ug/l	1.9	--	1
Bis(2-chloroisopropyl)ether	ND		ug/l	1.9	--	1
Bis(2-chloroethoxy)methane	ND		ug/l	4.8	--	1
Hexachlorocyclopentadiene	ND		ug/l	19	--	1
Isophorone	ND		ug/l	4.8	--	1
Nitrobenzene	ND		ug/l	1.9	--	1
NDPA/DPA	ND		ug/l	1.9	--	1
Bis(2-ethylhexyl)phthalate	ND		ug/l	2.9	--	1
Butyl benzyl phthalate	ND		ug/l	4.8	--	1
Di-n-butylphthalate	ND		ug/l	4.8	--	1
Di-n-octylphthalate	ND		ug/l	4.8	--	1
Diethyl phthalate	ND		ug/l	4.8	--	1
Dimethyl phthalate	ND		ug/l	4.8	--	1
Aniline	ND		ug/l	1.9	--	1
4-Chloroaniline	ND		ug/l	4.8	--	1
2-Nitroaniline	ND		ug/l	4.8	--	1
3-Nitroaniline	ND		ug/l	4.8	--	1
4-Nitroaniline	ND		ug/l	4.8	--	1
Dibenzofuran	ND		ug/l	1.9	--	1
n-Nitrosodimethylamine	ND		ug/l	1.9	--	1

Project Name: 165 CAMBRIDGE PARK DRIVE

Lab Number: L1313186

Project Number: 38625-021

Report Date: 07/21/13

SAMPLE RESULTS

Lab ID: L1313186-01

Date Collected: 07/15/13 13:30

Client ID: HA12-08(OW)-NPDES

Date Received: 07/15/13

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	4.8	--	1
p-Chloro-m-cresol	ND		ug/l	1.9	--	1
2-Chlorophenol	ND		ug/l	1.9	--	1
2,4-Dichlorophenol	ND		ug/l	4.8	--	1
2,4-Dimethylphenol	ND		ug/l	4.8	--	1
2-Nitrophenol	ND		ug/l	9.6	--	1
4-Nitrophenol	ND		ug/l	9.6	--	1
2,4-Dinitrophenol	ND		ug/l	19	--	1
4,6-Dinitro-o-cresol	ND		ug/l	9.6	--	1
Phenol	ND		ug/l	4.8	--	1
2-Methylphenol	ND		ug/l	4.8	--	1
3-Methylphenol/4-Methylphenol	ND		ug/l	4.8	--	1
2,4,5-Trichlorophenol	ND		ug/l	4.8	--	1
Benzoic Acid	ND		ug/l	48	--	1
Benzyl Alcohol	ND		ug/l	1.9	--	1
Carbazole	ND		ug/l	1.9	--	1
Pyridine	ND		ug/l	4.8	--	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
2-Fluorophenol	13	Q	21-120
Phenol-d6	13		10-120
Nitrobenzene-d5	18	Q	23-120
2-Fluorobiphenyl	32		15-120
2,4,6-Tribromophenol	68		10-120
4-Terphenyl-d14	73		41-149

Project Name: 165 CAMBRIDGE PARK DRIVE

Lab Number: L1313186

Project Number: 38625-021

Report Date: 07/21/13

SAMPLE RESULTS

Lab ID: L1313186-01
 Client ID: HA12-08(OW)-NPDES
 Sample Location: Not Specified
 Matrix: Water
 Analytical Method: 1,8270D-SIM
 Analytical Date: 07/17/13 20:21
 Analyst: AS

Date Collected: 07/15/13 13:30
 Date Received: 07/15/13
 Field Prep: Not Specified
 Extraction Method: EPA 3510C
 Extraction Date: 07/15/13 22:07

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Semivolatile Organics by GC/MS-SIM - Westborough Lab						
Acenaphthene	ND		ug/l	0.20	--	1
2-Chloronaphthalene	ND		ug/l	0.20	--	1
Fluoranthene	0.33		ug/l	0.20	--	1
Hexachlorobutadiene	ND		ug/l	0.50	--	1
Naphthalene	ND		ug/l	0.20	--	1
Benzo(a)anthracene	ND		ug/l	0.20	--	1
Benzo(a)pyrene	ND		ug/l	0.20	--	1
Benzo(b)fluoranthene	ND		ug/l	0.20	--	1
Benzo(k)fluoranthene	ND		ug/l	0.20	--	1
Chrysene	ND		ug/l	0.20	--	1
Acenaphthylene	ND		ug/l	0.20	--	1
Anthracene	ND		ug/l	0.20	--	1
Benzo(ghi)perylene	ND		ug/l	0.20	--	1
Fluorene	ND		ug/l	0.20	--	1
Phenanthrene	ND		ug/l	0.20	--	1
Dibenzo(a,h)anthracene	ND		ug/l	0.20	--	1
Indeno(1,2,3-cd)Pyrene	ND		ug/l	0.20	--	1
Pyrene	ND		ug/l	0.20	--	1
1-Methylnaphthalene	ND		ug/l	0.20	--	1
2-Methylnaphthalene	ND		ug/l	0.20	--	1
Pentachlorophenol	ND		ug/l	0.80	--	1
Hexachlorobenzene	ND		ug/l	0.80	--	1
Hexachloroethane	ND		ug/l	0.80	--	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
2-Fluorophenol	40		21-120
Phenol-d6	24		10-120
Nitrobenzene-d5	73		23-120
2-Fluorobiphenyl	61		15-120
2,4,6-Tribromophenol	87		10-120
4-Terphenyl-d14	73		41-149



Project Name: 165 CAMBRIDGE PARK DRIVE

Lab Number: L1313186

Project Number: 38625-021

Report Date: 07/21/13

Method Blank Analysis**Batch Quality Control**

Analytical Method: 1,8270D-SIM
 Analytical Date: 07/17/13 18:49
 Analyst: AS

Extraction Method: EPA 3510C
 Extraction Date: 07/15/13 22:07

Parameter	Result	Qualifier	Units	RL	MDL
Semivolatile Organics by GC/MS-SIM - Westborough Lab for sample(s): 01 Batch: WG621788-1					
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: 165 CAMBRIDGE PARK DRIVE

Lab Number: L1313186

Project Number: 38625-021

Report Date: 07/21/13

Method Blank Analysis

Batch Quality Control

Analytical Method: 1,8270D-SIM
 Analytical Date: 07/17/13 18:49
 Analyst: AS

Extraction Method: EPA 3510C
 Extraction Date: 07/15/13 22:07

Parameter	Result	Qualifier	Units	RL	MDL
Semivolatile Organics by GC/MS-SIM - Westborough Lab for sample(s): 01 Batch: WG621788-1					

Surrogate	%Recovery	Qualifier	Acceptance Criteria
2-Fluorophenol	42	HT	21-120
Phenol-d6	26	ND	10-120
Nitrobenzene-d5	81	ND	23-120
2-Fluorobiphenyl	55	ND	15-120
2,4,6-Tribromophenol	65	ND	10-120
4-Terphenyl-d14	70	ND	41-149

Project Name: 165 CAMBRIDGE PARK DRIVE

Lab Number: L1313186

Project Number: 38625-021

Report Date: 07/21/13

Method Blank Analysis Batch Quality Control

Analytical Method: 1,8270D
 Analytical Date: 07/20/13 14:18
 Analyst: RC

Extraction Method: EPA 3510C
 Extraction Date: 07/18/13 05:26

Parameter	Result	Qualifier	Units	RL	MDL
Semivolatile Organics by GC/MS - Westborough Lab for sample(s): 01 Batch: WG622458-1					
Benzidine	ND		ug/l	20	--
1,2,4-Trichlorobenzene	ND		ug/l	5.0	--
Bis(2-chloroethyl)ether	ND		ug/l	2.0	--
1,2-Dichlorobenzene	ND		ug/l	2.0	--
1,3-Dichlorobenzene	ND		ug/l	2.0	--
1,4-Dichlorobenzene	ND		ug/l	2.0	--
3,3'-Dichlorobenzidine	ND		ug/l	5.0	--
2,4-Dinitrotoluene	ND		ug/l	5.0	--
2,6-Dinitrotoluene	ND		ug/l	5.0	--
Azobenzene	ND		ug/l	2.0	--
4-Chlorophenyl phenyl ether	ND		ug/l	2.0	--
4-Bromophenyl phenyl ether	ND		ug/l	2.0	--
Bis(2-chloroisopropyl)ether	ND		ug/l	2.0	--
Bis(2-chloroethoxy)methane	ND		ug/l	5.0	--
Hexachlorocyclopentadiene	ND		ug/l	20	--
Isophorone	ND		ug/l	5.0	--
Nitrobenzene	ND		ug/l	2.0	--
NDPA/DPA	ND		ug/l	2.0	--
Bis(2-ethylhexyl)phthalate	ND		ug/l	3.0	--
Butyl benzyl phthalate	ND		ug/l	5.0	--
Di-n-butylphthalate	ND		ug/l	5.0	--
Di-n-octylphthalate	ND		ug/l	5.0	--
Diethyl phthalate	ND		ug/l	5.0	--
Dimethyl phthalate	ND		ug/l	5.0	--
Aniline	ND		ug/l	2.0	--
4-Chloroaniline	ND		ug/l	5.0	--
2-Nitroaniline	ND		ug/l	5.0	--
3-Nitroaniline	ND		ug/l	5.0	--
4-Nitroaniline	ND		ug/l	5.0	--
Dibenzofuran	ND		ug/l	2.0	--
n-Nitrosodimethylamine	ND		ug/l	2.0	--

Project Name: 165 CAMBRIDGE PARK DRIVE

Lab Number: L1313186

Project Number: 38625-021

Report Date: 07/21/13

Method Blank Analysis Batch Quality Control

Analytical Method: 1,8270D
 Analytical Date: 07/20/13 14:18
 Analyst: RC

Extraction Method: EPA 3510C
 Extraction Date: 07/18/13 05:26

Parameter	Result	Qualifier	Units	RL	MDL
Semivolatile Organics by GC/MS - Westborough Lab for sample(s): 01 Batch: WG622458-1					
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	49		21-120
Phenol-d6	32		10-120
Nitrobenzene-d5	73		23-120
2-Fluorobiphenyl	72		15-120
2,4,6-Tribromophenol	59		10-120
4-Terphenyl-d14	82		41-149

Lab Control Sample Analysis Batch Quality Control

Project Name: 165 CAMBRIDGE PARK DRIVE
Project Number: 38625-021

Lab Number: L1313186
Report Date: 07/21/13

Parameter	LCS %Recovery	Qual	LCS %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Semivolatile Organics by GC/MS-SIM - Westborough Lab Associated sample(s): 01 Batch: WG621788-2 WG621788-3								
Acenaphthene	65		76		37-111	16		40
2-Chloronaphthalene	65		76		40-140	16		40
Fluoranthene	93		100		40-140	7		40
Hexachlorobutadiene	48		56		40-140	15		40
Naphthalene	59		68		40-140	14		40
Benzo(a)anthracene	94		102		40-140	8		40
Benzo(a)pyrene	78		86		40-140	10		40
Benzo(b)fluoranthene	94		103		40-140	9		40
Benzo(k)fluoranthene	95		105		40-140	10		40
Chrysene	88		95		40-140	8		40
Acenaphthylene	68		76		40-140	11		40
Anthracene	81		90		40-140	11		40
Benzo(ghi)perylene	84		98		40-140	15		40
Fluorene	77		89		40-140	14		40
Phenanthrene	82		90		40-140	9		40
Dibenzo(a,h)anthracene	79		89		40-140	12		40
Indeno(1,2,3-cd)Pyrene	79		90		40-140	13		40
Pyrene	87		95		26-127	9		40
1-Methylnaphthalene	65		76		40-140	16		40
2-Methylnaphthalene	60		70		40-140	15		40
Pentachlorophenol	105	Q	119	Q	9-103	13		40

Lab Control Sample Analysis

Batch Quality Control

Project Name: 165 CAMBRIDGE PARK DRIVE

Lab Number: L1313186

Project Number: 38625-021

Report Date: 07/21/13

Parameter	LCS		LCSD		%Recovery		RPD		RPD Limits	
	%Recovery	Qual	%Recovery	Qual	Limits	Qual	RPD	Qual	RPD Limits	
Hexachlorobenzene	69		77		40-140		11		40	
Hexachloroethane	54		63		40-140		15		40	

Semivolatle Organics by GC/MS-SIM - Westborough Lab Associated sample(s): 01 Batch: WG621788-2 WG621788-3

Surrogate	LCS		LCSD		Acceptance	
	%Recovery	Qual	%Recovery	Qual	Criteria	
2-Fluorophenol	45		49		21-120	
Phenol-d6	31		35		10-120	
Nitrobenzene-d5	75		85		23-120	
2-Fluorobiphenyl	62		70		15-120	
2,4,6-Tribromophenol	70		78		10-120	
4-Terphenyl-d14	67		72		41-149	

Lab Control Sample Analysis Batch Quality Control

Project Name: 165 CAMBRIDGE PARK DRIVE
Project Number: 38625-021

Lab Number: L1313186
Report Date: 07/21/13

Parameter	LCS		LCSD		%Recovery Limits		RPD	Qual	RPD Limits
	%Recovery	Qual	%Recovery	Qual	%Recovery	Qual			
Semivolatle Organics by GC/MS - Westborough Lab Associated sample(s): 01 Batch: WG622458-2 WG622458-3									
Benzidine	40		38		10-75		5		30
1,2,4-Trichlorobenzene	50		56		39-98		11		30
Bis(2-chloroethyl)ether	67		67		40-140		0		30
1,2-Dichlorobenzene	50		55		40-140		10		30
1,3-Dichlorobenzene	47		52		40-140		10		30
1,4-Dichlorobenzene	50		54		36-97		8		30
3,3'-Dichlorobenzidine	75		82		40-140		9		30
2,4-Dinitrotoluene	91		97	Q	24-96		6		30
2,6-Dinitrotoluene	80		81		40-140		1		30
Azobenzene	87		89		40-140		2		30
4-Chlorophenyl phenyl ether	76		77		40-140		1		30
4-Bromophenyl phenyl ether	83		85		40-140		2		30
Bis(2-chloroisopropyl)ether	63		66		40-140		5		30
Bis(2-chloroethoxy)methane	67		66		40-140		2		30
Hexachlorocyclopentadiene	47		52		40-140		10		30
Isophorone	68		68		40-140		0		30
Nitrobenzene	72		71		40-140		1		30
NDPA/DPA	84		88		40-140		5		30
Bis(2-ethylhexyl)phthalate	99		107		40-140		8		30
Butyl benzyl phthalate	96		103		40-140		7		30
Di-n-butylphthalate	96		101		40-140		5		30

Lab Control Sample Analysis

Batch Quality Control

Project Name: 165 CAMBRIDGE PARK DRIVE

Lab Number: L1313186

Project Number: 38625-021

Report Date: 07/21/13

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: WG622458-2 WG622458-3								
Di-n-octylphthalate	97		105		40-140	8		30
Diethyl phthalate	87		93		40-140	7		30
Dimethyl phthalate	84		86		40-140	2		30
Aniline	50		54		40-140	8		30
4-Chloroaniline	69		72		40-140	4		30
2-Nitroaniline	75		76		52-143	1		30
3-Nitroaniline	71		76		25-145	7		30
4-Nitroaniline	82		88		51-143	7		30
Dibenzofuran	76		80		40-140	5		30
n-Nitrosodimethylamine	45		48		22-74	6		30
2,4,6-Trichlorophenol	71		72		30-130	1		30
p-Chloro-m-cresol	82		82		23-97	0		30
2-Chlorophenol	68		68		27-123	0		30
2,4-Dichlorophenol	76		76		30-130	0		30
2,4-Dimethylphenol	64		64		30-130	0		30
2-Nitrophenol	63		64		30-130	2		30
4-Nitrophenol	52		54		10-80	4		30
2,4-Dinitrophenol	82		81		20-130	1		30
4,6-Dinitro-o-cresol	81		86		20-164	6		30
Phenol	36		36		12-110	0		30
2-Methylphenol	63		63		30-130	0		30

PCBS

REPORT	DATE	TIME	LOCATION	ANALYST	LABORATORY	CLIENT
1-1-13	10:00	10:00	10:00	10:00	10:00	10:00
2-1-13	10:00	10:00	10:00	10:00	10:00	10:00
3-1-13	10:00	10:00	10:00	10:00	10:00	10:00
4-1-13	10:00	10:00	10:00	10:00	10:00	10:00
5-1-13	10:00	10:00	10:00	10:00	10:00	10:00
6-1-13	10:00	10:00	10:00	10:00	10:00	10:00

DATE	TIME	LOCATION	ANALYST	LABORATORY	CLIENT
1-1-13	10:00	10:00	10:00	10:00	10:00
2-1-13	10:00	10:00	10:00	10:00	10:00
3-1-13	10:00	10:00	10:00	10:00	10:00
4-1-13	10:00	10:00	10:00	10:00	10:00
5-1-13	10:00	10:00	10:00	10:00	10:00
6-1-13	10:00	10:00	10:00	10:00	10:00

Report Date: 01/13/13
Lab Number: 7101317

Lab Control Sample Analysis

Lab Name: 100 CAMBRIDGE STREET DRIVE
Lab Address: 100 CAMBRIDGE STREET DRIVE



Project Name: 165 CAMBRIDGE PARK DRIVE

Lab Number: L1313186

Project Number: 38625-021

Report Date: 07/21/13

SAMPLE RESULTS

Lab ID: L1313186-01

Date Collected: 07/15/13 13:30

Client ID: HA12-08(OW)-NPDES

Date Received: 07/15/13

Sample Location: Not Specified

Field Prep: Not Specified

Matrix: Water

Extraction Method: EPA 608

Analytical Method: 5,608

Extraction Date: 07/15/13 22:10

Analytical Date: 07/18/13 16:53

Cleanup Method1: EPA 3665A

Analyst: KB

Cleanup Date1: 07/18/13

Cleanup Method2: EPA 3660B

Cleanup Date2: 07/18/13

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
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Polychlorinated Biphenyls by GC - Westborough Lab

Aroclor 1016	ND		ug/l	0.250	--	1
Aroclor 1221	ND		ug/l	0.250	--	1
Aroclor 1232	ND		ug/l	0.250	--	1
Aroclor 1242	ND		ug/l	0.250	--	1
Aroclor 1248	ND		ug/l	0.250	--	1
Aroclor 1254	ND		ug/l	0.250	--	1
Aroclor 1260	ND		ug/l	0.200	--	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
2,4,5,6-Tetrachloro-m-xylene	69		30-150
Decachlorobiphenyl	32		30-150

07/18/13

Serial_No:07211317:10

Project Name: 165 CAMBRIDGE PARK DRIVE

Lab Number: L1313186

Project Number: 38625-021

Report Date: 07/21/13

Method Blank Analysis Batch Quality Control

Analytical Method: 5,608
 Analytical Date: 07/18/13 16:04
 Analyst: KB

Extraction Method: EPA 608
 Extraction Date: 07/15/13 22:10
 Cleanup Method1: EPA 3665A
 Cleanup Date1: 07/18/13
 Cleanup Method2: EPA 3660B
 Cleanup Date2: 07/18/13

Parameter	Result	Qualifier	Units	RL	MDL
Polychlorinated Biphenyls by GC - Westborough Lab for sample(s): 01 Batch: WG621790-1					
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	0.200	--

Surrogate	%Recovery	Qualifier	Acceptance Criteria
2,4,5,6-Tetrachloro-m-xylene	50		30-150
Decachlorobiphenyl	80		30-150

Matrix Spike Analysis

Batch Quality Control

Project Name: 165 CAMBRIDGE PARK DRIVE
Project Number: 38625-021

Lab Number: L1313186
Report Date: 07/21/13

Parameter	Native Sample	MS Added	MS Found	MS %Recovery	MSD Found	MSD %Recovery	MSD Qual	Recovery Limits	RPD Qual	RPD Limits
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Polychlorinated Biphenyls by GC - Westborough Lab Associated sample(s): 01 QC Batch ID: WG621790-3 QC Sample: L1313186-01 Client ID: HA12-08(OW)-NPDES

Aroclor 1016	ND	2.27	1.99	88	-	-	-	40-140	-	50
Aroclor 1260	ND	2.27	1.36	60	-	-	-	40-140	-	50

Surrogate	MS % Recovery	MS Qualifier	MSD % Recovery	MSD Qualifier	Acceptance Criteria
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2,4,5,6-Tetrachloro-m-xylene	77				30-150
Decachlorobiphenyl	31				30-150

Lab Control Sample Analysis Batch Quality Control

Project Name: 165 CAMBRIDGE PARK DRIVE

Lab Number: L1313186

Project Number: 38625-021

Report Date: 07/21/13

Parameter	LCS %Recovery	Qual	LCS %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
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Polychlorinated Biphenyls by GC - Westborough Lab Associated sample(s): 01 Batch: WG621790-2

Aroclor 1016	72	-	-	-	40-140	-	-	50
Aroclor 1260	68	-	-	-	40-140	-	-	50

Surrogate	LCS %Recovery	Qual	LCS %Recovery	Qual	Acceptance Criteria
2,4,5,6-Tetrachloro-m-xylene	51				30-150
Decachlorobiphenyl	76				30-150

Lab Duplicate Analysis

Project Name: 165 CAMBRIDGE PARK DRIVE

Project Number: 38625-021

Lab Number: L1313186

Report Date: 07/21/13

Parameter	Native Sample	Duplicate Sample	Units	RPD	Qual	RPD Limits
Polychlorinated Biphenyls by GC - Westborough Lab Associated sample(s): 01 QC Batch ID: WG621790-4 QC Sample: L1313186-01 Client ID: HA12-08(OW)-NPDES						
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	69	82	30-150
Decachlorobiphenyl	32	36	30-150

METALS



Alpha Analytical

100 CLEVELAND AVE. STE. 100

CLARK COUNTY, OHIO 43001

Phone: (614) 233-1111

Fax: (614) 233-1112

Printed: 10/13/2010 10:10 AM

Project Name: 165 CAMBRIDGE PARK DRIVE

Lab Number: L1313186

Project Number: 38625-021

Report Date: 07/21/13

SAMPLE RESULTS

Lab ID: L1313186-01

Date Collected: 07/15/13 13:30

Client ID: HA12-08(OW)-NPDES

Date Received: 07/15/13

Sample Location: Not Specified

Field Prep: Not Specified

Matrix: Water

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Prep Method	Analytical Method	Analyst
Total Metals - Westborough Lab											
Antimony, Total	ND		mg/l	0.00050	--	1	07/16/13 07:03	07/16/13 22:08	EPA 3005A	1,6020A	BM
Arsenic, Total	0.00098		mg/l	0.00050	--	1	07/16/13 07:03	07/16/13 22:08	EPA 3005A	1,6020A	BM
Cadmium, Total	ND		mg/l	0.00020	--	1	07/16/13 07:03	07/16/13 22:08	EPA 3005A	1,6020A	BM
Chromium, Total	ND		mg/l	0.00100	--	1	07/16/13 07:03	07/16/13 22:08	EPA 3005A	1,6020A	BM
Copper, Total	0.00267		mg/l	0.00100	--	1	07/16/13 07:03	07/16/13 22:08	EPA 3005A	1,6020A	BM
Iron, Total	25		mg/l	0.05	--	1	07/16/13 07:03	07/16/13 16:39	EPA 3005A	19,200.7	TT
Lead, Total	0.00771		mg/l	0.00100	--	1	07/16/13 07:03	07/16/13 22:08	EPA 3005A	1,6020A	BM
Mercury, Total	ND		mg/l	0.0002	--	1	07/16/13 11:23	07/17/13 08:48	EPA 245.1	3,245.1	JH
Nickel, Total	0.00120		mg/l	0.00050	--	1	07/16/13 07:03	07/16/13 22:08	EPA 3005A	1,6020A	BM
Selenium, Total	ND		mg/l	0.00500	--	1	07/16/13 07:03	07/16/13 22:08	EPA 3005A	1,6020A	BM
Silver, Total	ND		mg/l	0.00040	--	1	07/16/13 07:03	07/16/13 22:08	EPA 3005A	1,6020A	BM
Zinc, Total	0.02979		mg/l	0.01000	--	1	07/16/13 07:03	07/16/13 22:08	EPA 3005A	1,6020A	BM



Project Name: 165 CAMBRIDGE PARK DRIVE

Lab Number: L1313186

Project Number: 38625-021

Report Date: 07/21/13

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: WG621819-1										
Antimony, Total	ND		mg/l	0.00050	--	1	07/16/13 07:03	07/16/13 21:43	1,6020A	BM
Arsenic, Total	ND		mg/l	0.00050	--	1	07/16/13 07:03	07/16/13 21:43	1,6020A	BM
Cadmium, Total	ND		mg/l	0.00020	--	1	07/16/13 07:03	07/16/13 21:43	1,6020A	BM
Chromium, Total	ND		mg/l	0.00100	--	1	07/16/13 07:03	07/16/13 21:43	1,6020A	BM
Copper, Total	ND		mg/l	0.00100	--	1	07/16/13 07:03	07/16/13 21:43	1,6020A	BM
Lead, Total	ND		mg/l	0.00100	--	1	07/16/13 07:03	07/16/13 21:43	1,6020A	BM
Nickel, Total	ND		mg/l	0.00050	--	1	07/16/13 07:03	07/16/13 21:43	1,6020A	BM
Selenium, Total	ND		mg/l	0.00500	--	1	07/16/13 07:03	07/16/13 21:43	1,6020A	BM
Silver, Total	ND		mg/l	0.00040	--	1	07/16/13 07:03	07/16/13 21:43	1,6020A	BM
Zinc, Total	ND		mg/l	0.01000	--	1	07/16/13 07:03	07/16/13 21:43	1,6020A	BM

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: WG621820-1										
Iron, Total	ND		mg/l	0.05	--	1	07/16/13 07:03	07/16/13 16:24	19,200.7	TT

Prep Information

Digestion Method: EPA 3005A

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
Total Metals - Westborough Lab for sample(s): 01 Batch: WG621882-1										
Mercury, Total	ND		mg/l	0.0002	--	1	07/16/13 11:23	07/17/13 08:23	3,245.1	JH

Prep Information

Digestion Method: EPA 245.1



Lab Control Sample Analysis

Batch Quality Control

Project Name: 165 CAMBRIDGE PARK DRIVE

Lab Number: L1313186

Project Number: 38625-021

Report Date: 07/21/13

Parameter	LCS %Recovery	Qual	LCS %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Total Metals - Westborough Lab Associated sample(s): 01 Batch: WG621819-2								
Antimony, Total	96		-		80-120	-		
Arsenic, Total	108		-		80-120	-		
Cadmium, Total	109		-		80-120	-		
Chromium, Total	103		-		80-120	-		
Copper, Total	106		-		80-120	-		
Lead, Total	104		-		80-120	-		
Nickel, Total	108		-		80-120	-		
Selenium, Total	107		-		80-120	-		
Silver, Total	99		-		80-120	-		
Zinc, Total	110		-		80-120	-		

Total Metals - Westborough Lab Associated sample(s): 01 Batch: WG621820-2

Iron, Total	98		-		85-115	-		
Total Metals - Westborough Lab Associated sample(s): 01 Batch: WG621882-2								
Mercury, Total	104		-		85-115	-		

Matrix Spike Analysis Batch Quality Control

Project Name: 165 CAMBRIDGE PARK DRIVE
Project Number: 38625-021

Lab Number: L1313186
Report Date: 07/21/13

Parameter	Native Sample	MS Added	MS Found	MS %Recovery	MSD Qual Found	MSD %Recovery	MSD Qual	Recovery Limits	RPD Qual	RPD Limits
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Total Metals - Westborough Lab Associated sample(s): 01 QC Batch ID: WG621819-4 QC Sample: L1313186-01 Client ID: HA12-08(OW)-NPDES

Antimony, Total	ND	0.5	0.4968	99	-	-	-	80-120	-	20
Arsenic, Total	0.00098	0.12	0.1280	106	-	-	-	80-120	-	20
Cadmium, Total	ND	0.051	0.05274	103	-	-	-	80-120	-	20
Chromium, Total	ND	0.2	0.1974	99	-	-	-	80-120	-	20
Copper, Total	0.00267	0.25	0.2601	103	-	-	-	80-120	-	20
Lead, Total	0.00771	0.51	0.5073	98	-	-	-	80-120	-	20
Nickel, Total	0.00120	0.5	0.5140	102	-	-	-	80-120	-	20
Selenium, Total	ND	0.12	0.125	104	-	-	-	80-120	-	20
Silver, Total	ND	0.05	0.04772	95	-	-	-	80-120	-	20
Zinc, Total	0.02979	0.5	0.5598	106	-	-	-	80-120	-	20

Total Metals - Westborough Lab Associated sample(s): 01 QC Batch ID: WG621820-4 QC Sample: L1313186-01 Client ID: HA12-08(OW)-NPDES

Iron, Total	25	1	24	0	Q	-	-	75-125	-	20
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Total Metals - Westborough Lab Associated sample(s): 01 QC Batch ID: WG621882-4 QC Sample: L1313186-01 Client ID: HA12-08(OW)-NPDES

Mercury, Total	ND	0.005	0.0057	114	-	-	-	70-130	-	20
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Lab Duplicate Analysis Batch Quality Control

Project Name: 165 CAMBRIDGE PARK DRIVE
Project Number: 38625-021

Lab Number: L1313186
Report Date: 07/21/13

Parameter	Native Sample	Duplicate Sample	Units	RPD	Qual	RPD Limits
Total Metals - Westborough Lab Associated sample(s): 01 QC Batch ID: WG621819-3 QC Sample: L1313186-01 Client ID: HA12-08(OW)-NPDES						
Antimony, Total	ND	ND	mg/l	NC		20
Arsenic, Total	0.00098	0.00115	mg/l	16		20
Cadmium, Total	ND	ND	mg/l	NC		20
Chromium, Total	ND	ND	mg/l	NC		20
Copper, Total	0.00267	0.00280	mg/l	5		20
Lead, Total	0.00771	0.00826	mg/l	7		20
Nickel, Total	0.00120	0.00117	mg/l	3		20
Selenium, Total	ND	ND	mg/l	NC		20
Silver, Total	ND	ND	mg/l	NC		20
Zinc, Total	0.02979	0.03215	mg/l	8		20
Total Metals - Westborough Lab Associated sample(s): 01 QC Batch ID: WG621820-3 QC Sample: L1313186-01 Client ID: HA12-08(OW)-NPDES						
Iron, Total	25	24	mg/l	4		20
Total Metals - Westborough Lab Associated sample(s): 01 QC Batch ID: WG621882-3 QC Sample: L1313186-01 Client ID: HA12-08(OW)-NPDES						
Mercury, Total	ND	ND	mg/l	NC		20

INORGANICS & MISCELLANEOUS

Project Name: 165 CAMBRIDGE PARK DRIVE

Lab Number: L1313186

Project Number: 38625-021

Report Date: 07/21/13

SAMPLE RESULTS

Lab ID: L1313186-01
 Client ID: HA12-08(OW)-NPDES
 Sample Location: Not Specified
 Matrix: Water

Date Collected: 07/15/13 13:30
 Date Received: 07/15/13
 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	39.		mg/l	5.0	NA	1	-	07/17/13 13:55	30,2540D	DW
Cyanide, Total	ND		mg/l	0.005	--	1	07/17/13 10:00	07/17/13 12:14	30,4500CN-CE	DE
Cyanide, Amenable	ND		mg/l	0.010	--	2	07/16/13 15:50	07/17/13 10:50	30,4500CN-G	DG
Cyanide, Physiologically Available	ND		mg/l	0.005	--	1	07/16/13 11:45	07/17/13 09:54	64,9014(M)	DE
Chlorine, Total Residual	ND		mg/l	0.02	--	1	-	07/17/13 21:40	30,4500CL-D	EL
TPH	ND		mg/l	4.00	--	1	07/18/13 07:45	07/18/13 11:00	74,1664A	ML
Phenolics, Total	ND		mg/l	0.03	--	1	07/18/13 11:00	07/18/13 13:14	4,420.1	TE
Chromium, Hexavalent	ND		mg/l	0.010	--	1	07/15/13 23:10	07/15/13 23:39	30,3500CR-D	DE
Anions by Ion Chromatography - Westborough Lab										
Chloride	64.0		mg/l	2.50	--	5	-	07/18/13 00:54	44,300.0	JT



Project Name: 165 CAMBRIDGE PARK DRIVE

Lab Number: L1313186

Project Number: 38625-021

Report Date: 07/21/13

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: WG621782-1										
Chromium, Hexavalent	ND		mg/l	0.010	--	1	07/15/13 23:10	07/15/13 23:39	30,3500CR-D	DE
General Chemistry - Westborough Lab for sample(s): 01 Batch: WG621907-1										
Cyanide, Physiologically Available	ND		mg/l	0.005	--	1	07/16/13 11:45	07/17/13 09:52	64,9014(M)	DE
General Chemistry - Westborough Lab for sample(s): 01 Batch: WG621982-1										
Cyanide, Amenable	ND		mg/l	0.010	--	2	07/16/13 15:50	07/17/13 10:50	30,4500CN-G	DG
General Chemistry - Westborough Lab for sample(s): 01 Batch: WG622165-1										
Solids, Total Suspended	ND		mg/l	5.0	NA	1	-	07/17/13 13:55	30,2540D	DW
General Chemistry - Westborough Lab for sample(s): 01 Batch: WG622201-1										
Cyanide, Total	ND		mg/l	0.005	--	1	07/17/13 10:00	07/17/13 12:10	30,4500CN-CE	DE
General Chemistry - Westborough Lab for sample(s): 01 Batch: WG622407-1										
Chlorine, Total Residual	ND		mg/l	0.02	--	1	-	07/17/13 21:40	30,4500CL-D	EL
Anions by Ion Chromatography - Westborough Lab for sample(s): 01 Batch: WG622452-1										
Chloride	ND		mg/l	0.500	--	1	-	07/17/13 22:06	44,300.0	JT
General Chemistry - Westborough Lab for sample(s): 01 Batch: WG622512-1										
TPH	ND		mg/l	4.00	--	1	07/18/13 07:45	07/18/13 11:00	74,1664A	ML
General Chemistry - Westborough Lab for sample(s): 01 Batch: WG622542-1										
Phenolics, Total	ND		mg/l	0.03	--	1	07/18/13 11:00	07/18/13 13:12	4,420.1	TE

Lab Control Sample Analysis

Batch Quality Control

Project Name: 165 CAMBRIDGE PARK DRIVE
Project Number: 38625-021

Lab Number: L1313186
Report Date: 07/21/13

Parameter	LCS %Recovery	Qual	LCS %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
General Chemistry - Westborough Lab Associated sample(s): 01 Batch: WG621782-2								
Chromium, Hexavalent	94		-		85-115	-		20
General Chemistry - Westborough Lab Associated sample(s): 01 Batch: WG621907-2								
Cyanide, Physiologically Available	88		-		80-120	-		
General Chemistry - Westborough Lab NEGATIVE LCS Associated sample(s): 01 Batch: WG621907-3								
Cyanide, Physiologically Available	4		-		0-10	-		
General Chemistry - Westborough Lab Associated sample(s): 01 Batch: WG621982-2								
Cyanide, Amenable	100		-			-		
General Chemistry - Westborough Lab Associated sample(s): 01 Batch: WG622201-2								
Cyanide, Total	98		-		90-110	-		
General Chemistry - Westborough Lab Associated sample(s): 01 Batch: WG622407-2								
Chlorine, Total Residual	93		-		90-110	-		
Anions by Ion Chromatography - Westborough Lab Associated sample(s): 01 Batch: WG622452-2								
Chloride	101		-		90-110	-		

Lab Control Sample Analysis

Batch Quality Control

Project Name: 165 CAMBRIDGE PARK DRIVE

Lab Number: L1313186

Project Number: 38625-021

Report Date: 07/21/13

Parameter	LCS %Recovery	LCSD %Recovery	%Recovery Limits	RPD	RPD Limits
General Chemistry - Westborough Lab Associated sample(s): 01 Batch: WG622512-2					
TPH	75	-	64-132	-	34
General Chemistry - Westborough Lab Associated sample(s): 01 Batch: WG622542-2					
Phenolics, Total	113	-	70-130	-	

Matrix Spike Analysis

Batch Quality Control

Project Name: 165 CAMBRIDGE PARK DRIVE
Project Number: 38625-021

Lab Number: L1313186
Report Date: 07/21/13

Parameter	Native Sample	MS Added	MS Found	MS %Recovery	MSD Found	MSD %Recovery	MSD Qual	Recovery Limits	RPD Qual	RPD Limits
General Chemistry - Westborough Lab Associated sample(s): 01 QC Batch ID: WG621782-4 QC Sample: L1313186-01 Client ID: HA12-08(OW)-NPDES										
Chromium, Hexavalent	ND	0.1	0.099	99	-	-	-	85-115	-	20
General Chemistry - Westborough Lab Associated sample(s): 01 QC Batch ID: WG621907-4 QC Sample: L1313186-01 Client ID: HA12-08(OW)-NPDES										
Cyanide, Physiologically Available	ND	0.2	0.198	99	-	-	-	75-125	-	20
General Chemistry - Westborough Lab Associated sample(s): 01 QC Batch ID: WG622201-3 QC Sample: L1313330-01 Client ID: MS Sample										
Cyanide, Total	ND	0.2	0.203	102	-	-	-	90-110	-	30
Anions by Ion Chromatography - Westborough Lab Associated sample(s): 01 QC Batch ID: WG622452-4 QC Sample: L1313186-01 Client ID: HA12-08(OW)-NPDES										
Chloride	64.0	4	83.9	99	-	-	-	40-151	-	18
General Chemistry - Westborough Lab Associated sample(s): 01 QC Batch ID: WG622512-4 QC Sample: L1313332-01 Client ID: MS Sample										
TPH	ND	20.4	15.2	74	-	-	-	64-132	-	34
General Chemistry - Westborough Lab Associated sample(s): 01 QC Batch ID: WG622542-4 QC Sample: L1313357-02 Client ID: MS Sample										
Phenolics, Total	ND	0.4	0.41	102	-	-	-	70-130	-	20

Lab Duplicate Analysis

Batch Quality Control

Project Name: 165 CAMBRIDGE PARK DRIVE

Lab Number: L1313186

Project Number: 38625-021

Report Date: 07/21/13

Parameter	Native Sample	Duplicate Sample	Units	RPD	Qual	RPD Limits
General Chemistry - Westborough Lab Associated sample(s): 01	QC Batch ID: WG621782-3	QC Sample: L1313186-01	Client ID: HA12-08(OW)-NPDES			
Chromium, Hexavalent	ND	ND	mg/l	NC		20
General Chemistry - Westborough Lab Associated sample(s): 01	QC Batch ID: WG621907-5	QC Sample: L1313186-01	Client ID: HA12-08(OW)-NPDES			
Cyanide, Physiologically Available	ND	ND	mg/l	NC		20
General Chemistry - Westborough Lab Associated sample(s): 01	QC Batch ID: WG621982-3	QC Sample: L1313186-01	Client ID: HA12-08(OW)-NPDES			
Cyanide, Amenable	ND	ND	mg/l	NC		
General Chemistry - Westborough Lab Associated sample(s): 01	QC Batch ID: WG622165-2	QC Sample: L1313328-01	Client ID: DUP Sample			
Solids, Total Suspended	55	56	mg/l	2		20
General Chemistry - Westborough Lab Associated sample(s): 01	QC Batch ID: WG622201-4	QC Sample: L1313330-01	Client ID: DUP Sample			
Cyanide, Total	ND	ND	mg/l	NC		30
General Chemistry - Westborough Lab Associated sample(s): 01	QC Batch ID: WG622407-3	QC Sample: L1313383-01	Client ID: DUP Sample			
Chlorine, Total Residual	1.2	1.2	mg/l	0		20
Anions by Ion Chromatography - Westborough Lab Associated sample(s): 01	QC Batch ID: WG622452-3	QC Sample: L1313357-01	Client ID: DUP Sample			
Chloride	398	397	mg/l	0		18
General Chemistry - Westborough Lab Associated sample(s): 01	QC Batch ID: WG622512-3	QC Sample: L1313186-01	Client ID: HA12-08(OW)-NPDES			
TPH	ND	ND	mg/l	NC		34
General Chemistry - Westborough Lab Associated sample(s): 01	QC Batch ID: WG622542-3	QC Sample: L1313357-01	Client ID: DUP Sample			
Phenolics, Total	ND	ND	mg/l	NC		20

Project Name: 165 CAMBRIDGE PARK DRIVE

Lab Number: L1313186

Project Number: 38625-021

Report Date: 07/21/13

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(*)
L1313186-01A	Vial HCl preserved	A	N/A	3.6	Y	Absent	8260-SIM(14),8260(14)
L1313186-01B	Vial HCl preserved	A	N/A	3.6	Y	Absent	8260-SIM(14),8260(14)
L1313186-01C	Vial HCl preserved	A	N/A	3.6	Y	Absent	8260-SIM(14),8260(14)
L1313186-01D	Amber 1000ml unpreserved	A	7	3.6	Y	Absent	8270TCL-SIM(7)
L1313186-01E	Amber 1000ml unpreserved	A	7	3.6	Y	Absent	8270TCL-SIM(7)
L1313186-01F	Amber 1000ml unpreserved	A	7	3.6	Y	Absent	8270TCL(7),8270TCL-SIM(7)
L1313186-01G	Amber 1000ml unpreserved	A	7	3.6	Y	Absent	8270TCL(7),8270TCL-SIM(7)
L1313186-01H	Amber 1000ml HCl preserved	A	N/A	3.6	Y	Absent	TPH-1664(28)
L1313186-01I	Amber 1000ml HCl preserved	A	N/A	3.6	Y	Absent	TPH-1664(28)
L1313186-01J	Amber 1000ml Na2S2O3	A	7	3.6	Y	Absent	PCB-608(7)
L1313186-01K	Amber 1000ml Na2S2O3	A	7	3.6	Y	Absent	PCB-608(7)
L1313186-01L	Vial Na2S2O3 preserved	A	N/A	3.6	Y	Absent	504(14)
L1313186-01M	Vial Na2S2O3 preserved	A	N/A	3.6	Y	Absent	504(14)
L1313186-01O	Plastic 250ml NaOH preserved	A	>12	3.6	Y	Absent	TCN-4500(14),ACN-4500(14),PACN(14)
L1313186-01P	Plastic 500ml unpreserved	A	7	3.6	Y	Absent	HEXCR-3500(1),TRC-4500(1)
L1313186-01Q	Plastic 500ml HNO3 preserved	A	<2	3.6	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)
L1313186-01R	Plastic 250ml unpreserved	A	7	3.6	Y	Absent	CL-300(28)
L1313186-01S	Plastic 1000ml unpreserved	A	7	3.6	Y	Absent	TSS-2540(7)
L1313186-01T	Vial HCl preserved	A	N/A	3.6	Y	Absent	8260-SIM(14),8260(14)
L1313186-01U	Vial HCl preserved	A	N/A	3.6	Y	Absent	8260-SIM(14),8260(14)
L1313186-01V	Vial HCl preserved	A	N/A	3.6	Y	Absent	8260-SIM(14),8260(14)
L1313186-01X	Plastic 500ml HNO3 preserved	A	<2	3.6	Y	Absent	8260-SIM(14),8260(14)
L1313186-01Y	Amber 1000ml H2SO4 preserved	A	<2	3.6	Y	Absent	TPHENOL-420(28)

*Values in parentheses indicate holding time in days

Project Name: 165 CAMBRIDGE PARK DRIVE

Lab Number: L1313186

Project Number: 38625-021

Report Date: 07/21/13

GLOSSARY

Acronyms

EDL	- Estimated Detection Limit: This value represents the level to which target analyte concentrations are reported as estimated values, when those target analyte concentrations are quantified below the reporting limit (RL). The EDL includes any adjustments from dilutions, concentrations or moisture content, where applicable. The use of EDLs is specific to the analysis of PAHs using Solid-Phase Microextraction (SPME).
EPA	- Environmental Protection Agency.
LCS	- Laboratory Control Sample: A sample matrix, free from the analytes of interest, spiked with verified known amounts of analytes or a material containing known and verified amounts of analytes.
LCS D	- 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

Report Format: Data Usability Report



Project Name: 165 CAMBRIDGE PARK DRIVE

Lab Number: L1313186

Project Number: 38625-021

Report Date: 07/21/13

Data Qualifiers

due to obvious interference.

- M** - Reporting Limit (RL) exceeds the MCP CAM Reporting Limit for this analyte.
- NJ** - Presumptive evidence of compound. This represents an estimated concentration for Tentatively Identified Compounds (TICs), where the identification is based on a mass spectral library search.
- P** - The RPD between the results for the two columns exceeds the method-specified criteria.
- Q** - The quality control sample exceeds the associated acceptance criteria. For DOD-related projects, LCS and/or Continuing Calibration Standard exceedences are also qualified on all associated sample results. Note: This flag is not applicable for matrix spike recoveries when the sample concentration is greater than 4x the spike added or for batch duplicate RPD when the sample concentrations are less than 5x the RL. (Metals only.)
- R** - Analytical results are from sample re-analysis.
- RE** - Analytical results are from sample re-extraction.
- J** - Estimated value. This represents an estimated concentration for Tentatively Identified Compounds (TICs).
- ND** - Not detected at the reporting limit (RL) for the sample.

Report Format: Data Usability Report



Project Name: 165 CAMBRIDGE PARK DRIVE

Lab Number: L1313186

Project Number: 38625-021

Report Date: 07/21/13

REFERENCES

- 1 Test Methods for Evaluating Solid Waste: Physical/Chemical Methods. EPA SW-846. Third Edition. Updates I - IV, 2007.
- 3 Methods for the Determination of Metals in Environmental Samples, Supplement I. EPA/600/R-94/111. May 1994.
- 4 Methods for Chemical Analysis of Water and Wastes. EPA 600/4-79-020. Revised March 1983.
- 5 Methods for the Organic Chemical Analysis of Municipal and Industrial Wastewater. Appendix A, Part 136, 40 CFR (Code of Federal Regulations).
- 14 Methods for the Determination of Organic Compounds in Finished Drinking Water and Raw Source Water. EPA/600/4-88/039, Revised July 1991.
- 19 Inductively Coupled Plasma Atomic Emission Spectrometric Method for Trace Element Analysis of Water and Wastes. Appendix C, Part 136, 40 CFR (Code of Federal Regulations). July 1, 1999 edition.
- 30 Standard Methods for the Examination of Water and Wastewater. APHA-AWWA-WPCF. 18th Edition. 1992.
- 44 Methods for the Determination of Inorganic Substances in Environmental Samples, EPA/600/R-93/100, August 1993.
- 64 Quality Assurance and Quality Control Requirements and Performance Standards for SW-846 Methods. MADEP BWSC. WSC-CAM-IIA (Revision 4), WSC-CAM-V C (Revision 2), WSC-CAM-IIIA (Revision 5). August 2004.
- 74 Method 1664, Revision A: N-Hexane Extractable Material (HEM; Oil & Grease) and Silica Gel Treated N-Hexane Extractable Material (SGT-HEM; Non-polar Material) by Extraction and Gravimetry, EPA-821-R-98-002, February 1999.

LIMITATION OF LIABILITIES

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

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



Certificate/Approval Program Summary

Last revised July 2, 2013 - 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, Nickel, Selenium, Silver, Sodium, Thallium, 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) 504.1, Ethylene Dibromide (EDB) 504.1, 1,4-Dioxane (Mod 8270). **Microbiology Parameters:** Total Coliform-MF mEndo (SM9222B), Total Coliform – Colilert (SM9223, Enumeration and P/A), E. Coli. – Colilert (SM9223, Enumeration and P/A), HPC – Pour Plate (SM9215B), Fecal Coliform – MF m-FC (SM9222D), Fecal Coliform-EC Medium (SM 9221E).

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, Acid Extractables (Phenols), Benzidines, Phthalate Esters, Nitrosamines, Nitroaromatics & Isophorone, Polynuclear Aromatic Hydrocarbons, Haloethers, Chlorinated Hydrocarbons, Volatile Organics, TPH (HEM/SGT), CT-Extractable Petroleum Hydrocarbons (ETPH), MA-EPH, MA-VPH. **Microbiology Parameters:** Total Coliform – MF mEndo (SM9222B), Total Coliform – MTF (SM9221B), E. Coli – Colilert (SM9223 Enumeration), HPC – Pour Plate (SM9215B), Fecal Coliform – MF m-FC (SM9222D), Fecal Coliform – A-1 Broth (SM9221E), Enterococcus - Enterolert.

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, CT-Extractable Petroleum Hydrocarbons (ETPH), MA-EPH, MA-VPH, Dicamba, 2,4-D, 2,4,5-T, 2,4,5-TP (Silvex), Dalapon, Volatile Organics (SW 8260), Acid Extractables (Phenols) (SW 8270), Benzidines (SW 8270), Phthalates (SW 8270), Nitrosamines (SW 8270), Nitroaromatics & Cyclic Ketones (SW 8270), PAHs (SW 8270), Haloethers (SW 8270), Chlorinated Hydrocarbons (SW 8270).)

State of Illinois Certificate/Lab ID: 003155. NELAP Accredited.

Drinking Water (Inorganic Parameters: SM2120B, 2320B, 2510B, 2540C, SM4500CN-CE, 4500F-C, 4500H-B, 4500NO3-F, 5310C, EPA 200.7, 200.8, 245.1, 300.0. **Organic Parameters:** EPA 504.1, 524.2.)

Wastewater/Non-Potable Water (Inorganic Parameters: SM2120B, 2310B, 2320B, 2340B, 2510B, 2540B, 2540C, 2540D, SM4500CL-E, 4500CN-E, 4500F-C, 4500H-B, 4500NH3-H, 4500NO2-B, 4500NO3-F, 4500P-E, 4500S-D, 4500SO3-B, 5210B, 5220D, 5310C, 5540C, EPA 120.1, 1664A, 200.7, 200.8, 245.1, 300.0, 350.1, 351.1, 353.2, 410.4, 420.1. **Organic Parameters:** EPA 608, 624, 625.)

Hazardous and Solid Waste (Inorganic Parameters: EPA 1010A, 1030, 1311, 1312, 6010C, 6020A, 7196A, 7470A, 7471B, 9012B, 9014, 9038, 9040C, 9045D, 9050A, 9065, 9251. **Organic Parameters:** 8011 (NPW only), 8015C, 8081B, 8082A, 8151A, 8260C, 8270D, 8315A, 8330.)

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

Drinking Water (Inorganic Parameters: SM9215B, 9222D, 9223B, EPA 180.1, 353.2, SM2120B, 2130B, 2320B, 2510C, 2540C, 4500CI-D, 4500CN-C, 4500CN-E, 4500F-C, 4500H+B, 4500NO3-F, 5310C, 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, 300.0, 350.1, 351.1, 353.2, 410.4, 420.1, 8315A, 9010C, SM2120B, 2310B, 2320B, 2510B, 2540B, 2540C, 2540D, 426C, 4500CI-E, 4500CN-C, 4500CN-E, 4500F-B, 4500F-C, 4500H+B, 4500Norg-C, 4500NH3-B, 4500NH3-H, 4500NO2-B, 4500NO3-F, 4500P-B, 4500P-E, 4500S2-D, 4500SO3-B, 5540C, 5210B, 5220D, 5310C, 9010B, 9030B, 9040C, 7470A, 7196A, 2340B, EPA 200.7, 6010C, 200.8, 6020A, 245.1, 1311, 1312, 3005A, Enterolert, 9223B, 9222D. **Organic Parameters:** 608, 624, 625, 8011, 8081B, 8082A, 8330, 8151A, 8260C, 8270D, 3510C, 3630C, 5030B, ME-DRO, ME-GRO, MA-EPH, MA-VPH.)

Solid Waste/Soil (Inorganic Parameters: 9010B, 9012A, 9014, 9040B, 9045C, 6010C, 6020A, 7471B, 7196A, 9050A, 1010, 1030, 9065, 1311, 1312, 3005A, 3050B, 9038, 9251. **Organic Parameters:** ME-DRO, ME-GRO, MA-EPH, MA-VPH, 8260C, 8270D, 8330, 8151A, 8081B, 8082A, 3540C, 3546, 3580A, 3620C, 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.)

Non-Potable Water (Inorganic Parameters: (EPA 200.8 for: Al,Sb,As,Be,Cd,Cr,Cu,Pb,Mn,Ni,Se,Ag,Tl,Zn); (EPA 200.7 for: Al,Sb,As,Be,Cd,Ca,Cr,Co,Cu,Fe,Pb,Mg,Mn,Mo,Ni,K,Se,Ag,Na,Sr,Ti,Tl,V,Zn); 245.1, SM4500H,B, EPA 120.1, 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, 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, SW-846 6010C, 6020A, 7196A, 7470A, SM3500-CR-D, EPA 120.1, 300.0, 350.1, 350.2, 351.1, 353.2, 410.4, 420.1, 426C, 1664A, SW-846 9010B, 9010C, 9030, 9040B, 9040C, SM2120B, 2310B, 2320B, 2340B, 2540B, 2540D, 4500H+B, 4500CL-E, 4500CN-E, 4500NH3-H, 4500NO3-F, 4500NO2-B, 4500P-E, 4500-S2-D, 4500SO3-B, 5210B, 5220D, 2510B, 2540C, 4500F-C, 5310C, 5540C, LACHAT 10-204-00-1-A, LACHAT 10-107-06-2-D, 3060A. **Organic Parameters:** SW-846 3510C, 3630C, 5030B, 8260C, 8270D, 8330, EPA 624, 625, 608, SW-846 8082A, 8081B, 8015C, 8151A, 8330, 8270D-SIM.)

Solid & Chemical Materials (Inorganic Parameters: SW-846 6010C, 6020A, 7196A, 7471B, 1010, 1010A, 1030, 9010C, 9012B, 9014, 9030B, 9040C, 9045C, 9045D, 9050, 9065, 9251, 1311, 1312, 3005A, 3050B, 3060A. **Organic Parameters:** SW-846 3540C, 3546, 3050B, 3580A, 3620D, 3630C, 5030B, 5035, 8260C, 8270D, 8270D-SIM, 8330, 8151A, 8015B, 8015C, 8082A, 8081B.)

New Hampshire Department of Environmental Services Certificate/Lab ID: 2064. NELAP Accredited.

Drinking Water (Organic Parameters: EPA 524.2: Di-isopropyl ether (DIPE), Ethyl-t-butyl ether (ETBE), Tert-amyl methyl ether (TAME)).

Non-Potable Water (Organic Parameters: EPA 8260C: 1,3,5-Trichlorobenzene. EPA 8015C(M): TPH.)

Solid & Chemical Materials (Organic Parameters: EPA 8260C: 1,3,5-Trichlorobenzene.)

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, 245.1, 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, 2340B, SM4500F-BC, EPA 200.7, 200.8, 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, 7470A, 5540C, SM4500H-B, 4500SO3-B, SM3500Cr-D, 4500CN-CE, EPA 245.1, SW-846 9040B, 9040C, 3005A, 3015, EPA 6010B, 6010C, 6020, 6020A, 7196A, 3060A, SW-846 9010C, 9030B. **Organic Parameters:** SW-846 8260B, 8260C, 8270C, 8270D, 8270C-SIM, 8270D-SIM, 3510C, EPA 608, 624, 625, SW-846 3630C, 5030B, 8011, 8015C, 8081A, 8081B, 8082, 8082A, 8151A, 8330, 1,4-Dioxane by NJ Modified 8270, 8015B, NJ EPH.)

Solid & Chemical Materials (Inorganic Parameters: SW-846, 6010B, 6010C, 6020, 6020A, 7196A, 3060A, 9030B, 1010, 1010A, 1030, 1311, 1312, 3005A, 3050B, 7471A, 7471B, 9010C, 9012B, 9014, 9038, 9040B, 9040C, 9045C, 9045D,

9050A, 9065, 9251. Organic Parameters: SW-846 8015B, 8015C, 8081A, 8081B, 8082, 8082A, 8151A, 8330, 8260B, 8260C, 8270C, 8270D, 8270C-SIM, 8270D-SIM, 3540C, 3546, 3580A, 3620C, 3630C, 5030B, 5035L, 5035H, 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, 245.1, SM5310C, EPA 332.0, SM2320B, EPA 300.0, SM2120B, 4500CN-E, 4500F-C, 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, 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, SM4500-NO3-F, 4500-NO2-B, 4500P-E, 2340B, 2540C, 2540B, 2540D, EPA 200.8, EPA 6010C, 6020A, EPA 7196A, SM3500Cr-D, EPA 245.1, 7470A, SM2120B, 4500CN-CE, EPA 1664A, EPA 420.1, SM14 510C, EPA 120.1, SM2510B, SM4500S-D, SM5540C, EPA 8315A, 3005A, 3015, 9010C, 9030B. Organic Parameters: EPA 624, 8260C, 8270D, 8270D-SIM, 625, 608, 8081B, 8151A, 8330, 8082A, EPA 3510C, 5030B, 8015C, 8011.)

Solid & Hazardous Waste (Inorganic Parameters: EPA 1010A, 1030, EPA 6010C, 6020A, 7196A, 7471B, 8315A, 9012B, 9014, 9065, 9050A, 9038, 9251, EPA 1311, 1312, 3005A, 3050B, 9010C, 9030B, 9040C, 9045D. Organic Parameters: EPA 8260C, 8270D, 8270D-SIM, 8015C, 8081B, 8151A, 8330, 8082A, 3540C, 3546, 3580A, 5035A-H, 5035A-L.)

North Carolina Department of the Environment and Natural Resources Certificate/Lab ID: 666. (Inorganic Parameters: SM2310B, 2320B, 4500Cl-E, 4500Cn-E, 9012B, 9014, Lachat 10-204-00-1-X, 1010A, 1030, 4500NO3-F, 353.2, 4500P-E, 4500SO4-E, 300.0, 4500S-D, 5310B, 5310C, 6010C, 6020A, 200.7, 200.8, 3500Cr-B, 7196A, 245.1, 7470A, 7471B, 1311, 1312. Organic Parameters: 608, 8081B, 8082A, 624, 8260B, 625, 8270D, 8151A, 8015C, 504.1, MA-EPH, MA-VPH.)

Drinking Water Program Certificate/Lab ID: 25700. (Inorganic Parameters: Chloride EPA 300.0. Organic Parameters: 524.2)

Pennsylvania Department of Environmental Protection Certificate/Lab ID: 68-03671. NELAP Accredited.

Drinking Water (Inorganic Parameters: 200.7, 200.8, 300.0, 332.0, 2120B, 2320B, 2510B, 2540C, 4500-CN-CE, 4500F-C, 4500H+-B, 4500NO3-F, 5310C. Organic Parameters: EPA 524.2, 504.1)

Non-Potable Water (Inorganic Parameters: EPA 120.1, 1312, 3005A, 3015, 3060A, 200.7, 200.8, 410.4, 1664A, SM2540D, 5210B, 5220D, 4500-P, BE, 245.1, 300.0, 350.1, 350.2, 351.1, 353.2, 420.1, 6010C, 6020A, 7196A, 7470A, 9030B, 2120B, 2310B, 2320B, 2510B, 2540B, 2540C, 3500Cr-D, 426C, 4500CN-CE, 4500Cl-E, 4500F-B, 4500F-C, 4500H+-B, 4500NH3-H, 4500NO2-B, 4500NO3-F, 4500S-D, 4500SO3-B, 5310BCD, 5540C, 9010C, 9040C. Organic Parameters: EPA 3510C, 3630C, 5030B, 625, 624, 608, 8081B, 8082A, 8151A, 8260C, 8270D, 8270D-SIM, 8330, 8015C, NJ-EPH.)

Solid & Hazardous Waste (Inorganic Parameters: EPA 350.1, 1010, 1030, 1311, 1312, 3005A, 3050B, 3060A, 6010C, 6020A, 7196A, 7471B, 9010C, 9012B, 9014, 9040B, 9045D, 9050A, 9065, SM 4500NH3-BH, 9030B, 9038, 9251. Organic Parameters: 3540C, 3546, 3580A, 3620C, 3630C, 5035, 8015C, 8081B, 8082A, 8151A, 8260C, 8270D, 8270D-SIM, 8330, NJ-EPH.)

Rhode Island Department of Health Certificate/Lab ID: LAO00065. NELAP Accredited via NJ-DEP.

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. 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.

Drinking Water (Inorganic Parameters: EPA 200.7, 200.8, 300.0, 2510B, 2120B, 2540C, 4500CN-CE, 245.1, 2320B, 4500F-C, 4500NO3-F, 4500H+B, 5310C. Organic Parameters: EPA 504.1, 524.2.)

Non-Potable Water (Inorganic Parameters: EPA 120.1, 1664A, 200.7, 200.8, 245.1, 300.0, 350.1, 351.1, 351.2, 3005A, 3015, 1312, 6010B, 6010C, 3060A, 353.2, 420.1, 2340B, 6020, 6020A, SM4500S-D, SM4500-CN-CE, Lachat 10-204-00-1-X, 7196A, 7470A, 2310B, 2320B, 2510B, 2540B, 2540C, 2540D, 3500Cr-D, 426C, 4500Cl-E, 4500F-B, 4500F-C, 4500NH3-H, 4500NO2-B, 4500NO3-F, 4500 SO3-B, 4500H-B, 4500PE, 510AC, 5210B, 5310B 5310C, 5540C, 9010Cm

9030B, 9040C. Organic Parameters: EPA 3510C, 3630C, 5030B, 8260B, 608, 624, 625, 8011, 8015C, 8081A, 8081B, 8082, 8082A, 8151A, 8260C, 8270C, 8270D, 8270C-SIM, 8270D-SIM, 8330,)

Solid & Hazardous Waste (Inorganic Parameters: EPA 1010A, 1030, 3060A, 3050B, 1311, 1312, 6010B, 6010C, 6020, , 7196A, 7471A, 7471B, 6020A, 9010C, 9012B, 9030B, 9014, 9038, 9040C, 9045D, 9251, 9050A, 9065. Organic Parameters: EPA 5030B, 5035, 3540C, 3546, 3550B, 3580A, 3620C, 3630C, 6020A, 8260B, 8260C, 8015B, 8015C, 8081A, 8081B, 8082, 8082A, 8151A, 8270C, 8270D, 8270C-SIM, 8270D-SIM, 8330.)

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, 6010C, 6020, 6020A, 245.1, 245.2, 7470A, 9040B, 9010B, 180.1, 300.0, 332.0, 6860, 353.2, 410.4, 9060, 1664A, SM 4500CN-E, 4500H-B, 4500NO3-F, 4500CL-D, 5220D, 5310C, 2130B, 2320B, 2540C, 3005A, 3015, 9010B, 9056, 7196A, 3500-Cr-D. Organic Parameters: EPA 8260B, 8260C, 8270C, 8270D, 8270C-SIM, 8270D-SIM, 8330A, 8082, 8082A, 8081A, 8081B, 3510C, 5030B, MassDEP EPH, MassDEP VPH.)

Solid & Hazardous Waste (Inorganic Parameters: EPA 200.7, 6010B, 6010C, 7471A, 6860, 1311, 1312, 3050B, 7196A, 9010B, 9012A, 9040B, 9045C, 3500-CR-D, 4500CN-CE, 2540G, Organic Parameters: EPA 8260B, 8260C, 8270C, 8270D, 8270C-SIM, 8270D-SIM, 8330A/B-prep, 8082, 8082A, 8081A, 8081B, 3540C, 3546, 3580A, 5035A, MassDEP EPH, MassDEP VPH.)

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

EPA 524.2: Acetone, 2-Butanone (Methyl ethyl ketone (MEK)), Tert-butyl alcohol, 2-Hexanone, Tetrahydrofuran, 1,3,5-Trichlorobenzene, 4-Methyl-2-pentanone (MIBK), Carbon disulfide, Diethyl ether. **EPA 8260B:** 1,2,4,5-Tetramethylbenzene, 4-Ethyltoluene. **EPA 8260 Non-potable water matrix:** Iodomethane (methyl iodide), Methyl methacrylate. **EPA 8260 Soil matrix:** Tert-amyl methyl ether (TAME), Diisopropyl ether (DIPE), Azobenzene. **EPA 8330A:** PETN, Picric Acid, Nitroglycerine, 2,6-DANT, 2,4-DANT. **EPA 8270C:** Methyl naphthalene, Dimethyl naphthalene, Total Methyl naphthalenes, Total Dimethyl naphthalenes, 1,4-Diphenylhydrazine. **EPA 625:** 4-Chloroaniline, 4-Methylphenol. Total Phosphorus in a soil matrix, TKN in a soil matrix, NO2 in a soil matrix, NO3 in a soil matrix. **EPA 9071:** Total Petroleum Hydrocarbons, Oil & Grease.

Sdn 2130186317:10

HALEY & ALDRICH

Haley & Aldrich, Inc.
465 Medford St.,
Suite 2200,
Boston, MA 02129-1402

CHAIN OF CUSTODY RECORD

H&A FILE NO. 38625-021
PROJECT NAME 165 Cambridgepark Drive
H&A CONTACT Sandhya Potana

LABORATORY ALPHA ANALYTICAL
ADDRESS WESTBOROUGH, MA
CONTACT Gina Hall

DELIVERY DATE 7/15/13
TURNAROUND TIME Standard 5-day TAT
PROJECT MANAGER Brad Aldinger

Sample No.	Date	Time	Depth	Type	Analysis Requested										Number of Containers	Comments (special instructions, precautions, additional method numbers, etc.)																																									
					1. TSS (2540D)	2. TPH (1664A)	3. 8260B (mod 8270)	5. 8270 SIM (300.0)	6. Chloride	7. Total Metals	8. Hexavalent Chromium	9. Dissolved Metals	10. TCN, ACN, PAB	11. EDB			12. PCBs																																								
HA12-08(OW)-NPDES	7/15/2013	1330	5'	OW	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	Laboratory to use applicable DEP CAM methods, unless otherwise directed.																																								
																	3. 8260B: Methyl-tert-Butyl Ether, tert-Butyl Alcohol, tert-Amyl Methyl Ether, and 1,1-Dichloroethane ONLY																																								
																	5. 8270 SIM: benzo(a)anthracene, benzo(a)pyrene, benzo(k)fluoranthene, chrysene, dibenzo(a,h)anthracene, indeno(1,2,3-cd)pyrene, acenaphthene, acenaphthylene, anthracene, benzo(g,h,i)perylene, fluoranthene, phenanthrene, pyrene, fluorene and naphthalene ONLY																																								
																	7. Arsenic, chromium, chromium III, copper, lead, mercury, nickel, selenium, zinc, iron ONLY																																								
<table border="1"> <thead> <tr> <th colspan="4">LIQUID</th> <th colspan="4">SOLID</th> </tr> <tr> <th>Sign</th> <th>Print</th> <th>Firm</th> <th>Date</th> <th>Sign</th> <th>Print</th> <th>Firm</th> <th>Date</th> </tr> </thead> <tbody> <tr> <td>HA A REIDGE</td> <td>HA A</td> <td>HA A</td> <td>7/15/13</td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td>HA A</td> <td>HA A</td> <td>HA A</td> <td>7/15/13</td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td>HA A</td> <td>HA A</td> <td>HA A</td> <td>7/15/13</td> <td></td> <td></td> <td></td> <td></td> </tr> </tbody> </table>																		LIQUID				SOLID				Sign	Print	Firm	Date	Sign	Print	Firm	Date	HA A REIDGE	HA A	HA A	7/15/13					HA A	HA A	HA A	7/15/13					HA A	HA A	HA A	7/15/13				
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Serial NO: 09861317-10

CHAIN OF CUSTODY RECORD

HALEY & ALDRICH
Haley & Aldrich, Inc.
465 Medford St.,
Suite 2200,
Boston, MA 02129-1402

H&A FILE NO. 38625-0213
PROJECT NAME 165 Cambridgepark Drive
H&A CONTACT Sandhya Potana

LABORATORY ALPHA ANALYTICAL
ADDRESS WESTBOROUGH, MA
CONTACT Gina Hall

DELIVERY DATE 7/15/13
TURNAROUND TIME Standard 5-day TAT
PROJECT MANAGER Brad Aldinger

Sample No.	Date	Time	Depth	Type	Analysis Requested	Number of Containers	Comments (special instructions, precautions, additional method numbers, etc.)
HA12-08(OW)-NPDES	7/15/2013	1330	5'	OW	1. 1,4 Dioxane (mod 8270) 2. TPH (1664A) 3. Chloride (30057) 4. Metals 5. Chromium 6. Manganese 7. Cadmium 8. Lead 9. Copper 10. Zinc 11. Nickel 12. Barium 13. Strontium 14. Molybdenum 15. Vanadium 16. Cobalt 17. Manganese 18. Selenium 19. Silver 20. Tin 21. Antimony 22. Bismuth 23. Tellurium 24. Arsenic 25. Chromium 26. Manganese 27. Nickel 28. Lead 29. Copper 30. Zinc 31. Iron 32. Manganese 33. Vanadium 34. Molybdenum 35. Cobalt 36. Cadmium 37. Barium 38. Strontium 39. Manganese 40. Selenium 41. Silver 42. Tin 43. Antimony 44. Bismuth 45. Tellurium 46. Arsenic 47. Chromium 48. Manganese 49. Nickel 50. Lead 51. Copper 52. Zinc 53. Iron 54. Manganese 55. Vanadium 56. Molybdenum 57. Cobalt 58. Cadmium 59. Barium 60. Strontium 61. Manganese 62. Selenium 63. Silver 64. Tin 65. Antimony 66. Bismuth 67. Tellurium 68. Arsenic 69. Chromium 70. Manganese 71. Nickel 72. Lead 73. Copper 74. Zinc 75. Iron 76. Manganese 77. Vanadium 78. Molybdenum 79. Cobalt 80. Cadmium 81. Barium 82. Strontium 83. Manganese 84. Selenium 85. Silver 86. Tin 87. Antimony 88. Bismuth 89. Tellurium 90. Arsenic 91. Chromium 92. Manganese 93. Nickel 94. Lead 95. Copper 96. Zinc 97. Iron 98. Manganese 99. Vanadium 100. Molybdenum 101. Cobalt 102. Cadmium 103. Barium 104. Strontium 105. Manganese 106. Selenium 107. Silver 108. Tin 109. Antimony 110. Bismuth 111. Tellurium 112. Arsenic 113. Chromium 114. Manganese 115. Nickel 116. Lead 117. Copper 118. Zinc 119. Iron 120. Manganese 121. Vanadium 122. Molybdenum 123. Cobalt 124. Cadmium 125. Barium 126. Strontium 127. Manganese 128. Selenium 129. Silver 130. Tin 131. Antimony 132. Bismuth 133. Tellurium 134. Arsenic 135. Chromium 136. Manganese 137. Nickel 138. Lead 139. Copper 140. Zinc 141. Iron 142. Manganese 143. Vanadium 144. Molybdenum 145. Cobalt 146. Cadmium 147. Barium 148. Strontium 149. Manganese 150. Selenium 151. Silver 152. Tin 153. Antimony 154. Bismuth 155. Tellurium 156. Arsenic 157. Chromium 158. Manganese 159. Nickel 160. Lead 161. Copper 162. Zinc 163. Iron 164. Manganese 165. Vanadium 166. Molybdenum 167. Cobalt 168. Cadmium 169. Barium 170. Strontium 171. Manganese 172. Selenium 173. Silver 174. Tin 175. Antimony 176. Bismuth 177. Tellurium 178. Arsenic 179. Chromium 180. Manganese 181. Nickel 182. Lead 183. Copper 184. Zinc 185. Iron 186. Manganese 187. Vanadium 188. Molybdenum 189. Cobalt 190. Cadmium 191. Barium 192. Strontium 193. Manganese 194. Selenium 195. Silver 196. Tin 197. Antimony 198. Bismuth 199. Tellurium 200. Arsenic 201. Chromium 202. Manganese 203. Nickel 204. Lead 205. Copper 206. Zinc 207. Iron 208. Manganese 209. Vanadium 210. Molybdenum 211. Cobalt 212. Cadmium 213. Barium 214. Strontium 215. Manganese 216. Selenium 217. Silver 218. Tin 219. Antimony 220. Bismuth 221. Tellurium 222. Arsenic 223. Chromium 224. Manganese 225. Nickel 226. Lead 227. Copper 228. Zinc 229. Iron 230. Manganese 231. Vanadium 232. Molybdenum 233. Cobalt 234. Cadmium 235. Barium 236. Strontium 237. Manganese 238. Selenium 239. Silver 240. Tin 241. Antimony 242. Bismuth 243. Tellurium 244. Arsenic 245. Chromium 246. Manganese 247. Nickel 248. Lead 249. Copper 250. Zinc 251. Iron 252. Manganese 253. Vanadium 254. Molybdenum 255. Cobalt 256. Cadmium 257. Barium 258. Strontium 259. Manganese 260. Selenium 261. Silver 262. Tin 263. Antimony 264. Bismuth 265. Tellurium 266. Arsenic 267. Chromium 268. Manganese 269. Nickel 270. Lead 271. Copper 272. Zinc 273. Iron 274. Manganese 275. Vanadium 276. Molybdenum 277. Cobalt 278. Cadmium 279. Barium 280. Strontium 281. Manganese 282. Selenium 283. Silver 284. Tin 285. Antimony 286. Bismuth 287. Tellurium 288. Arsenic 289. Chromium 290. Manganese 291. Nickel 292. Lead 293. Copper 294. Zinc 295. Iron 296. Manganese 297. Vanadium 298. Molybdenum 299. Cobalt 300. Cadmium 301. Barium 302. Strontium 303. Manganese 304. Selenium 305. Silver 306. Tin 307. Antimony 308. Bismuth 309. Tellurium 310. Arsenic 311. 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Cadmium 389. Barium 390. Strontium 391. Manganese 392. Selenium 393. Silver 394. Tin 395. Antimony 396. Bismuth 397. Tellurium 398. Arsenic 399. Chromium 400. Manganese 401. Nickel 402. Lead 403. Copper 404. Zinc 405. Iron 406. Manganese 407. Vanadium 408. Molybdenum 409. Cobalt 410. Cadmium 411. Barium 412. Strontium 413. Manganese 414. Selenium 415. Silver 416. Tin 417. Antimony 418. Bismuth 419. Tellurium 420. Arsenic 421. Chromium 422. Manganese 423. Nickel 424. Lead 425. Copper 426. Zinc 427. Iron 428. Manganese 429. Vanadium 430. Molybdenum 431. Cobalt 432. Cadmium 433. Barium 434. Strontium 435. Manganese 436. Selenium 437. Silver 438. Tin 439. Antimony 440. Bismuth 441. Tellurium 442. Arsenic 443. Chromium 444. Manganese 445. Nickel 446. Lead 447. Copper 448. Zinc 449. Iron 450. Manganese 451. Vanadium 452. Molybdenum 453. Cobalt 454. Cadmium 455. Barium 456. Strontium 457. Manganese 458. Selenium 459. Silver 460. Tin 461. Antimony 462. Bismuth 463. Tellurium 464. Arsenic 465. Chromium 466. Manganese 467. Nickel 468. Lead 469. Copper 470. Zinc 471. Iron 472. Manganese 473. Vanadium 474. Molybdenum 475. Cobalt 476. Cadmium 477. Barium 478. Strontium 479. Manganese 480. Selenium 481. Silver 482. Tin 483. Antimony 484. Bismuth 485. Tellurium 486. Arsenic 487. Chromium 488. Manganese 489. Nickel 490. Lead 491. Copper 492. Zinc 493. Iron 494. Manganese 495. Vanadium 496. Molybdenum 497. Cobalt 498. Cadmium 499. Barium 500. Strontium 501. Manganese 502. Selenium 503. Silver 504. Tin 505. Antimony 506. Bismuth 507. Tellurium 508. Arsenic 509. Chromium 510. Manganese 511. Nickel 512. Lead 513. Copper 514. Zinc 515. Iron 516. Manganese 517. Vanadium 518. Molybdenum 519. Cobalt 520. Cadmium 521. Barium 522. Strontium 523. Manganese 524. Selenium 525. Silver 526. Tin 527. Antimony 528. Bismuth 529. Tellurium 530. Arsenic 531. Chromium 532. Manganese 533. Nickel 534. Lead 535. Copper 536. Zinc 537. Iron 538. Manganese 539. Vanadium 540. Molybdenum 541. Cobalt 542. Cadmium 543. Barium 544. Strontium 545. Manganese 546. Selenium 547. Silver 548. Tin 549. Antimony 550. Bismuth 551. Tellurium 552. Arsenic 553. Chromium 554. Manganese 555. Nickel 556. Lead 557. Copper 558. Zinc 559. Iron 560. Manganese 561. Vanadium 562. Molybdenum 563. Cobalt 564. Cadmium 565. Barium 566. Strontium 567. Manganese 568. Selenium 569. Silver 570. Tin 571. Antimony 572. Bismuth 573. Tellurium 574. Arsenic 575. Chromium 576. Manganese 577. Nickel 578. Lead 579. Copper 580. Zinc 581. Iron 582. Manganese 583. Vanadium 584. Molybdenum 585. Cobalt 586. Cadmium 587. Barium 588. Strontium 589. Manganese 590. Selenium 591. Silver 592. Tin 593. Antimony 594. Bismuth 595. Tellurium 596. Arsenic 597. Chromium 598. Manganese 599. Nickel 600. Lead 601. Copper 602. Zinc 603. Iron 604. Manganese 605. Vanadium 606. Molybdenum 607. Cobalt 608. Cadmium 609. Barium 610. Strontium 611. Manganese 612. Selenium 613. Silver 614. Tin 615. Antimony 616. Bismuth 617. Tellurium 618. Arsenic 619. Chromium 620. Manganese 621. Nickel 622. Lead 623. Copper 624. Zinc 625. Iron 626. Manganese 627. Vanadium 628. Molybdenum 629. Cobalt 630. Cadmium 631. Barium 632. Strontium 633. Manganese 634. Selenium 635. Silver 636. Tin 637. Antimony 638. Bismuth 639. Tellurium 640. Arsenic 641. Chromium 642. Manganese 643. Nickel 644. Lead 645. Copper 646. Zinc 647. Iron 648. Manganese 649. Vanadium 650. Molybdenum 651. Cobalt 652. Cadmium 653. Barium 654. Strontium 655. Manganese 656. Selenium 657. Silver 658. Tin 659. Antimony 660. Bismuth 661. Tellurium 662. Arsenic 663. Chromium 664. Manganese 665. Nickel 666. Lead 667. Copper 668. Zinc 669. Iron 670. Manganese 671. Vanadium 672. Molybdenum 673. Cobalt 674. Cadmium 675. Barium 676. Strontium 677. Manganese 678. Selenium 679. Silver 680. Tin 681. Antimony 682. Bismuth 683. Tellurium 684. Arsenic 685. Chromium 686. Manganese 687. Nickel 688. Lead 689. Copper 690. Zinc 691. Iron 692. Manganese 693. Vanadium 694. Molybdenum 695. Cobalt 696. Cadmium 697. Barium 698. Strontium 699. Manganese 700. Selenium 701. Silver 702. Tin 703. Antimony 704. Bismuth 705. Tellurium 706. Arsenic 707. Chromium 708. Manganese 709. Nickel 710. Lead 711. Copper 712. Zinc 713. Iron 714. Manganese 715. Vanadium 716. Molybdenum 717. Cobalt 718. Cadmium 719. Barium 720. Strontium 721. Manganese 722. Selenium 723. Silver 724. Tin 725. Antimony 726. Bismuth 727. Tellurium 728. Arsenic 729. Chromium 730. Manganese 731. Nickel 732. Lead 733. Copper 734. Zinc 735. Iron 736. Manganese 737. Vanadium 738. Molybdenum 739. Cobalt 740. Cadmium 741. Barium 742. Strontium 743. Manganese 744. Selenium 745. Silver 746. Tin 747. Antimony 748. Bismuth 749. Tellurium 750. Arsenic 751. Chromium 752. Manganese 753. Nickel 754. Lead 755. Copper 756. Zinc 757. Iron 758. Manganese 759. Vanadium 760. Molybdenum 761. Cobalt 762. Cadmium 763. Barium 764. Strontium 765. Manganese 766. Selenium 767. Silver 768. Tin 769. Antimony 770. Bismuth 771. Tellurium 772. Arsenic 773. Chromium 774. Manganese 775. Nickel 776. Lead 777. Copper 778. Zinc 779. Iron 780. Manganese 781. Vanadium 782. Molybdenum 783. Cobalt 784. Cadmium 785. Barium 786. Strontium 787. Manganese 788. Selenium 789. Silver 790. Tin 791. Antimony 792. Bismuth 793. Tellurium 794. Arsenic 795. Chromium 796. Manganese 797. Nickel 798. Lead 799. Copper 800. Zinc 801. Iron 802. Manganese 803. Vanadium 804. Molybdenum 805. Cobalt 806. Cadmium 807. Barium 808. Strontium 809. Manganese 810. Selenium 811. Silver 812. Tin 813. Antimony 814. Bismuth 815. Tellurium 816. Arsenic 817. Chromium 818. Manganese 819. Nickel 820. Lead 821. Copper 822. Zinc 823. Iron 824. Manganese 825. Vanadium 826. Molybdenum 827. Cobalt 828. Cadmium 829. Barium 830. Strontium 831. Manganese 832. Selenium 833. Silver 834. Tin 835. Antimony 836. Bismuth 837. Tellurium 838. Arsenic 839. Chromium 840. Manganese 841. Nickel 842. Lead 843. Copper 844. Zinc 845. Iron 846. Manganese 847. Vanadium 848. Molybdenum 849. Cobalt 850. Cadmium 851. Barium 852. Strontium 853. Manganese 854. Selenium 855. Silver 856. Tin 857. Antimony 858. Bismuth 859. Tellurium 860. Arsenic 861. Chromium 862. Manganese 863. Nickel 864. Lead 865. Copper 866. Zinc 867. Iron 868. Manganese 869. Vanadium 870. Molybdenum 871. Cobalt 872. Cadmium 873. Barium 874. Strontium 875. Manganese 876. Selenium 877. Silver 878. Tin 879. Antimony 880. Bismuth 881. Tellurium 882. Arsenic 883. Chromium 884. Manganese 885. Nickel 886. Lead 887. Copper 888. Zinc 889. Iron 890. Manganese 891. Vanadium 892. Molybdenum 893. Cobalt 894. Cadmium 895. Barium 896. Strontium 897. Manganese 898. Selenium 899. Silver 900. Tin 901. Antimony 902. Bismuth 903. Tellurium 904. Arsenic 905. Chromium 906. Manganese 907. Nickel 908. Lead 909. Copper 910. Zinc 911. Iron 912. Manganese 913. Vanadium 914. Molybdenum 915. Cobalt 916. Cadmium 917. Barium 918. Strontium 919. Manganese 920. Selenium 921. Silver 922. Tin 923. Antimony 924. Bismuth 925. Tellurium 926. Arsenic 927. Chromium 928. Manganese 929. Nickel 930. Lead 931. Copper 932. Zinc 933. Iron 934. Manganese 935. Vanadium 936. Molybdenum 937. Cobalt 938. Cadmium 939. Barium 940. Strontium 941. Manganese 942. Selenium 943. Silver 944. Tin 945. Antimony 946. Bismuth 947. Tellurium 948. Arsenic 949. Chromium 950. Manganese 951. Nickel 952. Lead 953. Copper 954. Zinc 955. Iron 956. Manganese 957. Vanadium 958. Molybdenum 959. Cobalt 960. Cadmium 961. Barium 962. Strontium 963. Manganese 964. Selenium 965. Silver 966. Tin 967. Antimony 968. Bismuth 969. Tellurium 970. Arsenic 971. Chromium 972. Manganese 973. Nickel 974. Lead 975. Copper 976. Zinc 977. Iron 978. Manganese 979. Vanadium 980. Molybdenum 981. Cobalt 982. Cadmium 983. Barium 984. Strontium 985. Manganese 986. Selenium 987. Silver 988. Tin 989. Antimony 990. Bismuth 991. Tellurium 992. Arsenic 993. Chromium 994. Manganese 995. Nickel 996. Lead 997. Copper 998. Zinc 999. Iron	Laboratory to use applicable DEP CAM methods, unless otherwise directed.	
							3. 8260B: Methyl-tert-Butyl Ether, tert-Butyl Alcohol, tert-Butyl Methyl Ether, and 1,1 Dichloroethane ONLY
							5. 8270 SIM: benzo(a)anthracene, benzo(a)pyrene, benzo(k)fluoranthene, chrysene, dibenzo(a,h)anthracene, indeno(1,2,3-cd)pyrene, acenaphthene, acenaphthylene, anthracene, benzo(g,h,i)perylene, fluoranthene, phenanthrene, pyrene, fluorene and naphthalene ONLY
							7. Arsenic, chromium, chromium III, copper, lead, mercury, nickel, selenium, zinc, iron ONLY

Haley & Aldrich, Inc.
465 Medford St.,
Suite 2200,
Boston, MA 02129-1402

CHAIN OF CUSTODY RECORD

H&A FILE NO.	38625-021	LABORATORY ALPHA ANALYTICAL
PROJECT NAME	165 Cambridgepark Drive	ADDRESS WESTBOROUGH, MA
H&A CONTACT	Sandhya Potania	CONTACT Gina Hall

DELIVERY DATE 8/5/13
TURNAROUND TIME Standard 5-day TAT
PROJECT MANAGER Brad Aldinger

Phone	(617) 886-7400
Fax	(617) 886-7600

Page 1 of 1

Sample No.	Date	Time	Depth	Type	Analysis Requested	Number of Containers	Comments (special instructions, precautions, additional method numbers, etc.)
HA12-08(OW)-NPDES	7/15/2013	1330	5'	OW	1. TSS (2540D) ☒ 2. TPH (1664A) ☒ 3. 8260B ☒ 4. 1,4 Dioxane (method 8270) ☒ 5. 8270 SIM ☒ 6. Chloride (300.0) ☒ 7. Total Metals ☒ 8. Hexavalent Chromium ☒ 9. Dissolved Metals ☒ 10. TCN ☒ 11. EDB ☒ 12. PCBs ☒		Laboratory to use applicable DEP CAM methods, unless otherwise directed.
COC NOTES PER SANDHYA POTANA 7/16/13 ---GMH ITEM #4: Analyze 1,4-Dioxane by method 8260LI ITEM #5: Analyze full NPDES list of 8270 compounds for 8270/8270SIM ITEM #7: Total Metals list Ag, As, Cd, Cr, Cu, Ni, Pb, Sb, Se, Zn, Hg, Fe ITEM #11: 504 report both EDB and DBCP Also analyze for Total Residual Chlorine and Total Phenol 420							
Sampling Comments: Needs to meet NPDES RGP Limits pH: 6.7 Put Dissolved Metals on HOLD until authorized by Sandhya Potana							
Evidence samples were tampered with? YES NO IF YES, please explain in section below.							
Required Reporting Limits and Data Quality Objectives RC-S1 ☐ S1 ☐ GW1 ☐ RC-S2 ☐ S2 ☐ GW2 ☐ RC-GW1 ☐ S3 ☐ GW3 ☐ RC-GW2 ☐							

Serial No: 01861317:10

CHAIN OF CUSTODY RECORD

HALEY & ALDRICH
Hayley & Aldrich, Inc.
465 Medford St.,
Suite 2200,
Boston, MA 02129-1402

H&A FILE NO. 38625-0213
PROJECT NAME 165 Cambridgepark Drive
H&A CONTACT Sandhya Potana

LABORATORY ALPHA ANALYTICAL
ADDRESS WESTBOROUGH, MA
CONTACT Gina Hall

DELIVERY DATE 7/15/13
TURNAROUND TIME Standard 5-day TAT
PROJECT MANAGER Brad Aldinger

Sample No.	Date	Time	Depth	Type	Analysis Requested	Number of Containers	Comments (special instructions, precautions, additional method numbers, etc.)
HA12-08(OW)-NPDES	7/15/2013	1330	5'	OW	1. 1,2,4-Dioxane (mod 8270) 2. TPH (1664A) 3. Chloride (3000) 4. Hexachlorocyclopentadiene 5. Hexachlorobenzene 6. Dieldrin 7. DDT 8. Heptachlor Epoxide 9. Heptachlor 10. TCN 11. PCBs 12. PCBs		Laboratory to use applicable DEP CAM methods, unless otherwise directed.
							3. 8260B: Methyl-tert-Butyl Ether, tert-Butyl Alcohol, tert-Amyl Methyl Ether, and 1,1 Dichloroethane ONLY
							5. 8270 SIM: benzo(a)anthracene, benzo(a)pyrene, benzo(k)fluoranthene, chrysene, dibenzo(a,h)anthracene, indeno(1,2,3-cd)pyrene, acenaphthene, acenaphthylene, anthracene, benzo(g,h,i)perylene, fluoranthene, phenanthrene, pyrene, fluorene and naphthalene ONLY
							7. Arsenic, chromium, chromium III, copper, lead, mercury, nickel, selenium, zinc, iron ONLY

Sampled and Relinquished by	Received by	LIQUID	SOLID
Sign <i>[Signature]</i> Print TIM BAKER Firm H&A Date 7/15/13 Time 1630	Sign H&A FEINKE Print H&A Firm H&A Date 7/15/13 Time 1500	VOA Vial 8 Amber Glass 9 Plastic Bottle 6 Preservative Volume	VOA Vial Amber Glass Clear Glass Preservative Volume
Relinquished by Sign <i>[Signature]</i> Print M. AUST Firm H&A Date 7/15/13 Time 1630	Relinquished by Sign <i>[Signature]</i> Print Wayne Pinner Firm Alpha Date 7/15/13 Time 1753		

Presumptive Certainty Data Package (Laboratory to use applicable DEP CAM methods)

Preservation Key:
A Sample chilled C (NaOH)
B Sample filtered D (HNO₃)
E H₂SO₄
F HCL
G Methanol
H Water/NaHSO₄ (circle)

Required Reporting Limits and Data Quality

Objectives
☐ RC-S1 ☐ S1 ☐ GW1
☐ RC-S2 ☐ S2 ☐ GW2
☐ RC-GW1 ☐ S3 ☐ GW3
☐ RC-GW2

If Presumptive Certainty Data Package is needed, initial all sections:
NO The required minimum field QC samples, as designated in BWSC CAM-VII have been or will be collected, to meet the requirements of Presumptive Certainty.
NO Matrix Spike (MS) samples for MCP Metals and/or Cyanide are included and identified herein.
NA This Chain of Custody Record (specify) includes X does not include samples defined as Drinking Water Samples.
NA If this Chain of Custody Record identifies samples defined as Drinking Water Samples, Trip Blanks and Field Duplicates are included and identified and analysis of TICs are required, as appropriate.
Laboratory should (specify if applicable) analyze

Fish and Wildlife

MassDEP - Bureau of Waste Site Cleanup

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

Site Information:

165 CAMBRIDGE PARK DRIVE
165 CAMBRIDGE PARK DRIVE CAMBRIDGE, MA

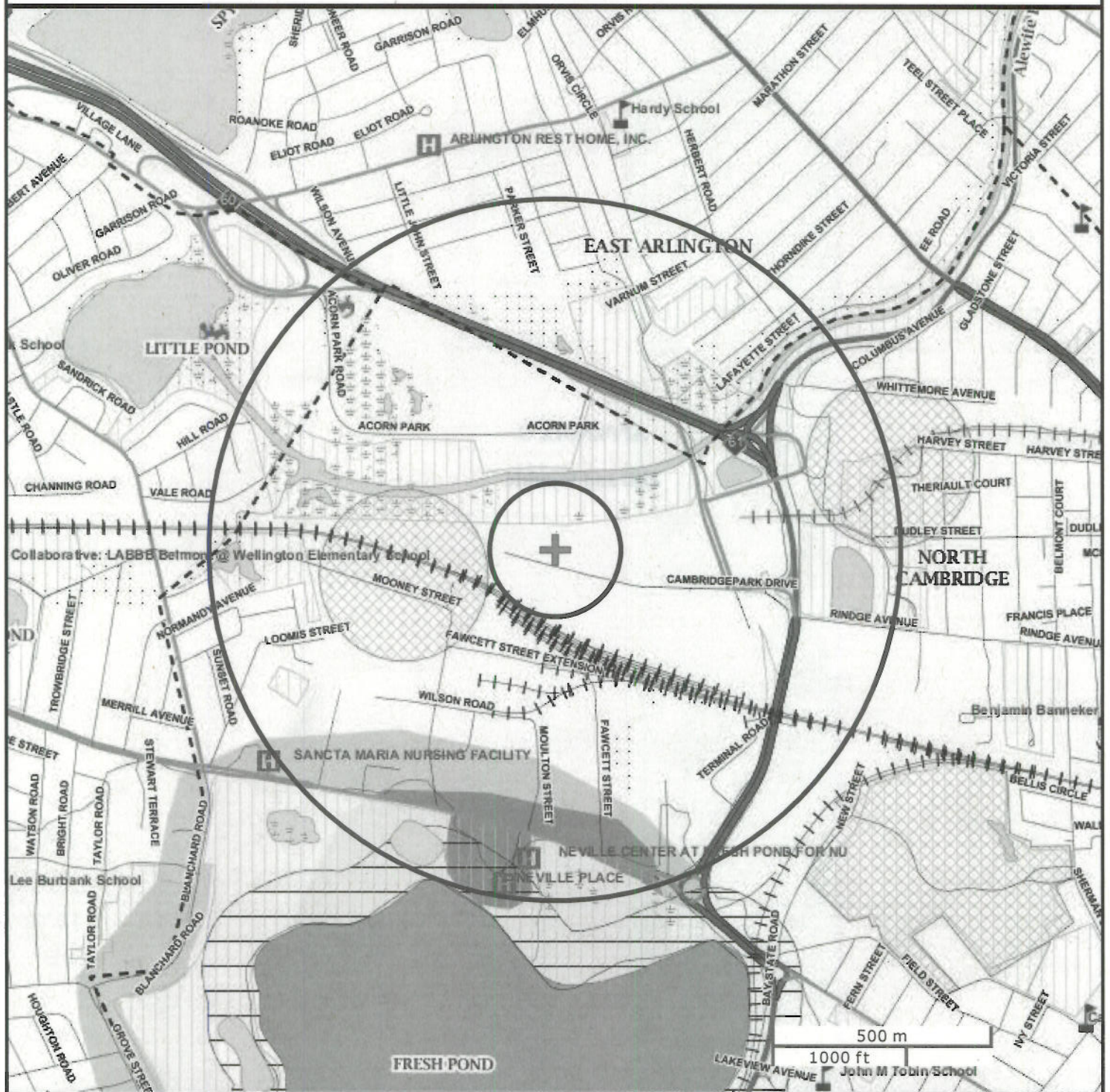
NAD83 UTM Meters:
4695917mN, 323267mE (Zone: 19)
July 30, 2013

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



MassDEP

Commonwealth of Massachusetts
Department of Environmental Protection



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

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

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

Aquifers: Medium Yield, High Yield, EPA Sole Source.....

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

PWS Protection Areas: Zone II, MWPA, Zone A

Hydrography: Open Water, PWS Reservoir, Tidal Flat

Wetlands: Freshwater, Saltwater, Cranberry Bog

FEMA 100yr Floodplain; Protected Open Space; ACEC

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

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



United States Department of the Interior



FISH AND WILDLIFE SERVICE

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

January 7, 2013

To Whom It May Concern:

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

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

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

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

Sincerely yours,

Thomas R. Chapman
Supervisor
New England Field Office

FEDERALLY LISTED ENDANGERED AND THREATENED SPECIES IN MASSACHUSETTS

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

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

Revised 10/7/2011

The Official Website of the Department of Fish and Game (DFG)

Department of Fish and Game

Commissioner Mary B. Griffin

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MassWildlife

Massachusetts Division of Fisheries & Wildlife

Wayne F. MacCallum, Director



Natural Heritage & Endangered Species

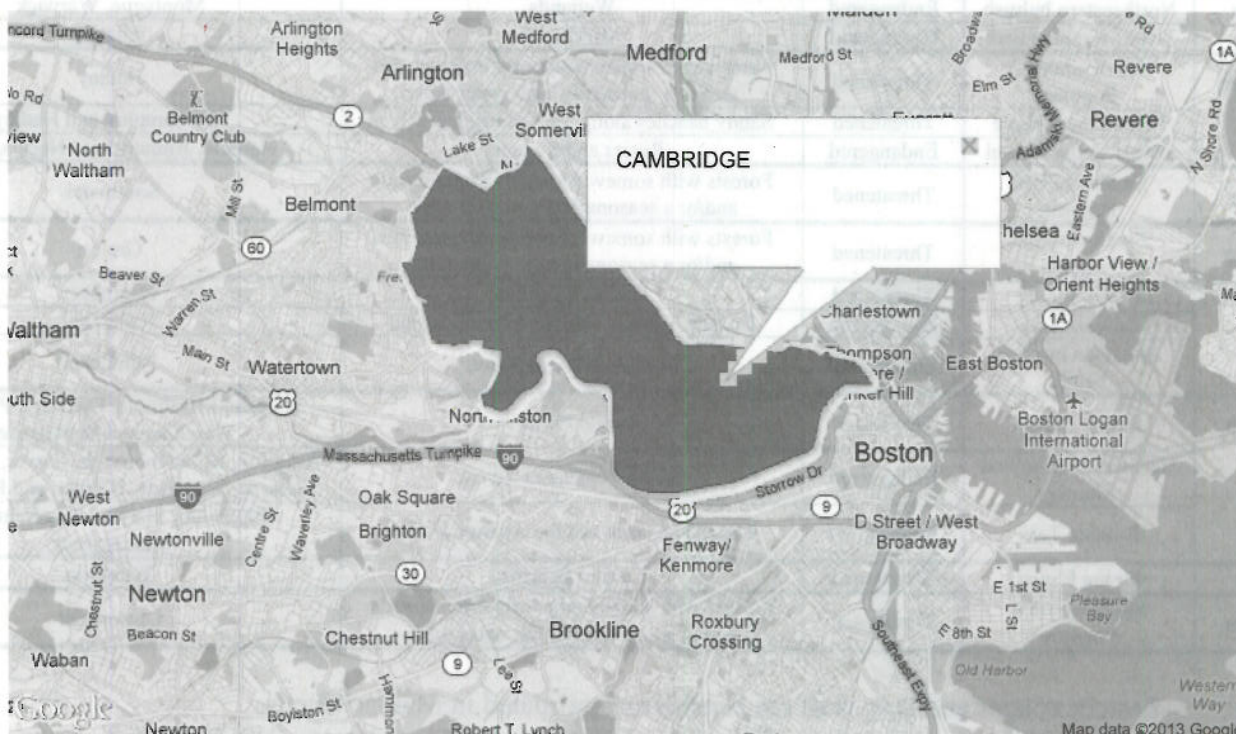
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Rare Species by Town

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

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

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



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

Showing 1 to 25 of 25 entries

Search:

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Town	Scientific Name	Common Name	MESA Status	Most Recent Obs
CAMBRIDGE	Ambystoma laterale	Blue-spotted Salamander	SC	1917
CAMBRIDGE	Scaphiopus holbrookii	Eastern Spadefoot	T	1892
CAMBRIDGE	Cicindela duodecimguttata	Twelve-spotted Tiger Beetle	SC	1932
CAMBRIDGE	Ammodramus henslowii	Henslow's Sparrow	E	1871
CAMBRIDGE	Botaurus lentiginosus	American Bittern	E	1906
CAMBRIDGE	Cistothorus platensis	Sedge Wren	E	1840
CAMBRIDGE	Falco peregrinus	Peregrine Falcon	E	2010
CAMBRIDGE	Gallinula chloropus	Common Moorhen	SC	1890
CAMBRIDGE	Ixobrychus exilis	Least Bittern	E	1890
CAMBRIDGE	Tyto alba	Barn Owl	SC	Historic
CAMBRIDGE	Eacles imperialis	Imperial Moth	T	Historic
CAMBRIDGE	Notropis bifrenatus	Bridle Shiner	SC	1928
CAMBRIDGE	Ligumia nasuta	Eastern Pondmussel	SC	1940
CAMBRIDGE	Glyptemys insculpta	Wood Turtle	SC	Historic
CAMBRIDGE	Terrapene carolina	Eastern Box Turtle	SC	1892
CAMBRIDGE	Macrobdeella sestertia	New England Medicinal Leech	SC	1800s
CAMBRIDGE	Carex gracilescens	Slender Woodland Sedge	E	1891
CAMBRIDGE	Cyperus engelmannii	Engelmann's Umbrella-sedge	T	2008
CAMBRIDGE	Gentiana andrewsii	Andrews' Bottle Gentian	E	2010
CAMBRIDGE	Isoetes lacustris	Lake Quillwort	E	Historic
CAMBRIDGE	Platanthera flava var. herbiola	Pale Green Orchis	T	Historic
CAMBRIDGE	Potamogeton friesii	Fries' Pondweed	E	1880
CAMBRIDGE	Scirpus longii	Long's Bulrush	T	1913
CAMBRIDGE	Suaeda calceoliformis	American Sea-blite	SC	1912
CAMBRIDGE	Viola brittoniana	Britton's Violet	T	1843

Show 100 ☐ entries

Hide Additional Info

Status

- 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.

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

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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