



**NOTICE OF INTENT FOR DISCHARGE
UNDER MASSACHUSETTS DEWATERING
GENERAL PERMIT MAG070000**

112-116 MOUNT AUBURN STREET

CAMBRIDGE MASSACHUSETTS

to

U.S. Environmental Protection Agency,
Massachusetts Department of Environmental
Protection

January 15, 2013

Project No. 4828



January 15, 2013

U.S Environmental Protection Agency
Dewatering GP Processing
Municipal Assistance Unit (CMU)
1 Congress Street, Suite 1100
Boston, MA 02114-2023

Attention: DGP Processing

Reference: 112-116 Mount Auburn Street; Cambridge, Massachusetts
Notice of Intent for Construction Dewatering Discharge Under Massachusetts General
Discharge MAG070000

Ladies and Gentlemen:

The purpose of this letter report is to provide a summary of the site and groundwater quality information in support of an application for approval from the U.S. Environmental Protection Agency (EPA) for the temporary discharge of groundwater into the Charles River via a storm drain system during construction at the above referenced site. Refer to **Figure 1** Project Location Plan for the general site locus.

These services were performed and this report was prepared in accordance with the authorization of Conductor's Building, LLC. These services are subject to the limitations contained in **Appendix A**.

The development parcel occupies an approximate 160-foot by 65-foot rectangular footprint located on the east end of the block formed by Mount Auburn Street to the north, Bennett Street to the south, and a Massachusetts Bay Transportation Authority (MBTA) Busway to the east. To the west, the site is bounded by a 4-story residential structure. The northern portion of the development parcel is occupied by a 2 to 4-story structure with a partial basement, which will be demolished as part of the proposed development. The southern portion of the development parcel is occupied by a one-story building that contains an MBTA Transformer Facility which has a one-level basement in which the concrete floor slab is at Elevation +14.2. The existing ground surface surrounding the site slopes down gradually from about Elevation +25 along Mount Auburn Street to about Elevation +23 along Bennett Street. Elevations cited herein are in feet and are referenced to the Cambridge City Base (CCB) which is 10.84 feet below the National Geodetic Vertical Datum (NGVD). Existing site conditions are shown on the attached **Subsurface Exploration Plan, Figure 2**.

The scope of the proposed development includes the demolition of the vacant building that occupies the northern portion of the development parcel and the construction of a seven-story steel-framed structure occupying the entire parcel. The existing building that contains the MBTA Transformer Facility will remain in-place and the new structure will span over the existing building. The proposed structure will have a partial basement occupying the northern portion of the site having its lowest level slab at Elevation +14.2 to match that of the basement level of the adjacent MBTA Transformer Facility.

Excavation within the proposed building footprint will extend to a depth of approximately 15 feet below the current ground surface and will require temporary excavation support. The final excavations will also extend approximately 4 to 5 feet below the observed groundwater level. Hence, construction dewatering will be required within the excavation area to allow the construction of the below-grade portion of the concrete slab and foundations.



US EPA
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Construction dewatering will require the discharge of collected groundwater into the storm drain system under the requested Dewatering General Permit (DGP). A review of available plans on the City of Cambridge on-line GIS database indicates that dedicated storm drains are located beneath Bennett Street on the southern side of the site. Specifically, there is a 15-inch storm drain line which connects to a 34-inch by 54-inch storm drain line beneath University Road that flows southwest and discharges into the Charles River, a Class B water body. The location of the relevant catch basins with relation to the site are indicated on **Figure 2**. The flow path of the discharge is shown on a plan provided by the City of Cambridge on-line GIS database which is included as **Figure 3**.

Given that the proposed scope of construction includes excavation for the proposed building foundation, a sedimentation tank, 5,000-gallons in capacity, will be incorporated into the discharge system in order to meet allowable discharge limits for total suspended solids (TSS) established by the DGP. It is estimated that continuous groundwater discharge required during the foundation construction will be on the order of 20 to 50 gallons per minute (gpm). This estimate of discharge does not include surface runoff which will be removed from the excavation during the limited duration of a rain storm and shortly thereafter. A schematic of the treatment system is shown on **Figure 4**.

To document the effectiveness of the above treatment system, samples of the discharge water will be obtained and tested for the presence of TSS prior to the start of discharge into the storm drain system. Should the pre-start up testing indicate that the levels of TSS in the effluent from the settling tank exceed the limits established under the DGP, additional filtration of the effluent will be implemented prior to discharge.

In conclusion, it is our opinion that groundwater at the site is acceptable for discharge into the storm drain system and ultimately into the Charles River under a Dewatering General Permit. Sampling and analysis of the effluent will be carried out in accordance with the terms of Dewatering General Permit.

Supplemental information attached to this letter in support of the DGP includes the following;

- Notice of Intent and Transmittal Form for Permit Application (**Appendix B**);
- A summary of groundwater analysis (**Appendix C, Table 1**);
- A review of adjacent and nearby DEP-listed disposal sites (**Attachment D**);
- A review of Areas of Critical Concern and Endangered and Threatened Species (**Appendix E**); and
- A review of National Historic Places (**Attachment F**).



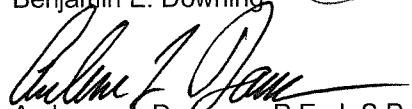
US EPA
NOI, 112-116 Mount Auburn Street; Cambridge
Page 3, January 15, 2013

We trust that the above satisfies your present requirements. Should you have any questions or comments concerning the above, please do not hesitate to contact us.

Very truly yours,

McPHAIL ASSOCIATES, LLC


Benjamin E. Downing


Ambrose J. Donovan, P.E., L.S.P.

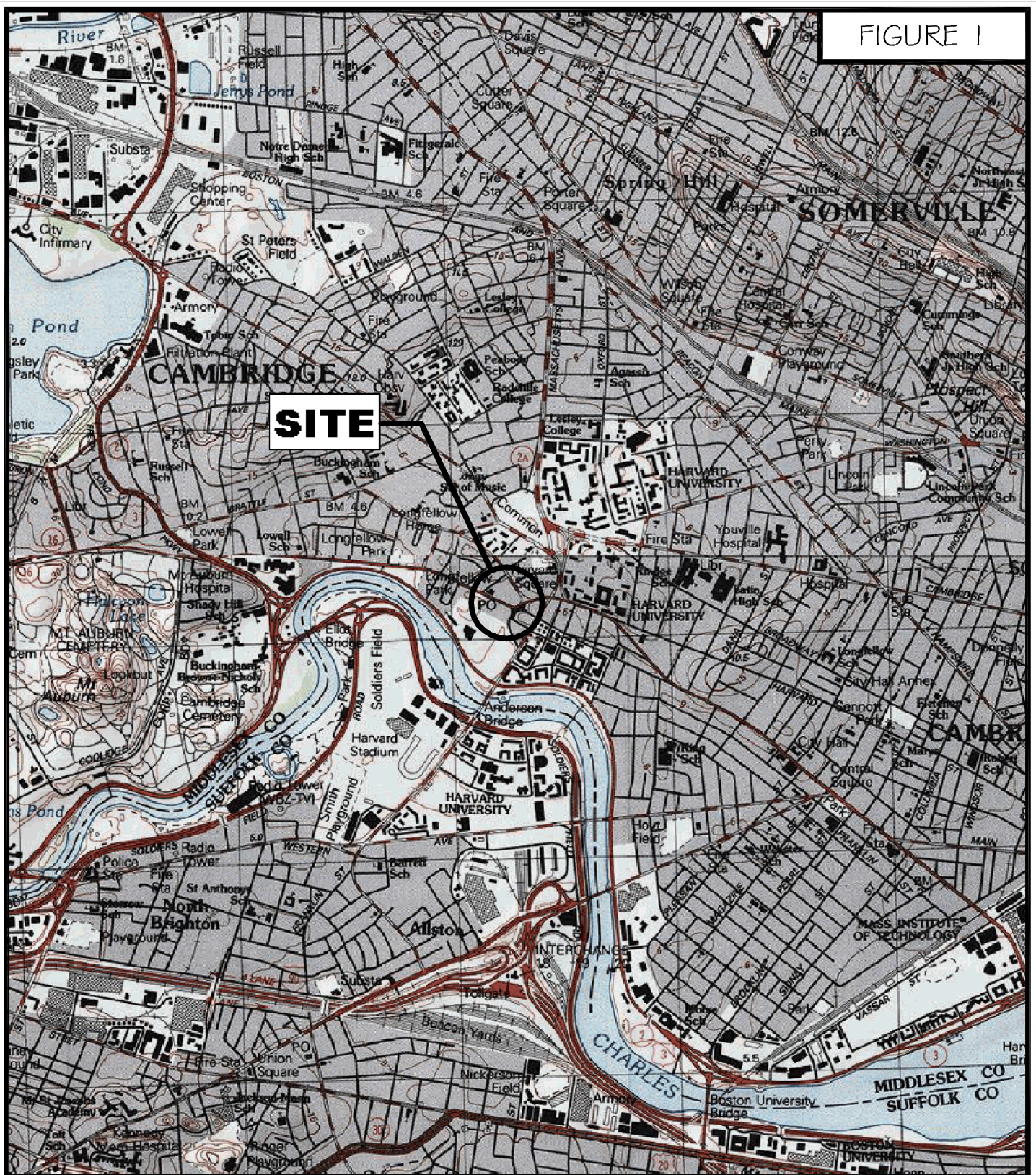
Enclosures

c: Conductor's Building, LLC (Mr. Darren Messina)
CSL Consulting, LLC (Mr. Chad Siebel)

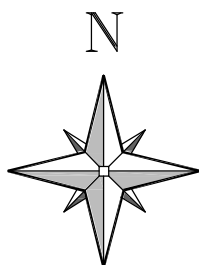
F:\WP5\REPORTS\4828_DGP.wpd

BED/jwp/ajd

FIGURE 1



McPHAIL ASSOCIATES, LLC
Geotechnical and
Geoenvironmental Engineers
2269 Massachusetts Avenue
Cambridge, MA 02140
617/868-1420
617/868-1423 (Fax)



SCALE 1:25,000

PROJECT LOCATION PLAN

112 - 116 MOUNT AUBURN STREET

CAMBRIDGE

MASSACHUSETTS

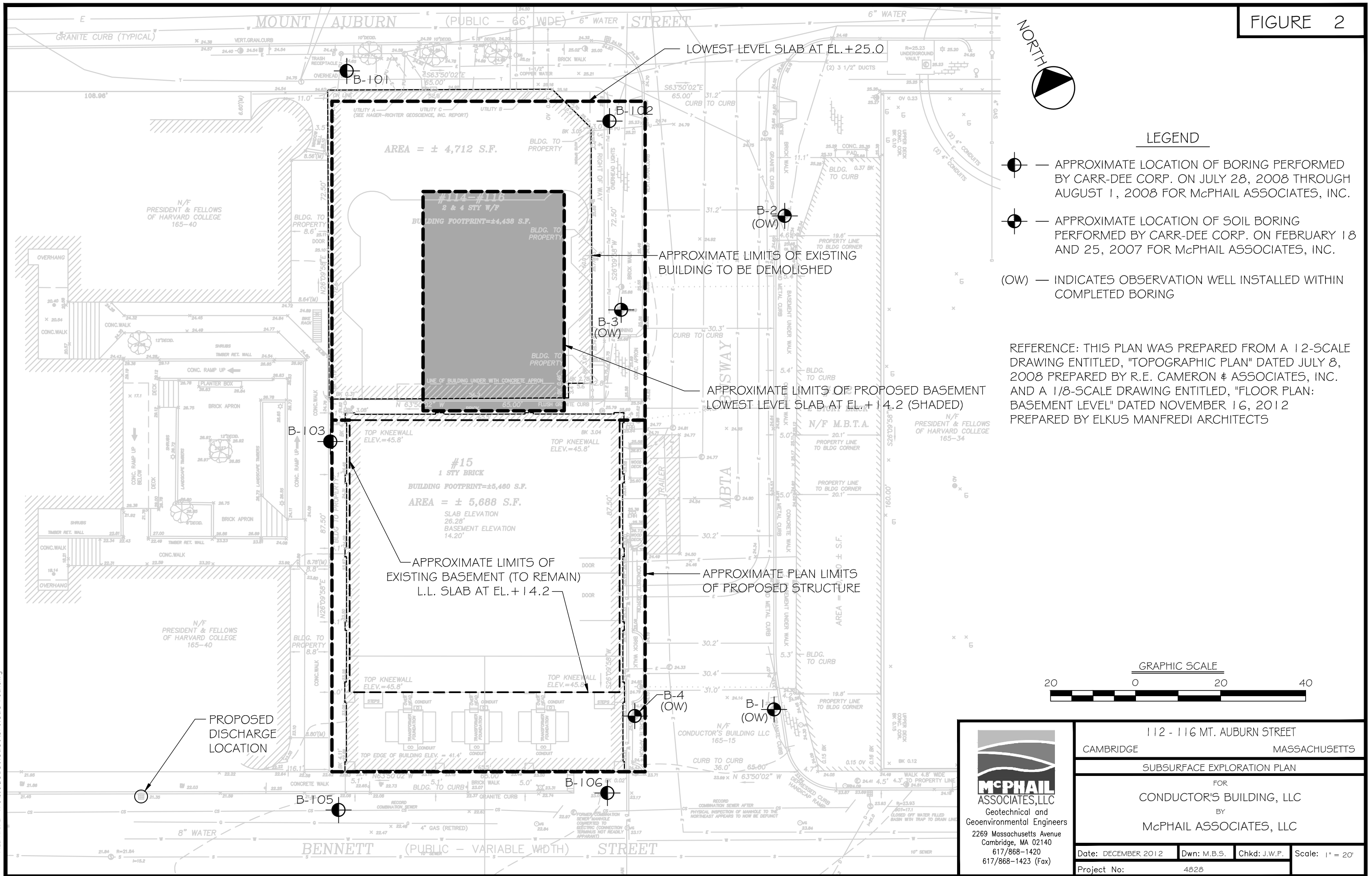
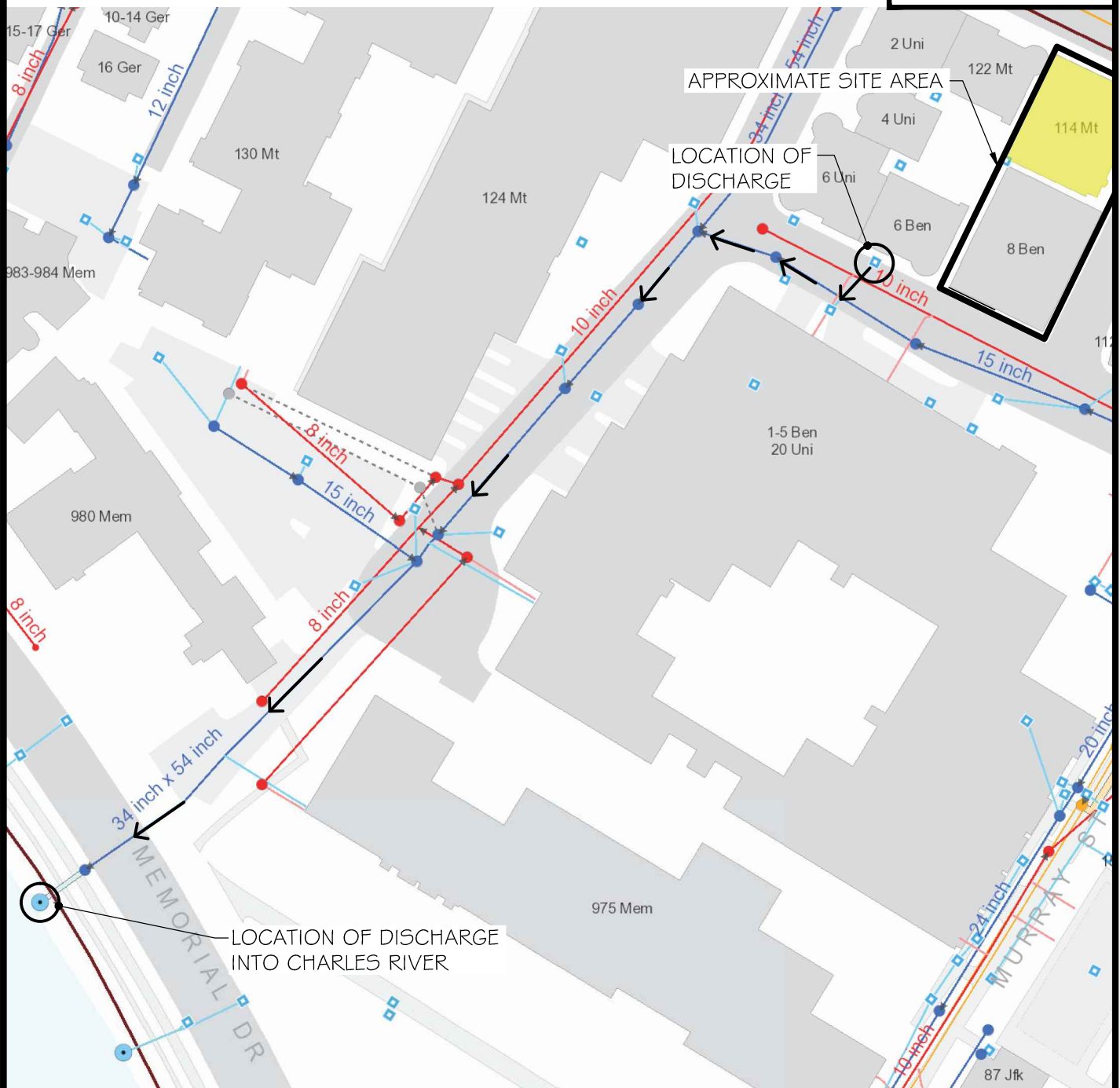


FIGURE 3

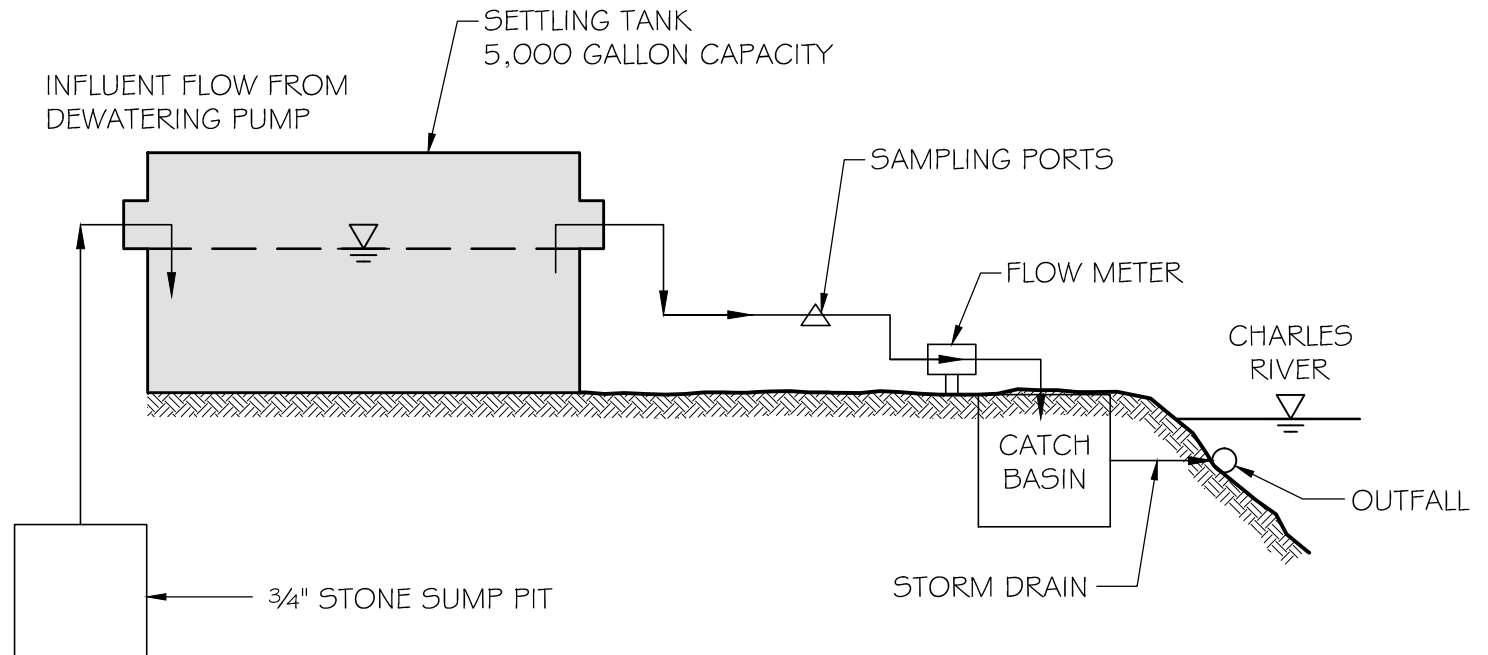


- Outfalls**
- Stormwater
 - Combined Sewer Overflo
 - Abandoned
- Pumping Structures**
- Pump Station
 - Lift Station
- Manholes**
- Stormwater
 - Sewage
 - Combined Sewage
 - Abandoned
- Lampholes**
- Lamphole, Sewage
 - Lamphole, Storm Runoff
- Catchbasins**
- Standard Sump
 - Drop Inlet
 - Area Drain
 - Drywell
 - Oil/Water Separator
 - Abandoned
 - Trench Drains
- Service Laterals**
- Combined Wastewater, In
 - Stormwater
 - Sewage
 - Abandoned
- Force Mains**
- Combined Wastewater
 - Sewage
 - Storm Runoff
- MWRA Mains**
- Abandoned
 - In Service
- Underground Structures**
- Stormwater
 - Sewage
 - Combined Sewage
- Zoom Three Paved Surfaces**
- Paved Roads
 - Paved Parking
 - Bridges
 - Public Footpath



Geotechnical and
Geoenvironmental Engineers
2269 Massachusetts Avenue
Cambridge, MA 02140
617/868-1420
617/868-1423 (Fax)

FIGURE 4



McPHAIL ASSOCIATES, LLC
 Geotechnical and
 Geoenvironmental Engineers
 2269 Massachusetts Avenue
 Cambridge, MA 02140
 617/868-1420
 617/868-1423 (Fax)

112 - 116 MT. AUBURN STREET
 CAMBRIDGE MASSACHUSETTS

SCHEMATIC OF TREATMENT SYSTEM

FOR
 CONDUCTOR'S BUILDING, LLC

BY
 McPHAIL ASSOCIATES, LLC
 CONSULTING GEOTECHNICAL ENGINEERS

Date: DECEMBER 2012	Dwn: M.B.S.	Chkd: B.E.D.	Scale: N.T.S.
Project No: 4828			



APPENDIX A

LIMITATIONS

The purpose of this report is to present the results of testing of groundwater samples obtained from a monitoring well on the property located at 112-116 Mount Auburn Street in Cambridge, Massachusetts, in support of an application for approval of construction site dewatering discharge into surface waters of the Commonwealth of Massachusetts under EPA's Massachusetts Dewatering General Permit MAG070000.

The observations were made under the conditions stated in this report. The conclusions presented above were based on these observations. If variations in the nature and extent of subsurface conditions between the specific subsurface explorations that were performed become evident in the future, it may be necessary to re-evaluate the conclusions presented herein after performing on-site observations and noting the characteristics of any variations.

The conclusions submitted in this report are based in part upon analytical test data obtained from analysis of groundwater samples, and are contingent upon their validity. The data have been reviewed, and interpretations have been made in the text. It should also be noted that fluctuations in the types and levels of contaminants and variations in their flow paths may occur due to changes in seasonal groundwater level, past practices used in disposal and other factors.

Analytical analyses have been performed for specific constituents during the course of this site assessment, as described in the text. However, it should be noted that additional constituents not searched for during the current study may be present in soil and/or groundwater at the site.

This report and application have been prepared on behalf of and for the exclusive use of Conductor's Building, LLC. This report and the findings contained herein shall not, in whole or in part, be disseminated or conveyed to any other party nor used in whole or in part by any other party without prior written consent of McPhail Associates, LLC.



APPENDIX B

Notice of Intent
Transmittal Form

II. Suggested Notice of Intent (NOI) Form

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

a) Name of facility: 112-116 Mount Auburn Street		Mailing Address for the Facility: 112 Mount Auburn Street, Cambridge, MA 02138	
b) Location Address of the Facility (if different from mailing address):	Facility Location	Type of Business:	
	longitude: <u>-71.122502</u> latitude: <u>42.372915</u>	Construction Site Facility SIC codes:	
c) Name of facility owner: <u>Conductor's Building, LLC</u> Owner's email: <u>dmessina@carpenterholdings.com</u> Owner's Tel #: <u>617-864-2800</u> Owner's Fax #: _____ Address of owner (if different from facility address) <u>Carpenter & Company, Inc., Charles Square, 20 University Road, Cambridge, MA 02138</u> Owner is (check one): 1. Federal _____ 2. State _____ 3. Tribal _____ 4. Private ☒ 4. Other _____ (Describe)			
Legal name of Operator, if not owner: _____ Operator Contact Name: <u>Darren Messina</u> Operator Tel Number: <u>(617) 864-2800</u> Fax Number: _____ Operator's email: <u>dmessina@carpenterholdings.com</u> Operator Address (if different from owner)			
d) Attach a topographic map indicating the location of the facility and the outfall(s) to the receiving water. Map attached? ☒			
e) Check Yes or No for the following: 1. Has a prior NPDES permit been granted for the discharge? Yes _____ No ☒ If Yes, Permit Number: _____ 2. Is the discharge a "new discharge" as defined by 40 CFR Section 122.22? Yes ☒ No _____ 3. Is the facility covered by an individual NPDES permit? Yes _____ No ☒ If Yes, Permit Number _____ 4. Is there a pending application on file with EPA for this discharge? Yes _____ No ☒ If Yes, date of submittal: _____			

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

a) Name of receiving water into which discharge will occur: Charles River
State Water Quality Classification: class B Freshwater: X Marine Water: _____

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

- ① Construction dewatering of groundwater intrusion and/or storm water accumulation. See Attached Report
2. Short-term or long-term dewatering of foundation sumps.
3. Other.

c) Number of outfalls 1

For each outfall:

d) Estimate the maximum daily and average monthly flow of the discharge (in gallons per day – GPD). Max Daily Flow 72000 GPD
Average Monthly Flow 28800 GPD

e) What is the maximum and minimum monthly pH of the discharge (in s.u.)? Max pH 8.5 Min pH 6.5

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

g) What treatment does the wastewater receive prior to discharge? Sedimentation Settling Tank, see attached report

h) Is the discharge continuous? Yes ✓ No _____ If no, is the discharge periodic (P) (occurs regularly, i.e., monthly or seasonally, but is not continuous all year) or intermittent (I) (occurs sometimes but not regularly) or both (B) _____
If (P), number of days or months per year of the discharge _____ and the specific months of discharge _____;
If (I), number of days/year there is a discharge _____
Is the discharge temporary? Yes ✓ No _____
If yes, approximate start date of dewatering March 1, 2013 approximate end date of dewatering August 30, 2013

i) Latitude and longitude of each discharge within 100 feet (See http://www.epa.gov/tri/report/siting_tool): Outfall 1: long. -71.1248 lat. 42.3716 ;
Outfall 2: long. _____ lat. _____; Outfall 3: long. _____ lat. _____.

j) If the source of the discharge is potable water, please provide the reported or calculated seven day-ten year low flow (7Q10) of the receiving water and attach any calculation sheets used to support stream flow and dilution calculations _____ cfs
(See Appendix VII for equations and additional information)

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

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

3. Contaminant Information

- a) Are any pH neutralization and/or dechlorination chemicals used in the discharge? If so, include the chemical name and manufacturer; maximum and average daily quantity used as well as the maximum and average daily expected concentrations (mg/l) in the discharge, and the vendor's reported aquatic toxicity (NOAEL and/or LC₅₀ in percent for aquatic organism(s)).
- b) Please report any known remediation activities or water-quality issues in the vicinity of the discharge.

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

- a) Are any listed threatened or endangered species, or designated critical habitat, in proximity to the discharge? Yes _____ No ✓
- b) Has any consultation with the federal services been completed? Yes _____ No ✓
- c) Is consultation underway? Yes _____ No ✓
- d) What were the results of the consultation with the U.S. Fish and Wildlife Service and/or NOAA 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.
- e) Which of the five eligibility criteria listed in Appendix 2, Section B (A,B,C,D,or E) have you met? A
- f) Please attach a copy of the most current federal listing of endangered and threatened species, found at USF&W website.

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

- a) Are any historic properties listed or eligible for listing on the National Register of Historic Places located on the facility site or in proximity to the discharge? Yes _____ No ✓
- b) Have any State or Tribal historic preservation officers been consulted in this determination? Yes _____ or No ✓ If yes, attach the results of the consultation(s).
- c) Which of the three National Historic Preservation Act requirements listed in Appendix 3, Section C (1,2 or 3) have you met? 1

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

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

I certify under penalty of law that (1) no biocides or other chemical additives except for those used for pH adjustment and/or dechlorination are used in the dewatering system; (2) the discharge consists solely of dewatering and authorized pH adjustment and/or

dechlorination chemicals; (3) the discharge does not come in contact with any raw materials, intermediate product, water product or finished product; (4) if the discharge of dewatering subsequently mixes with other permitted wastewater (i.e. stormwater) prior to discharging to the receiving water, any monitoring provided under this permit will be only for dewatering discharge; (5) where applicable, the facility has complied with the requirements of this permit specific to the Endangered Species Act and National Historic Preservation Act; and (6) this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted.

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

Facility Name: 112-116 Mount Auburn Street

Operator signature: 

Title: Vice President

Date: 1/15/13

Federal regulations require this application to be signed as follows:

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



Enter your transmittal number

X254119

Transmittal Number

Your unique Transmittal Number can be accessed online: <http://www.mass.gov/dep/counter/trasmfrm.shtml> or call DEP's InfoLine at 617-338-2255 or 800-462-0444 (from 508, 781, and 978 area codes).

Massachusetts Department of Environmental Protection

Transmittal Form for Permit Application and Payment

1. Please type or print. A separate Transmittal Form must be completed for each permit application.

2. Make your check payable to the Commonwealth of Massachusetts and mail it with a copy of this form to: DEP, P.O. Box 4062, Boston, MA 02211.

3. Three copies of this form will be needed.

Copy 1 - the original must accompany your permit application. **Copy 2** must accompany your fee payment. **Copy 3** should be retained for your records

4. Both fee-paying and exempt applicants must mail a copy of this transmittal form to:

DEP
P.O. Box 4062
Boston, MA
02211

*** Note:**
For BWSC Permits, enter the LSP.

A. Permit Information

BRPWM-10

Dewatering General Permit

1. Permit Code: 7 or 8 character code from permit instructions

2. Name of Permit Category

Temporary Construction Dewatering

3. Type of Project or Activity

B. Applicant Information – Firm or Individual

Conductor's Building, LLC

1. Name of Firm - Or, if party needing this approval is an individual enter name below:

2. Last Name of Individual

3. First Name of Individual

4. MI

c/o Carpenter & Company, Inc., 20 University Road

5. Street Address

Cambridge

MA

02138

617-864-2800

6. City/Town

7. State

8. Zip Code

9. Telephone #

10. Ext. #

Darren Messina

11. Contact Person

12. e-mail address (optional)

C. Facility, Site or Individual Requiring Approval

112-116 Mount Auburn Street

1. Name of Facility, Site Or Individual

112 Mount Auburn Street

2. Street Address

Cambridge

MA

02138

3. City/Town

4. State

5. Zip Code

6. Telephone #

7. Ext. #

8. DEP Facility Number (if Known)

9. Federal I.D. Number (if Known)

10. BWSC Tracking # (if Known)

D. Application Prepared by (if different from Section B)*

McPhail Associates, LLC

1. Name of Firm Or Individual

2269 Massachusetts Avenue

2. Address

Cambridge

MA

02140

617-349-7323

3. City/Town

4. State

5. Zip Code

6. Telephone #

7. Ext. #

Benjamin Downing

8. Contact Person

9. LSP Number (BWSC Permits only)

E. Permit - Project Coordination

1. Is this project subject to MEPA review? ☐ yes ☐ no
If yes, enter the project's EOE file number - assigned when an Environmental Notification Form is submitted to the MEPA unit:

EOEA File Number

F. Amount Due

Special Provisions:

1. ☐ Fee Exempt (city, town or municipal housing authority)(state agency if fee is \$100 or less).
There are no fee exemptions for BWSC permits, regardless of applicant status.
2. ☐ Hardship Request - payment extensions according to 310 CMR 4.04(3)(c).
3. ☐ Alternative Schedule Project (according to 310 CMR 4.05 and 4.10).
4. ☐ Homeowner (according to 310 CMR 4.02).

DEP Use Only

Permit No:

Rec'd Date:

Reviewer:

31235

\$385.00

1/15/2013

Check Number

Dollar Amount

Date

31235

MCPHAIL ASSOCIATES, LLC

2269 MASSACHUSETTS AVENUE
CAMBRIDGE, MA 02140

Cambridge Trust Company
CAMBRIDGE, MASS.

53-59-113

01

 EZShieldSM Check Fraud
Protection for Business

1/15/2013

PAY TO THE
ORDER OF

Commonwealth of Mass.

\$ **385.00

Three Hundred Eighty-Five and 00/100

DOLLARS

Commonwealth of Mass.

MEMO

X254119 - Dewatering Permit


AUTHORIZED SIGNATURE

Security features. Details on back.

⑈031235⑈ ⑆011300595⑆ ⑈50552801⑈



APPENDIX C

RESULTS OF RECENT GROUNDWATER ANALYSIS

On December 11, 2012, McPhail Associates, LLC obtained a sample of groundwater from on-site monitoring well B-3 (OW) and submitted the sample to a certified laboratory for analysis for the presence of parameters required under the EPA's Dewatering General Permit (DGP) application, including pH, total suspended solids (TSS), total residual chlorine, total petroleum hydrocarbons (TPH), cyanide, volatile organic compounds (VOCs) including total benzene, toluene, ethylbenzene and xylenes (BTEX), poly-aromatic hydrocarbons (PAHs), total phenols, PCBs, and total recoverable metals.

The results of the laboratory analysis are summarized in Table 1 included in Appendix C. The results of laboratory analysis indicate the following:

1. **pH:** The tested sample exhibited pH levels of 7.2 Standard Units (S.U.) which is within the recommended range of 6.5 to 8.5 S.U. for discharge into freshwater.
2. **TSS:** Total suspended solids (TSS) was detected in the tested sample at a concentration of 170 milligram per liter (mg/l), which is in excess of the upper limit of 30 mg/l established by the EPA for discharge into surface water. The detected level of TSS is considered to be attributable to the disturbance of suspended solids in the monitoring well during development of the well and subsequent sampling. However, it should be noted that groundwater will be pre-treated by passing the water through a sediment tank(s) prior to discharge in order to reduce the concentration of TSS in the effluent.
3. **VOCs:** Laboratory analysis of the groundwater sample indicated no detectable levels of VOCs
4. **TPH:** Laboratory analysis of the groundwater sample indicated no detectable levels of TPH.
5. **PAHs and Total Phenols:** The laboratory reported no detectable levels of Group I or Group II PAHs. Total Phenols were detected at a concentration of 50 ug/l, which is below the upper limit of 300 ug/l established by the EPA for discharge into surface water.
6. **PCBs:** The laboratory results indicated no detectable levels of PCBs.



7. **Cyanide:** Laboratory analysis of the groundwater sample indicated no detectable levels of cyanide above the method detection limit of 5 ug/l..
8. **Total Metals:** The laboratory reported no detectable levels of cadmium, chromium VI, mercury, selenium, or silver in the submitted samples of groundwater. Levels of antimony, arsenic, chromium III, copper, iron, lead, nickel, and zinc were reported at levels of 0.8 microgram per liter (ug/l), 1.0 ug/l, 5.2 ug/l, 8.1 ug/l, 4,100 ug/l, 5.7 ug/l, 4.3 ug/l and 22 ug/l, respectively. The detected levels of antimony, arsenic, chromium III, nickel and zinc are below the EPA effluent limits of 5.6 ug/l, 10 ug/l, 48.8 ug/l, 29 ug/l and 66.6 ug/l, respectively, for discharge to a freshwater body.

The detected levels of copper, iron and lead exceed the EPA effluent limits of 5.2 ug/l, 1,000 ug/l and 1.3 ug/l, respectively, for discharge into a freshwater body. A Dilution Factor (DF) was calculated for the detected levels pursuant to the procedure contained in MAG910000, Appendix V. The purpose of the DF calculation is to establish Total Recoverable Limits for metals, taking into consideration the anticipated dilution of the detected analyte upon discharge into the Charles River. The calculated DF was then used to find the appropriate Dilution Range Concentration (DRC) contained in MAG910000, Appendix IV. The Minimum Flow Rate calculated by the USGS Streamstats GIS database at the location of discharge into the Charles River for seven consecutive days with a recurrence interval of 10 years (7Q10 flow) is 24.5, thus resulting in a DF of 198. A DF over 100 corresponds to a dilution concentration of 520 ug/l, 5,000 ug/l and 132 ug/l for copper, iron and lead, respectively. Therefore, based on the calculation of the applicable dilution factor, none of these concentrations exceed the applicable dilution concentrations for discharge into a freshwater body.

TABLE 1

ANALYTICAL TEST RESULTS--GROUNDWATER DECEMBER 2012

112-116 Mount Auburn Street;
Cambridge, Massachusetts
Project Number 4828

LOCATION	EPA	Total		B-3 (OW)
SAMPLING DATE	Effluent	Recoverable	Units	12/11/2012
LAB SAMPLE ID	Limits	Limits		L1222526-01
General Chemistry				
Solids, Total Suspended	30		mg/l	170
pH (H)	6.5-8.5		SU	7.2
Chloride	Monitor		mg/l	1800
Chlorine, Total Residual	11		ug/l	ND(20)
TPH	5000		ug/l	ND(4400)
Phenolics, Total	300		ug/l	50
Cyanide, Total	5.2		ug/l	ND(5)
Total Metals				
Antimony, Total	5.6	141	ug/l	0.8
Arsenic, Total	10	540	ug/l	1
Cadmium, Total	0.2	20	ug/l	ND(0.2)
Chromium, Trivalent	48.8	1710	ug/l	5.2
Chromium, Hexavalent	11.4	1140	ug/l	ND(10)
Copper, Total	5.2	520	ug/l	8.1
Iron, Total	1000	5000	ug/l	4100
Lead, Total	1.3	132	ug/l	5.7
Mercury, Total	0.9	2.3	ug/l	ND(0.2)
Nickel, Total	29	2380	ug/l	4.3
Selenium, Total	5	408	ug/l	ND(5)
Silver, Total	1.2	115	ug/l	ND(0.4)
Zinc, Total	66.6	1480	ug/l	22
Volatile Organics				
Total VOCs			ug/l	ND
Semi-Volatile Organics				
Total SVOCs			ug/l	ND
PAHs				
Group I PAHs	10		ug/l	ND
Group II PAHs	10		ug/l	ND
Polychlorinated Biphenyls				
Total PCBs	0.000046		ug/l	ND

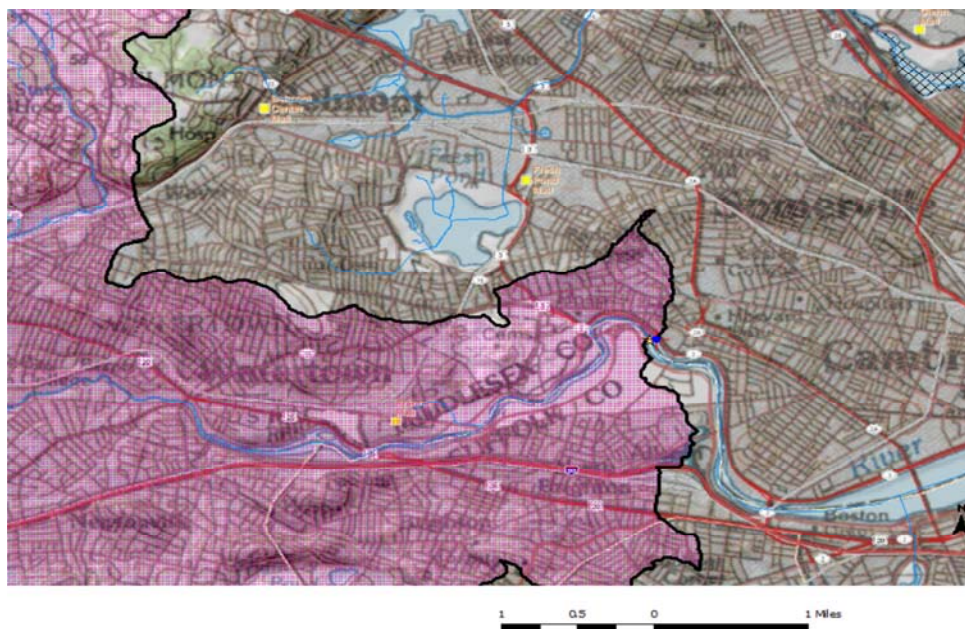
Shading indicates an exceedence of the EPA Standards

ND--not detected above laboratory detection limit



Massachusetts StreamStats

StreamStats Print Page



1/15/2013 9:46:45 AM

Explanation

◆ NHDHGage	▲ Gaging Station, Continuous Record
◆ NHDHDam	▲ Low Flow, Partial Record
★ GlobalWatershedPoint	▲ Peak Flow, Partial Record
— Dendritic Stream Network	▲ Peak and Low Flow, Partial Record
— streams	▲ Stage Only
▣ GlobalWatershed	▲ Low Flow, Partial Record, Stage
⊗ Excludepoly	▲ Miscellaneous Record
	▲ Unknown



Streamstats Ungaged Site Report

Date: Tue Jan 15 2013 09:43:41 Mountain Standard Time

Site Location: Massachusetts

NAD27 Latitude: 42.3714 (42 22 17)

NAD27 Longitude: -71.1261 (-71 07 34)

NAD83 Latitude: 42.3715 (42 22 18)

NAD83 Longitude: -71.1256 (-71 07 32)

ReachCode: 01090001000111

Measure: 42.17

Drainage Area: 281 mi²

Low Flows Basin Characteristics			
100% Statewide Low Flow (281 mi ²)			
Parameter	Value	Regression Equation Valid Range	
		Min	Max
Drainage Area (square miles)	281 (above max value 149)	1.61	149
Mean Basin Slope from 250K DEM (percent)	2.34	0.32	24.6
Stratified Drift per Stream Length (square mile per mile)	0.23	0	1.29
Massachusetts Region (dimensionless)	0	0	1

Warning: Some parameters are outside the suggested range. Estimates will be extrapolations with unknown errors.

Probability of Perennial Flow Basin Characteristics			
100% Perennial Flow Probability (281 mi ²)			
Parameter	Value	Regression Equation Valid Range	
		Min	Max
Drainage Area (square miles)	281 (above max value 1.99)	0.01	1.99
Percent Underlain By Sand And Gravel (percent)	47.57	0	100
Percent Forest (percent)	42.24	0	100
Massachusetts Region (dimensionless)	0	0	1

Warning: Some parameters are outside the suggested range. Estimates will be extrapolations with unknown errors.

Low Flows Streamflow Statistics					
Statistic	Flow (ft ³ /s)	Prediction Error (percent)	Equivalent years of record	90-Percent Prediction Interval	
				Minimum	Maximum
D50	300				
D60	248				
D70	170				
D75	139				
D80	109				
D85	87.5				
D90	68.2				
D95	46.1				
D98	30.7				
D99	25.5				
M7D2Y	49.2				
AUGD50	93.7				
M7D10Y	24.5				

The equation for estimating the probability of perennial flow is applicable for most areas of Massachusetts except eastern Buzzards Bay, Cape Cod, and the Island regions. The estimate obtained from the equation assumes natural flow conditions at the site. The equation also is best used for sites with drainage areas between 0.01 to 1.99 mi², as errors beyond for basins beyond these bounds are unknown.

Probability of Perennial Flow Statistics		
Statistic	Value	Standard Error (percent)
PROBPEREN	1	



ANALYTICAL REPORT

Lab Number:	L1222526
Client:	McPhail Associates 2269 Massachusetts Avenue Cambridge, MA 02140
ATTN:	Ambrose Donovan
Phone:	(617) 868-1420
Project Name:	114 MOUNT AUBURN STREET
Project Number:	4828.9.00
Report Date:	12/18/12

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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: 114 MOUNT AUBURN STREET
Project Number: 4828.9.00

Lab Number: L1222526
Report Date: 12/18/12

Alpha Sample ID	Client ID	Sample Location	Collection Date/Time
L1222526-01	B-3 (OW)	CAMBRIDGE, MA	12/11/12 12:00

Project Name: 114 MOUNT AUBURN STREET
Project Number: 4828.9.00

Lab Number: L1222526
Report Date: 12/18/12

Case Narrative

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

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

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

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

HOLD POLICY

For samples submitted on hold, Alpha's policy is to hold samples free of charge for 30 days from the date the project is completed. After 30 days, we will dispose of all samples submitted including those put on hold unless you have contacted your Client Service Representative and made arrangements for Alpha to continue to hold the samples.

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

Project Name: 114 MOUNT AUBURN STREET
Project Number: 4828.9.00

Lab Number: L1222526
Report Date: 12/18/12

Case Narrative (continued)

Sample Receipt

The analyses of Hexavalent Chromium and Total Residual Chlorine were received with the method required holding times exceeded and were performed at the client's request.

The sample was received without the container for Total Cyanide analysis. An aliquot was taken from an unpreserved container and preserved appropriately.

Semivolatile Organics

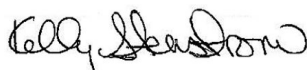
The WG579686-2/-3 LCS/LCSD recoveries, associated with L1222526-01, are below the acceptance criteria for Benzoic acid (0%/0%); however, it has been identified as a "difficult" analyte.

Phenolics, Total

The WG579271-3 Laboratory Duplicate RPD (50%), performed on L1222526-01, is above the acceptance criteria; however, the sample and duplicate results are less than five times the reporting limit. Therefore, the RPD is valid.

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

Authorized Signature:

 Kelly Stenstrom

Title: Technical Director/Representative

Date: 12/18/12

ORGANICS

VOLATILES

Project Name: 114 MOUNT AUBURN STREET**Lab Number:** L1222526**Project Number:** 4828.9.00**Report Date:** 12/18/12**SAMPLE RESULTS**

Lab ID: L1222526-01
Client ID: B-3 (OW)
Sample Location: CAMBRIDGE, MA
Matrix: Water
Analytical Method: 1,8260C
Analytical Date: 12/14/12 17:55
Analyst: MM

Date Collected: 12/11/12 12:00
Date Received: 12/12/12
Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
Methylene chloride	ND		ug/l	3.0	--	1
1,1-Dichloroethane	ND		ug/l	0.75	--	1
Chloroform	ND		ug/l	0.75	--	1
Carbon tetrachloride	ND		ug/l	0.50	--	1
1,2-Dichloropropane	ND		ug/l	1.8	--	1
Dibromochloromethane	ND		ug/l	0.50	--	1
1,1,2-Trichloroethane	ND		ug/l	0.75	--	1
Tetrachloroethene	ND		ug/l	0.50	--	1
Chlorobenzene	ND		ug/l	0.50	--	1
Trichlorofluoromethane	ND		ug/l	2.5	--	1
1,2-Dichloroethane	ND		ug/l	0.50	--	1
1,1,1-Trichloroethane	ND		ug/l	0.50	--	1
Bromodichloromethane	ND		ug/l	0.50	--	1
trans-1,3-Dichloropropene	ND		ug/l	0.50	--	1
cis-1,3-Dichloropropene	ND		ug/l	0.50	--	1
1,1-Dichloropropene	ND		ug/l	2.5	--	1
Bromoform	ND		ug/l	2.0	--	1
1,1,2,2-Tetrachloroethane	ND		ug/l	0.50	--	1
Benzene	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: 114 MOUNT AUBURN STREET**Lab Number:** L1222526**Project Number:** 4828.9.00**Report Date:** 12/18/12**SAMPLE RESULTS**

Lab ID: L1222526-01

Date Collected: 12/11/12 12:00

Client ID: B-3 (OW)

Date Received: 12/12/12

Sample Location: CAMBRIDGE, MA

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: 114 MOUNT AUBURN STREET**Lab Number:** L1222526**Project Number:** 4828.9.00**Report Date:** 12/18/12**SAMPLE RESULTS**

Lab ID: L1222526-01

Date Collected: 12/11/12 12:00

Client ID: B-3 (OW)

Date Received: 12/12/12

Sample Location: CAMBRIDGE, MA

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	100		70-130
Toluene-d8	104		70-130
4-Bromofluorobenzene	98		70-130
Dibromofluoromethane	95		70-130

Project Name: 114 MOUNT AUBURN STREET**Lab Number:** L1222526**Project Number:** 4828.9.00**Report Date:** 12/18/12**SAMPLE RESULTS**

Lab ID: L1222526-01
Client ID: B-3 (OW)
Sample Location: CAMBRIDGE, MA
Matrix: Water
Analytical Method: 1,8260C-SIM(M)
Analytical Date: 12/14/12 17:55
Analyst: MM

Date Collected: 12/11/12 12:00
Date Received: 12/12/12
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: 114 MOUNT AUBURN STREET**Lab Number:** L1222526**Project Number:** 4828.9.00**Report Date:** 12/18/12**SAMPLE RESULTS**

Lab ID: L1222526-01
Client ID: B-3 (OW)
Sample Location: CAMBRIDGE, MA
Matrix: Water
Analytical Method: 14,504.1
Analytical Date: 12/17/12 13:53
Analyst: SH

Date Collected: 12/11/12 12:00
Date Received: 12/12/12
Field Prep: Not Specified
Extraction Date: 12/17/12 10:30

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

Project Name: 114 MOUNT AUBURN STREET**Lab Number:** L1222526**Project Number:** 4828.9.00**Report Date:** 12/18/12**Method Blank Analysis**
Batch Quality Control

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

Analytical Date: 12/14/12 11:24

Analyst: MM

Parameter	Result	Qualifier	Units	RL	MDL
Volatile Organics by GC/MS-SIM - Westborough Lab for sample(s): 01 Batch: WG579566-3					
1,4-Dioxane	ND		ug/l	3.0	--

Project Name: 114 MOUNT AUBURN STREET

Lab Number: L1222526

Project Number: 4828.9.00

Report Date: 12/18/12

Method Blank Analysis Batch Quality Control

Analytical Method: 1,8260C
 Analytical Date: 12/14/12 08:10
 Analyst: MM

Parameter	Result	Qualifier	Units	RL	MDL
Volatile Organics by GC/MS - Westborough Lab for sample(s): 01 Batch: WG579581-3					
Methylene chloride	ND		ug/l	3.0	--
1,1-Dichloroethane	ND		ug/l	0.75	--
Chloroform	ND		ug/l	0.75	--
Carbon tetrachloride	ND		ug/l	0.50	--
1,2-Dichloropropane	ND		ug/l	1.8	--
Dibromochloromethane	ND		ug/l	0.50	--
1,1,2-Trichloroethane	ND		ug/l	0.75	--
Tetrachloroethene	ND		ug/l	0.50	--
Chlorobenzene	ND		ug/l	0.50	--
Trichlorofluoromethane	ND		ug/l	2.5	--
1,2-Dichloroethane	ND		ug/l	0.50	--
1,1,1-Trichloroethane	ND		ug/l	0.50	--
Bromodichloromethane	ND		ug/l	0.50	--
trans-1,3-Dichloropropene	ND		ug/l	0.50	--
cis-1,3-Dichloropropene	ND		ug/l	0.50	--
1,1-Dichloropropene	ND		ug/l	2.5	--
Bromoform	ND		ug/l	2.0	--
1,1,2,2-Tetrachloroethane	ND		ug/l	0.50	--
Benzene	ND		ug/l	0.50	--
Toluene	ND		ug/l	0.75	--
Ethylbenzene	ND		ug/l	0.50	--
Chloromethane	ND		ug/l	2.5	--
Bromomethane	ND		ug/l	1.0	--
Vinyl chloride	ND		ug/l	1.0	--
Chloroethane	ND		ug/l	1.0	--
1,1-Dichloroethene	ND		ug/l	0.50	--
trans-1,2-Dichloroethene	ND		ug/l	0.75	--
Trichloroethene	ND		ug/l	0.50	--
1,2-Dichlorobenzene	ND		ug/l	2.5	--
1,3-Dichlorobenzene	ND		ug/l	2.5	--
1,4-Dichlorobenzene	ND		ug/l	2.5	--

Project Name: 114 MOUNT AUBURN STREET

Lab Number: L1222526

Project Number: 4828.9.00

Report Date: 12/18/12

Method Blank Analysis Batch Quality Control

Analytical Method: 1,8260C
 Analytical Date: 12/14/12 08:10
 Analyst: MM

Parameter	Result	Qualifier	Units	RL	MDL
Volatile Organics by GC/MS - Westborough Lab for sample(s): 01 Batch: WG579581-3					
Methyl tert butyl ether	ND		ug/l	1.0	--
p/m-Xylene	ND		ug/l	1.0	--
o-Xylene	ND		ug/l	1.0	--
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	--
1,2-Dibromo-3-chloropropane	ND		ug/l	2.5	--

Project Name: 114 MOUNT AUBURN STREET

Lab Number: L1222526

Project Number: 4828.9.00

Report Date: 12/18/12

Method Blank Analysis Batch Quality Control

Analytical Method: 1,8260C

Analytical Date: 12/14/12 08:10

Analyst: MM

Parameter	Result	Qualifier	Units	RL	MDL
Volatile Organics by GC/MS - Westborough Lab for sample(s): 01 Batch: WG579581-3					
Hexachlorobutadiene	ND		ug/l	0.50	--
Isopropylbenzene	ND		ug/l	0.50	--
p-Isopropyltoluene	ND		ug/l	0.50	--
Naphthalene	ND		ug/l	2.5	--
n-Propylbenzene	ND		ug/l	0.50	--
1,2,3-Trichlorobenzene	ND		ug/l	2.5	--
1,2,4-Trichlorobenzene	ND		ug/l	2.5	--
1,3,5-Trimethylbenzene	ND		ug/l	2.5	--
1,2,4-Trimethylbenzene	ND		ug/l	2.5	--
trans-1,4-Dichloro-2-butene	ND		ug/l	2.5	--
Ethyl ether	ND		ug/l	2.5	--
Isopropyl Ether	ND		ug/l	2.0	--
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	--

Surrogate	%Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	94		70-130
Toluene-d8	102		70-130
4-Bromofluorobenzene	96		70-130
Dibromofluoromethane	93		70-130

Project Name: 114 MOUNT AUBURN STREET**Lab Number:** L1222526**Project Number:** 4828.9.00**Report Date:** 12/18/12**Method Blank Analysis**
Batch Quality Control**Analytical Method:** 14,504.1**Analytical Date:** 12/17/12 14:24**Analyst:** SH**Extraction Date:** 12/17/12 10:30

Parameter	Result	Qualifier	Units	RL	MDL
Microextractables by GC - Westborough Lab for sample(s): 01 Batch: WG579798-1					
1,2-Dibromoethane	ND		ug/l	0.010	--
1,2-Dibromo-3-chloropropane	ND		ug/l	0.010	--

Lab Control Sample Analysis**Batch Quality Control****Project Name:** 114 MOUNT AUBURN STREET**Lab Number:** L1222526**Project Number:** 4828.9.00**Report Date:** 12/18/12

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Volatile Organics by GC/MS-SIM - Westborough Lab Associated sample(s): 01 Batch: WG579566-1 WG579566-2								
1,4-Dioxane	99		123		70-130	22		25

Volatile Organics by GC/MS - Westborough Lab Associated sample(s): 01 Batch: WG579581-1 WG579581-2								
Methylene chloride	92		90		70-130	2		20
1,1-Dichloroethane	88		85		70-130	3		20
Chloroform	88		84		70-130	5		20
Carbon tetrachloride	88		81		63-132	8		20
1,2-Dichloropropane	86		84		70-130	2		20
Dibromochloromethane	89		80		63-130	11		20
1,1,2-Trichloroethane	94		85		70-130	10		20
Tetrachloroethene	98		95		70-130	3		20
Chlorobenzene	95		92		75-130	3		25

Lab Control Sample Analysis **Batch Quality Control**

Project Name: 114 MOUNT AUBURN STREET

Project Number: 4828.9.00

Lab Number: L1222526

Report Date: 12/18/12

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Volatile Organics by GC/MS - Westborough Lab Associated sample(s): 01 Batch: WG579581-1 WG579581-2								
Trichlorofluoromethane	100		96		62-150	4		20
1,2-Dichloroethane	89		86		70-130	3		20
1,1,1-Trichloroethane	87		85		67-130	2		20
Bromodichloromethane	85		78		67-130	9		20
trans-1,3-Dichloropropene	89		84		70-130	6		20
cis-1,3-Dichloropropene	87		80		70-130	8		20
1,1-Dichloropropene	88		88		70-130	0		20
Bromoform	101		85		54-136	17		20
1,1,2,2-Tetrachloroethane	97		87		67-130	11		20
Benzene	89		85		70-130	5		25
Toluene	92		90		70-130	2		25
Ethylbenzene	95		91		70-130	4		20
Chloromethane	96		97		64-130	1		20
Bromomethane	137		135		39-139	1		20
Vinyl chloride	97		97		55-140	0		20
Chloroethane	102		102		55-138	0		20
1,1-Dichloroethene	94		91		61-145	3		25
trans-1,2-Dichloroethene	90		91		70-130	1		20
Trichloroethene	94		88		70-130	7		25
1,2-Dichlorobenzene	100		97		70-130	3		20
1,3-Dichlorobenzene	102		102		70-130	0		20

Lab Control Sample Analysis **Batch Quality Control**

Project Name: 114 MOUNT AUBURN STREET

Project Number: 4828.9.00

Lab Number: L1222526

Report Date: 12/18/12

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Volatile Organics by GC/MS - Westborough Lab Associated sample(s): 01 Batch: WG579581-1 WG579581-2								
1,4-Dichlorobenzene	102		100		70-130	2		20
Methyl tert butyl ether	90		80		63-130	12		20
p/m-Xylene	97		92		70-130	5		20
o-Xylene	96		94		70-130	2		20
cis-1,2-Dichloroethene	90		88		70-130	2		20
Dibromomethane	91		83		70-130	9		20
1,4-Dichlorobutane	94		87		70-130	8		20
1,2,3-Trichloropropane	102		88		64-130	15		20
Styrene	97		93		70-130	4		20
Dichlorodifluoromethane	109		108		36-147	1		20
Acetone	104		92		58-148	12		20
Carbon disulfide	89		84		51-130	6		20
2-Butanone	96		79		63-138	19		20
Vinyl acetate	88		76		70-130	15		20
4-Methyl-2-pentanone	89		76		59-130	16		20
2-Hexanone	100		81		57-130	21	Q	20
Ethyl methacrylate	93		82		70-130	13		20
Acrylonitrile	92		76		70-130	19		20
Bromochloromethane	97		91		70-130	6		20
Tetrahydrofuran	78		69		58-130	12		20
2,2-Dichloropropane	92		87		63-133	6		20

Lab Control Sample Analysis Batch Quality Control

Project Name: 114 MOUNT AUBURN STREET

Project Number: 4828.9.00

Lab Number: L1222526

Report Date: 12/18/12

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Volatile Organics by GC/MS - Westborough Lab Associated sample(s): 01 Batch: WG579581-1 WG579581-2								
1,2-Dibromoethane	96		84		70-130	13		20
1,3-Dichloropropane	92		83		70-130	10		20
1,1,1,2-Tetrachloroethane	93		90		64-130	3		20
Bromobenzene	99		102		70-130	3		20
n-Butylbenzene	97		103		53-136	6		20
sec-Butylbenzene	98		98		70-130	0		20
tert-Butylbenzene	95		94		70-130	1		20
o-Chlorotoluene	95		97		70-130	2		20
p-Chlorotoluene	97		99		70-130	2		20
1,2-Dibromo-3-chloropropane	91		74		41-144	21	Q	20
Hexachlorobutadiene	107		121		63-130	12		20
Isopropylbenzene	98		98		70-130	0		20
p-Isopropyltoluene	99		99		70-130	0		20
Naphthalene	94		86		70-130	9		20
n-Propylbenzene	99		96		69-130	3		20
1,2,3-Trichlorobenzene	101		96		70-130	5		20
1,2,4-Trichlorobenzene	102		102		70-130	0		20
1,3,5-Trimethylbenzene	100		98		64-130	2		20
1,2,4-Trimethylbenzene	100		101		70-130	1		20
trans-1,4-Dichloro-2-butene	102		85		70-130	18		20
Ethyl ether	91		81		59-134	12		20

Lab Control Sample Analysis**Batch Quality Control****Project Name:** 114 MOUNT AUBURN STREET**Project Number:** 4828.9.00**Lab Number:** L1222526**Report Date:** 12/18/12

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Volatile Organics by GC/MS - Westborough Lab Associated sample(s): 01 Batch: WG579581-1 WG579581-2								
Isopropyl Ether	82		78		70-130	5		20
tert-Butyl Alcohol	100		72		70-130	33	Q	20
Ethyl-Tert-Butyl-Ether	88		82		70-130	7		20
Tertiary-Amyl Methyl Ether	87		78		66-130	11		20

Surrogate	LCS %Recovery	Qual	LCSD %Recovery	Qual	Acceptance Criteria
1,2-Dichloroethane-d4	102		100		70-130
Toluene-d8	102		105		70-130
4-Bromofluorobenzene	95		100		70-130
Dibromofluoromethane	102		100		70-130

Lab Control Sample Analysis**Batch Quality Control****Project Name:** 114 MOUNT AUBURN STREET**Project Number:** 4828.9.00**Lab Number:** L1222526**Report Date:** 12/18/12

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Microextractables by GC - Westborough Lab Associated sample(s): 01 Batch: WG579798-2								
1,2-Dibromoethane	87		-		70-130	-		20
1,2-Dibromo-3-chloropropane	120		-		70-130	-		20

Matrix Spike Analysis

Batch Quality Control

Project Name: 114 MOUNT AUBURN STREET
Project Number: 4828.9.00

Lab Number: L1222526
Report Date: 12/18/12

Parameter	Native Sample	MS Added	MS Found	MS %Recovery	Qual	MSD Found	MSD %Recovery	Qual	Recovery Limits	RPD	Qual	RPD Limits
Microextractables by GC - Westborough Lab Associated sample(s): 01 QC Batch ID: WG579798-3 QC Sample: L1222506-01 Client ID: MS Sample												
1,2-Dibromoethane	ND	0.253	0.273	108		-	-		70-130	-		20
1,2-Dibromo-3-chloropropane	ND	0.253	0.243	96		-	-		70-130	-		20

SEMIVOLATILES

Project Name: 114 MOUNT AUBURN STREET**Lab Number:** L1222526**Project Number:** 4828.9.00**Report Date:** 12/18/12**SAMPLE RESULTS**

Lab ID: L1222526-01
Client ID: B-3 (OW)
Sample Location: CAMBRIDGE, MA
Matrix: Water
Analytical Method: 1,8270D
Analytical Date: 12/17/12 14:25
Analyst: RC

Date Collected: 12/11/12 12:00
Date Received: 12/12/12
Field Prep: Not Specified
Extraction Method: EPA 3510C
Extraction Date: 12/15/12 00:59

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

Project Name: 114 MOUNT AUBURN STREET**Lab Number:** L1222526**Project Number:** 4828.9.00**Report Date:** 12/18/12**SAMPLE RESULTS**

Lab ID: L1222526-01

Date Collected: 12/11/12 12:00

Client ID: B-3 (OW)

Date Received: 12/12/12

Sample Location: CAMBRIDGE, MA

Field Prep: Not Specified

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

Surrogate	% Recovery	Qualifier	Acceptance Criteria
2-Fluorophenol	39		21-120
Phenol-d6	24		10-120
Nitrobenzene-d5	53		23-120
2-Fluorobiphenyl	59		15-120
2,4,6-Tribromophenol	66		10-120
4-Terphenyl-d14	74		41-149

Project Name: 114 MOUNT AUBURN STREET**Lab Number:** L1222526**Project Number:** 4828.9.00**Report Date:** 12/18/12**SAMPLE RESULTS**

Lab ID: L1222526-01
Client ID: B-3 (OW)
Sample Location: CAMBRIDGE, MA
Matrix: Water
Analytical Method: 1,8270D-SIM
Analytical Date: 12/16/12 18:44
Analyst: AS

Date Collected: 12/11/12 12:00
Date Received: 12/12/12
Field Prep: Not Specified
Extraction Method: EPA 3510C
Extraction Date: 12/15/12 01:01

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	ND		ug/l	0.20	--	1
Hexachlorobutadiene	ND		ug/l	0.50	--	1
Naphthalene	ND		ug/l	0.20	--	1
Benzo(a)anthracene	ND		ug/l	0.20	--	1
Benzo(a)pyrene	ND		ug/l	0.20	--	1
Benzo(b)fluoranthene	ND		ug/l	0.20	--	1
Benzo(k)fluoranthene	ND		ug/l	0.20	--	1
Chrysene	ND		ug/l	0.20	--	1
Acenaphthylene	ND		ug/l	0.20	--	1
Anthracene	ND		ug/l	0.20	--	1
Benzo(ghi)perylene	ND		ug/l	0.20	--	1
Fluorene	ND		ug/l	0.20	--	1
Phenanthrene	ND		ug/l	0.20	--	1
Dibenzo(a,h)anthracene	ND		ug/l	0.20	--	1
Indeno(1,2,3-cd)Pyrene	ND		ug/l	0.20	--	1
Pyrene	ND		ug/l	0.20	--	1
1-Methylnaphthalene	ND		ug/l	0.20	--	1
2-Methylnaphthalene	ND		ug/l	0.20	--	1
Pentachlorophenol	ND		ug/l	0.80	--	1
Hexachlorobenzene	ND		ug/l	0.80	--	1
Hexachloroethane	ND		ug/l	0.80	--	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
2-Fluorophenol	38		21-120
Phenol-d6	27		10-120
Nitrobenzene-d5	58		23-120
2-Fluorobiphenyl	51		15-120
2,4,6-Tribromophenol	72		10-120
4-Terphenyl-d14	59		41-149

Project Name: 114 MOUNT AUBURN STREET

Lab Number: L1222526

Project Number: 4828.9.00

Report Date: 12/18/12

Method Blank Analysis Batch Quality Control

Analytical Method: 1,8270D
 Analytical Date: 12/17/12 13:07
 Analyst: RC

Extraction Method: EPA 3510C
 Extraction Date: 12/15/12 00:59

Parameter	Result	Qualifier	Units	RL	MDL
Semivolatile Organics by GC/MS - Westborough Lab for sample(s): 01 Batch: WG579686-1					
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: 114 MOUNT AUBURN STREET

Lab Number: L1222526

Project Number: 4828.9.00

Report Date: 12/18/12

Method Blank Analysis Batch Quality Control

Analytical Method: 1,8270D
 Analytical Date: 12/17/12 13:07
 Analyst: RC

Extraction Method: EPA 3510C
 Extraction Date: 12/15/12 00:59

Parameter	Result	Qualifier	Units	RL	MDL
Semivolatile Organics by GC/MS - Westborough Lab for sample(s): 01 Batch: WG579686-1					
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	48		21-120
Phenol-d6	33		10-120
Nitrobenzene-d5	66		23-120
2-Fluorobiphenyl	67		15-120
2,4,6-Tribromophenol	61		10-120
4-Terphenyl-d14	83		41-149

Project Name: 114 MOUNT AUBURN STREET

Lab Number: L1222526

Project Number: 4828.9.00

Report Date: 12/18/12

Method Blank Analysis Batch Quality Control

Analytical Method: 1,8270D-SIM
 Analytical Date: 12/16/12 17:38
 Analyst: AS

Extraction Method: EPA 3510C
 Extraction Date: 12/15/12 01:01

Parameter	Result	Qualifier	Units	RL	MDL
Semivolatile Organics by GC/MS-SIM - Westborough Lab for sample(s): 01 Batch: WG579687-1					
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: 114 MOUNT AUBURN STREET

Lab Number: L1222526

Project Number: 4828.9.00

Report Date: 12/18/12

Method Blank Analysis Batch Quality Control

Analytical Method: 1,8270D-SIM
 Analytical Date: 12/16/12 17:38
 Analyst: AS

Extraction Method: EPA 3510C
 Extraction Date: 12/15/12 01:01

Parameter	Result	Qualifier	Units	RL	MDL
Semivolatile Organics by GC/MS-SIM - Westborough Lab for sample(s): 01 Batch: WG579687-1					

Surrogate	%Recovery	Qualifier	Acceptance Criteria
2-Fluorophenol	42		21-120
Phenol-d6	30		10-120
Nitrobenzene-d5	66		23-120
2-Fluorobiphenyl	53		15-120
2,4,6-Tribromophenol	67		10-120
4-Terphenyl-d14	59		41-149

Lab Control Sample Analysis **Batch Quality Control**

Project Name: 114 MOUNT AUBURN STREET

Project Number: 4828.9.00

Lab Number: L1222526

Report Date: 12/18/12

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Semivolatile Organics by GC/MS - Westborough Lab Associated sample(s): 01 Batch: WG579686-2 WG579686-3								
Benzidine	12		10		10-75	18		30
1,2,4-Trichlorobenzene	69		58		39-98	17		30
Bis(2-chloroethyl)ether	70		57		40-140	20		30
1,2-Dichlorobenzene	66		56		40-140	16		30
1,3-Dichlorobenzene	62		53		40-140	16		30
1,4-Dichlorobenzene	62		52		36-97	18		30
3,3'-Dichlorobenzidine	52		52		40-140	0		30
2,4-Dinitrotoluene	108	Q	97	Q	24-96	11		30
2,6-Dinitrotoluene	98		91		40-140	7		30
Azobenzene	88		78		40-140	12		30
4-Chlorophenyl phenyl ether	84		74		40-140	13		30
4-Bromophenyl phenyl ether	91		81		40-140	12		30
Bis(2-chloroisopropyl)ether	68		56		40-140	19		30
Bis(2-chloroethoxy)methane	76		63		40-140	19		30
Hexachlorocyclopentadiene	53		43		40-140	21		30
Isophorone	77		65		40-140	17		30
Nitrobenzene	77		66		40-140	15		30
NitrosoDiPhenylAmine(NDPA)/DPA	91		82		40-140	10		30
Bis(2-Ethylhexyl)phthalate	106		101		40-140	5		30
Butyl benzyl phthalate	106		100		40-140	6		30
Di-n-butylphthalate	97		92		40-140	5		30

Lab Control Sample Analysis

Batch Quality Control

Project Name: 114 MOUNT AUBURN STREET

Project Number: 4828.9.00

Lab Number: L1222526

Report Date: 12/18/12

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Semivolatile Organics by GC/MS - Westborough Lab Associated sample(s): 01 Batch: WG579686-2 WG579686-3								
Di-n-octylphthalate	96		93		40-140	3		30
Diethyl phthalate	94		85		40-140	10		30
Dimethyl phthalate	91		80		40-140	13		30
Aniline	20	Q	17	Q	40-140	16		30
4-Chloroaniline	38	Q	34	Q	40-140	11		30
2-Nitroaniline	91		88		52-143	3		30
3-Nitroaniline	57		56		25-145	2		30
4-Nitroaniline	101		89		51-143	13		30
Dibenzofuran	82		71		40-140	14		30
n-Nitrosodimethylamine	43		38		22-74	12		30
2,4,6-Trichlorophenol	92		82		30-130	11		30
P-Chloro-M-Cresol	96		82		23-97	16		30
2-Chlorophenol	74		62		27-123	18		30
2,4-Dichlorophenol	82		73		30-130	12		30
2,4-Dimethylphenol	85		72		30-130	17		30
2-Nitrophenol	82		70		30-130	16		30
4-Nitrophenol	61		55		10-80	10		30
2,4-Dinitrophenol	95		93		20-130	2		30
4,6-Dinitro-o-cresol	92		91		20-164	1		30
Phenol	38		33		12-110	14		30
2-Methylphenol	70		60		30-130	15		30

Lab Control Sample Analysis

Batch Quality Control

Project Name: 114 MOUNT AUBURN STREET

Project Number: 4828.9.00

Lab Number: L1222526

Report Date: 12/18/12

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Semivolatile Organics by GC/MS - Westborough Lab Associated sample(s): 01 Batch: WG579686-2 WG579686-3								
3-Methylphenol/4-Methylphenol	70		60		30-130	15		30
2,4,5-Trichlorophenol	97		86		30-130	12		30
Benzoic Acid	0	Q	0	Q	10-164	NC		30
Benzyl Alcohol	66		57		26-116	15		30
Carbazole	90		85		55-144	6		30
Pyridine	35		27		10-66	26		30

Surrogate	LCS %Recovery	Qual	LCSD %Recovery	Qual	Acceptance Criteria
2-Fluorophenol	56		48		21-120
Phenol-d6	39		34		10-120
Nitrobenzene-d5	77		65		23-120
2-Fluorobiphenyl	78		67		15-120
2,4,6-Tribromophenol	88		81		10-120
4-Terphenyl-d14	88		83		41-149

Lab Control Sample Analysis

Batch Quality Control

Project Name: 114 MOUNT AUBURN STREET
Project Number: 4828.9.00

Lab Number: L1222526
Report Date: 12/18/12

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Semivolatile Organics by GC/MS-SIM - Westborough Lab Associated sample(s): 01 Batch: WG579687-2 WG579687-3								
Acenaphthene	63		66		37-111	5		40
2-Chloronaphthalene	64		67		40-140	5		40
Fluoranthene	78		79		40-140	1		40
Hexachlorobutadiene	57		58		40-140	2		40
Naphthalene	61		65		40-140	6		40
Benzo(a)anthracene	82		86		40-140	5		40
Benzo(a)pyrene	75		76		40-140	1		40
Benzo(b)fluoranthene	66		66		40-140	0		40
Benzo(k)fluoranthene	82		91		40-140	10		40
Chrysene	69		71		40-140	3		40
Acenaphthylene	65		71		40-140	9		40
Anthracene	76		76		40-140	0		40
Benzo(ghi)perylene	76		76		40-140	0		40
Fluorene	67		71		40-140	6		40
Phenanthrene	73		79		40-140	8		40
Dibenzo(a,h)anthracene	72		73		40-140	1		40
Indeno(1,2,3-cd)Pyrene	74		75		40-140	1		40
Pyrene	71		72		26-127	1		40
1-Methylnaphthalene	61		65		40-140	6		40
2-Methylnaphthalene	62		64		40-140	3		40
Pentachlorophenol	80		80		9-103	0		40

Lab Control Sample Analysis**Batch Quality Control****Project Name:** 114 MOUNT AUBURN STREET**Project Number:** 4828.9.00**Lab Number:** L1222526**Report Date:** 12/18/12

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Semivolatile Organics by GC/MS-SIM - Westborough Lab Associated sample(s): 01 Batch: WG579687-2 WG579687-3								
Hexachlorobenzene	67		71		40-140	6		40
Hexachloroethane	63		61		40-140	3		40

Surrogate	LCS %Recovery	Qual	LCSD %Recovery	Qual	Acceptance Criteria
2-Fluorophenol	45		47		21-120
Phenol-d6	34		36		10-120
Nitrobenzene-d5	69		68		23-120
2-Fluorobiphenyl	56		60		15-120
2,4,6-Tribromophenol	74		79		10-120
4-Terphenyl-d14	68		68		41-149

PCBS

Project Name: 114 MOUNT AUBURN STREET**Lab Number:** L1222526**Project Number:** 4828.9.00**Report Date:** 12/18/12**SAMPLE RESULTS**

Lab ID: L1222526-01
Client ID: B-3 (OW)
Sample Location: CAMBRIDGE, MA
Matrix: Water
Analytical Method: 5,608
Analytical Date: 12/17/12 19:42
Analyst: JW

Date Collected: 12/11/12 12:00
Date Received: 12/12/12
Field Prep: Not Specified
Extraction Method: EPA 608
Extraction Date: 12/13/12 08:09
Cleanup Method1: EPA 3665A
Cleanup Date1: 12/13/12
Cleanup Method2: EPA 3660B
Cleanup Date2: 12/13/12

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
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	0.250	--	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
2,4,5,6-Tetrachloro-m-xylene	85		30-150
Decachlorobiphenyl	77		30-150

Project Name: 114 MOUNT AUBURN STREET**Lab Number:** L1222526**Project Number:** 4828.9.00**Report Date:** 12/18/12

Method Blank Analysis Batch Quality Control

Analytical Method: 5,608
 Analytical Date: 12/17/12 18:37
 Analyst: JW

Extraction Method: EPA 608
 Extraction Date: 12/13/12 08:09
 Cleanup Method1: EPA 3665A
 Cleanup Date1: 12/13/12
 Cleanup Method2: EPA 3660B
 Cleanup Date2: 12/13/12

Parameter	Result	Qualifier	Units	RL	MDL
Polychlorinated Biphenyls by GC - Westborough Lab for sample(s): 01 Batch: WG579196-1					
Aroclor 1016	ND		ug/l	0.250	--
Aroclor 1221	ND		ug/l	0.250	--
Aroclor 1232	ND		ug/l	0.250	--
Aroclor 1242	ND		ug/l	0.250	--
Aroclor 1248	ND		ug/l	0.250	--
Aroclor 1254	ND		ug/l	0.250	--
Aroclor 1260	ND		ug/l	0.250	--

Surrogate	%Recovery	Qualifier	Acceptance Criteria
2,4,5,6-Tetrachloro-m-xylene	91		30-150
Decachlorobiphenyl	107		30-150

Matrix Spike Analysis

Batch Quality Control

Project Name: 114 MOUNT AUBURN STREET

Project Number: 4828.9.00

Lab Number: L1222526

Report Date: 12/18/12

Parameter	Native Sample	MS Added	MS Found	MS %Recovery	Qual	MSD Found	MSD %Recovery	Qual	Recovery Limits	RPD	Qual	RPD Limits
Polychlorinated Biphenyls by GC - Westborough Lab Associated sample(s): 01 QC Batch ID: WG579196-3 QC Sample: L1222526-01 Client ID: B-3 (OW)												
Aroclor 1016	ND	2.13	1.70	80		-	-		40-140	-		50
Aroclor 1260	ND	2.13	1.60	75		-	-		40-140	-		50

Surrogate	MS % Recovery	MS Qualifier	MSD % Recovery	MSD Qualifier	Acceptance Criteria
2,4,5,6-Tetrachloro-m-xylene	84				30-150
Decachlorobiphenyl	91				30-150

Lab Control Sample Analysis**Batch Quality Control****Project Name:** 114 MOUNT AUBURN STREET**Project Number:** 4828.9.00**Lab Number:** L1222526**Report Date:** 12/18/12

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Polychlorinated Biphenyls by GC - Westborough Lab Associated sample(s): 01 Batch: WG579196-2								
Aroclor 1016	78		-		40-140	-		50
Aroclor 1260	75		-		40-140	-		50

Surrogate	LCS %Recovery	Qual	LCSD %Recovery	Qual	Acceptance Criteria
2,4,5,6-Tetrachloro-m-xylene	79				30-150
Decachlorobiphenyl	99				30-150

Project Name: 114 MOUNT AUBURN STREET

Project Number: 4828.9.00

Lab Duplicate Analysis

Batch Quality Control

Lab Number: L1222526

Report Date: 12/18/12

Parameter	Native Sample	Duplicate Sample	Units	RPD	Qual	RPD Limits
Polychlorinated Biphenyls by GC - Westborough Lab Associated sample(s): 01 QC Batch ID: WG579196-4 QC Sample: L1222526-01 Client ID: B-3 (OW)						
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	85		83		30-150
Decachlorobiphenyl	77		93		30-150

METALS

Project Name: 114 MOUNT AUBURN STREET

Lab Number: L1222526

Project Number: 4828.9.00

Report Date: 12/18/12

SAMPLE RESULTS

Lab ID: L1222526-01

Date Collected: 12/11/12 12:00

Client ID: B-3 (OW)

Date Received: 12/12/12

Sample Location: CAMBRIDGE, MA

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	0.0008		mg/l	0.0005	--	1	12/14/12 14:44	12/15/12 09:56	EPA 3005A	1,6020A	AK
Arsenic, Total	0.0010		mg/l	0.0005	--	1	12/14/12 14:44	12/15/12 09:56	EPA 3005A	1,6020A	AK
Cadmium, Total	ND		mg/l	0.0002	--	1	12/14/12 14:44	12/15/12 09:56	EPA 3005A	1,6020A	AK
Chromium, Total	0.0052		mg/l	0.0010	--	1	12/14/12 14:44	12/15/12 09:56	EPA 3005A	1,6020A	AK
Copper, Total	0.0081		mg/l	0.0010	--	1	12/14/12 14:44	12/15/12 09:56	EPA 3005A	1,6020A	AK
Iron, Total	4.1		mg/l	0.05	--	1	12/14/12 14:44	12/14/12 20:49	EPA 3005A	19,200.7	BM
Lead, Total	0.0057		mg/l	0.0040	--	1	12/14/12 14:44	12/15/12 09:56	EPA 3005A	1,6020A	AK
Mercury, Total	ND		mg/l	0.0002	--	1	12/14/12 14:28	12/17/12 16:20	EPA 245.1	3,245.1	JH
Nickel, Total	0.0043		mg/l	0.0005	--	1	12/14/12 14:44	12/15/12 09:56	EPA 3005A	1,6020A	AK
Selenium, Total	ND		mg/l	0.005	--	1	12/14/12 14:44	12/15/12 09:56	EPA 3005A	1,6020A	AK
Silver, Total	ND		mg/l	0.0004	--	1	12/14/12 14:44	12/15/12 09:56	EPA 3005A	1,6020A	AK
Zinc, Total	0.0220		mg/l	0.0100	--	1	12/14/12 14:44	12/15/12 09:56	EPA 3005A	1,6020A	AK



Project Name: 114 MOUNT AUBURN STREET

Lab Number: L1222526

Project Number: 4828.9.00

Report Date: 12/18/12

Method Blank Analysis Batch Quality Control

Parameter	Result Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
Total Metals - Westborough Lab for sample(s): 01 Batch: WG579549-1									
Mercury, Total	ND	mg/l	0.0002	--	1	12/14/12 14:28	12/17/12 15:58	3,245.1	JH

Prep Information

Digestion Method: EPA 245.1

Parameter	Result Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
Total Metals - Westborough Lab for sample(s): 01 Batch: WG579589-1									
Antimony, Total	ND	mg/l	0.0005	--	1	12/14/12 14:44	12/15/12 09:24	1,6020A	AK
Arsenic, Total	ND	mg/l	0.0005	--	1	12/14/12 14:44	12/15/12 09:24	1,6020A	AK
Cadmium, Total	ND	mg/l	0.0002	--	1	12/14/12 14:44	12/15/12 09:24	1,6020A	AK
Chromium, Total	ND	mg/l	0.0010	--	1	12/14/12 14:44	12/15/12 09:24	1,6020A	AK
Copper, Total	ND	mg/l	0.0010	--	1	12/14/12 14:44	12/15/12 09:24	1,6020A	AK
Lead, Total	ND	mg/l	0.0040	--	1	12/14/12 14:44	12/15/12 09:24	1,6020A	AK
Nickel, Total	ND	mg/l	0.0005	--	1	12/14/12 14:44	12/15/12 09:24	1,6020A	AK
Selenium, Total	ND	mg/l	0.005	--	1	12/14/12 14:44	12/15/12 09:24	1,6020A	AK
Silver, Total	ND	mg/l	0.0004	--	1	12/14/12 14:44	12/15/12 09:24	1,6020A	AK
Zinc, Total	ND	mg/l	0.0100	--	1	12/14/12 14:44	12/15/12 09:24	1,6020A	AK

Prep Information

Digestion Method: EPA 3005A

Parameter	Result Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
Total Metals - Westborough Lab for sample(s): 01 Batch: WG579595-1									
Iron, Total	ND	mg/l	0.05	--	1	12/14/12 14:44	12/14/12 19:31	19,200.7	BM

Prep Information

Digestion Method: EPA 3005A



Lab Control Sample Analysis

Batch Quality Control

Project Name: 114 MOUNT AUBURN STREET

Project Number: 4828.9.00

Lab Number: L1222526

Report Date: 12/18/12

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Total Metals - Westborough Lab Associated sample(s): 01 Batch: WG579549-2								
Mercury, Total	98		-		85-115	-		
Total Metals - Westborough Lab Associated sample(s): 01 Batch: WG579589-2								
Antimony, Total	87		-		80-120	-		
Arsenic, Total	101		-		80-120	-		
Cadmium, Total	97		-		80-120	-		
Chromium, Total	98		-		80-120	-		
Copper, Total	100		-		80-120	-		
Lead, Total	106		-		80-120	-		
Nickel, Total	98		-		80-120	-		
Selenium, Total	106		-		80-120	-		
Silver, Total	93		-		80-120	-		
Zinc, Total	101		-		80-120	-		
Total Metals - Westborough Lab Associated sample(s): 01 Batch: WG579595-2								
Iron, Total	100		-		85-115	-		

Matrix Spike Analysis

Batch Quality Control

Project Name: 114 MOUNT AUBURN STREET

Project Number: 4828.9.00

Lab Number: L1222526

Report Date: 12/18/12

Parameter	Native Sample	MS Added	MS Found	MS %Recovery	Qual	MSD Found	MSD %Recovery	Qual	Recovery Limits	RPD	Qual	RPD Limits
Total Metals - Westborough Lab Associated sample(s): 01 QC Batch ID: WG579549-4 QC Sample: L1222526-01 Client ID: B-3 (OW)												
Mercury, Total	ND	0.001	0.0012	122		-	-		70-130	-		20
Total Metals - Westborough Lab Associated sample(s): 01 QC Batch ID: WG579589-4 QC Sample: L1222507-01 Client ID: MS Sample												
Antimony, Total	0.0011	0.5	0.4958	99		-	-		80-120	-		20
Arsenic, Total	0.0011	0.12	0.1246	103		-	-		80-120	-		20
Cadmium, Total	ND	0.051	0.0561	110		-	-		80-120	-		20
Chromium, Total	0.0024	0.2	0.1953	96		-	-		80-120	-		20
Copper, Total	0.0017	0.25	0.2703	107		-	-		80-120	-		20
Lead, Total	ND	0.51	0.5376	105		-	-		80-120	-		20
Nickel, Total	0.0023	0.5	0.4868	97		-	-		80-120	-		20
Selenium, Total	ND	0.12	0.128	107		-	-		80-120	-		20
Silver, Total	ND	0.05	0.0474	95		-	-		80-120	-		20
Zinc, Total	ND	0.5	0.5431	109		-	-		80-120	-		20
Total Metals - Westborough Lab Associated sample(s): 01 QC Batch ID: WG579595-4 QC Sample: L1221858-02 Client ID: MS Sample												
Iron, Total	3.0	1	3.9	90		-	-		75-125	-		20

Project Name: 114 MOUNT AUBURN STREET
Project Number: 4828.9.00

Lab Duplicate Analysis

Batch Quality Control

Lab Number: L1222526
Report Date: 12/18/12

Parameter	Native Sample	Duplicate Sample	Units	RPD	Qual	RPD Limits
Total Metals - Westborough Lab Associated sample(s): 01 QC Batch ID: WG579549-3 QC Sample: L1222526-01 Client ID: B-3 (OW)						
Mercury, Total	ND	ND	mg/l	NC		20
Total Metals - Westborough Lab Associated sample(s): 01 QC Batch ID: WG579589-3 QC Sample: L1222507-01 Client ID: DUP Sample						
Lead, Total	ND	ND	mg/l	NC		20

INORGANICS & MISCELLANEOUS

Project Name: 114 MOUNT AUBURN STREET
Project Number: 4828.9.00

Lab Number: L1222526
Report Date: 12/18/12

SAMPLE RESULTS

Lab ID: L1222526-01
Client ID: B-3 (OW)
Sample Location: CAMBRIDGE, MA
Matrix: Water

Date Collected: 12/11/12 12:00
Date Received: 12/12/12
Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Westborough Lab										
Solids, Total Suspended	170		mg/l	15	NA	3	-	12/17/12 14:05	30,2540D	DW
Cyanide, Total	ND		mg/l	0.005	--	1	12/13/12 11:22	12/18/12 14:25	30,4500CN-CE	JO
Chlorine, Total Residual	ND		mg/l	0.02	--	1	-	12/12/12 20:52	30,4500CL-D	EL
pH (H)	7.2		SU	-	NA	1	-	12/12/12 19:15	30,4500H+-B	EL
TPH	ND		mg/l	4.40	--	1.1	12/14/12 12:30	12/18/12 14:30	74,1664A	JO
Phenolics, Total	0.05		mg/l	0.03	--	1	12/13/12 11:00	12/13/12 12:57	4,420.1	MP
Chromium, Hexavalent	ND		mg/l	0.010	--	1	12/13/12 02:00	12/13/12 03:00	30,3500CR-D	DE
Anions by Ion Chromatography - Westborough Lab										
Chloride	1800		mg/l	50	--	100	-	12/13/12 20:36	44,300.0	AU



Project Name: 114 MOUNT AUBURN STREET

Lab Number: L1222526

Project Number: 4828.9.00

Report Date: 12/18/12

Method Blank Analysis Batch Quality Control

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Westborough Lab for sample(s): 01 Batch: WG579136-1										
Chlorine, Total Residual	ND		mg/l	0.02	--	1	-	12/12/12 20:52	30,4500CL-D	EL
General Chemistry - Westborough Lab for sample(s): 01 Batch: WG579165-1										
Chromium, Hexavalent	ND		mg/l	0.010	--	1	12/13/12 02:00	12/13/12 02:59	30,3500CR-D	DE
General Chemistry - Westborough Lab for sample(s): 01 Batch: WG579247-1										
Cyanide, Total	ND		mg/l	0.005	--	1	12/13/12 11:22	12/18/12 14:07	30,4500CN-CE	JO
General Chemistry - Westborough Lab for sample(s): 01 Batch: WG579271-1										
Phenolics, Total	ND		mg/l	0.03	--	1	12/13/12 11:00	12/13/12 12:55	4,420.1	MP
Anions by Ion Chromatography - Westborough Lab for sample(s): 01 Batch: WG579428-1										
Chloride	ND		mg/l	0.50	--	1	-	12/13/12 19:00	44,300.0	AU
General Chemistry - Westborough Lab for sample(s): 01 Batch: WG579609-1										
TPH	ND		mg/l	4.00	--	1	12/14/12 12:30	12/18/12 14:30	74,1664A	JO
General Chemistry - Westborough Lab for sample(s): 01 Batch: WG579804-1										
Solids, Total Suspended	ND		mg/l	5.0	NA	1	-	12/17/12 14:05	30,2540D	DW

Lab Control Sample Analysis

Batch Quality Control

Project Name: 114 MOUNT AUBURN STREET

Project Number: 4828.9.00

Lab Number: L1222526

Report Date: 12/18/12

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
General Chemistry - Westborough Lab Associated sample(s): 01 Batch: WG579119-1								
pH	100		-		99-101	-		5
General Chemistry - Westborough Lab Associated sample(s): 01 Batch: WG579136-2								
Chlorine, Total Residual	93		-		90-110	-		
General Chemistry - Westborough Lab Associated sample(s): 01 Batch: WG579165-2								
Chromium, Hexavalent	100		-		85-115	-		20
General Chemistry - Westborough Lab Associated sample(s): 01 Batch: WG579247-2								
Cyanide, Total	102		-		90-110	-		
General Chemistry - Westborough Lab Associated sample(s): 01 Batch: WG579271-2								
Phenolics, Total	94		-		82-111	-		12
Anions by Ion Chromatography - Westborough Lab Associated sample(s): 01 Batch: WG579428-2								
Chloride	105		-		90-110	-		
General Chemistry - Westborough Lab Associated sample(s): 01 Batch: WG579609-2								
TPH	80		-		64-132	-		34

Matrix Spike Analysis

Batch Quality Control

Project Name: 114 MOUNT AUBURN STREET

Project Number: 4828.9.00

Lab Number: L1222526

Report Date: 12/18/12

Parameter	Native Sample	MS Added	MS Found	MS %Recovery	Qual	MSD Found	MSD %Recovery	Qual	Recovery Limits	RPD	Qual	RPD Limits
General Chemistry - Westborough Lab Associated sample(s): 01 QC Batch ID: WG579165-4 QC Sample: L1222526-01 Client ID: B-3 (OW)												
Chromium, Hexavalent	ND	0.1	0.095	95		-	-		85-115	-		20
General Chemistry - Westborough Lab Associated sample(s): 01 QC Batch ID: WG579247-4 QC Sample: L1222513-02 Client ID: MS Sample												
Cyanide, Total	0.006	0.2	0.149	72	Q	-	-		90-110	-		30
General Chemistry - Westborough Lab Associated sample(s): 01 QC Batch ID: WG579271-4 QC Sample: L1222518-01 Client ID: MS Sample												
Phenolics, Total	0.10	0.8	0.97	109		-	-		77-124	-		12
Anions by Ion Chromatography - Westborough Lab Associated sample(s): 01 QC Batch ID: WG579428-3 QC Sample: L1222526-01 Client ID: B-3 (OW)												
Chloride	1800	400	2200	104		-	-		40-151	-		18
General Chemistry - Westborough Lab Associated sample(s): 01 QC Batch ID: WG579609-4 QC Sample: L1222488-02 Client ID: MS Sample												
TPH	ND	21.1	11.9	56	Q	-	-		64-132	-		34

Lab Duplicate Analysis Batch Quality Control

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Parameter	Native Sample	Duplicate Sample	Units	RPD	Qual	RPD Limits
General Chemistry - Westborough Lab Associated sample(s): 01 QC Batch ID: WG579119-2 QC Sample: L1222501-01 Client ID: DUP Sample						
pH	7.7	7.7	SU	0		5
General Chemistry - Westborough Lab Associated sample(s): 01 QC Batch ID: WG579165-3 QC Sample: L1222526-01 Client ID: B-3 (OW)						
Chromium, Hexavalent	ND	ND	mg/l	NC		20
General Chemistry - Westborough Lab Associated sample(s): 01 QC Batch ID: WG579247-3 QC Sample: L1222513-02 Client ID: DUP Sample						
Cyanide, Total	0.006	0.005	mg/l	6		30
General Chemistry - Westborough Lab Associated sample(s): 01 QC Batch ID: WG579271-3 QC Sample: L1222526-01 Client ID: B-3 (OW)						
Phenolics, Total	0.05	0.03	mg/l	50	Q	12
Anions by Ion Chromatography - Westborough Lab Associated sample(s): 01 QC Batch ID: WG579428-4 QC Sample: L1222526-01 Client ID: B-3 (OW)						
Chloride	1800	1800	mg/l	0		18
General Chemistry - Westborough Lab Associated sample(s): 01 QC Batch ID: WG579609-3 QC Sample: L1222480-01 Client ID: DUP Sample						
TPH	ND	ND	mg/l	NC		34
General Chemistry - Westborough Lab Associated sample(s): 01 QC Batch ID: WG579804-2 QC Sample: L1222467-01 Client ID: DUP Sample						
Solids, Total Suspended	120	84	mg/l	35	Q	20

Project Name: 114 MOUNT AUBURN STREET**Project Number:** 4828.9.00**Lab Number:** L1222526**Report Date:** 12/18/12**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(*)
L1222526-01A	Vial HCl preserved	A	N/A	2.3	Y	Absent	8260-SIM(14),8260(14)
L1222526-01B	Vial HCl preserved	A	N/A	2.3	Y	Absent	8260-SIM(14),8260(14)
L1222526-01C	Vial HCl preserved	A	N/A	2.3	Y	Absent	8260-SIM(14),8260(14)
L1222526-01D	Vial Na2S2O3 preserved	A	N/A	2.3	Y	Absent	504(14)
L1222526-01E	Vial Na2S2O3 preserved	A	N/A	2.3	Y	Absent	504(14)
L1222526-01F	Amber 1000ml unpreserved	A	7	2.3	Y	Absent	8270TCL(7),8270TCL-SIM(7)
L1222526-01G	Amber 1000ml unpreserved	A	7	2.3	Y	Absent	8270TCL(7),8270TCL-SIM(7)
L1222526-01H	Amber 1000ml Na2S2O3	A	7	2.3	Y	Absent	PCB-608(7)
L1222526-01I	Amber 1000ml Na2S2O3	A	7	2.3	Y	Absent	PCB-608(7)
L1222526-01J	Amber 1000ml HCl preserved	A	N/A	2.3	Y	Absent	TPH-1664(28)
L1222526-01K	Amber 1000ml HCl preserved	A	N/A	2.3	Y	Absent	TPH-1664(28)
L1222526-01L	Amber 1000ml H2SO4 preserved	A	<2	2.3	Y	Absent	TPHENOL-420(28)
L1222526-01M	Plastic 1000ml unpreserved	A	7	2.3	Y	Absent	TSS-2540(7)
L1222526-01N	Plastic 500ml unpreserved	A	7	2.3	Y	Absent	TRC-4500(1),PH-4500(.01)
L1222526-01O	Plastic 500ml unpreserved	A	7	2.3	Y	Absent	CL-300(28),HEXCR-3500(1)
L1222526-01P	Plastic 250ml NaOH preserved spl	A	>12	2.3	Y	Absent	TCN-4500(14)
L1222526-01Q	Plastic 250ml HNO3 preserved	A	<2	2.3	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)
L1222526-01X	Amber 1000ml unpreserved	A	7	2.3	Y	Absent	8270TCL(7)
L1222526-01Y	Vial Na2S2O3 preserved	A	N/A	2.3	Y	Absent	504(14)
L1222526-01Z	Amber 1000ml unpreserved	A	7	2.3	Y	Absent	8270TCL(7)

Container Comments

L1222526-01Q

*Values in parentheses indicate holding time in days



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GLOSSARY

Acronyms

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

Footnotes

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

Terms

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: 114 MOUNT AUBURN STREET
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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.

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REFERENCES

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

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 August 16, 2012 - Westboro Facility

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

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

Drinking Water (Inorganic Parameters: Color, pH, Turbidity, Conductivity, Alkalinity, Chloride, Free Residual Chlorine, Fluoride, Calcium Hardness, Sulfate, Nitrate, Nitrite, Aluminum, Antimony, Arsenic, Barium, Beryllium, Cadmium, Calcium, Chromium, Copper, Iron, Lead, Magnesium, Manganese, Mercury, 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).)

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

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

Wastewater/Non-Potable Water (Inorganic Parameters: EPA 120.1, 1664A, 350.1, 351.1, 353.2, 410.4, 420.1, SM2320B, 2510B, 2540C, 2540D, 426C, 4500Cl-D, 4500Cl-E, 4500CN-C, 4500CN-E, 4500F-B, 4500F-C, 4500H+B, 4500Norg-B, 4500Norg-C, 4500NH3-B, 4500NH3-G, 4500NO3-F, 4500P-B, 4500P-E, 5210B, 5220D, 5310C, 9010B, 9040B, 9030B, 7470A, 7196A, 2340B, EPA 200.7, 6010B, 200.8, 6020, 245.1, 1311, 1312, 3005A, Enterolert, 9223D, 9222D. Organic Parameters: 608, 624, 625, 8081A, 8082, 8330, 8151A, 8260B, 8270C, 3510C, 3630C, 5030B, ME-DRO, ME-GRO, MA-EPH, MA-VPH.)

Solid Waste/Soil (Inorganic Parameters: 9010B, 9012A, 9014A, 9030B, 9040B, 9045C, 6010B, 7471A, 7196A, 9050A, 1010, 1030, 9065, 1311, 1312, 3005A, 3050B. Organic Parameters: ME-DRO, ME-GRO, MA-EPH, MA-VPH, 8260B, 8270C, 8330, 8151A, 8081A, 8082, 3540C, 3546, 3580A, 3630C, 5030B, 5035.)

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

Drinking Water (Inorganic Parameters: (EPA 200.8 for: Sb,As,Ba,Be,Cd,Cr,Cu,Pb,Ni,Se,Tl) (EPA 200.7 for: Ba,Be,Ca,Cd,Cr,Cu,Na,Ni) 245.1, (300.0 for: Nitrate-N, Fluoride, Sulfate); (EPA 353.2 for: Nitrate-N, Nitrite-N); (SM4500NO3-F for: Nitrate-N and Nitrite-N); 4500F-C, 4500CN-CE, EPA 180.1, SM2130B, SM4500Cl-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 6010B, 6010C, 6020, 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, 9030B, 9040B, SM2120B, 2310B, 2320B, 2540B, 2540D, 4500H+B, 4500CL-E, 4500CN-E, 4500NH3-H, 4500NO3-F, 4500NO2-B, 4500P-E, 4500-S2-D, 5210B, 5220D, 2510B, 2540C, 4500F-C, 5310C, 5540C, LACHAT 10-204-00-1-A, LACHAT 10-107-06-2-D, 3060A. Organic Parameters: SW-846 3510C, 3630C, 5030B, 8260B, 8270C, 8270D, 8330, EPA 624, 625, 608, SW-846 8082, 8082A, 8081A, 8081B, 8151A, 8330, 8270C-SIM, 8270D-SIM.)

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

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, 2540G, EPA 120.1, SM2510B, SM2520B, 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, 3005A, 3015, EPA 6010B, 6010C, 6020, 6020A, 7196A, 3060A, SW-846 9010B, 9030B. Organic Parameters: SW-846 8260B, 8260C, 8270C, 8270D, 8270C-SIM, 8270D-SIM, 3510C, EPA 608, 624, 625, SW-846 3630C, 5030B, 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, 9010B, 9030B, 1010, 1030, 1311, 1312, 3005A, 3050B, 7471A, 7471B, 9014, 9012A, 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, 3630C, 5030B, 5035L, 5035H, NJ OQA-QAM-025 Rev.7, NJ EPH.)

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

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

Non-Potable Water (Inorganic Parameters: SM9221E, 9222D, 9221B, 9222B, 9215B, 5210B, 5310C, EPA 410.4, SM5220D, 2310B-4a, 2320B, EPA 200.7, 300.0, SM4500CL-E, 4500F-C, SM15 426C, EPA 350.1, SM4500NH3-BH, EPA 351.1, LACHAT 10-107-06-2, EPA 353.2, SM4500-NO3-F, 4500-NO2-B, 4500P-E, 2540C, 2540B, 2540D, EPA 200.8, EPA 6010B, 6010C, 6020, 6020A, EPA 7196A, SM3500Cr-D, EPA 245.1, 245.2, 7470A, SM2120B, LACHAT 10-204-00-1-A, 4500CN-CE, EPA 1664A, EPA 420.1, SM14 510C, EPA 120.1, SM2510B, SM4500S-D, SM5540C, EPA 3005A, 3015, 9010B, 9030B. Organic Parameters: EPA 624, 8260B, 8260C, 8270C, 8270D, 8270C-SIM, 8270D-SIM, 625, 608, 8081A, 8081B, 8151A, 8330, 8082, 8082A, EPA 3510C, 5030B.)

Solid & Hazardous Waste (Inorganic Parameters: EPA 1010, 1030, EPA 6010B, 6010C, 7196A, 7471A, 7471B, 9012A, 9014, 9065, 9050A, EPA 1311, 1312, 3005A, 3050B, 9010B, 9040C, 9045D. Organic Parameters: EPA 8260B, 8260C, 8270C, 8270D, 8270C-SIM, 8270D-SIM, 8015B, 8015C, 8081A, 8081B, 8151A, 8330, 8082 8082A, 3540C, 3546, 3580, 3580A, 5030B, 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, 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, 7471A, 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, 245.2, 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, 3501., 350.2, 353.2, 420.1, 6010B, 6010C, 6020, 6020A, 7196A, 7470A, 9010B, 9030B, 9040B, Lachat 10-107-06-2-D, NJ-EPH, 2120B, 2310B, 2320B, 2340B, 2510C, 2540B, 2540C, 3500Cr-D, 436C, 4500CN-CE, 4500Cl-E, 4500F-B, 4500F-C, 4500H+-B, 4500NO₂-B, 4500NO₃-F, 4500S-D, 4500SO₃-B, 5310BCD, 5540C. Organic Parameters: EPA 3510C, 3630C, 5030B, 625, 624, 608, 8081A, 8081B, 8082, 8082A, 8151A, 8260B, 8270C, 8270D, 8330, 8015B,)

Solid & Hazardous Waste (Inorganic Parameters: EPA 350.1, 1010, 1030, 1311, 1312, 3005A, 3050B, 3060A, 6010B, 6010C, 6020A, 7196A, 7471A, 7471B, 9010B, 9012A, 9014, 9040B, 9045C, 9050, 9065, SM 4500NH₃-BH, 9030B, 9038, 9251. Organic Parameters: 3540C, 3546, 3580A, 3630C, 5035, 8015B, 8015C, 8081A, 8081B, 8082, 8082A, 8151A, 8260B, 8270C, 8270D, 8270C-SIM, 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: T104704476-09-1. **NELAP Accredited.**

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

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

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

Drinking Water (Inorganic Parameters: EPA 200.7, 200.8, 300.0, 2510B, 2120B, 2540C, 4500CN-CE, 245.2, 2320B, 4500F-C, 4500F-C, 4500NO₃-F, 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, 3005A, 3015, 1312, 6010B, 6010C, 3060A, 353.2, 420.1, 6020, 6020A, SM4500S-D, SM4500-CN-CE, Lachat 10-204-00-1-X, 7196A, 7470A, 9010B, 9040B, 2310B, 2320B, 2510B, 2540B, 2540C, 3500Cr-D, 426C, 4500Cl-E, 4500F-B, 4500F-C, 4500PE, 510AC, 5210B, 5310B 5310C, 5540C. Organic Parameters: EPA 3510C, 3630C, 5030B, 8260B, 608, 624, 625, 8081A, 8081B, 8082, 8082A, 8151A, 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, 9030B, 9010B, 9012A, 9014 9040B, 9045C, 9050A, 9065. Organic Parameters: EPA 5035, 3540C, 3546, 3550, 3580, 3630C, 8260B, 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. 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 8260B: Freon-113, 1,2,4,5-Tetramethylbenzene, 4-Ethyltoluene. **EPA 8330A:** PETN, Picric Acid, Nitroglycerine, 2,6-DANT, 2,4-DANT. **EPA 8270C:** Methyl naphthalene, Dimethyl naphthalene, Total Methylnaphthalenes, Total Dimethylnaphthalenes, 1,4-Diphenylhydrazine (Azobenzene). **EPA 625:** 4-Chloroaniline, 4-Methylphenol. Total Phosphorus in a soil matrix, Chloride in a soil matrix, TKN in a soil matrix, NO₂ in a soil matrix, NO₃ in a soil matrix, SO₄ in a soil matrix. **EPA 9071:** Total Petroleum Hydrocarbons, Oil & Grease.

CHAIN OF CUSTODY

PAGE OF

Project Information

Westborough, MA	Mansfield, MA
TEL: 508-898-9220	TEL: 508-822-9300
FAX: 508-898-9193	FAX: 508-822-3288

Project Name: 114 Mount Auburn Street

Client Information

Client: McPhial Associates, LLC
Address: 2269 Massachusetts Avenue
Cambridge, MA 02140
Phone: 617-868-1420

Project Location: Cambridge, MA

Project #: 4828.9.00

Project Manager: JWP

ALPHA Quote #:

Turn-Around Time

Fax: 617-868-1423

☒ Standard ☐ Rush (ONLY IF PRE-APPROVED)

Email:

☐ These samples have been Previously analyzed by Alpha

Due Date: _____ Time: _____

Other Project Specific Requirements/Comments/Detection Limits:

Date Rec'd in Lab

ALPHA Job #: L1222526

Report Information Data Deliverables Billing Information

☐ FAX ☐ EMAIL
☒ ADEx ☐ Add'l Deliverables

☒ Same as Client info PO #:

Regulatory Requirements/Report Limits

State/Fed Program

Criteria

EPA NPDES RGP

MCP PRESUMPTIVE CERTAINTY-CT REASONABLE CONFIDENCE PROTOCOLS

☐ Yes	☒ No	Are MCP Analytical Methods Required?
☐ Yes	☒ No	Are CT RCP (Reasonable Confidence Protocols) Required?

ANALYSIS

pH, Cl	
8260 - w/ 1,4 Dioxane	
504 (EDB Only)	
TSS	
8270	
8270-SIM	
PCB_608	
TPH_1664	
TPhenol	
TCN and TRC	
HexCr	
Total HgFeAgAsCdCrCuNiPbSbSeZn	

SAMPLE HANDLING
Filtration
☐ Done
☐ Not Needed
☐ Lab to do
Preservation
☐ Lab to do
(Please specify below)

TOTAL # BOTTLES

[illegible]

PLEASE ANSWER QUESTIONS ABOVE!

IS YOUR PROJECT MA MCP *or* CT RCP?

FORM NO: 01-01(1)
(rev. 5-JAN-12)

Container Type

Preservative

P	V	V	P	A	A	A	A	A	-	P	P
A	B	H	A	A	A	H	B	D	-	A	C

~~Relinquished By:~~

Date/Time

Received By:

Date/Time

Please print clearly, legibly and completely. Samples can not be logged in and turnaround time clock will not start until any ambiguities are resolved. All samples submitted are subject to Alpha's Payment Terms



ATTACHMENT D

ASSESSMENT OF DEP-LISTED SITES

The DEP on-line waste site database indicates that there are three (3) DEP listed sites within 500 feet of the subject site. For two (2) of the sites, the releases of OHM which triggered notification to the DEP have achieved a Class A-2 Response Action Outcome (RAO) statement. A Class A-2 RAO indicates that response actions were performed at the site which resulted in a Permanent Solution to the release of which a Condition of No Significant Risk exists at the site. The remaining site, located at the intersection of Brattle Street and Mount Auburn Street, has not achieved an RAO statement but a URAM Completion Report was filed with the DEP in January 2008. Based on the reported DEP status, the surrounding disposal sites are not considered to pose a threat of impact to the groundwater dewatering activities at the subject site.

MassDEP - Bureau of Waste Site Cleanup

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

114 MOUNT AUBURN STREET CAMBRIDGE, MA

NAD83 UTM Meters:

4693360mN , 325246mE (Zone: 19)

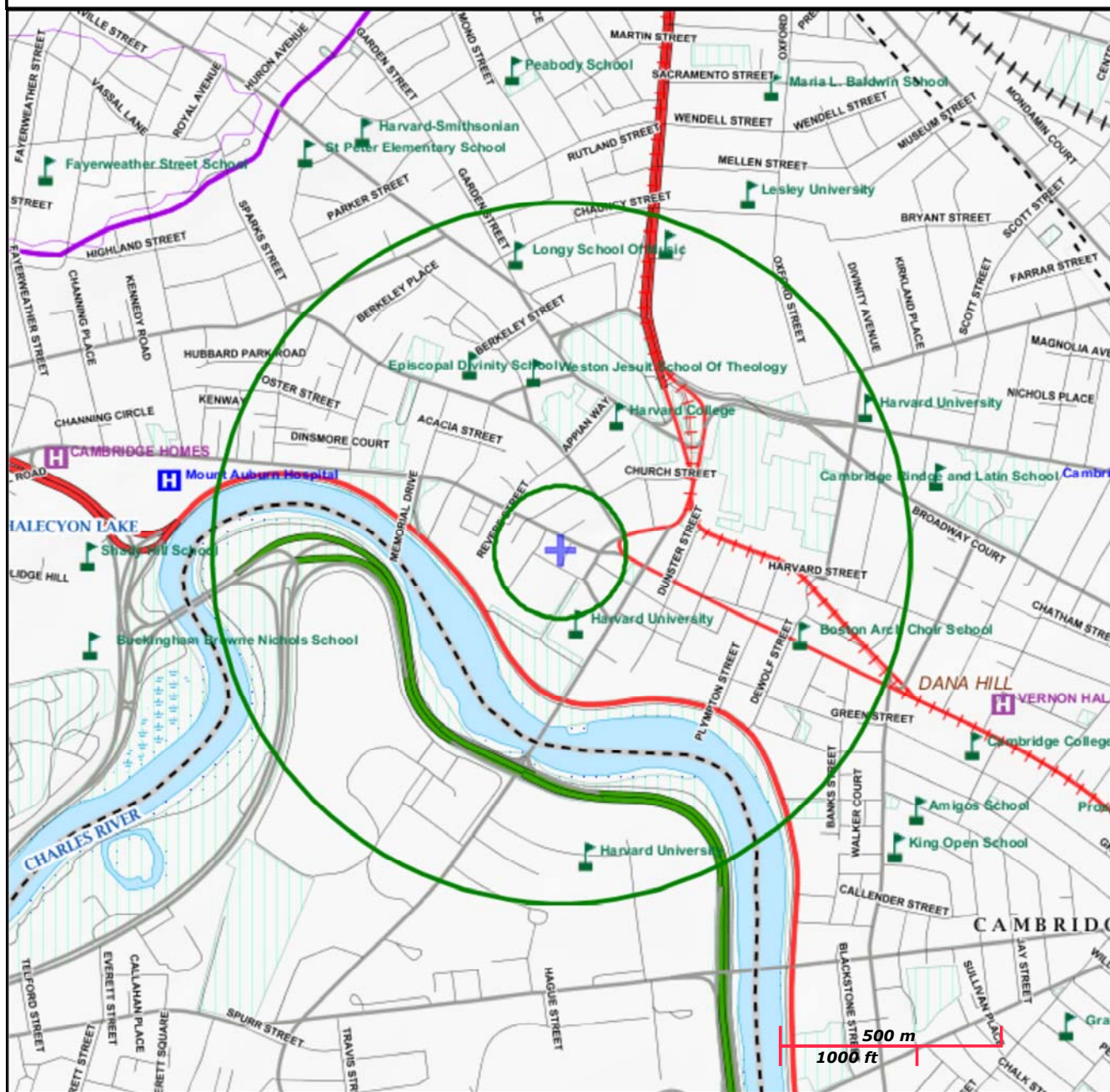
December 20, 2012

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



MassDEP

Commonwealth of Massachusetts
Department of Environmental Protection



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

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

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

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

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

PWS Protection Areas: Zone II, IWPA, Zone A

Hydrography: Open Water, PWS Reservoir, Tidal Flat

Wetlands: Freshwater, Saltwater, Cranberry Bog

FEMA 100yr Floodplain; Protected Open Space; ACEC

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

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

MASSACHUSETTS AREAS OF CRITICAL ENVIRONMENTAL CONCERN

June 2009

Total Approximate Acreage: 268,000 acres

Approximate acreage and designation date follow ACEC names below.

Bourne Back River

(1,850 acres, 1989) Bourne

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

Cedar Swamp

(1,650 acres, 1975) Hopkinton and Westborough

Central Nashua River Valley

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

Cranberry Brook Watershed

(1,050 acres, 1983) Braintree and Holbrook

Ellisville Harbor

(600 acres, 1980) Plymouth

Fowl Meadow and Ponkapoag Bog

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

Golden Hills

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

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

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

Herring River Watershed

(4,450 acres, 1991) Bourne and Plymouth

Hinsdale Flats Watershed

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

Hockomock Swamp

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

Inner Cape Cod Bay

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

Kampoosa Bog Drainage Basin

(1,350 acres, 1995) Lee and Stockbridge

Karner Brook Watershed

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

Miscoe, Warren, and Whitehall Watersheds

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

Neponset River Estuary

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

Petapawag

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

Pleasant Bay

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

Pocasset River

(160 acres, 1980) Bourne

Rumney Marshes

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

Sandy Neck Barrier Beach System

(9,130 acres, 1978) Barnstable and Sandwich

Schenob Brook Drainage Basin

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

Squannassit

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

Three Mile River Watershed

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

Upper Housatonic River

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

Waquoit Bay

(2,580 acres, 1979) Falmouth and Mashpee

Weir River

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

Wellfleet Harbor

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

Weymouth Back River

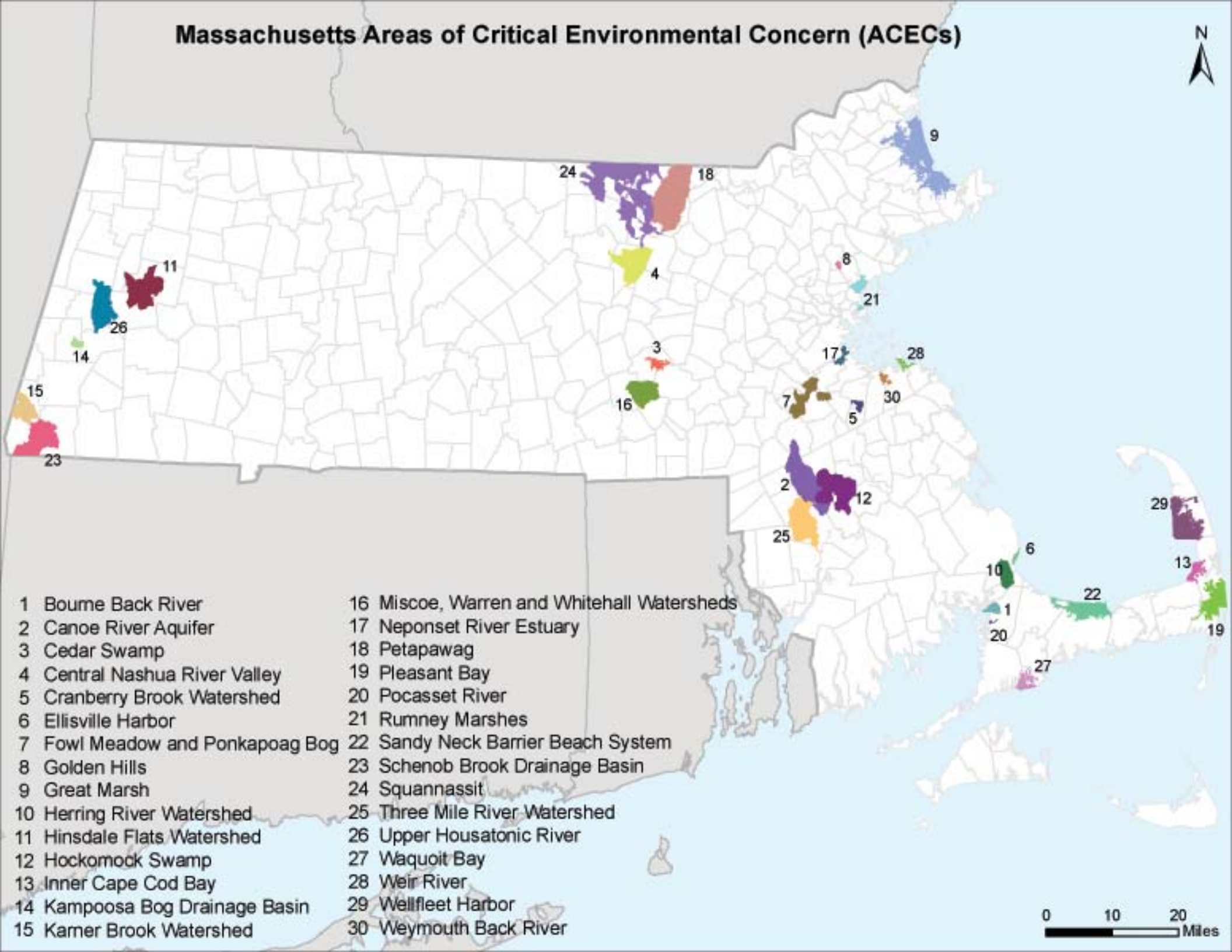
(800 acres, 1982) Hingham and Weymouth

Towns with ACECs within their Boundaries

June 2009

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

Massachusetts Areas of Critical Environmental Concern (ACECs)



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

0 10 20 Miles

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	Raynham and Taunton
Dukes	Roseate Tern	Endangered	Coastal beaches and the Atlantic Ocean	All Towns
	Piping Plover	Threatened	Coastal Beaches	All Towns
	Northeastern beach tiger beetle	Threatened	Coastal Beaches	Aquinnah and Chilmark
	Sandplain gerardia	Endangered	Open areas with sandy soils.	West Tisbury
Essex	Small whorled Pogonia	Threatened	Forests with somewhat poorly drained soils and/or a seasonally high water table	Gloucester, Essex and Manchester
	Piping Plover	Threatened	Coastal Beaches	Glocester, Essex, Ipswich, Rowley, Revere, Newbury, Newburyport and Salisbury
Franklin	Northeastern bulrush	Endangered	Wetlands	Montague
	Dwarf wedgemussel	Endangered	Mill River	Whately
Hampshire	Small whorled Pogonia	Threatened	Forests with somewhat poorly drained soils and/or a seasonally high water table	Hadley
	Puritan tiger beetle	Threatened	Sandy beaches along the Connecticut River	Northampton and Hadley
	Dwarf wedgemussel	Endangered	Rivers and Streams.	Hadley, Hatfield, Amherst and Northampton
Hampden	Small whorled Pogonia	Threatened	Forests with somewhat poorly drained soils and/or a seasonally high water table	Southwick
Middlesex	Small whorled Pogonia	Threatened	Forests with somewhat poorly drained soils and/or a seasonally high water table	Groton
Nantucket	Piping Plover	Threatened	Coastal Beaches	Nantucket
	Roseate Tern	Endangered	Coastal beaches and the Atlantic Ocean	Nantucket
	American burying beetle	Endangered	Upland grassy meadows	Nantucket
Plymouth	Piping Plover	Threatened	Coastal Beaches	Scituate, Marshfield, Duxbury, Plymouth, Wareham and Mattapoisett
	Northern Red-bellied cooter	Endangered	Inland Ponds and Rivers	Kingston, Middleborough, Carver, Plymouth, Bourne, and Wareham
	Roseate Tern	Endangered	Coastal beaches and the Atlantic Ocean	Plymouth, Marion, Wareham, and 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.

7/31/2008



APPENDIX E

AREAS OF CRITICAL CONCERN, ENDANGERED AND THREATENED SPECIES

There are no surface water bodies or wetlands located within the subject site boundaries. The nearest surface water body is the Charles River, located about 800 feet to the south of the subject site. Groundwater at the subject site is not considered a current or a potential source of drinking water, and the subject site is not located within minimum distances from drinking water sources as prescribed by the MCP. There are no known public or private drinking water supply wells located within the boundaries of the subject site nor are such wells known to be located within 0.5 miles of the subject site. The site is not located within Zone II, Interim Wellhead Protection Area or within Zone A of a Class A surface water reservoir. There are no Areas of Critical Environmental Concern (ACEC) located within the site boundaries..

A review of the federal listing of threatened and endangered species published by the U.S. Fish and Wildlife Service identified no threatened and/or endangered species or critical habitats at or in the vicinity of the discharge location and/or discharge outfall. In addition, a review of the Massachusetts Division of Fisheries and Wildlife on-line database identified no threatened or endangered species at the point of discharge and/or the discharge outfall.

Based upon the above, the site is considered criterion A pursuant to Appendix III of the DGP.



APPENDIX F

NATIONAL REGISTER OF HISTORIC PLACES

The National Register of Historic Places on-line database was reviewed for listings located within the immediate vicinity of the subject site in Boston, Massachusetts. A review of the most recent National Register of Historical Places for Middlesex County, Massachusetts did not identify records or addresses of Historic Places that exist in the immediate vicinity of the outfall location. The nearest listing of a National Historic Place to the subject site is the Harvard Square Historic District located approximately 1000 feet to the northeast of the subject site. We do not anticipate that dewatering activities at the subject site will affect the Harvard Square Historic District.

Based upon the above, the site is considered Criterion 1 pursuant to Appendix III of the DGP.