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

CERTIFIED MAIL RETURN RECEIPT REQUESTED

JAN 1 3 2012

Mr. James M. Flynn
Senior Vice President
Century Bank
400 Mystic Avenue
Medford, MA 02155

Re: Authorization to discharge under the Remediation General Permit (RGP) – MAG910000.Construction site located at 15 Elm Street Andover, MA 02180, Essex County; Authorization # MAG910516

Dear Mr. Flynn:

Based on the review of a Notice of Intent (NOI) submitted on behalf of Century Bank by the firm McPhail Associates, Inc., for the site referenced above, the U.S. Environmental Protection Agency (EPA) hereby authorizes you, as the named Owner and Operator, to discharge in accordance with the provisions of the RGP at that site. Your authorization number is listed above.

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

Please note the enclosed checklist includes parameters that exceeded Appendix III limits. The checklist also includes other parameters for which your laboratory reports indicated there was insufficient sensitivity to detect these parameters at the minimum levels established in Appendix VI of the RGP.

Also, please note that the metals included on the checklist are dilution dependent pollutants and subject to limitations based on selected dilution ranges and technology-based ceiling limitations. For each parameter the dilution factor 6.58 for this site is within a dilution range greater than five to ten (>5-10), established in the RGP. (See the RGP Appendix IV for Massachusetts facilities). Therefore, the limits for arsenic of 50 ug/L,

copper of 26 ug/L, nickel of 145 ug/L, selenium of 25 ug/L, zinc of 333 ug/L and iron of 5,000 ug/L, are required to achieve permit compliance at your site.

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

This general permit and authorization to discharge will expire on September 9, 2015. You have reported that this project will terminate on February 1, 2013. If for any reason the discharge terminates sooner you are required to submit a Notice of Termination (NOT) to the attention of the contact person indicated below within 30 days of project completion.

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

Sincerely,

David M. Webster, Chief
Industrial Permits Branch

Enclosure

cc: Kathleen Keohane, MassDEP
Christopher M. Cronin, Andover Public Works
Acting Director
William J. Burns, McPhail Associates

2010 Remediation General Permit
Summary of Monitoring Parameters[11]

NPDES Authorization Number:	**MAG910516**
Authorization Issued:	January, 2012
Facility/Site Name:	Construction Site in Andover, MA
Facility/Site Address:	15 Elm Street, Andover, MA 02180
	Email address of owner: jflynn@centurybank.com
Legal Name of Operator:	Century Bank
Operator contact name, title, and Address:	Mr. James M. Flynn, Senior Vice President, 400 Mystic avenue Medford, MA 02155, Middlesex County
	Email: Same as the Owner
Estimated Date of Completion:	February 1, 2013
Category and Sub-Category:	Category III. Contaminated Construction Dewatering. Sub category A and B. General Urban Fill sites and Known Contaminated Sites, respectively.
RGP Termination Date:	September 9, 2015
Receiving Water:	Shawsheen River

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

	Parameter	**Effluent Limit/Method#/ML** (All Effluent Limits are shown as Daily Maximum Limit, unless denoted by a **, in that case it will be a Monthly Average Limit)
√	1. Total Suspended Solids (TSS)	30 milligrams/liter (mg/L) **, 50 mg/L for hydrostatic testing **, Me#60.2/ML5ug/L
	2. Total Residual Chlorine (TRC) [1]	Freshwater = 11 ug/L ** Saltwater = 7.5 ug/L **/ Me#330.5/ML 20ug/L
√	3. Total Petroleum Hydrocarbons (TPH)	5.0 mg/L/ Me# 1664A/ML 5.0mg/L
	4. Cyanide (CN) [2, 3]	Freshwater = 5.2 ug/l ** Saltwater = 1.0 ug/L **/ Me#335.4/ML 10ug/L
√	5. Benzene (B)	5ug/L /50.0 ug/L for hydrostatic testing only/ Me#8260C/ML 2 ug/L
	6. Toluene (T)	(limited as ug/L total BTEX)/ Me#8260C/ ML 2ug/L
	7. Ethylbenzene (E)	(limited as ug/L total BTEX) Me#8260C/ ML 2ug/L
√	8. (m,p,o) Xylenes (X)	(limited as ug/L total BTEX) Me#8260C/ ML 2ug/L

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

	Parameter	Effluent Limit/Method#/ML (All Effluent Limits are shown as Daily Maximum Limit, unless denoted by a **, in that case it will be a Monthly Average Limit)
	35. Total Group I Polycyclic Aromatic Hydrocarbons (PAH)	10.0 ug/L
	a. Benzo(a) Anthracene [7]	0.0038 ug/L /Me#8270D/ ML 5ug/L, Me#610/ML 5ug/L& Me#625/ML 5ug/L
	b. Benzo(a) Pyrene [7]	0.0038 ug/L /Me#8270D/ ML 5ug/L, Me#610/ML 5ug/L& Me#625/ML 5ug/L
	c. Benzo(b)Fluoranthene [7]	0.0038 ug/L /Me#8270D/ ML 5ug/L, Me#610/ML 5ug/L& Me#625/ML 5ug/L
	d. Benzo(k)Fluoranthene [7]	0.0038 ug/L /Me#8270D/ ML 5ug/L, Me#610/ML 5ug/L& Me#625/ML 5ug/L
	e. Chrysene [7]	0.0038 ug/L /Me#8270D/ML 5ug/L, Me#610/ML 5ug/L& Me#625/ML 5ug/L
	f. Dibenzo(a,h)anthracene [7]	0.0038 ug/L /Me#8270D/ML 5ug/L, Me#610/ML 5ug/L& Me#625/ML 5ug/L
	g. Indeno(1,2,3-cd) Pyrene [7]	0.0038 ug/L /Me#8270D/ML 5ug/L, Me#610/ML 5ug/L& Me#625/ML5ug/L
	36. Total Group II Polycyclic Aromatic Hydrocarbons (PAH)	100 ug/L
	h. Acenaphthene	X/Me#8270D/ML 5ug/L,Me#610/ML 5ug/L & Me#625/ML 5ug/L
	i. Acenaphthylene	X/Me#8270D/ML 5ug/L,Me#610/ML 5ug/L & Me#625/ML 5ug/L
	j. Anthracene	X/Me#8270D/ML 5ug/L,Me#610/ML 5ug/L & Me#625/ML 5ug/L
	k. Benzo(ghi) Perylene	X/Me#8270D/ML 5ug/L,Me#610/ML 5ug/L & Me#625/ML 5ug/L
	l. Fluoranthene	X/Me#8270D/ML 5ug/L,Me#610/ML 5ug/L & Me#625/ML 5ug/L
	m. Fluorene	X/Me#8270D/ML 5ug/L,Me#610/ML 5ug/L & Me#625/ML 5ug/L
	n. Naphthalene [5]	20 ug/l / Me#8270/ML 5ug/L, Me#610/ML 5ug/L & Me#625/ML 5ug/L
	o. Phenanthrene	X/Me#8270D/ML 5ug/L,Me#610/ML 5ug/L & Me#625/ML 5ug/L
	p. Pyrene	X/Me#8270D/ML5ug/L,Me#610/ML 5ug/L & Me#625/ML 5ug/L
	37. Total Polychlorinated Biphenyls (PCBs) [8, 9]	0.000064 ug/L/Me# 608/ ML 0.5 ug/L
√	38. Chloride	Monitor only/Me# 300.0/ ML 0.1ug/L

	Metal parameter	Total Recoverable Metal Limit @ H [10]= 50 mg/l CaCO3 for discharges in Massachusetts (ug/l) [11/12]	Minimum level=ML

		Freshwater			
	39. Antimony	5.6/ML 10			
√	40. Arsenic **	50/ML20			
	41. Cadmium **	0.2/ML10			
	42. Chromium III (trivalent) **	48.8/ML15			
	43. Chromium VI (hexavalent) **	11.4/ML10			
√	44. Copper **	26/ML15			
	45. Lead **	1.3/ML20			
	46. Mercury **	0.9/ML0.2			
√	47. Nickel **	145/ML20			
√	48. Selenium **	25/ML20			
	49. Silver	1.2/ML10			
√	50. Zinc **	333/ML15			
√	51. Iron	5,000/ML 20			

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

Footnotes:

[1] Although the maximum values for TRC are 11ug/l and 7.5 ug/l for freshwater, and saltwater respectively, the compliance limits are equal to the minimum level (ML) of the test method used as listed in Appendix VI (i.e., Method 330.5, 20 ug/l).
[2] Limits for cyanide are based on EPA's water quality criteria expressed as micrograms per liter. There is currently no EPA approved test method for free cyanide. Therefore, total cyanide must be reported.

[3] Although the maximum values for cyanide are 5.2 ug/l and 1.0 ug/l for freshwater and saltwater, respectively, the compliance limits are equal to the minimum level (ML) of the Method 335.4 as listed in Appendix VI (i.e., 10 ug/l).
[4] BTEX = sum of Benzene, Toluene, Ethylbenzene, and total Xylenes.
[5] Naphthalene can be reported as both a purgeable (VOC) and extractable (SVOC) organic compound. If both VOC and SVOC are analyzed, the highest value must be used unless the QC criteria for one of the analyses is not met. In such cases, the value from the analysis meeting the QC criteria must be used.
[6] The sum of individual phthalate compounds(not including the #34, Bis (2-Ethylhexyl) Phthalate . The compliance limits are equal to the minimum level (ML) of the test method used as listed in Appendix VI.
Total values calculated for reporting on NOIs and discharge monitoring reports shall be calculated by adding the measured concentration of each constituent. If the measurement of a constituent is less than the ML, the permittee shall use a value of zero for that constituent. For each test, the permittee shall also attach the raw data for each constituent to the discharge monitoring report, including the minimum level and minimum detection level for the analysis.
[7] Although the maximum value for the individual PAH compounds is 0.0038 ug/l, the compliance limits are equal to the minimum level (ML) of the test method used as listed in Appendix VI.
[8] In the November 2002 WQC, EPA has revised the definition of Total PCBs for aquatic life as total PCBs is the sum of all homologue, all isomer, all congener, or all "Oroclor analyses."Total values calculated for reporting on NOIs and discharge monitoring reports shall be calculated by adding the measured concentration of each constituent. If the measure of a constituent is less than the ML, the permittee shall use a value of zero for that constituent. For each test, the permittee shall also attach the raw data for each constituent to the discharge monitoring report, including the minimum level and minimum detection level for the analysis.
[9]Although the maximum value for total PCBs is 0.000064 ug/l, the compliance limit is equal to the minimum level (ML) of the test method used as listed in Appendix VI (i.e., 0.5 ug/l for Method 608 or 0.00005 ug/l when Method 1668a is approved).
[10] Hardness. Cadmium, Chromium III, Copper, Lead, Nickel, Silver, and Zinc are Hardness Dependent.
[11] For a Dilution Factor (DF) from 1 to 5, metals limits are calculated using DF times the base limit for the metal. See Appendix IV. For example, iron limits are calculated using DF x 1,000ug/L (the iron base limit). Therefore DF is 1.5, the iron limit will be 1,500 ug/L; DF 2, then iron limit =1,000 x 2 =2,000 ug/L., etc. not to exceed the DF=5.
[12] Minimum Level (ML) is the lowest level at which the analytical system gives a recognizable signal and acceptable calibration point for the analyte. The ML represents the lowest concentration at which an analyte can be measured with a known level of confidence. The ML is calculated by multiplying the laboratory-determined method detection limit by 3.18 (see 40 CFR Part 136, Appendix B).
[13] pH sampling for compliance with permit limits may be performed using field methods as provided for in EPA test Method 150.1.
[14] Temperature sampling per Method 170.1

McPHAIL ASSOCIATES, INC

Geotechnical Engineers

NOTICE OF INTENT FOR DISCHARGE UNDER MASSACHUSETTS REMEDIAL GENERAL PERMIT MAG910000

15 ELM STREET

ANDOVER MASSACHUSETTS

to

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

December 29, 2011

Project No. 5274

McPHAIL ASSOCIATES, INC

Geotechnical Engineers

December 29, 2011

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

Attention: RGP-NOC Processing

Reference: 15 Elm Street; Boston, Massachusetts
Notice of Intent for Construction Dewatering Discharge Under Massachusetts
Remedial General Discharge MAG910000

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 permission from the U.S. Environmental Protection Agency (EPA) for the temporary discharge of groundwater into the Shawsheen River via the Town of Andover 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 permit application was prepared with the authorization of Century Bank. These services are subject to the limitations contained in **Attachment A**.

Fronting onto Elm Street to the north, the subject site is bounded by commercial properties to the east, west and south. Currently, a vacant one-story wood and brick building occupies the northern portion of the 15,182 square-foot site. The northern portion of the existing building contains a partial basement with the lowest level slab located at approximately Elevation +168. The lowest level slab of the southern portion of the existing building is approximately coincident with the existing grade at about Elevation +174.7. A canopy currently extends from the front of the building along Elm Street. The remaining portions of the subject site not covered by the footprint of the building consist of asphalt paved surfaces. Existing conditions of the subject site are shown on **Figure 2**, Subsurface Investigation Plan.

Historical research indicates that the subject site was formerly occupied by a gasoline station which ceased operation in 1984. Reportedly, two (2) 5,000-gallon, one 1,000-gallon, and one 500-gallon capacity underground storage tanks (USTs) containing gasoline, fuel oil and waste oil, respectively, formerly existed at the subject site. It is understood that during 1984 and 1987, these tanks were removed and disposed of off-site.

The subject site is listed with the DEP under Release Tracking Numbers (RTNs) 3-1066 and 3-16672. Initially in 1988, the subject site was listed by the DEP as a Location to be Investigated to which RTN 3-1066 was assigned. According to reports prepared by others, from 1992 through 1996 response actions were implemented at the subject site to recover non-aqueous phase liquid (NAPL) from on-site monitoring wells. In 1996, the results of post-remedial groundwater testing indicated that a Permanent Solution was achieved and as a result a Waiver Completion Statement was submitted to the DEP for RTN 3-1066.

In conjunction with filing of the Waiver Completion Statement, a Downgradient Property Status (DPS) was also submitted to the DEP for petroleum contamination identified in groundwater at the southeastern portion of the subject site. Subsequently, the DEP assigned RTN 3-16672 to the subject site. The DPS indicated that the source of the contamination at the southeastern portion of the subject site was related to

2269 Massachusetts Avenue
Cambridge, Massachusetts 02140
617- 868-1420
617- 868-1423 (Fax)

a release of diesel fuel and fuel oil documented on the abutting parcel. In 2006, a Class A-2 Response Action Outcome (RAO) was filed for the release indicating that a Permanent Solution and a Condition of No Significant Risk had been achieved at the site.

It is understood that redevelopment of the subject site will include demolition of a portion of the existing structure and construction of a new building in approximately the same location. The planned redevelopment will include the construction of a slab on grade addition. Dewatering is anticipated to facilitate removal of the existing foundations and to prepare new foundation bearing surfaces.

It is estimated that intermittent groundwater discharge required during the excavation phase of construction will be on the order of 20 to 35 gallons per minute (GPM). This rate of groundwater discharge is based on the relatively pervious nature of the existing fill material and the depth of excavation below the surface of groundwater. These estimates of discharge do not include surface runoff which will be removed from the excavation during a limited duration of a rain storm and shortly thereafter.

Based upon the historical presence of petroleum contamination in soil and groundwater at the subject site, temporary on-site collection and recharge of groundwater may alter groundwater flow direction at the subject site causing on-site residual contamination to migrate off-site. Although recent groundwater testing has not detected petroleum constituents in excess of the EPA effluent limits, residual petroleum contamination may be encountered during temporary construction dewatering. The discharge of groundwater will enter the Shawsheen River via the Town of Andover storm water system under the requested U.S. EPA Remediation General Permit (RGP).

Construction dewatering will require the discharge of collected groundwater into the storm drain system under the requested Remedial General Permit. A review of available subgrade utility plans provided by the Town of Andover indicates that a dedicated storm drain runs beneath Elm Street. The dedicated storm drain beneath Elm Street flows northwest beneath High Street to North Main Street connecting to a 12-inch storm drain. The 12-inch diameter storm drain flows northwest beneath North Main Street where it increases in size to 20 inches in diameter and discharges into the Shawsheen River. Additionally, during surcharged conditions, storm water is diverted to a 15-inch diameter storm drain beneath Central Street. The dedicated storm drain beneath Central Street flows southwest connecting to a 66-inch diameter storm drain that runs to the west and southwest beneath existing structures. The 66-inch storm drain eventually flows beneath Lupine Road and discharges into Rogers Brook, a tributary of the Shawsheen River. The flow path of the discharge is shown on plans provided by the Town of Andover which are included in **Figures 3A** and **3B**

Based on the historical presence of petroleum contamination at the subject site, dewatered groundwater may be affected by elevated levels of petroleum hydrocarbons and polynuclear aromatic hydrocarbons (PAHs). Therefore, it is our opinion that a settling tank, bag filter and a granular activated carbon filter will be required to settle out particulate matter and reduce potential levels of petroleum constituents in the water to meet allowable total suspended solids (TSS), total petroleum hydrocarbon and PAH discharge limits established by the US EPA prior to discharge. One settling tank, 2,000-gallons in capacity, two bag filters and a granular activated carbon filter will be incorporated into the discharge system in series in order to meet allowable discharge limits for TSS, total petroleum hydrocarbons and PAHs established by the RGP. A schematic of the treatment system is shown on **Figure 4**.

McPHAIL ASSOCIATES, INC
Geotechnical Engineers

To document the effectiveness of the sedimentation and granular activated carbon filtration, samples of the effluent will be obtained and tested for the presence of TSS, total petroleum hydrocarbons and/or PAHs prior to the start of discharge into the storm drain system. Should the pre-start up testing indicate that the levels of TSS, petroleum hydrocarbon and/or PAHs in the effluent from the treatment system exceed the limits established under the RGP, additional treatment of the effluent will be implemented prior to initial discharge.

Should the results of testing for petroleum hydrocarbons and PAHs continue to indicate an exceedance of the RGP limit concentrations, appropriate treatment will be implemented to address the exceedances. In addition, should other contaminants be detected within the discharge water during the construction dewatering phase of the project at levels that exceed the effluent limitations, mitigative measures will be implemented to meet the allowable discharge limits.

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

Supplemental information appended to this letter in support of the RGP includes the following;

- Notice of Intent Transmittal Form for Permit Application (**Appendix B)**
- A summary of groundwater analysis (**Appendix C, Tables 1 and 2**);
- A review of Areas of Critical Concern and Endangered and Threatened Species (**Appendix D**);
- A review of National Historic Places (**Attachment E**); and
- Best Management Practice Plan (**Appendix F)**

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, INC.

William J. Burns

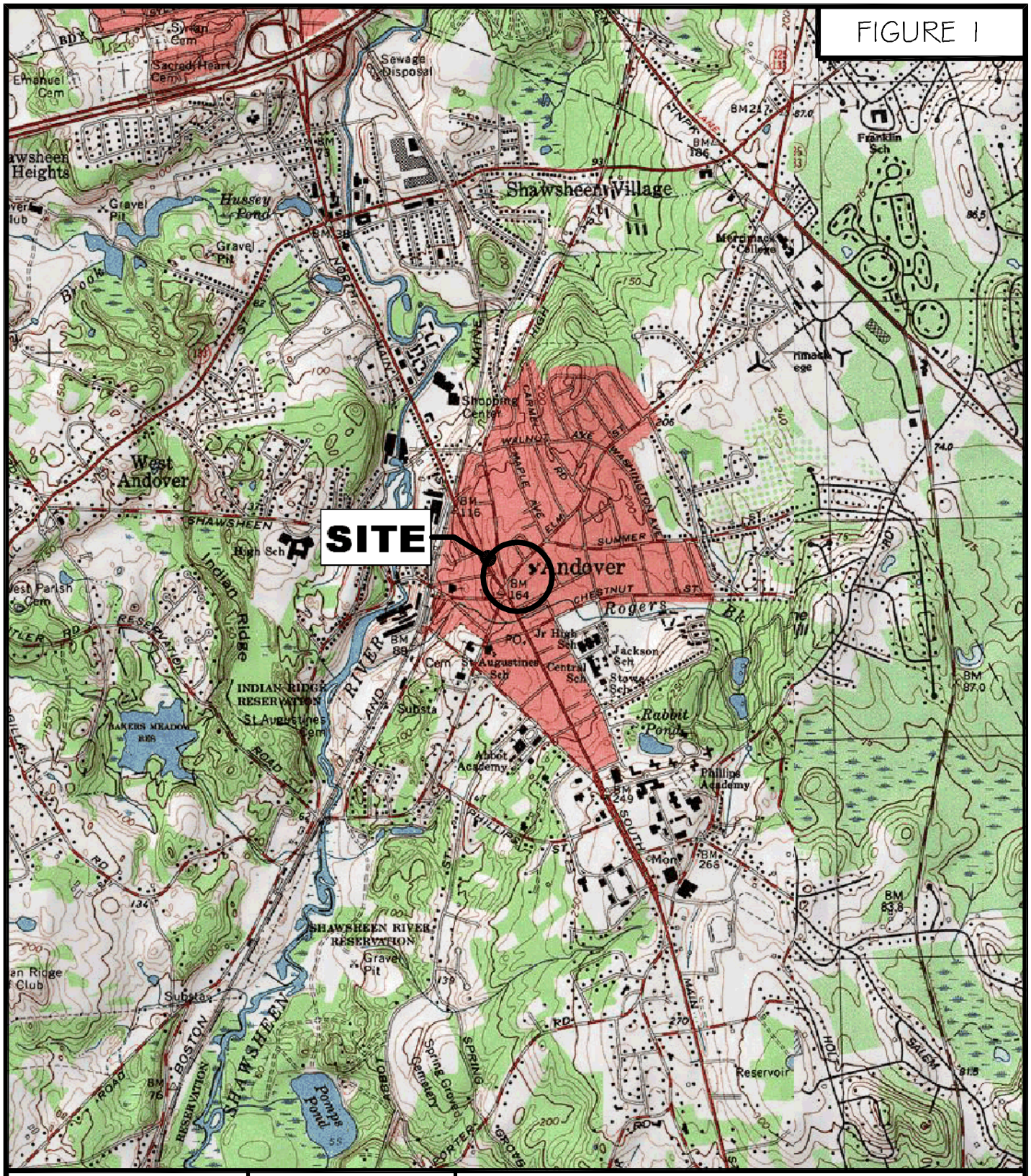
Peter J. DeChaves, L.S.P.

Enclosures

F:\WP5\REPORTS\5274 RGP.wpd

WJB/jwp/ajd

FIGURE 1



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

N

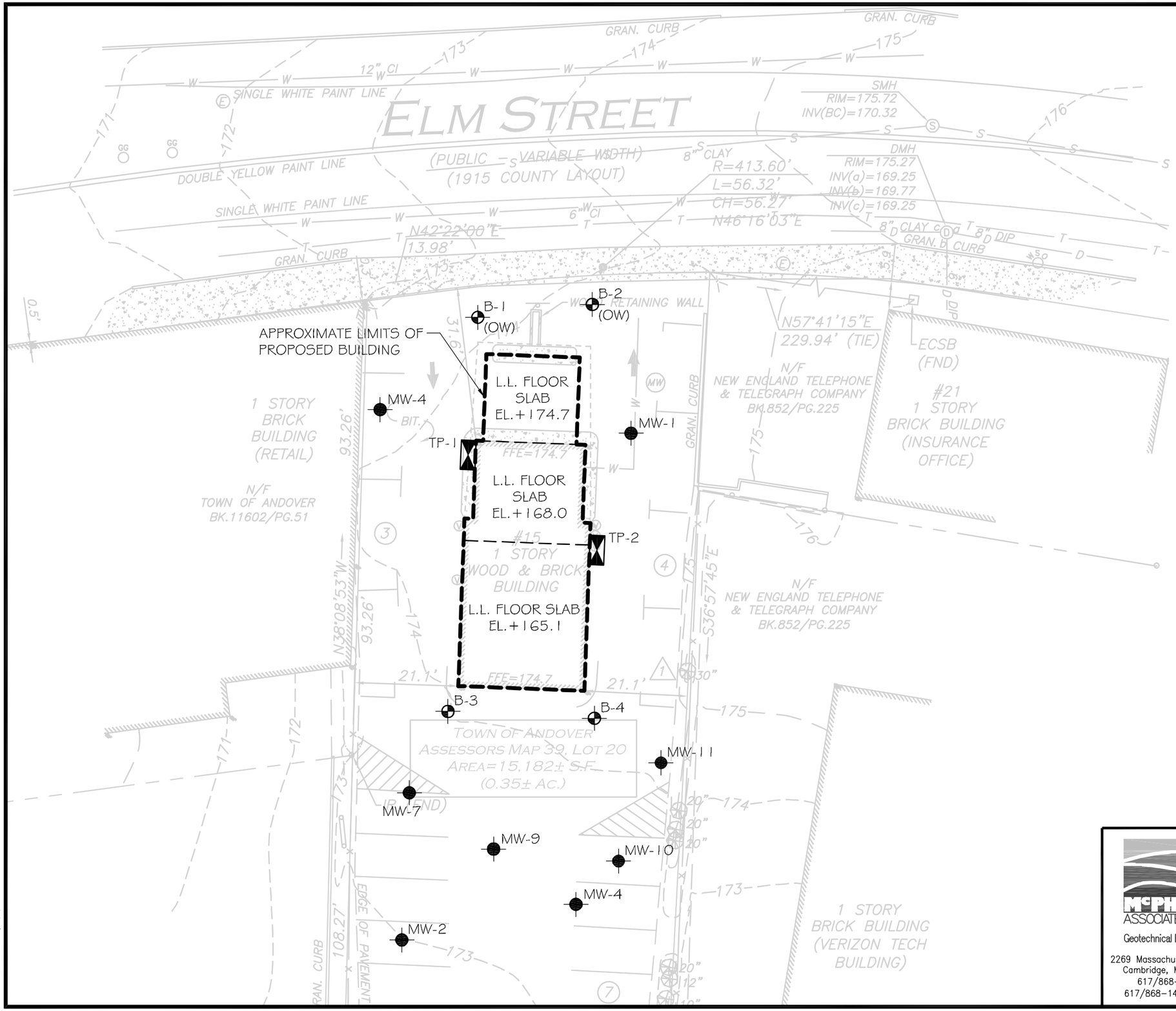
SCALE 1:25,000

PROJECT LOCATION PLAN

CENTURY BANK RENOVATION

ANDOVER MASSACHUSETTS

FIGURE 2



LEGEND

- — LOCATION OF TEST PIT PERFORMED BY LANDSCAPE CREATIONS ON JUNE 3, 2011 FOR McPHAIL ASSOCIATES, INC.
- — LOCATION OF BORING PERFORMED BY CARR-DEE CORP. ON JUNE 3, 2011 FOR McPHAIL ASSOCIATES, INC.
- — LOCATION OF EXISTING OBSERVATION WELL INSTALLED BY OTHERS
- (OW) — INDICATES OBSERVATION WELL INSTALLED WITHIN COMPLETED BOREHOLE

REFERENCE: THIS PLAN WAS PREPARED FROM A 20-SCALE DRAWING ENTITLED, "EXISTING CONDITIONS" DATED FEBRUARY 10, 2011 PREPARED BY ALLEN AND MAJOR ASSOCIATES, INC.

GRAPHIC SCALE

20 0 20 40

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

CENTURY BANK RENOVATION

ANDOVER MASSACHUSETTS

SUBSURFACE EXPLORATION PLAN

FOR

CENTURY BANK

BY

McPHAIL ASSOCIATES, INC.

CONSULTING GEOTECHNICAL ENGINEERS

Date: JUNE 2011	Dwn: M.B.S.	Chkd: C.M.E.	Scale: 1" = 20'
Project No: 5274			

FILE NAME: 5274-FO2

FIGURE 3A

NORTH

APPROXIMATE LIMITS OF SUBJECT SITE

APPROXIMATE LOCATION OF DISCHARGE INTO SHAWSHEEN RIVER

APPROXIMATE LOCATION OF DISCHARGE INTO SHAWSHEEN RIVER

SHAWSHEEN RIVER

LEGEND

— INDICATES DIRECTION OF FLOW

REFERENCE: THIS PLAN WAS PREPARED FROM A 233-SCALE DRAWING ENTITLED, "TOWN OF ANDOVER GEOGRAPHIC INFORMATION SYSTEM DATABASE" DATED MAY 13, 2010 PROVIDED BY THE TOWN OF ANDOVER

GRAPHIC SCALE

200 0 200 400

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

15 ELM STREET

ANDOVER MASSACHUSETTS

STORM DRAIN FLOW PLAN

FOR

CENTURY BANK

BY

McPHAIL ASSOCIATES, INC.

CONSULTING GEOTECHNICAL ENGINEERS

Date: DECEMBER 2011	Dwn: M.B.S.	Chkd: W.J.B.	Scale: 1" = 200'
Project No: 5274			

FILE NAME: RGP5274-F03A

FIGURE 3B

NORTH

APPROXIMATE LOCATION OF DISCHARGE

APPROXIMATE LIMITS OF SUBJECT SITE

APPROXIMATE LOCATION OF DISCHARGE INTO ROGERS RIVER

SHAWSHEEN RIVER

LEGEND

— INDICATES DIRECTION OF FLOW

REFERENCE: THIS PLAN WAS PREPARED FROM A 233-SCALE DRAWING ENTITLED, "TOWN OF ANDOVER GEOGRAPHIC INFORMATION SYSTEM DATABASE" DATED MAY 13, 2010 PROVIDED BY THE TOWN OF ANDOVER

GRAPHIC SCALE

200 0 200 400

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

15 ELM STREET
ANDOVER MASSACHUSETTS

STORM DRAIN FLOW PLAN

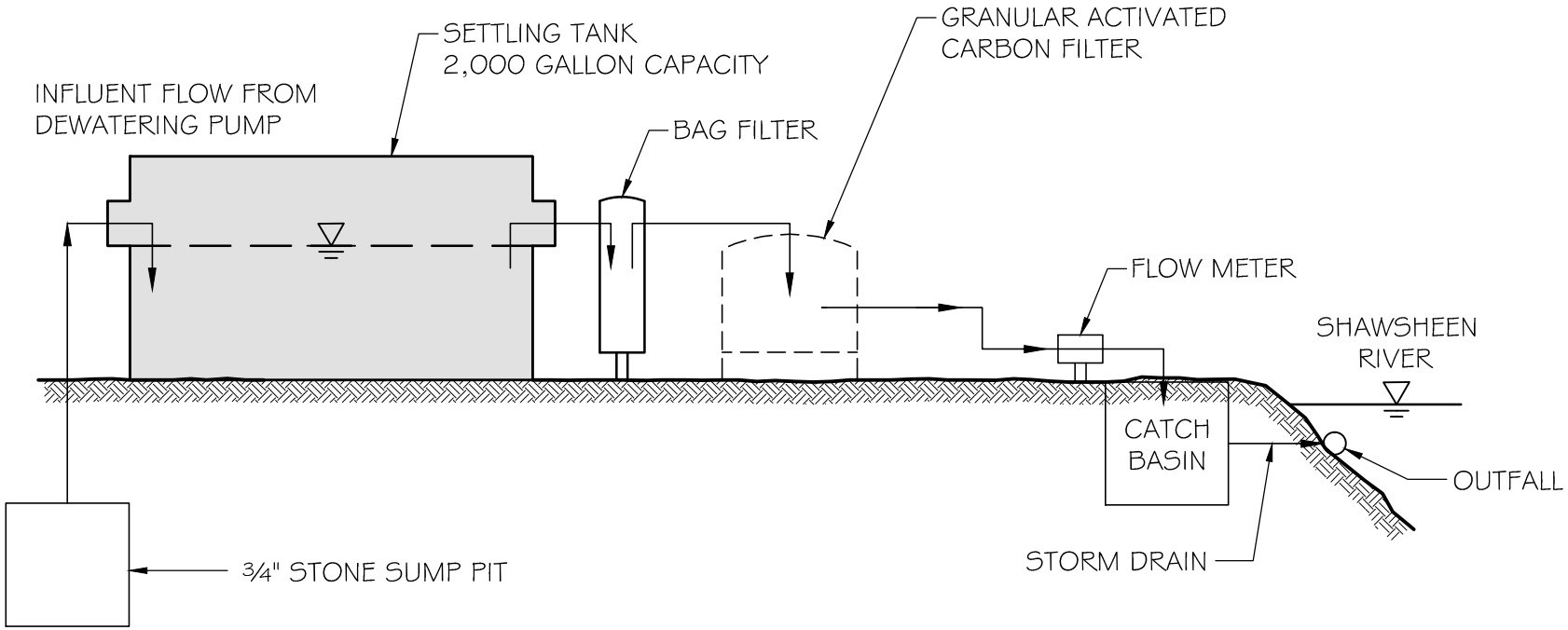
FOR
CENTURY BANK
BY
McPHAIL ASSOCIATES, INC.
CONSULTING GEOTECHNICAL ENGINEERS

Date: DECEMBER 2011	Dwn: M.B.S.	Chkd: W.J.B.	Scale: 1" = 200'
Project No: 5274			

FILE NAME: RGP5274-F03B

FILE NAME: RGP\5274-F04

FIGURE 4



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

15 ELM STREET
ANDOVER MASSACHUSETTS

SCHEMATIC OF TREATMENT SYSTEM

FOR
CENTURY BANK
BY
McPHAIL ASSOCIATES, INC.
CONSULTING GEOTECHNICAL ENGINEERS

Date: DECEMBER 2011	Dwn: F.G.P.	Chkd: W.J.B.	Scale: N.T.S.
Project No: 5274			

McPHAIL ASSOCIATES, INC

Geotechnical Engineers

ATTACHMENT A

LIMITATIONS

The purpose of this report is to present the results of testing of groundwater samples obtained from monitoring wells located at 15 Elm Street in Andover, Massachusetts, in support of an application for approval of temporary construction site dewatering discharge into surface waters of the Commonwealth of Massachusetts under EPA's Massachusetts Remedial General Permit MAG910000.

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 widely spaced subsurface explorations become evident in the future, it will 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 chemical 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 water table, past practices used in disposal and other factors.

Chemical 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 chemical 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 Century Bank. 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, Inc.

McPHAIL ASSOCIATES, INC

Geotechnical Engineers

APPENDIX B

Notice of Intent Transmittal Form

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

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

a) Name of **facility/site**: 15 Elm Street		**Facility/site** mailing address:		
Location of **facility/site**: longitude: 71.1401 latitude: 42.6574	Facility SIC code(s):	Street: 15 Elm Street		
b) Name of **facility/site owner:** DAZ,LLC		Town: Andover		
Email address of facility/site owner:		State: MA	Zip: 02180	County: ESSEX
Telephone no. of facility/site **owner**: 978-234-1205				
Fax no. of facility/site **owner**:		**Owner** is (check one): 1. Federal ○ 2. State/Tribal ○ 3. Private ◉ 4. Other ○ if so, describe:		
Address of **owner** (if different from site):				
Street: 600 River Street				
Town: Haverhill	State: MA	Zip: 01832	County: Essex	
c) Legal name of **operator**:	**Operator** telephone no: 781-393-4108			
Century Bank	**Operator** fax no.: 781-393-4073	**Operator** email: jflynn@centurybank.com		
Operator contact name and title: Mr. James M. Flynn Senior Vice President				
Address of **operator** (if different from owner):	Street: 400 Mystic Avenue			
Town: Medford	State: MA	Zip: 02155	County: Middlesex	

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

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

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

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

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

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

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

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

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

Temporary Construction Dewatering

b) Provide the following information about each discharge:

1) Number of discharge points: 1

2) What is the **maximum** and **average flow rate** of discharge (in cubic feet per second, ft^3/s)?
Max. flow: 0.07805 Is maximum flow a **design value**? Y ○ N ◉
Average flow (include units): .446 ft3/s Is average flow a design value or estimate? estimate

3) Latitude and longitude of each discharge within 100 feet:
pt.1: lat. 42.6574 long. 71.1401 pt.2: lat. ____ long. ____;
pt.3: lat. ____ long. ____ pt.4: lat. ____ long. ____;
pt.5: lat. ____ long. ____ pt.6: lat. ____ long. ____;
pt.7: lat. ____ long. ____ pt.8: lat. ____ long. ____; etc.

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

5) Is the discharge intermittent ◉ or seasonal ○ ?
Is discharge ongoing? Y ○ N ◉

c) Expected dates of discharge (mm/dd/yy): start 02/01/2012 end 02/01/2013

d) Please attach a line drawing or flow schematic showing water flow through the facility including:
1. sources of intake water, 2. contributing flow from the operation, 3. treatment units, and 4. discharge points and receiving waters(s). Please refer to the attached report

3. Contaminant information.

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

Parameter *	CAS Number	Believed Absent	Believed Present	# of Samples	Sample Type (e.g., grab)	Analytical Method Used (method #)	Minimum Level (ML) of Test Method	Maximum daily value		Average daily value	
								concentration (ug/l)	mass (kg)	concentration (ug/l)	mass (kg)
1. Total Suspended Solids (TSS)		☐	☒	1	grab	30,2540D	5000	ND			
2. Total Residual Chlorine (TRC)		☒	☐	1	grab	30,4500CL-D	20	ND			
3. Total Petroleum Hydrocarbons (TPH)		☐	☒	1	grab	74,1664A		1404	0.2683		
4. Cyanide (CN)	57125	☒	☐	1	grab	30,4500CN-CE	5	ND			
5. Benzene (B)	71432	☐	☒	1	grab	1,8260B		19	0.0036		
6. Toluene (T)	108883	☒	☐	1	grab	1,8260B	1	ND			
7. Ethylbenzene (E)	100414	☒	☐	1	grab	1,8260B	1	ND			
8. (m,p,o) Xylenes (X)	108883; 106423; 95476; 1330207	☐	☒	1	grab	1,8260B		2.5	0.0005		
9. Total BTEX [2]	n/a	☐	☒	1	grab	1,8260B		21.5	0.0041		
10. Ethylene Dibromide (EDB) (1,2-Dibromoethane) [3]	106934	☒	☐	1	grab	1,8260B	0.01	ND			
11. Methyl-tert-Butyl Ether (MtBE)	1634044	☒	☐	1	grab	1,8260B	10	ND			
12. tert-Butyl Alcohol (TBA) (Tertiary-Butanol)	75650	☒	☐	1	grab	1,8260B	300	ND			

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

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

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

Parameter *	CAS Number	Believed Absent	Believed Present	# of Samples	Sample Type (e.g., grab)	Analytical Method Used (method #)	Minimum Level (ML) of Test Method	Maximum daily value		Average daily value	
								concentration (ug/l)	mass (kg)	concentration (ug/l)	mass (kg)
13. tert-Amyl Methyl Ether (TAME)	9940508	☒	☐	1	grab	1,8260B	20	ND			
14. Naphthalene	91203	☒	☐	1	grab	1,8260B	0.2	ND			
15. Carbon Tetrachloride	56235	☒	☐	1	grab	1,8260B	5	ND			
16. 1,2 Dichlorobenzene (o-DCB)	95501	☒	☐	1	grab	1,8260B	5	ND			
17. 1,3 Dichlorobenzene (m-DCB)	541731	☒	☐	1	grab	1,8260B	25	ND			
18. 1,4 Dichlorobenzene (p-DCB)	106467	☒	☐	1	grab	1,8260B	25	ND			
18a. Total dichlorobenzene		☒	☐	1	grab	1,8260B	25	ND			
19. 1,1 Dichloroethane (DCA)	75343	☒	☐	1	grab	1,8260B	7.5	ND			
20. 1,2 Dichloroethane (DCA)	107062	☒	☐	1	grab	1,8260B	5	ND			
21. 1,1 Dichloroethene (DCE)	75354	☒	☐	1	grab	1,8260B	5	ND			
22. cis-1,2 Dichloroethene (DCE)	156592	☒	☐	1	grab	1,8260B	5	ND			
23. Methylene Chloride	75092	☒	☐	1	grab	1,8260B	30	ND			
24. Tetrachloroethene (PCE)	127184	☒	☐	1	grab	1,8260B	5	ND			
25. 1,1,1 Trichloro-ethane (TCA)	71556	☒	☐	1	grab	1,8260B	5	ND			
26. 1,1,2 Trichloro-ethane (TCA)	79005	☒	☐	1	grab	1,8260B	7.5	ND			
27. Trichloroethene (TCE)	79016	☒	☐	1	grab	1,8260B	5	ND			

Parameter *	CAS Number	Believed Absent	Believed Present	# of Samples	Sample Type (e.g., grab)	Analytical Method Used (method #)	Minimum Level (ML) of Test Method	Maximum daily value		Average daily value	
								concentration (ug/l)	mass (kg)	concentration (ug/l)	mass (kg)
28. Vinyl Chloride (Chloroethene)	75014	☒	☐	1	grab	1,8260B	10	ND			
29. Acetone	67641	☒	☐	1	grab	1,8260B	50	ND			
30. 1,4 Dioxane	123911	☒	☐	1	grab	1,8260B	2500	ND			
31. Total Phenols	108952	☒	☐	1	grab	1,8260B	30	ND			
32. Pentachlorophenol (PCP)	87865	☒	☐	1	grab		0.8	ND			
33. Total Phthalates (Phthalate esters) [4]		☒	☐	1	grab			ND			
34. Bis (2-Ethylhexyl) Phthalate [Di-(ethylhexyl) Phthalate]	117817	☒	☐	1	grab		3	ND			
35. Total Group I Polycyclic Aromatic Hydrocarbons (PAH)		☒	☐	1	grab	1,827C		ND			
a. Benzo(a) Anthracene	56553	☒	☐	1	grab	1,827C	0.2	ND			
b. Benzo(a) Pyrene	50328	☒	☐	1	grab	1,827C	0.2	ND			
c. Benzo(b)Fluoranthene	205992	☒	☐	1	grab	1,827C	0.2	ND			
d. Benzo(k)Fluoranthene	207089	☒	☐	1	grab	1,827C	0.2	ND			
e. Chrysene	21801	☒	☐	1	grab	1,827C	0.2	ND			
f. Dibenzo(a,h)anthracene	53703	☒	☐	1	grab	1,827C	0.2	ND			
g. Indeno(1,2,3-cd) Pyrene	193395	☒	☐	1	grab	1,827C	0.2	ND			
36. Total Group II Polycyclic Aromatic Hydrocarbons (PAH)		☒	☐	1	grab	1,827C		ND			

[4] The sum of individual phthalate compounds.

Parameter *	CAS Number	Believed Absent	Believed Present	# of Samples	Sample Type (e.g., grab)	Analytical Method Used (method #)	Minimum Level (ML) of Test Method	Maximum daily value		Average daily value	
								concentration (ug/l)	mass (kg)	concentration (ug/l)	mass (kg)
h. Acenaphthene	83329	☒	☐	1	grab	GC/MS-SIM	0.2	ND			
i. Acenaphthylene	208968	☒	☐	1	grab	GC/MS-SIM	0.2	ND			
j. Anthracene	120127	☒	☐	1	grab	GC/MS-SIM	0.2	ND			
k. Benzo(ghi) Perylene	191242	☒	☐	1	grab	GC/MS-SIM	0.2	ND			
l. Fluoranthene	206440	☒	☐	1	grab	GC/MS-SIM	0.2	ND			
m. Fluorene	86737	☒	☐	1	grab	GC/MS-SIM	0.2	ND			
n. Naphthalene	91203	☒	☐	1	grab	GC/MS-SIM	0.2	ND			
o. Phenanthrene	85018	☒	☐	1	grab	GC/MS-SIM	0.2	ND			
p. Pyrene	129000	☒	☐	1	grab	GC/MS-SIM	0.2	ND			
37. Total Polychlorinated Biphenyls (PCBs)	85687; 84742; 117840; 84662; 131113; 117817.	☒	☐	1	grab	EPA 608		ND			
38. Chloride	16887006	☐	☒	1	grab	44,300		420000	420		
39. Antimony	7440360	☒	☐	1	grab	16020	1	ND			
40. Arsenic	7440382	☐	☒	1	grab	16020		2.8	0.0005		
41. Cadmium	7440439	☒	☐	1	grab	16020	0.2	ND			
42. Chromium III (trivalent)	16065831	☒	☐	1	grab	30,3500CR-D	10	ND			
43. Chromium VI (hexavalent)	18540299	☒	☐	1	grab	30,3500-CR	10	ND			
44. Copper	7440508	☐	☒	1	grab	16020		1	0.0002		
45. Lead	7439921	☒	☐	1	grab	16020	0.5	ND			
46. Mercury	7439976	☒	☐	1	grab	3,245.1	0.2	ND			
47. Nickel	7440020	☐	☒	1	grab	16020		1.8	0.0003		
48. Selenium	7782492	☐	☒	1	grab	16020		2	0.0004		
49. Silver	7440224	☒	☐	1	grab	16020		ND			
50. Zinc	7440666	☐	☒	1	grab	16020		10.5	0.002		
51. Iron	7439896	☐	☒	1	grab	19,200.7		230	0.0439		
Other (describe):		☐	☐								

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

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

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

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

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

2,000-gallon settling tank, bag filter and granular activated carbon filtration in series

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

c) Proposed **average** and **maximum flow rates** (gallons per minute) for the discharge and the **design flow rate**(s) (gallons per minute) of the treatment system:
Average flow rate of discharge 25 gpm Maximum flow rate of treatment system 35 gpm
Design flow rate of treatment system 100 gpm

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

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

a) Identify the discharge pathway:	Direct to receiving water ☐	Within facility (sewer) ☐	Storm drain ☒	Wetlands ☐	Other (describe):

b) Provide a narrative description of the discharge pathway, including the name(s) of the receiving waters:
Please refer to attached report for narrative description and plan

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

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

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

f) Is the receiving water a listed 303(d) water quality impaired or limited water? Y ◉ N ○ If yes, for which pollutant(s)?
Oxygen and fecal choloform
Is there a final TMDL? Y ◉ N ○ If yes, for which pollutant(s)? fecal choloform bacteria

6. ESA and NHPA Eligibility.

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

a) Using the instructions in Appendix VII and information on Appendix II, under which criterion listed in Part I.C are you eligible for coverage under this general permit?

A ◉ B ○ C ○ D ○ E ○ F ○

b) If you selected Criterion D or F, has consultation with the federal services been completed? Y ○ N ○ Underway ○

c) If consultation with U.S. Fish and Wildlife Service and/or NOAA Fisheries Service was completed, was a written concurrence finding that the discharge is "not likely to adversely affect" listed species or critical habitat received? Y ○ N ○

d) Attach documentation of ESA eligibility as described in the NOI instructions and required by Appendix VII, Part I.C, Step 4.

e) Using the instructions in Appendix VII, under which criterion listed in Part II.C are you eligible for coverage under this general permit?

1 ○ 2 ◉ 3 ○

f) If Criterion 3 was selected, attach all written correspondence with the State or Tribal historic preservation officers, including any terms and conditions that outline measures the applicant must follow to mitigate or prevent adverse effects due to activities regulated by the RGP.

7. Supplemental information.

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

Please refer to attached report

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

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

Facility/Site Name:	15 Elm Street
Operator signature:	James M Flynn, SVP
Printed Name & Title:	Mr. James M. Flynn Senior Vice President
Date:	12-29-11

McPHAIL ASSOCIATES, INC

Geotechnical Engineers

APPENDIX C

RESULTS OF GROUNDWATER ANALYSIS

On June 17, 2011, McPhail Associates, Inc. obtained a groundwater sample from each of monitoring wells B-2(OW), MW-1 and MW-11 for laboratory analysis for the presence of volatile organic compounds, (VOCs), volatile petroleum hydrocarbons (VPH) and/or extractable petroleum hydrocarbons (EPH).

The groundwater sample obtained from monitoring well MW-1 was analyzed for the presence of VOCs. The results indicate that VOCs were not detected above the laboratory method detection limit in the sample, with the exception of benzene, isopropyl ether and p/m xylene. Specifically, benzene, isopropyl ether and p/m xylene were detected in the groundwater sample at concentrations of 0.019 milligrams per liter (mg/l), 0.0028 mg/l and 0.0025 mg/l, respectively, which are well below the RCGW-2 reporting standards of 2 mg/l, 10 mg/l and 5 mg/l, respectively.

Groundwater samples MW-1, MW-11 and B-2(OW) were analyzed for the presence of VPH fractions. In addition, the groundwater sample obtained from B-2(OW) was analyzed for target VOC analytes. The results indicate that VPH fractions and target VOC analytes were not detected above the laboratory method detection limits, which are well below the applicable RCGW-2 reporting standards.

Groundwater samples MW-1 and MW-11 were analyzed for the presence of EPH fractions. Groundwater sample MW-11 was also analyzed for target PAH analytes. The results indicate that EPH fractions and target analytes were not detected above laboratory method detection limits, with the exception of C9-C18 Aliphatics, C19-C36 Aliphatics and C11-C22 Aromatics in sample MW-11. Specifically, C9-C18 Aliphatics were detected at a concentration of 0.45 mg/l, C19-C36 Aliphatics were detected at a concentration of 0.686 mg/l and C11-C22 Aromatics were detected at a concentration of 0.268 mg/l, which are well below the RCGW-2 reporting standards of 5 mg/l, 50 mg/l and 5mg/l, respectively.

The location of the groundwater monitoring wells is shown on **Figure 2**. The results of the June 2011 analysis are summarized in **Table 1**.

On November 11, 2011, a representative of McPhail Associates, Inc. obtained a groundwater sample from groundwater monitoring well B-1(OW). The groundwater sample did not exhibit the presence of a sheen or other visual or olfactory evidence of petroleum contamination. The sample was sent to a certified laboratory and chemically analyzed for the presence of compounds required under the RGP application of which are listed above. The location of the groundwater monitoring well is shown on **Figure 2**.

McPHAIL ASSOCIATES, INC

Geotechnical Engineers

Chemical test results are summarized in **Table 2** and laboratory data is attached. The results of chemical testing indicate the following:

1. **pH:** The tested sample exhibited a level of 5.9 Standard Units (S.U.). The recommended range for pH discharge is 6.5 to 8.5 S.U. As a result of the low pH detected in the groundwater sample, daily pH monitoring of the effluent will be performed. During periods where pH is detected below the recommended 6.5 S.U. for discharge into a freshwater body, pH treatment compounds such as soda ash will be added to the settlement tank as necessary to raise the level of pH to within the recommended range for discharge into a fresh water body.

2. **TSS:** Total suspended solids (TSS) was not detected in the tested sample at a concentration in excess of the laboratory method detection limit of 5 milligrams per liter (mg/l). The limit established by the US EPA for discharge into surface water is 30 mg/l. However, it is likely that construction activities associated with the proposed site development will cause concentrations of TSS in the influent to fluctuate which will require mitigation. As a result, groundwater will be pre-treated by passing the water through one 2,000 gallon sediment settling tank and bag filters prior to discharge in order to reduce the concentration of TSS in the effluent.

3. **VOCs:** The groundwater samples indicated no detected levels of any of the target VOCs, including BTEX.

4. **TPH:** Chemical analysis of the groundwater samples indicated no detectable levels of TPH.

5. **PAHs and SVOCs:** The laboratory reported no detectable levels of Group 1 or Group II PAH, pentachlorophenol, total phenols, no bis(2-ethylhexyl)phthalate and total phthalates.

6. **PCBs:** The laboratory results indicated no detectable levels of PCBs.

7. **Cyanide:** Cyanide was not detected in the tested groundwater sample at a concentration in excess of the laboratory method detection limit of 0.5 ug/l.

8. **Total Metals:** The laboratory reported no detectable levels of antimony, cadmium, chromium III, chromium VI, lead, mercury, and silver. Levels of arsenic, copper, nickel, selenium, zinc and iron were reported at levels of 2.8 ug/l, 1.0 ug/l, 1.8 ug/l, 2.0 ug/l, 10.5 ug/l, and 230 ug/l, respectively. All of these results are below the RGP permit limits for discharge to fresh water.

TABLE 1
ANALYTICAL RESULTS- GROUNDWATER

15 Elm Street; Andover, MA
Project No. 5274

LOCATION	RCGW-2	MW-1	MW-11	B-2 (OW)
SAMPLING DATE		17-JUN-11	17-JUN-11	17-JUN-11
LAB SAMPLE ID		L1108786-01	L1108786-02	L1108786-03
Volatile Organic Compounds (mg/l)				
Benzene	2	0.019		
Isopropyl Ether	10	0.0028		
p/m-Xylene	5	0.0025		
Volatile Petroleum Hydrocarbons (mg/l)				
C5-C8 Aliphatics	3	ND	ND	ND
C9-C12 Aliphatics	5	ND	ND	ND
C9-C10 Aromatics	7	ND	ND	ND
Benzene	2			ND
Ethylbenzene	5			ND
Methyl tert butyl ether	5			ND
Naphthalene	1			ND
o-Xylene	5			ND
p/m-Xylene	5			ND
Toluene	40			ND
Extractable Petroleum Hydrocarbons (mg/l)				
C9-C18 Aliphatics	5	ND	0.45	
C19-C36 Aliphatics	50	ND	0.686	
C11-C22 Aromatics	5	ND	0.268	
2-Methylnaphthalene	2		ND	
Acenaphthene	6		ND	
Acenaphthylene	0.04		ND	
Anthracene	0.03		ND	
Benzo(a)anthracene	1		ND	
Benzo(a)pyrene	0.5		ND	
Benzo(b)fluoranthene	0.4		ND	
Benzo(ghi)perylene	0.02		ND	
Benzo(k)fluoranthene	0.1		ND	
Chrysene	0.07		ND	
Dibenzo(a,h)anthracene	0.04		ND	
Fluoranthene	0.2		ND	
Fluorene	0.04		ND	
Indeno(1,2,3-cd)Pyrene	0.1		ND	
Naphthalene	1		ND	
Phenanthrene	10		ND	
Pyrene	0.02		ND	

ND - Not detected above laboratory method detection limits
Blank - Not analyzed

Table 2
Analytical Results-Groundwater
(RGP Application)

15 Elm Street;
Andover, MA
Job # 5274

LOCATION		RGP Limits	Units	**B-1(OW)**
SAMPLING DATE				**11/11/2011**
LAB SAMPLE ID				**L1118797-01**
1	Total Suspended Solids	30	mg/l	ND(5)
	pH (H)	6.5-8.3	SU	5.9
2	Total Residual Chlorine (freshwater)	11	ug/l	ND(20)
3	TPH	5000	ug/l	ND(4000)
4	Total Cyanide (freshwater)	5.2	ug/l	ND(5)
5	Benzene	Total BTEX	ug/l	ND(1)
6	Toluene	Total BTEX	ug/l	ND(1)
7	Ethylbenzene	Total BTEX	ug/l	ND(1)
8	Xylene (Total)	Total BTEX	ug/l	ND
9	**Total BTEX**	100	ug/l	ND
10	1,2-Dibromoethane	0.05	ug/l	ND(0.01)
11	Methyl-tert-Butyl Ether (MtBE)	70	ug/l	ND(10)
12	tert-Butyl Alcohol (TBA) (Tertiary Buta	Monitor Only	ug/l	ND(100)
13	tert-Amyl Methyl Ether (TAME)	Monitor Only	ug/l	ND(20)
14	Naphthalene (SVOC)	20	ug/l	ND(0.2)
15	Carbon tetrachloride	4.44	ug/l	ND(1)
16	1,2 Dichlorobenzene (o-DCB)	600	ug/l	ND(5)
17	1,3 Dichlorobenzene (m-DCB)	320	ug/l	ND(5)
18	1,4 Dichlorobenzene (p-DCB)	5	ug/l	ND(5)
19	1,1-Dichloroethane (DCA)	70	ug/l	ND(1.5)
20	1,2-Dichloroethane	5	ug/l	ND(1.5)
21	1,1-Dichloroethene	3.2	ug/l	ND(1)
22	cis-1,2-Dichloroethene	70	ug/l	ND(1)
23	Methylene Chloride	4.6	ug/l	ND(5)
24	Tetrachloroethene	5	ug/l	ND(1.5)
25	1,1,1-Trichloroethane	200	ug/l	ND(2)
26	1,1,2-Trichloroethane	5	ug/l	ND(1.5)
27	Trichloroethene	5	ug/l	ND(1)
28	Vinyl chloride	2	ug/l	ND(1)
29	Acetone	Monitor Only	ug/l	ND(10)
30	1,4 Dioxane	Monitor Only	ug/l	ND(2000)
31	Total Phenolics	300	ug/l	ND(30)
32	Pentachlorophenol	1	ug/l	ND(0.8)
33	Total Phthalates (Phthalate esters)	3	ug/l	ND
34	Bis(2-Ethylhexyl)phthalate	6	ug/l	ND(3)
35	**Total Group I PAH**	10	ug/l	ND
a	Benzo(a)anthracene	0.0038	ug/l	ND(0.2)
b	Benzo(a)pyrene	0.0038	ug/l	ND(0.2)
c	Benzo(b)fluoranthene	0.0038	ug/l	ND(0.2)
d	Benzo(k)fluoranthene	0.0038	ug/l	ND(0.2)
e	Chrysene	0.0038	ug/l	ND(0.2)
f	Dibenzo(a,h)anthracene	0.0038	ug/l	ND(0.2)
g	Indeno(1,2,3-cd)Pyrene	0.0038	ug/l	ND(0.2)
36	**Total Group II PAH**	10	ug/l	ND
h	Acenaphthene	Total Group II PAH	ug/l	ND(0.2)
i	Acenaphthylene	Total Group II PAH	ug/l	ND(0.2)
j	Anthracene	Total Group II PAH	ug/l	ND(0.2)
k	Benzo(ghi)perylene	Total Group II PAH	ug/l	ND(0.2)
l	Fluoranthene	Total Group II PAH	ug/l	ND(0.2)
m	Fluorene	Total Group II PAH	ug/l	ND(0.2)
n	Naphthalene	20	ug/l	ND(0.2)
o	Phenanthrene	Total Group II PAH	ug/l	ND(0.2)
p	Pyrene	Total Group II PAH	ug/l	ND(0.2)
37	**Total PCBs**	0.000046	ug/l	ND(0.25)
38	Chloride	Monitor Only	ug/l	420000
	Total Recoverable Metal Limits			
38	Antimony	5.6	ug/l	ND(0.5)
39	Arsenic (freshwater)	10	ug/l	2.8
40	Cadmium (freshwater)	0.2	ug/l	ND(0.2)
41	Chromium III (freshwater)	48.8	ug/l	ND(10)
42	Chromium IV, Hexavalent (freshwater)	11.4	ug/l	ND(10)
44	Copper	5.2	ug/l	1
45	Lead	1.3	ug/l	ND(0.5)
46	Mercury	0.9	ug/l	ND(0.2)
47	Nickel	29	ug/l	1.8
49	Selenium	5	ug/l	2
50	Silver	1.2	ug/l	ND(0.4)
51	Zinc	66.6	ug/l	10.5
52	Iron	1000	ug/l	230

ND()-not detected above laboratory method detection limits
Highlight-exceeds EPA Effluent Limit

ANALYTICAL REPORT

Lab Number:	L1118797
Client:	McPhail Associates 2269 Massachusetts Avenue Cambridge, MA 02140
ATTN:	Ambrose Donovan
Phone:	(617) 868-1420
Project Name:	15 ELM STREET
Project Number:	5274
Report Date:	11/17/11

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: 15 ELM STREET
Project Number: 5274

Lab Number: L1118797
Report Date: 11/17/11

Alpha Sample ID	Client ID	Sample Location	Collection Date/Time
L1118797-01	B-1 (OW)	ANDOVER, MA	11/11/11 09:45
L1118797-02	TRIP BLANK	ANDOVER, MA	11/11/11 00:00

Project Name: 15 ELM STREET
Project Number: 5274

Lab Number: L1118797
Report Date: 11/17/11

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. Definitions of all data qualifiers and acronyms used in this report are provided in the Glossary located at the back of the report.

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.

For additional information, please contact Client Services at 800-624-9220.

Sample Report

Trip Blanks were received in the laboratory but not listed on the Chain of Custody. At the client's request, the Trip Blanks were analyzed.

Volatile Organics

L1118797-02: The pH of the sample was greater than two; however, the sample was analyzed within the method required holding time.

Chloride

L1118797-01 has an elevated detection limit due to the dilution required to quantitate the result within the calibration range.

Project Name: 15 ELM STREET
Project Number: 5274

Lab Number: L1118797
Report Date: 11/17/11

Case Narrative (continued)

Cyanide, Total

The WG502185-3 MS recovery (86%), performed on L1118797-01, is below the acceptance criteria; however, the associated LCS recovery was within criteria. No further action was taken.

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

Authorized Signature: Cynthia McQueen

Title: Technical Director/Representative Date: 11/17/11

ORGANICS

VOLATILES

Project Name: 15 ELM STREET
Project Number: 5274
Lab Number: L1118797
Report Date: 11/17/11

SAMPLE RESULTS

Lab ID:	L1118797-01	Date Collected:	11/11/11 09:45
Client ID:	B-1 (OW)	Date Received:	11/11/11
Sample Location:	ANDOVER, MA	Field Prep:	Not Specified
Matrix:	Water		
Analytical Method:	14,504.1	Extraction Date:	11/15/11 14:30
Analytical Date:	11/15/11 18:28		
Analyst:	SH		

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

Project Name: 15 ELM STREET
Project Number: 5274
Lab Number: L1118797
Report Date: 11/17/11

SAMPLE RESULTS

Lab ID: L1118797-01
Client ID: B-1 (OW)
Sample Location: ANDOVER, MA
Matrix: Water
Analytical Method: 5,624
Analytical Date: 11/15/11 11:48
Analyst: KL

Date Collected: 11/11/11 09:45
Date Received: 11/11/11
Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
Methylene chloride	ND		ug/l	5.0	--	1
1,1-Dichloroethane	ND		ug/l	1.5	--	1
Carbon tetrachloride	ND		ug/l	1.0	--	1
1,1,2-Trichloroethane	ND		ug/l	1.5	--	1
Tetrachloroethene	ND		ug/l	1.5	--	1
1,2-Dichloroethane	ND		ug/l	1.5	--	1
1,1,1-Trichloroethane	ND		ug/l	2.0	--	1
Benzene	ND		ug/l	1.0	--	1
Toluene	ND		ug/l	1.0	--	1
Ethylbenzene	ND		ug/l	1.0	--	1
Vinyl chloride	ND		ug/l	2.0	--	1
1,1-Dichloroethene	ND		ug/l	1.0	--	1
cis-1,2-Dichloroethene[1]	ND		ug/l	1.0	--	1
Trichloroethene	ND		ug/l	1.0	--	1
1,2-Dichlorobenzene	ND		ug/l	5.0	--	1
1,3-Dichlorobenzene	ND		ug/l	5.0	--	1
1,4-Dichlorobenzene	ND		ug/l	5.0	--	1
p/m-Xylene[1]	ND		ug/l	2.0	--	1
o-xylene[1]	ND		ug/l	1.0	--	1
Acetone[1]	ND		ug/l	10	--	1
Methyl tert butyl Ether[1]	ND		ug/l	20	--	1
1,4-Dioxane[1]	ND		ug/l	2000	--	1
Tert-Butyl Alcohol[1]	ND		ug/l	100	--	1
Tertiary-Amyl Methyl Ether[1]	ND		ug/l	20	--	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
Pentafluorobenzene	107		80-120
Fluorobenzene	105		80-120
4-Bromofluorobenzene	110		80-120

Project Name: 15 ELM STREET
Project Number: 5274
Lab Number: L1118797
Report Date: 11/17/11

SAMPLE RESULTS

Lab ID:	L1118797-02	Date Collected:	11/11/11 00:00
Client ID:	TRIP BLANK	Date Received:	11/11/11
Sample Location:	ANDOVER, MA	Field Prep:	Not Specified
Matrix:	Water		
Analytical Method:	14,504.1	Extraction Date:	11/15/11 14:30
Analytical Date:	11/15/11 18:43		
Analyst:	SH		

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

Project Name: 15 ELM STREET
Project Number: 5274
Lab Number: L1118797
Report Date: 11/17/11

SAMPLE RESULTS

Lab ID: L1118797-02
Client ID: TRIP BLANK
Sample Location: ANDOVER, MA
Matrix: Water
Analytical Method: 5,624
Analytical Date: 11/15/11 11:15
Analyst: KL

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

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
Methylene chloride	ND		ug/l	5.0	--	1
1,1-Dichloroethane	ND		ug/l	1.5	--	1
Carbon tetrachloride	ND		ug/l	1.0	--	1
1,1,2-Trichloroethane	ND		ug/l	1.5	--	1
Tetrachloroethene	ND		ug/l	1.5	--	1
1,2-Dichloroethane	ND		ug/l	1.5	--	1
1,1,1-Trichloroethane	ND		ug/l	2.0	--	1
Benzene	ND		ug/l	1.0	--	1
Toluene	ND		ug/l	1.0	--	1
Ethylbenzene	ND		ug/l	1.0	--	1
Vinyl chloride	ND		ug/l	2.0	--	1
1,1-Dichloroethene	ND		ug/l	1.0	--	1
cis-1,2-Dichloroethene[1]	ND		ug/l	1.0	--	1
Trichloroethene	ND		ug/l	1.0	--	1
1,2-Dichlorobenzene	ND		ug/l	5.0	--	1
1,3-Dichlorobenzene	ND		ug/l	5.0	--	1
1,4-Dichlorobenzene	ND		ug/l	5.0	--	1
p/m-Xylene[1]	ND		ug/l	2.0	--	1
o-xylene[1]	ND		ug/l	1.0	--	1
Acetone[1]	ND		ug/l	10	--	1
Methyl tert butyl Ether[1]	ND		ug/l	20	--	1
1,4-Dioxane[1]	ND		ug/l	2000	--	1
Tert-Butyl Alcohol[1]	ND		ug/l	100	--	1
Tertiary-Amyl Methyl Ether[1]	ND		ug/l	20	--	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
Pentafluorobenzene	107		80-120
Fluorobenzene	106		80-120
4-Bromofluorobenzene	112		80-120

Project Name: 15 ELM STREET
Project Number: 5274

Lab Number: L1118797
Report Date: 11/17/11

Method Blank Analysis
Batch Quality Control

Analytical Method: 5,624
Analytical Date: 11/15/11 10:42
Analyst: KL

Parameter	Result	Qualifier	Units	RL	MDL
Volatile Organics by GC/MS - Westborough Lab for sample(s): 01-02 Batch: WG502420-6					
Methylene chloride	ND		ug/l	5.0	--
1,1-Dichloroethane	ND		ug/l	1.5	--
Carbon tetrachloride	ND		ug/l	1.0	--
1,1,2-Trichloroethane	ND		ug/l	1.5	--
Tetrachloroethene	ND		ug/l	1.5	--
1,2-Dichloroethane	ND		ug/l	1.5	--
1,1,1-Trichloroethane	ND		ug/l	2.0	--
Benzene	ND		ug/l	1.0	--
Toluene	ND		ug/l	1.0	--
Ethylbenzene	ND		ug/l	1.0	--
Vinyl chloride	ND		ug/l	2.0	--
1,1-Dichloroethene	ND		ug/l	1.0	--
cis-1,2-Dichloroethene[1]	ND		ug/l	1.0	--
Trichloroethene	ND		ug/l	1.0	--
1,2-Dichlorobenzene	ND		ug/l	5.0	--
1,3-Dichlorobenzene	ND		ug/l	5.0	--
1,4-Dichlorobenzene	ND		ug/l	5.0	--
p/m-Xylene[1]	ND		ug/l	2.0	--
o-xylene[1]	ND		ug/l	1.0	--
Acetone[1]	ND		ug/l	10	--
Methyl tert butyl Ether[1]	ND		ug/l	20	--
1,4-Dioxane[1]	ND		ug/l	2000	--
Tert-Butyl Alcohol[1]	ND		ug/l	100	--
Tertiary-Amyl Methyl Ether[1]	ND		ug/l	20	--

Project Name: 15 ELM STREET
Project Number: 5274

Lab Number: L1118797
Report Date: 11/17/11

Method Blank Analysis
Batch Quality Control

Analytical Method: 5,624
Analytical Date: 11/15/11 10:42
Analyst: KL

Parameter	Result	Qualifier	Units	RL	MDL
Volatile Organics by GC/MS - Westborough Lab for sample(s): 01-02 Batch: WG502420-6					

Surrogate	%Recovery	Qualifier	Acceptance Criteria
Pentafluorobenzene	108		80-120
Fluorobenzene	109		80-120
4-Bromofluorobenzene	112		80-120

Project Name: 15 ELM STREET
Project Number: 5274

Lab Number: L1118797
Report Date: 11/17/11

Method Blank Analysis
Batch Quality Control

Analytical Method: 14,504.1
Analytical Date: 11/15/11 17:11
Analyst: SH

Extraction Date: 11/15/11 14:30

Parameter	Result	Qualifier	Units	RL	MDL
Pesticides by GC - Westborough Lab for sample(s): 01-02 Batch: WG502519-1					
1,2-Dibromoethane	ND		ug/l	0.010	--

Lab Control Sample Analysis

Batch Quality Control

Project Name: 15 ELM STREET
Project Number: 5274

Lab Number: L1118797
Report Date: 11/17/11

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Volatile Organics by GC/MS - Westborough Lab Associated sample(s): 01-02 Batch: WG502420-5								
Methylene chloride	105		-		1-221	-		30
1,1-Dichloroethane	100		-		59-155	-		30
Chloroform	102		-		51-138	-		30
Carbon tetrachloride	118		-		70-140	-		30
1,2-Dichloropropane[1]	100		-		1-210	-		30
Dibromochloromethane	105		-		53-149	-		30
1,1,2-Trichloroethane	94		-		52-150	-		30
2-Chloroethylvinyl ether	64		-		1-305	-		30
Tetrachloroethene	105		-		64-148	-		30
Chlorobenzene	113		-		37-160	-		30
Trichlorofluoromethane	121		-		17-181	-		30
1,2-Dichloroethane	100		-		49-155	-		30
1,1,1-Trichloroethane	109		-		52-162	-		30
Bromodichloromethane	111		-		35-155	-		30
trans-1,3-Dichloropropene	89		-		17-183	-		30
cis-1,3-Dichloropropene	92		-		1-227	-		30
Bromoform	111		-		45-169	-		30
1,1,2,2-Tetrachloroethane	106		-		46-157	-		30
Benzene	104		-		37-151	-		30
Toluene	104		-		47-150	-		30
Ethylbenzene	118		-		37-162	-		30

Lab Control Sample Analysis

Batch Quality Control

Project Name: 15 ELM STREET
Project Number: 5274

Lab Number: L1118797
Report Date: 11/17/11

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Volatile Organics by GC/MS - Westborough Lab Associated sample(s): 01-02 Batch: WG502420-5								
Chloromethane	121		-		1-273	-		30
Bromomethane	106		-		1-242	-		30
Vinyl chloride	102		-		1-251	-		30
Chloroethane	115		-		14-230	-		30
1,1-Dichloroethene	107		-		1-234	-		30
trans-1,2-Dichloroethene	106		-		54-156	-		30
cis-1,2-Dichloroethene[1]	100		-		60-140	-		30
Trichloroethene	106		-		71-157	-		30
1,2-Dichlorobenzene	113		-		18-190	-		30
1,3-Dichlorobenzene	116		-		59-156	-		30
1,4-Dichlorobenzene	116		-		18-190	-		30
p/m-Xylene[1]	116		-		40-160	-		30
o-Xylene[1]	116		-		40-160	-		30
XYLENE (TOTAL)[1]	116		-		40-160	-		30
Styrene[1]	157		-		40-160	-		30
Acetone[1]	76		-		40-160	-		30
Carbon disulfide[1]	108		-		40-160	-		30
2-Butanone[1]	74		-		40-160	-		30
Vinyl acetate[1]	**396**	Q	-		40-160	-		30
4-Methyl-2-pentanone[1]	88		-		40-160	-		30
2-Hexanone[1]	80		-		40-160	-		30

Lab Control Sample Analysis

Batch Quality Control

Project Name: 15 ELM STREET
Project Number: 5274

Lab Number: L1118797
Report Date: 11/17/11

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Volatile Organics by GC/MS - Westborough Lab Associated sample(s): 01-02 Batch: WG502420-5								
Acrolein[1]	144		-		40-160	-		30
Acrylonitrile[1]	94		-		40-160	-		30
Methyl tert butyl ether[1]	92		-			-		30
Dibromomethane[1]	104		-		70-130	-		30
1,4-Dioxane[1]	86		-			-		30
tert-Butyl Alcohol[1]	76		-			-		30
Tertiary-Amyl Methyl Ether[1]	88		-			-		30

Surrogate	LCS %Recovery	Qual	LCSD %Recovery	Qual	Acceptance Criteria
Pentafluorobenzene	108				80-120
Fluorobenzene	105				80-120
4-Bromofluorobenzene	111				80-120

Lab Control Sample Analysis

Batch Quality Control

Project Name: 15 ELM STREET

Project Number: 5274

Lab Number: L1118797

Report Date: 11/17/11

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Pesticides by GC - Westborough Lab Associated sample(s): 01-02 Batch: WG502519-2								
1,2-Dibromoethane	106		-		70-130	-		20
1,2-Dibromo-3-chloropropane	95		-		70-130	-		20

Matrix Spike Analysis
Batch Quality Control

Project Name: 15 ELM STREET
Project Number: 5274

Lab Number: L1118797
Report Date: 11/17/11

Parameter	Native Sample	MS Added	MS Found	MS %Recovery	Qual	MSD Found	MSD %Recovery	Qual	Recovery Limits	RPD	Qual	RPD Limits
Volatile Organics by GC/MS - Westborough Lab Associated sample(s): 01-02 QC Batch ID: WG502420-4 QC Sample: L1118599-02 Client ID: MS Sample												
Methylene chloride	ND	200	220	108		-	-		1-221	-		30
1,1-Dichloroethane	ND	200	220	108		-	-		59-155	-		30
Chloroform	ND	200	220	110		-	-		51-138	-		30
Carbon tetrachloride	ND	200	250	124		-	-		70-140	-		30
1,2-Dichloropropane[1]	ND	200	220	112		-	-		1-210	-		30
Dibromochloromethane	ND	200	210	104		-	-		53-149	-		30
1,1,2-Trichloroethane	ND	200	190	96		-	-		52-150	-		30
2-Chloroethylvinyl ether	ND	200	ND	**0**	Q	-	-		1-305	-		30
Tetrachloroethene	ND	200	200	102		-	-		64-148	-		30
Chlorobenzene	ND	200	230	116		-	-		37-160	-		30
Trichlorofluoromethane	ND	200	250	124		-	-		17-181	-		30
1,2-Dichloroethane	ND	200	210	103		-	-		49-155	-		30
1,1,1-Trichloroethane	ND	200	230	117		-	-		52-162	-		30
Bromodichloromethane	ND	200	240	118		-	-		35-155	-		30
trans-1,3-Dichloropropene	ND	200	180	89		-	-		17-183	-		30
cis-1,3-Dichloropropene	ND	200	190	96		-	-		1-227	-		30
Bromoform	ND	200	220	112		-	-		45-169	-		30
1,1,2,2-Tetrachloroethane	ND	200	220	108		-	-		46-157	-		30
Benzene	ND	200	230	114		-	-		35-151	-		30
Toluene	ND	200	220	108		-	-		47-150	-		30
Ethylbenzene	ND	200	240	120		-	-		37-162	-		30

Matrix Spike Analysis
Batch Quality Control

Project Name: 15 ELM STREET
Project Number: 5274

Lab Number: L1118797
Report Date: 11/17/11

Parameter	Native Sample	MS Added	MS Found	MS %Recovery	Qual	MSD Found	MSD %Recovery	Qual	Recovery Limits	RPD	Qual	RPD Limits
Volatile Organics by GC/MS - Westborough Lab Associated sample(s): 01-02 QC Batch ID: WG502420-4 QC Sample: L1118599-02 Client ID: MS Sample												
Chloromethane	ND	200	280	139		-	-		1-273	-		30
Bromomethane	ND	200	200	100		-	-		1-242	-		30
Vinyl chloride	ND	200	230	117		-	-		1-251	-		30
Chloroethane	ND	200	240	122		-	-		14-230	-		30
1,1-Dichloroethene	ND	200	220	113		-	-		1-234	-		30
trans-1,2-Dichloroethene	ND	200	220	110		-	-		54-156	-		30
cis-1,2-Dichloroethene[1]	ND	200	220	108		-	-		60-140	-		30
Trichloroethene	ND	200	220	112		-	-		71-157	-		30
1,2-Dichlorobenzene	ND	200	220	109		-	-		18-190	-		30
1,3-Dichlorobenzene	ND	200	220	111		-	-		59-156	-		30
1,4-Dichlorobenzene	ND	200	230	114		-	-		18-190	-		30
p/m-Xylene[1]	ND	400	470	117		-	-		40-160	-		30
o-Xylene[1]	ND	200	230	117		-	-		40-160	-		30
XYLENE (TOTAL)[1]	ND	600	700	117		-	-		40-160	-		30
Styrene[1]	ND	200	300	152		-	-		40-160	-		30
Acetone[1]	ND	500	400	80		-	-		40-160	-		30
Carbon disulfide[1]	ND	200	230	117		-	-		40-160	-		30
2-Butanone[1]	ND	500	390	79		-	-		40-160	-		30
Vinyl acetate[1]	ND	400	2000	**501**	Q	-	-		40-160	-		30
4-Methyl-2-pentanone[1]	ND	500	450	91		-	-		40-160	-		30
2-Hexanone[1]	ND	500	400	79		-	-		40-160	-		30

Matrix Spike Analysis
Batch Quality Control

Project Name: 15 ELM STREET
Project Number: 5274

Lab Number: L1118797
Report Date: 11/17/11

Parameter	Native Sample	MS Added	MS Found	MS %Recovery	Qual	MSD Found	MSD %Recovery	Qual	Recovery Limits	RPD	Qual	RPD Limits
Volatile Organics by GC/MS - Westborough Lab Associated sample(s): 01-02 QC Batch ID: WG502420-4 QC Sample: L1118599-02 Client ID: MS Sample												
Acrolein[1]	ND	400	650	**162**	Q	-	-		40-160	-		30
Acrylonitrile[1]	ND	400	430	107		-	-		40-160	-		30
Dibromomethane[1]	ND	200	220	108		-	-			-		30

Surrogate	MS % Recovery	MS Qualifier	MSD % Recovery	MSD Qualifier	Acceptance Criteria
4-Bromofluorobenzene	107				80-120
Fluorobenzene	107				80-120
Pentafluorobenzene	107				80-120

Pesticides by GC - Westborough Lab Associated sample(s): 01-02 QC Batch ID: WG502519-3 QC Sample: L1118707-01 Client ID: MS Sample												
1,2-Dibromoethane	ND	0.255	0.263	103		-	-		70-130	-		20
1,2-Dibromo-3-chloropropane	ND	0.255	0.244	96		-	-		70-130	-		20

Lab Duplicate Analysis
Batch Quality Control

Project Name: 15 ELM STREET
Project Number: 5274

Lab Number: L1118797
Report Date: 11/17/11

Parameter	Native Sample	Duplicate Sample	Units	RPD	Qual	RPD Limits
Volatile Organics by GC/MS - Westborough Lab Associated sample(s): 01-02 QC Batch ID: WG502420-3 QC Sample: L1118599-02 Client ID: DUP Sample						
Methylene chloride	ND	ND	ug/l	NC		30
1,1-Dichloroethane	ND	ND	ug/l	NC		30
Chloroform	ND	ND	ug/l	NC		30
Carbon tetrachloride	ND	ND	ug/l	NC		30
1,2-Dichloropropane[1]	ND	ND	ug/l	NC		30
Dibromochloromethane	ND	ND	ug/l	NC		30
1,1,2-Trichloroethane	ND	ND	ug/l	NC		30
2-Chloroethylvinyl ether	ND	ND	ug/l	NC		30
Tetrachloroethene	ND	ND	ug/l	NC		30
Chlorobenzene	ND	ND	ug/l	NC		30
Trichlorofluoromethane	ND	ND	ug/l	NC		30
1,2-Dichloroethane	ND	ND	ug/l	NC		30
1,1,1-Trichloroethane	ND	ND	ug/l	NC		30
Bromodichloromethane	ND	ND	ug/l	NC		30
trans-1,3-Dichloropropene	ND	ND	ug/l	NC		30
cis-1,3-Dichloropropene	ND	ND	ug/l	NC		30
Bromoform	ND	ND	ug/l	NC		30
1,1,2,2-Tetrachloroethane	ND	ND	ug/l	NC		30
Benzene	ND	ND	ug/l	NC		30

Lab Duplicate Analysis
Batch Quality Control

Project Name: 15 ELM STREET
Project Number: 5274

Lab Number: L1118797
Report Date: 11/17/11

Parameter	Native Sample	Duplicate Sample	Units	RPD	RPD Limits
Volatile Organics by GC/MS - Westborough Lab Associated sample(s): 01-02 QC Batch ID: WG502420-3 QC Sample: L1118599-02 Client ID: DUP Sample					
Toluene	ND	ND	ug/l	NC	30
Ethylbenzene	ND	ND	ug/l	NC	30
Chloromethane	ND	ND	ug/l	NC	30
Bromomethane	ND	ND	ug/l	NC	30
Vinyl chloride	ND	ND	ug/l	NC	30
Chloroethane	ND	ND	ug/l	NC	30
1,1-Dichloroethene	ND	ND	ug/l	NC	30
trans-1,2-Dichloroethene	ND	ND	ug/l	NC	30
cis-1,2-Dichloroethene[1]	ND	ND	ug/l	NC	30
Trichloroethene	ND	ND	ug/l	NC	30
1,2-Dichlorobenzene	ND	ND	ug/l	NC	30
1,3-Dichlorobenzene	ND	ND	ug/l	NC	30
1,4-Dichlorobenzene	ND	ND	ug/l	NC	30
p/m-Xylene[1]	ND	ND	ug/l	NC	30
o-Xylene[1]	ND	ND	ug/l	NC	30
XYLENE (TOTAL)[1]	ND	ND	ug/l	NC	30
Styrene[1]	ND	ND	ug/l	NC	30
Acetone[1]	ND	ND	ug/l	NC	30
Carbon disulfide[1]	ND	ND	ug/l	NC	30

Lab Duplicate Analysis
Batch Quality Control

Project Name: 15 ELM STREET
Project Number: 5274

Lab Number: L1118797
Report Date: 11/17/11

Parameter	Native Sample	Duplicate Sample	Units	RPD	RPD Limits
Volatile Organics by GC/MS - Westborough Lab Associated sample(s): 01-02 QC Batch ID: WG502420-3 QC Sample: L1118599-02 Client ID: DUP Sample					
2-Butanone[1]	ND	ND	ug/l	NC	30
Vinyl acetate[1]	ND	ND	ug/l	NC	30
4-Methyl-2-pentanone[1]	ND	ND	ug/l	NC	30
2-Hexanone[1]	ND	ND	ug/l	NC	30
Acrolein[1]	ND	ND	ug/l	NC	30
Acrylonitrile[1]	ND	ND	ug/l	NC	30
Dibromomethane[1]	ND	ND	ug/l	NC	30

Surrogate	%Recovery	Qualifier	%Recovery	Qualifier	Acceptance Criteria
Pentafluorobenzene	109		108		80-120
Fluorobenzene	110		110		80-120
4-Bromofluorobenzene	109		110		80-120

SEMIVOLATILES

Project Name: 15 ELM STREET
Project Number: 5274
Lab Number: L1118797
Report Date: 11/17/11

SAMPLE RESULTS

Lab ID:	L1118797-01	Date Collected:	11/11/11 09:45
Client ID:	B-1 (OW)	Date Received:	11/11/11
Sample Location:	ANDOVER, MA	Field Prep:	Not Specified
Matrix:	Water	Extraction Method:	EPA 3510C
Analytical Method:	1,8270C	Extraction Date:	11/12/11 02:54
Analytical Date:	11/12/11 23:58		
Analyst:	JB		

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

Surrogate	% Recovery	Qualifier	Acceptance Criteria
2-Fluorophenol	48		21-120
Phenol-d6	32		10-120
Nitrobenzene-d5	67		23-120
2-Fluorobiphenyl	76		15-120
2,4,6-Tribromophenol	111		10-120
4-Terphenyl-d14	88		41-149

Project Name: 15 ELM STREET
Project Number: 5274
Lab Number: L1118797
Report Date: 11/17/11

SAMPLE RESULTS

Lab ID:	L1118797-01	Date Collected:	11/11/11 09:45
Client ID:	B-1 (OW)	Date Received:	11/11/11
Sample Location:	ANDOVER, MA	Field Prep:	Not Specified
Matrix:	Water	Extraction Method:	EPA 3510C
Analytical Method:	1,8270C-SIM	Extraction Date:	11/12/11 02:57
Analytical Date:	11/13/11 16:10		
Analyst:	JC		

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Semivolatile Organics by GC/MS-SIM - Westborough Lab						
Acenaphthene	ND		ug/l	0.20	--	1
Fluoranthene	ND		ug/l	0.20	--	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
Pentachlorophenol	ND		ug/l	0.80	--	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
2-Fluorophenol	52		21-120
Phenol-d6	39		10-120
Nitrobenzene-d5	85		23-120
2-Fluorobiphenyl	78		15-120
2,4,6-Tribromophenol	90		10-120
4-Terphenyl-d14	111		41-149

Project Name: 15 ELM STREET
Project Number: 5274

Lab Number: L1118797
Report Date: 11/17/11

Method Blank Analysis
Batch Quality Control

Analytical Method: 1,8270C
Analytical Date: 11/13/11 01:30
Analyst: JB

Extraction Method: EPA 3510C
Extraction Date: 11/12/11 02:54

Parameter	Result	Qualifier	Units	RL	MDL
Semivolatile Organics by GC/MS - Westborough Lab for sample(s): 01 Batch: WG501937-1					
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	--

Surrogate	%Recovery	Qualifier	Acceptance Criteria
2-Fluorophenol	66		21-120
Phenol-d6	45		10-120
Nitrobenzene-d5	93		23-120
2-Fluorobiphenyl	91		15-120
2,4,6-Tribromophenol	105		10-120
4-Terphenyl-d14	112		41-149

Project Name: 15 ELM STREET
Project Number: 5274

Lab Number: L1118797
Report Date: 11/17/11

Method Blank Analysis
Batch Quality Control

Analytical Method: 1,8270C-SIM
Analytical Date: 11/13/11 14:22
Analyst: JC

Extraction Method: EPA 3510C
Extraction Date: 11/12/11 02:57

Parameter	Result	Qualifier	Units	RL	MDL
Semivolatile Organics by GC/MS-SIM - Westborough Lab for sample(s): 01 Batch: WG501938-1					
Acenaphthene	ND		ug/l	0.20	--
Fluoranthene	ND		ug/l	0.20	--
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	--
Pentachlorophenol	ND		ug/l	0.80	--

Surrogate	%Recovery	Qualifier	Acceptance Criteria
2-Fluorophenol	67		21-120
Phenol-d6	50		10-120
Nitrobenzene-d5	102		23-120
2-Fluorobiphenyl	100		15-120
2,4,6-Tribromophenol	104		10-120
4-Terphenyl-d14	132		41-149

Lab Control Sample Analysis

Batch Quality Control

Project Name: 15 ELM STREET

Project Number: 5274

Lab Number: L1118797

Report Date: 11/17/11

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: WG501937-2 WG501937-3								
Acenaphthene	83		85		37-111	2		30
1,2,4-Trichlorobenzene	67		71		39-98	6		30
2-Chloronaphthalene	89		96		40-140	8		30
1,2-Dichlorobenzene	72		72		40-140	0		30
1,4-Dichlorobenzene	70		70		36-97	0		30
2,4-Dinitrotoluene	95		96		24-96	1		30
2,6-Dinitrotoluene	93		99		40-140	6		30
Fluoranthene	101		102		40-140	1		30
4-Chlorophenyl phenyl ether	94		97		40-140	3		30
n-Nitrosodi-n-propylamine	86		90		41-116	5		30
Butyl benzyl phthalate	104		106		40-140	2		30
Anthracene	99		101		40-140	2		30
Pyrene	98		100		26-127	2		30
P-Chloro-M-Cresol	94		**100**	Q	23-97	6		30
2-Chlorophenol	78		82		27-123	5		30
2-Nitrophenol	80		82		30-130	2		30
4-Nitrophenol	56		62		10-80	10		30
2,4-Dinitrophenol	76		81		20-130	6		30
Pentachlorophenol	89		91		9-103	2		30
Phenol	44		46		12-110	4		30

Lab Control Sample Analysis
Batch Quality Control

Project Name: 15 ELM STREET
Project Number: 5274

Lab Number: L1118797
Report Date: 11/17/11

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: WG501937-2 WG501937-3

Surrogate	LCS %Recovery	Qual	LCSD %Recovery	Qual	Acceptance Criteria
2-Fluorophenol	55		59		21-120
Phenol-d6	40		43		10-120
Nitrobenzene-d5	82		86		23-120
2-Fluorobiphenyl	79		88		15-120
2,4,6-Tribromophenol	91		98		10-120
4-Terphenyl-d14	96		102		41-149

Semivolatile Organics by GC/MS-SIM - Westborough Lab Associated sample(s): 01 Batch: WG501938-2 WG501938-3

Acenaphthene	78		80		37-111	3		40
2-Chloronaphthalene	84		89		40-140	6		40
Fluoranthene	101		96		40-140	5		40
Anthracene	96		105		40-140	9		40
Pyrene	95		92		26-127	3		40
Pentachlorophenol	100		94		9-103	6		40

Lab Control Sample Analysis

Batch Quality Control

Project Name: 15 ELM STREET

Project Number: 5274

Lab Number: L1118797

Report Date: 11/17/11

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: WG501938-2 WG501938-3								

Surrogate	LCS %Recovery	Qual	LCSD %Recovery	Qual	Acceptance Criteria
2-Fluorophenol	53		63		21-120
Phenol-d6	41		48		10-120
Nitrobenzene-d5	82		96		23-120
2-Fluorobiphenyl	82		89		15-120
2,4,6-Tribromophenol	97		95		10-120
4-Terphenyl-d14	110		110		41-149

PCBS

Project Name: 15 ELM STREET
Project Number: 5274
Lab Number: L1118797
Report Date: 11/17/11

SAMPLE RESULTS

Lab ID:	L1118797-01	Date Collected:	11/11/11 09:45
Client ID:	B-1 (OW)	Date Received:	11/11/11
Sample Location:	ANDOVER, MA	Field Prep:	Not Specified
Matrix:	Water	Extraction Method:	EPA 608
Analytical Method:	5,608	Extraction Date:	11/13/11 11:45
Analytical Date:	11/14/11 15:40	Cleanup Method1:	EPA 3665A
Analyst:	GT	Cleanup Date1:	11/14/11
		Cleanup Method2:	EPA 3660B
		Cleanup Date2:	11/14/11

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	68		30-150
Decachlorobiphenyl	61		30-150

Project Name: 15 ELM STREET
Project Number: 5274

Lab Number: L1118797
Report Date: 11/17/11

Method Blank Analysis
Batch Quality Control

Analytical Method: 5,608
Analytical Date: 11/14/11 16:34
Analyst: GT

Extraction Method: EPA 608
Extraction Date: 11/13/11 11:45
Cleanup Method1: EPA 3665A
Cleanup Date1: 11/14/11
Cleanup Method2: EPA 3660B
Cleanup Date2: 11/14/11

Parameter	Result	Qualifier	Units	RL	MDL
Polychlorinated Biphenyls by GC - Westborough Lab for sample(s): 01 Batch: WG501991-1					
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	58		30-150
Decachlorobiphenyl	66		30-150

Matrix Spike Analysis
Batch Quality Control

Project Name: 15 ELM STREET
Project Number: 5274

Lab Number: L1118797
Report Date: 11/17/11

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: WG501991-3 QC Sample: L1118590-08 Client ID: MS Sample												
Aroclor 1016	ND	2.22	1.67	75		-	-		40-140	-		50
Aroclor 1260	ND	2.22	1.32	59		-	-		40-140	-		50

Surrogate	MS % Recovery	MS Qualifier	MSD % Recovery	MSD Qualifier	Acceptance Criteria
2,4,5,6-Tetrachloro-m-xylene	65				30-150
Decachlorobiphenyl	55				30-150

Lab Control Sample Analysis

Batch Quality Control

Project Name: 15 ELM STREET
Project Number: 5274

Lab Number: L1118797
Report Date: 11/17/11

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Polychlorinated Biphenyls by GC - Westborough Lab Associated sample(s): 01 Batch: WG501991-2								
Aroclor 1016	72		-		40-140	-		50
Aroclor 1260	69		-		40-140	-		50

Surrogate	LCS %Recovery	Qual	LCSD %Recovery	Qual	Acceptance Criteria
2,4,5,6-Tetrachloro-m-xylene	59				30-150
Decachlorobiphenyl	64				30-150

Lab Duplicate Analysis
Batch Quality Control

Project Name: 15 ELM STREET
Project Number: 5274

Lab Number: L1118797
Report Date: 11/17/11

Parameter	Native Sample	Duplicate Sample	Units	RPD	Qual	RPD Limits
Polychlorinated Biphenyls by GC - Westborough Lab Associated sample(s): 01 QC Batch ID: WG501991-4 QC Sample: L1118590-08 Client ID: DUP Sample						
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	63		70		30-150
Decachlorobiphenyl	58		62		30-150

METALS

Project Name: 15 ELM STREET
Project Number: 5274
Lab Number: L1118797
Report Date: 11/17/11

SAMPLE RESULTS

Lab ID: L1118797-01
Client ID: B-1 (OW)
Sample Location: ANDOVER, MA
Matrix: Water
Date Collected: 11/11/11 09:45
Date Received: 11/11/11
Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Prep Method	Analytical Method	Analyst
Total Metals - Westborough Lab											
Antimony, Total	ND		mg/l	0.0005	--	1	11/14/11 09:40	11/14/11 21:44	EPA 3005A	1,6020	BM
Arsenic, Total	0.0028		mg/l	0.0005	--	1	11/14/11 09:40	11/14/11 21:44	EPA 3005A	1,6020	BM
Cadmium, Total	ND		mg/l	0.0002	--	1	11/14/11 09:40	11/14/11 21:44	EPA 3005A	1,6020	BM
Chromium, Total	ND		mg/l	0.0005	--	1	11/14/11 09:40	11/14/11 21:44	EPA 3005A	1,6020	BM
Copper, Total	0.0010		mg/l	0.0005	--	1	11/14/11 09:40	11/14/11 21:44	EPA 3005A	1,6020	BM
Iron, Total	0.23		mg/l	0.05	--	1	11/14/11 09:40	11/16/11 11:05	EPA 3005A	19,200.7	AI
Lead, Total	ND		mg/l	0.0005	--	1	11/14/11 09:40	11/14/11 21:44	EPA 3005A	1,6020	BM
Mercury, Total	ND		mg/l	0.0002	--	1	11/16/11 11:00	11/16/11 16:08	EPA 245.1	3,245.1	JP
Nickel, Total	0.0018		mg/l	0.0005	--	1	11/14/11 09:40	11/14/11 21:44	EPA 3005A	1,6020	BM
Selenium, Total	0.002		mg/l	0.001	--	1	11/14/11 09:40	11/14/11 21:44	EPA 3005A	1,6020	BM
Silver, Total	ND		mg/l	0.0004	--	1	11/14/11 09:40	11/14/11 21:44	EPA 3005A	1,6020	BM
Zinc, Total	0.0105		mg/l	0.0050	--	1	11/14/11 09:40	11/14/11 21:44	EPA 3005A	1,6020	BM

Project Name: 15 ELM STREET
Project Number: 5274
Lab Number: L1118797
Report Date: 11/17/11

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: WG502093-1										
Antimony, Total	ND		mg/l	0.0005	--	1	11/14/11 09:40	11/14/11 19:20	1,6020	BM
Arsenic, Total	ND		mg/l	0.0005	--	1	11/14/11 09:40	11/14/11 19:20	1,6020	BM
Cadmium, Total	ND		mg/l	0.0002	--	1	11/14/11 09:40	11/14/11 19:20	1,6020	BM
Chromium, Total	ND		mg/l	0.0005	--	1	11/14/11 09:40	11/14/11 19:20	1,6020	BM
Copper, Total	ND		mg/l	0.0005	--	1	11/14/11 09:40	11/14/11 19:20	1,6020	BM
Lead, Total	ND		mg/l	0.0005	--	1	11/14/11 09:40	11/14/11 19:20	1,6020	BM
Nickel, Total	ND		mg/l	0.0005	--	1	11/14/11 09:40	11/14/11 19:20	1,6020	BM
Selenium, Total	ND		mg/l	0.001	--	1	11/14/11 09:40	11/14/11 19:20	1,6020	BM
Silver, Total	ND		mg/l	0.0004	--	1	11/14/11 09:40	11/14/11 19:20	1,6020	BM
Zinc, Total	ND		mg/l	0.0050	--	1	11/14/11 09:40	11/14/11 19:20	1,6020	BM

Prep Information

Digestion Method: EPA 3005A

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
Total Metals - Westborough Lab for sample(s): 01 Batch: WG502097-1										
Iron, Total	ND		mg/l	0.05	--	1	11/14/11 09:40	11/16/11 10:13	19,200.7	AI

Prep Information

Digestion Method: EPA 3005A

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
Total Metals - Westborough Lab for sample(s): 01 Batch: WG502814-1										
Mercury, Total	ND		mg/l	0.0002	--	1	11/16/11 11:00	11/16/11 14:56	3,245.1	JP

Prep Information

Digestion Method: EPA 245.1

Lab Control Sample Analysis

Batch Quality Control

Project Name: 15 ELM STREET

Project Number: 5274

Lab Number: L1118797

Report Date: 11/17/11

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Total Metals - Westborough Lab Associated sample(s): 01 Batch: WG502093-2								
Antimony, Total	100		-		80-120	-		
Arsenic, Total	108		-		80-120	-		
Cadmium, Total	111		-		80-120	-		
Chromium, Total	99		-		80-120	-		
Copper, Total	105		-		80-120	-		
Lead, Total	106		-		80-120	-		
Nickel, Total	104		-		80-120	-		
Selenium, Total	111		-		80-120	-		
Silver, Total	102		-		80-120	-		
Zinc, Total	112		-		80-120	-		
Total Metals - Westborough Lab Associated sample(s): 01 Batch: WG502097-2								
Iron, Total	97		-		85-115	-		
Total Metals - Westborough Lab Associated sample(s): 01 Batch: WG502814-2								
Mercury, Total	109		-		85-115	-		

Matrix Spike Analysis
Batch Quality Control

Project Name: 15 ELM STREET
Project Number: 5274

Lab Number: L1118797
Report Date: 11/17/11

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: WG502093-4 QC Sample: L1118689-01 Client ID: MS Sample												
Antimony, Total	ND	0.5	0.5225	104		-	-		80-120	-		20
Arsenic, Total	0.0013	0.12	0.1343	111		-	-		80-120	-		20
Cadmium, Total	ND	0.051	0.0549	108		-	-		80-120	-		20
Chromium, Total	0.0006	0.2	0.1951	97		-	-		80-120	-		20
Copper, Total	0.0013	0.25	0.2579	103		-	-		80-120	-		20
Lead, Total	ND	0.51	0.5418	106		-	-		80-120	-		20
Nickel, Total	0.0019	0.5	0.5101	102		-	-		80-120	-		20
Selenium, Total	ND	0.12	0.127	106		-	-		80-120	-		20
Silver, Total	ND	0.05	0.0507	101		-	-		80-120	-		20
Zinc, Total	0.0209	0.5	0.5619	108		-	-		80-120	-		20
Total Metals - Westborough Lab Associated sample(s): 01 QC Batch ID: WG502097-4 QC Sample: L1118707-01 Client ID: MS Sample												
Iron, Total	26	1	27	100		-	-		75-125	-		20
Total Metals - Westborough Lab Associated sample(s): 01 QC Batch ID: WG502814-4 QC Sample: L1118156-01 Client ID: MS Sample												
Mercury, Total	ND	0.001	0.0011	113		-	-		70-130	-		20

Lab Duplicate Analysis
Batch Quality Control

Project Name: 15 ELM STREET
Project Number: 5274

Lab Number: L1118797
Report Date: 11/17/11

Parameter	Native Sample	Duplicate Sample	Units	RPD	Qual	RPD Limits
Total Metals - Westborough Lab Associated sample(s): 01 QC Batch ID: WG502093-3 QC Sample: L1118689-01 Client ID: DUP Sample						
Cadmium, Total	ND	ND	mg/l	NC		20
Copper, Total	0.0013	0.0013	mg/l	1		20
Lead, Total	ND	ND	mg/l	NC		20
Nickel, Total	0.0019	0.0019	mg/l	0		20
Zinc, Total	0.0209	0.0199	mg/l	5		20
Total Metals - Westborough Lab Associated sample(s): 01 QC Batch ID: WG502097-3 QC Sample: L1118707-01 Client ID: DUP Sample						
Iron, Total	26	26	mg/l	0		20
Total Metals - Westborough Lab Associated sample(s): 01 QC Batch ID: WG502814-3 QC Sample: L1118156-01 Client ID: DUP Sample						
Mercury, Total	ND	ND	mg/l	NC		20

INORGANICS
&
MISCELLANEOUS

Project Name: 15 ELM STREET
Project Number: 5274

Lab Number: L1118797
Report Date: 11/17/11

SAMPLE RESULTS

Lab ID: L1118797-01
Client ID: B-1 (OW)
Sample Location: ANDOVER, MA
Matrix: Water

Date Collected: 11/11/11 09:45
Date Received: 11/11/11
Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Westborough Lab										
Solids, Total Suspended	ND		mg/l	5.0	NA	1	-	11/16/11 15:15	30,2540D	DW
Cyanide, Total	ND		mg/l	0.005	--	1	11/14/11 13:45	11/15/11 16:58	30,4500CN-CE	JO
Chlorine, Total Residual	ND		mg/l	0.02	--	1	-	11/11/11 14:45	30,4500CL-D	JO
pH (H)	5.9		SU	-	NA	1	-	11/11/11 23:33	30,4500H+-B	KK
TPH	ND		mg/l	4.00	--	1	11/14/11 14:00	11/16/11 14:30	74,1664A	JO
Phenolics, Total	ND		mg/l	0.03	--	1	11/15/11 18:00	11/15/11 21:35	4,420.1	TP
Chromium, Hexavalent	ND		mg/l	0.010	--	1	11/12/11 02:30	11/12/11 02:43	30,3500CR-D	TP
General Chemistry										
Trivalent Chromium	ND		mg/l	0.01	--	1	-	11/16/11 19:00	30,3500-Cr	ED
Anions by Ion Chromatography - Westborough Lab										
Chloride	420		mg/l	5.0	--	10	-	11/15/11 19:56	44,300.0	AU

Project Name: 15 ELM STREET
Project Number: 5274
Lab Number: L1118797
Report Date: 11/17/11

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: WG501873-2										
Chlorine, Total Residual	ND		mg/l	0.02	--	1	-	11/11/11 14:45	30,4500CL-D	JO
General Chemistry - Westborough Lab for sample(s): 01 Batch: WG501930-1										
Chromium, Hexavalent	ND		mg/l	0.010	--	1	11/12/11 02:30	11/12/11 02:38	30,3500CR-D	TP
General Chemistry - Westborough Lab for sample(s): 01 Batch: WG502185-2										
Cyanide, Total	ND		mg/l	0.005	--	1	11/14/11 13:45	11/15/11 16:49	30,4500CN-CE	JO
General Chemistry - Westborough Lab for sample(s): 01 Batch: WG502217-2										
TPH	ND		mg/l	4.00	--	1	11/14/11 14:00	11/16/11 14:30	74,1664A	JO
General Chemistry - Westborough Lab for sample(s): 01 Batch: WG502569-1										
Phenolics, Total	ND		mg/l	0.03	--	1	11/15/11 18:00	11/15/11 21:32	4,420.1	TP
General Chemistry - Westborough Lab for sample(s): 01 Batch: WG502647-1										
Solids, Total Suspended	ND		mg/l	5.0	NA	1	-	11/16/11 15:15	30,2540D	DW
Anions by Ion Chromatography - Westborough Lab for sample(s): 01 Batch: WG502832-1										
Chloride	ND		mg/l	0.50	--	1	-	11/15/11 19:08	44,300.0	AU

Lab Control Sample Analysis

Batch Quality Control

Project Name: 15 ELM STREET
Project Number: 5274

Lab Number: L1118797
Report Date: 11/17/11

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
General Chemistry - Westborough Lab Associated sample(s): 01 Batch: WG501873-1								
Chlorine, Total Residual	97		-		90-110	-		
General Chemistry - Westborough Lab Associated sample(s): 01 Batch: WG501908-1								
pH	100		-		99-101	-		5
General Chemistry - Westborough Lab Associated sample(s): 01 Batch: WG501930-2								
Chromium, Hexavalent	105		-		85-115	-		20
General Chemistry - Westborough Lab Associated sample(s): 01 Batch: WG502185-1								
Cyanide, Total	97		-		90-110	-		
General Chemistry - Westborough Lab Associated sample(s): 01 Batch: WG502217-1								
TPH	90		-		64-132	-		34
General Chemistry - Westborough Lab Associated sample(s): 01 Batch: WG502569-2								
Phenolics, Total	95		-		82-111	-		12
Anions by Ion Chromatography - Westborough Lab Associated sample(s): 01 Batch: WG502832-2								
Chloride	108		-		90-110	-		

Matrix Spike Analysis
Batch Quality Control

Project Name: 15 ELM STREET
Project Number: 5274

Lab Number: L1118797
Report Date: 11/17/11

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: WG501930-3 QC Sample: L1118797-01 Client ID: B-1 (OW)												
Chromium, Hexavalent	ND	0.1	0.107	107		-	-		85-115	-		20
General Chemistry - Westborough Lab Associated sample(s): 01 QC Batch ID: WG502185-3 QC Sample: L1118797-01 Client ID: B-1 (OW)												
Cyanide, Total	ND	0.2	0.171	**86**	Q	-	-		90-110	-		30
General Chemistry - Westborough Lab Associated sample(s): 01 QC Batch ID: WG502217-3 QC Sample: L1118707-01 Client ID: MS Sample												
TPH	ND	20.4	16.7	82		-	-		64-132	-		34
General Chemistry - Westborough Lab Associated sample(s): 01 QC Batch ID: WG502569-3 QC Sample: L1118800-02 Client ID: MS Sample												
Phenolics, Total	ND	0.8	0.75	94		-	-		77-124	-		12
Anions by Ion Chromatography - Westborough Lab Associated sample(s): 01 QC Batch ID: WG502832-3 QC Sample: L1118800-01 Client ID: MS Sample												
Chloride	140	100	230	97		-	-		40-151	-		18

Lab Duplicate Analysis
Batch Quality Control

Project Name: 15 ELM STREET
Project Number: 5274

Lab Number: L1118797
Report Date: 11/17/11

Parameter	Native Sample	Duplicate Sample	Units	RPD	Qual	RPD Limits
General Chemistry - Westborough Lab Associated sample(s): 01 QC Batch ID: WG501873-3 QC Sample: L1118771-06 Client ID: DUP Sample						
Chlorine, Total Residual	4.5	4.4	mg/l	2		20
General Chemistry - Westborough Lab Associated sample(s): 01 QC Batch ID: WG501908-2 QC Sample: L1118795-01 Client ID: DUP Sample						
pH	5.9	5.9	SU	0		5
General Chemistry - Westborough Lab Associated sample(s): 01 QC Batch ID: WG501930-4 QC Sample: L1118797-01 Client ID: B-1 (OW)						
Chromium, Hexavalent	ND	ND	mg/l	NC		20
General Chemistry - Westborough Lab Associated sample(s): 01 QC Batch ID: WG502185-4 QC Sample: L1118783-02 Client ID: DUP Sample						
Cyanide, Total	ND	ND	mg/l	NC		30
General Chemistry - Westborough Lab Associated sample(s): 01 QC Batch ID: WG502217-4 QC Sample: L1118743-02 Client ID: DUP Sample						
TPH	ND	ND	mg/l	NC		34
General Chemistry - Westborough Lab Associated sample(s): 01 QC Batch ID: WG502569-4 QC Sample: L1118800-01 Client ID: DUP Sample						
Phenolics, Total	ND	0.03	mg/l	NC		12
General Chemistry - Westborough Lab Associated sample(s): 01 QC Batch ID: WG502647-2 QC Sample: L1118737-11 Client ID: DUP Sample						
Solids, Total Suspended	150	510	mg/l	**109**	Q	32
Anions by Ion Chromatography - Westborough Lab Associated sample(s): 01 QC Batch ID: WG502832-4 QC Sample: L1118800-01 Client ID: DUP Sample						
Chloride	140	130	mg/l	7		18

Project Name: 15 ELM STREET
Project Number: 5274

Lab Number: L1118797
Report Date: 11/17/11

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
B	Absent

Container Information

Container ID	Container Type	Cooler	pH	Temp deg C	Pres	Seal	Analysis(*)
L1118797-01A	Vial HCl preserved	B	N/A	2.7	Y	Absent	624(14)
L1118797-01B	Vial HCl preserved	B	N/A	2.7	Y	Absent	624(14)
L1118797-01C	Vial Na2S2O3 preserved	A	N/A	2.1	Y	Absent	504(14)
L1118797-01D	Vial Na2S2O3 preserved	A	N/A	2.1	Y	Absent	504(14)
L1118797-01E	Plastic 1000ml unpreserved	A	7	2.1	Y	Absent	TSS-2540(7)
L1118797-01F	Plastic 1000ml unpreserved	A	7	2.1	Y	Absent	SPECWC(),CL-300(28),HEXCR-3500(1),TRC-4500(1),PH-4500(.01)
L1118797-01G	Amber 1000ml Na2S2O3	A	7	2.1	Y	Absent	PCB-608(7)
L1118797-01H	Amber 1000ml Na2S2O3	A	7	2.1	Y	Absent	PCB-608(7)
L1118797-01I	Amber 1000ml unpreserved	A	7	2.1	Y	Absent	8270TCL(7),8270TCL-SIM(7)
L1118797-01J	Amber 1000ml unpreserved	A	7	2.1	Y	Absent	8270TCL(7),8270TCL-SIM(7)
L1118797-01K	Amber 1000ml HCl preserved	A	<2	2.1	Y	Absent	TPH-1664(28)
L1118797-01L	Amber 1000ml HCl preserved	A	<2	2.1	Y	Absent	TPH-1664(28)
L1118797-01M	Amber 500ml H2SO4preserved	B	<2	2.7	Y	Absent	TPHENOL-420(28)
L1118797-01N	Plastic 250ml NaOH preserved	B	>12	2.7	Y	Absent	TCN-4500(14)
L1118797-01O	Plastic 250ml HNO3 preserved	B	<2	2.7	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),SPECWC(0)
L1118797-02A	Vial Na2S2O3 preserved	A	N/A	2.1	Y	Absent	504(14)
L1118797-02B	Vial Na2S2O3 preserved	A	N/A	2.1	Y	Absent	504(14)
L1118797-02C	Vial HCl preserved	A	N/A	2.1	Y	Absent	624(14)

*Values in parentheses indicate holding time in days

Project Name:	15 ELM STREET	**Lab Number:**	L1118797
Project Number:	5274	**Report Date:**	11/17/11

GLOSSARY

Acronyms

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

Footnotes

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

Terms

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

Data Qualifiers

A	- Spectra identified as "Aldol Condensation Product".
B	- The analyte was detected above the reporting limit in the associated method blank. Flag only applies to associated field samples that have detectable concentrations of the analyte at less than five times (5x) the concentration found in the blank. For MCP-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank. For DOD-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank AND the analyte was detected above one-half the reporting limit (or above the reporting limit for common lab contaminants) in the associated method blank. For NJ-Air-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte above the reporting limit.
C	- Co-elution: The target analyte co-elutes with a known lab standard (i.e. surrogate, internal standards, etc.) for co-extracted analyses.
D	- Concentration of analyte was quantified from diluted analysis. Flag only applies to field samples that have detectable concentrations of the analyte.
E	- Concentration of analyte exceeds the range of the calibration curve and/or linear range of the instrument.
G	- The concentration may be biased high due to matrix interferences (i.e, co-elution) with non-target compound(s). The result should be considered estimated.
H	- The analysis of pH was performed beyond the regulatory-required holding time of 15 minutes from the time of sample collection.
I	- The RPD between the results for the two columns exceeds the method-specified criteria; however, the lower value has been reported due to obvious interference.
M	- Reporting Limit (RL) exceeds the MCP CAM Reporting Limit for this analyte.
NJ	- Presumptive evidence of compound. This represents an estimated concentration for Tentatively Identified Compounds (TICs), where the identification is based on a mass spectral library search.

Report Format: Data Usability Report

Project Name:	15 ELM STREET	**Lab Number:**	L1118797
Project Number:	5274	**Report Date:**	11/17/11

Data Qualifiers

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

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

R - Analytical results are from sample re-analysis.

RE - Analytical results are from sample re-extraction.

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

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

Report Format: Data Usability Report

Project Name: 15 ELM STREET
Project Number: 5274
Lab Number: L1118797
Report Date: 11/17/11

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 November 17, 2011 - Westboro Facility

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

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

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

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

Solid Waste/Soil (Inorganic Parameters: pH, Sulfide, Aluminum, Antimony, Arsenic, Barium, Beryllium, Boron, Cadmium, Calcium, Chromium, Hexavalent Chromium, Cobalt, Copper, Iron, Lead, Magnesium, Manganese, Mercury, Molybdenum, Nickel, Potassium, Selenium, Silver, Sodium, Thallium, Tin, Vanadium, Zinc, Total Cyanide, Ignitability, Phenolics, Corrosivity, TCLP Leach (1311), SPLP Leach (1312 metals only), Reactivity. Organic Parameters: PCBs, PCBs in Oil, Organochlorine Pesticides, Technical Chlordane, Toxaphene, Extractable Petroleum Hydrocarbons (ETPH), MA-EPH, MA-VPH, Dicamba, 2,4-D, 2,4,5-T, 2,4,5-TP(Silvex), Volatile Organics, Acid Extractables (Phenols), 3.3'-Dichlorobenzidine, Phthalates, Nitrosamines, Nitroaromatics & Cyclic Ketones, PAHs, Haloethers, Chlorinated Hydrocarbons.)

Maine Department of Human Services Certificate/Lab ID: 2009024.
Drinking Water (Inorganic Parameters: SM9215B, 9222D, 9223B, EPA 180.1, 353.2, SM2130B, 2320B, 2540C, 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, 4500NH3-H, 4500NO3-F, 4500P-B, 4500P-E, 5210B, 5220D, 5310C, 9010B, 9040B, 9030B, 7470A, 7196A, 2340B, EPA 200.7, 6010, 200.8, 6020, 245.1, 1311, 1312, 3005A, Enterolert, 9223D, 9222D. Organic Parameters: 608, 8081, 8082, 8330, 8151A, 624, 8260, 3510C, 3630C, 5030B, ME-DRO, ME-GRO, MA-EPH, MA-VPH.)

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

Massachusetts Department of Environmental Protection Certificate/Lab ID: M-MA086.
*Drinking Water (*Inorganic Parameters: (EPA 200.8 for: Sb,As,Ba,Be,Cd,Cr,Cu,Pb,Ni,Se,Tl) (EPA 200.7 for: Ba,Be,Ca,Cd,Cr,Cu,Na,Ni) 245.1, (300.0 for: Nitrate-N, Fluoride, Sulfate); (EPA 353.2 for: Nitrate-N, Nitrite-N); (SM4500NO3-F for: Nitrate-N and Nitrite-N); 4500F-C, 4500CN-CE, EPA 180.1, SM2130B, 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, 245.2, 300.0, SM4500CN-E, 4500H+B, 4500NO3-F, 2320B, 2510B, 2540C, 4500F-C, 5310C, 2120B, EPA 332.0. Organic Parameters: 504.1, 524.2.)

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

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

New Jersey Department of Environmental Protection Certificate/Lab ID: MA935. ***NELAP Accredited.***
Drinking Water (Inorganic Parameters: SM9222B, 9221E, 9223B, 9215B, 4500CN-CE, 4500NO3-F, 4500F-C, EPA 300.0, 200.7, 200.8, 245.2, 2540C, SM2120B, 2320B, 2510B, 5310C, SM4500H-B. Organic Parameters: EPA 332, 504.1, 524.2.)

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

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

New York Department of Health Certificate/Lab ID: 11148. ***NELAP Accredited.***
Drinking Water (Inorganic Parameters: SM9223B, 9222B, 9215B, EPA 200.8, 200.7, 245.2, SM5310C, EPA 332.0, SM2320B, EPA 300.0, SM2120B, 4500CN-E, 4500F-C, 4500H-B, 4500NO3-F, 2540C, SM 2510B. Organic Parameters: EPA 524.2, 504.1.)

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

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

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

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 (Organic Parameters: EPA 524.2, 504.1)

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

Solid & Hazardous Waste (Inorganic Parameters: EPA 350.1, 1010, 1030, 1311, 1312, 3050B, 6010B, 7196A, 7471A, 9010B, 9012A, 9014, 9040B, 9045C, 9050, 9065, SM 4500NH3-H. Organic Parameters: 3540C, 3545, 3546, 3550B**,** 3580A, 3630C, 5035, 8015B, 8081A, 8082, 8151A, 8260B, 8270C, 8330)

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

Texas Commisson 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.)

Department of Defense Certificate/Lab ID: L2217.
Drinking Water (Inorganic Parameters: SM 4500H-B. Organic Parameters: EPA 524.2, 504.1.)

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

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

The following analytes are not included in our current NELAP/TNI Scope of Accreditation:
EPA 8260B: Freon-113, 1,2,4,5-Tetramethylbenzene, 4-Ethyltoluene. **EPA 8330A:** PETN, Picric Acid, Nitroglycerine, 2,6-DANT, 2,4-DANT. **EPA 8270C:** Methyl naphthalene, Dimethyl naphthalene, Total Methylnapthalenes, 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.

CHAIN OF CUSTODY

PAGE 1 OF 1

Date Rec'd in Lab: 11/11/11

ALPHA Job #: L1118997

ALPHA ANALYTICAL
WESTBORO, MA TEL: 508-898-9220 FAX: 508-898-9193
MANSFIELD, MA TEL: 508-822-9300 FAX: 508-822-3288

Client Information

Client: McPhail Associates, Inc.
Address: 2269 Mass Ave
Cambridge, MA
Phone: 617-868-1420
Fax:
Email:
☐ These samples have been previously analyzed by Alpha

Project Information

Project Name: 15 Elm Street
Project Location: Andover, MA
Project #: 5274
Project Manager: Bill Burns
ALPHA Quote #:

Turn-Around Time

☒ Standard ☐ RUSH (only confirmed if pre-approved!)
Date Due: 11/18/11 Time:

Report Information - Data Deliverables

☐ FAX ☐ EMAIL
☐ ADEx ☐ Add'l Deliverables

Billing Information

☐ Same as Client info PO #:

Regulatory Requirements/Report Limits

State /Fed Program EPA RGP Criteria Effluent Limits

MA MCP PRESUMPTIVE CERTAINTY --- CT REASONABLE CONFIDENCE PROTO

☐ Yes ☒ No Are MCP Analytical Methods Required?
☐ Yes ☒ No Is Matrix Spike (MS) Required on this SDG? (If yes see note in Comments)
☐ Yes ☒ No Are CT RCP (Reasonable Confidence Protocols) Required?

Other Project Specific Requirements/Comments/Detection Limits:

If MS is required , indicate in Sample Specific Comments which samples and what tests MS to be performed.
(Note: All ***CAM*** methods for inorganic analyses require MS every 20 soil samples)

ANALYSIS: RGP Characterization Package

SAMPLE HANDLING

Filtration
☐ Done ☐ Not needed ☐ Lab to do
Preservation
☐ Lab to do
(Please specify below)

ALPHA Lab ID (Lab Use Only)	Sample ID	Collection Date	Collection Time	Sample Matrix	Sampler's Initials		Sample Specific Comments	TOTAL # BOTTLES
8797-01	B-1 (ow)	11/11/11	9:45	H_2O	FBK	X	4(Plastic)+7(Ambers)+4(VIALS)	15

PLEASE ANSWER QUESTIONS ABOVE!

IS YOUR PROJECT MA MCP *or* CT RCP?

Container Type														
Preservative														

Relinquished By:	Date/Time	Received By:	Date/Time
Joshua Babbitt-Kaye	11/11/11 13:10		11/11/11 1635
	11/11/11 1755	Egatt	11/11/11 1755

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 Terms and Conditions. See reverse side.

FORM NO: 01-01 (rev. 18-Jan-2010)

McPHAIL ASSOCIATES, INC

Geotechnical Engineers

ATTACHMENT D

AREAS OF CRITICAL CONCERN,
ENDANGERED AND THREATENED SPECIES

Based on a review of Massachusetts Geographic Information Systems DEP Priority Resources' Map, there are no drinking water supplies, no Areas of Critical Environmental Concern, no Sole Source Aquifers, no fish habitats, and no habitats of Species of Special Concern or Threatened or Endangered Species at or within 500-feet of the subject site. No Protected Open Space is indicated within 500-feet of the subject property. There are no surface water bodies located within the site boundaries. The Shawsheen River and Rogers Brook are located approximately 1,800 to the west and 2,000 feet to the southwest of the subject site, respectively.

A review of the most recent federal listing of threatened and endangered species published by the U.S. Fish and Wildlife Service did not identify the presence of 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 did not indicate the presence of 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 IV of the RGP.

MassDEP - Bureau of Waste Site Cleanup

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

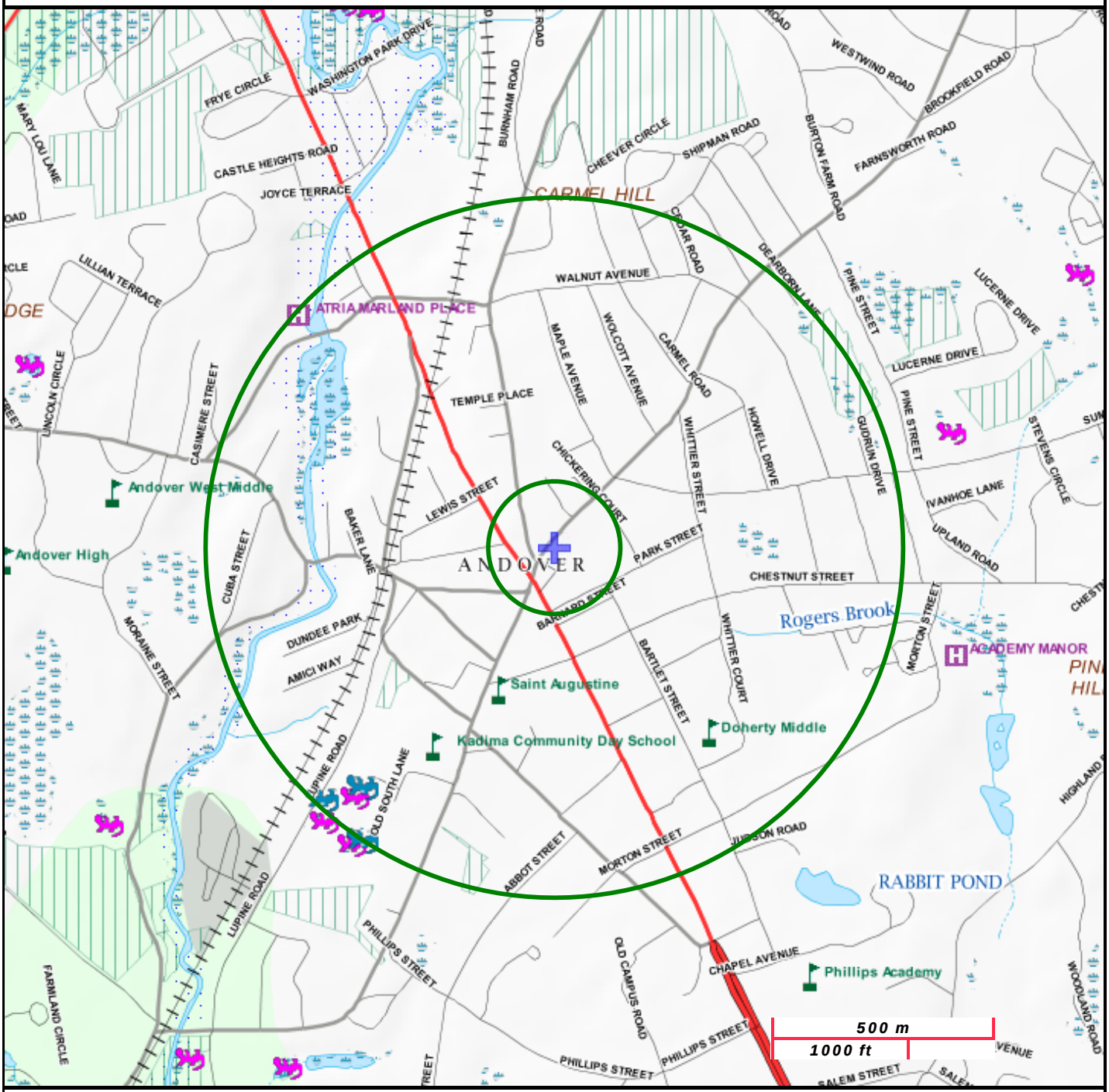
Site Information:

15 ELM STREET ANDOVER, MA

NAD83 UTM Meters:
4725001mN , 324587mE (Zone: 19)
December 15, 2011

The information shown is the best available at the date of printing. However, it may be incomplete. The responsible party and LSP are ultimately repsponsible 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

ACEC acreages above are based on MassGIS calculations and may differ from numbers originally presented in designation documents and other ACEC publications due to improvements in accuracy of GIS data and boundary clarifications. Listed acreages have been rounded to the nearest 50 or 10 depending on whether boundary clarification has occurred. For more information please see, http://www.mass.gov/dcr/stewardship/acec/aboutMaps.htm.

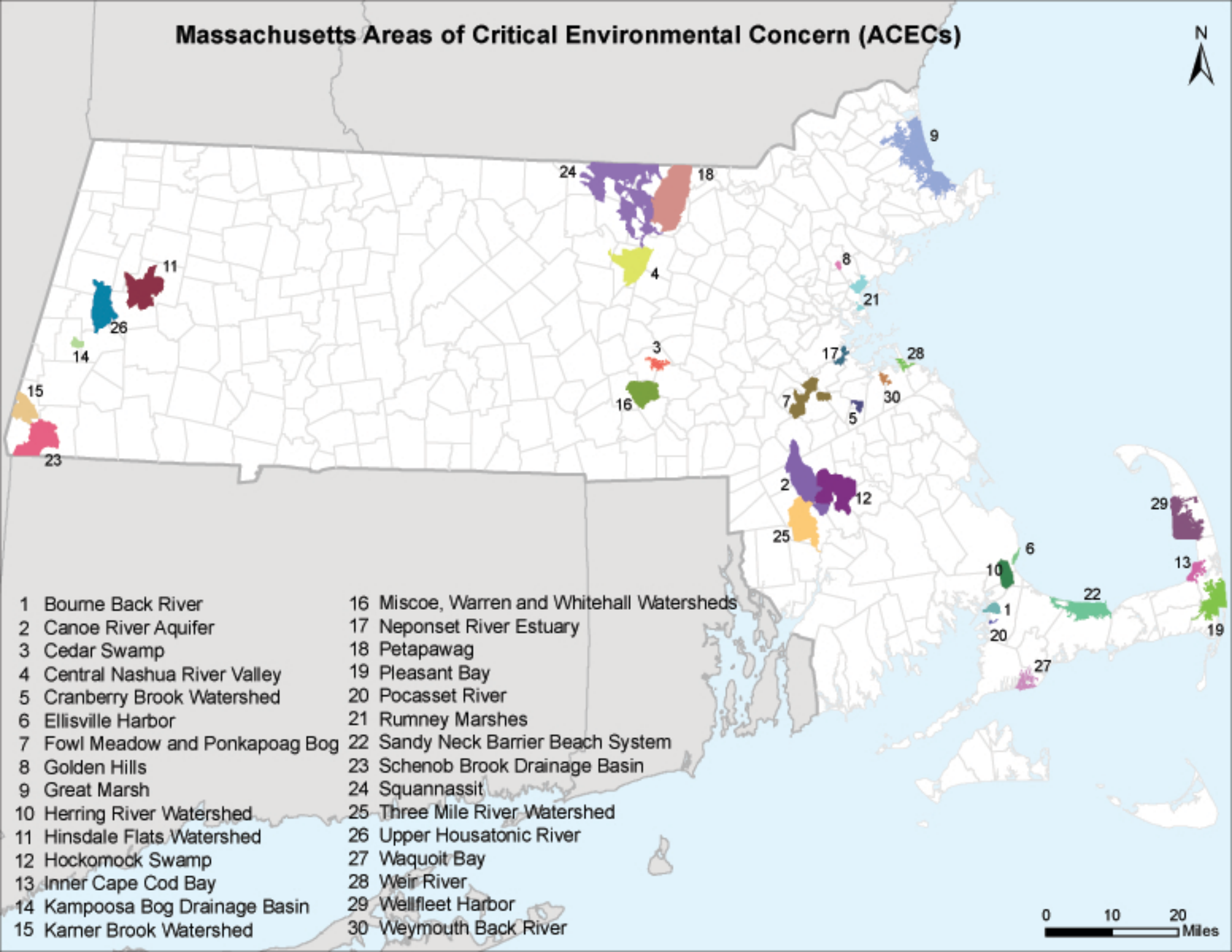
Towns with ACECs within their Boundaries June 2009

TOWN	ACEC
Ashby	Squannassit
Ayer	Petapawag
	Squannassit
Barnstable	Sandy Neck Barrier Beach System
Bolton	Central Nashua River Valley
Boston	Rumney Marshes
	Fowl Meadow and Ponkapoag Bog
	Neponset River Estuary
Bourne	Pocasset River
	Bourne Back River
	Herring River Watershed
Braintree	Cranberry Brook Watershed
Brewster	Pleasant Bay
	Inner Cape Cod Bay
Bridgewater	Hockomock Swamp
Canton	Fowl Meadow and Ponkapoag Bog
Chatham	Pleasant Bay
Cohasset	Weir River
Dalton	Hinsdale Flats Watershed
Dedham	Fowl Meadow and Ponkapoag Bog
Dighton	Three Mile River Watershed
Dunstable	Petapawag
Eastham	Inner Cape Cod Bay
	Wellfleet Harbor
Easton	Canoe River Aquifer
	Hockomock Swamp
Egremont	Karner Brook Watershed
Essex	Great Marsh
Falmouth	Waquoit Bay
Foxborough	Canoe River Aquifer
Gloucester	Great Marsh
Grafton	Miscoe-Warren-Whitehall Watersheds
Groton	Petapawag
	Squannassit
Harvard	Central Nashua River Valley
	Squannassit
Harwich	Pleasant Bay
Hingham	Weir River
	Weymouth Back River
Hinsdale	Hinsdale Flats Watershed
Holbrook	Cranberry Brook Watershed
Hopkinton	Miscoe-Warren-Whitehall Watersheds
	Cedar Swamp
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

TOWN	ACEC
Mt. Washington	Karner Brook Watershed
	Schenob Brook
Newbury	Great Marsh
Norton	Hockomock Swamp
	Canoe River Aquifer
	Three Mile River Watershed
Norwood	Fowl Meadow and Ponkapoag Bog
Orleans	Inner Cape Cod Bay
	Pleasant Bay
Pepperell	Petapawag
	Squannassit
Peru	Hinsdale Flats Watershed
Pittsfield	Upper Housatonic River
Plymouth	Herring River Watershed
	Ellisville Harbor
Quincy	Neponset River Estuary
Randolph	Fowl Meadow and Ponkapoag Bog
Raynham	Hockomock Swamp
Revere	Rumney Marshes
Rowley	Great Marsh
Sandwich	Sandy Neck Barrier Beach System
Saugus	Rumney Marshes
	Golden Hills
Sharon	Canoe River Aquifer
	Fowl Meadow and Ponkapoag Bog
Sheffield	Schenob Brook
Shirley	Squannassit
Stockbridge	Kampoosa Bog Drainage Basin
Taunton	Hockomock Swamp
	Canoe River Aquifer
	Three Mile River Watershed
Truro	Wellfleet Harbor
Townsend	Squannassit
Tyngsborough	Petapawag
Upton	Miscoe-Warren-Whitehall Watersheds
Wakefield	Golden Hills
Washington	Hinsdale Flats Watershed
	Upper Housatonic River
Wellfleet	Wellfleet Harbor
W Bridgewater	Hockomock Swamp
Westborough	Cedar Swamp
Westwood	Fowl Meadow and Ponkapoag Bog
Weymouth	Weymouth Back River
Winthrop	Rumney Marshes

.

Massachusetts Areas of Critical Environmental Concern (ACECs)



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

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

New England Field Office

Conserving the Nature of New England

Friday, November 18, 2011

ENDANGERED SPECIES
- Overview
- Consultation
- N.E. Listed Species
- Species Under Review
- Recovery Activities
- Habitat Conservation
- Images
- Biological Opinions

PARTNERS FOR FISH & WILDLIFE
- Overview
- Restoration Initiatives
- Species & Habitats of Special Concern
- Accomplishments
- How to Participate
- Habitat Restoration
- Links

ENVIRONMENTAL CONTAMINANTS
- Overview
- BTAG
- NRDAR
- Special Studies
- Oil Spills

FEDERAL ACTIVITIES
- Overview
- Federal Projects & Permits
- Wetland Permits
- FERC_ Hydropower Projects
- River Flow Protection
- Wind Energy Projects

OUTREACH
- NH Envirothon
- Kids Corner
- Let's Go Outside

Staff Directory

Our Location

HOME

BOOKMARK

Endangered Species

New England Listed Species

The following federally-listed species are protected in New England. This list includes links to species information on our National Fish and Wildlife Service website including current Federal Register documents, HCPs, Recovery Plans, Life History accounts.

Vertebrates

Mammals
Eastern Cougar -**Puma (=Felis) concolor couguar**
Gray Wolf -**Canis lupus**
Indiana Bat - **Myotis sodalis**
Canada Lynx - **Lynx canadensis**

Birds
Atlantic Coast Piping Plover - **Charadrius melodus**
Birds of North America Species Account ***Piping Plover***
Atlantic Coast piping plover website ***Piping Plover***
Roseate Tern – **Sterna dougallii dougallii**
Birds of North America Species Account ***Roseate Tern***

Reptiles
Bog Turtle - **Clemmys muhlenbergii**
Northern Redbelly Cooter (Plymouth redbelly turtle) **Pseudemys rubriventris bangsii**
Northern Redbelly Cooter 5-year Review*;(pdf size 1.6MB*) May 2007*

Fish
Atlantic Salmon - **Salmo salar** (Maine only)
Maine Atlantic Salmon Atlas

Invertebrates

Insects
American Burying Beetle - **Nicrophorus americanus**
Karner Blue Butterfly - **Lycaeides melissa samuelis**
Karner Blue Butterfly ***Fact sheet***
Northeastern Beach Tiger Beetle - **Cicindela dorsalis dorsalis**
Puritan Tiger Beetle - **Cicindela puritana**
Draft Puritan Tiger Beetle; *(pdf size 2.4MB*) 5-year Review*

Mussels
Dwarf Wedgemussel - ***Alasmidonta heterodon***
Dwarf Wedgemussel 5-Year Status Review 2007 *(pdf size 1.14MB*)*

Plants
Jesup 's Milkvetch - **Astragalus robbinsii var. jesupi**
Northeastern Bulrush - **Scirpus ancistrochaetus**
Sandplain Gerardia - **Agalinis acuta**
Small Whorled Pogonia - **Isotria medeoloides**
Seabeach Amaranth - **Amaranthus pumilus** (historic)
American Chaffseed - **Schwalbea americana** (historic)
Eastern Prairie Fringed Orchid - **Platanthera leucophaea** (Maine only)
Furbish's Lousewort - **Pedicularis furbishiae** (Maine only)

Candidate species and species recently delisted are identified below, including links for additional information regarding their status.

Candidate Species

The Service has recently completed a status assessment for the following species and determined that federally listing is "warranted, but precluded", i.e. the status of the species indicates that it should be listed but the listing is superceded by higher listing actions.

While there is currently no obligation for Federal Agencies to consult with us regarding these species, coordination is encouraged to avoid project delays that may occur as a result of the species becoming federally-listed during the planning or construction phases of a given project. In addition, the Service is interested in promoting conservation actions that may result in benefits to these species that will prevent the need to list it. Information regarding our **candidate conservation** program may help you decide if you would like to become involved.

- **New England Cottontail; Sylvilagus transitionalis**
- Red Knot **Calidris canutus rufa**; **Red Knot Fact Sheet**

Delisted Species

Bald Eagle - **Haliaeetus leucocephalus**
Bald Eagle Guidance

NCTC Eagle Cam

This Bald Eagle image is a link to a Service website that chronicles the activities of the eagle nest located on the grounds of the USFWS National Conservation Training Center near the Potomac River in Shepherdstown, West Virginia. The nest has been active for four seasons, fledging several juvenile bald eagles.

Files in PDF format will require Acrobat Reader to access the content. If you do not have a copy, please select the link [or click the image] to take you to the Adobe website where you can download a free copy. Get Adobe Acrobat Reader

Last updated: October 28, 2010

McPHAIL ASSOCIATES, INC

Geotechnical Engineers

ATTACHMENT E

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 Andover, Massachusetts. A review of the most recent National Register of Historical Places for Essex County, Massachusetts did not identify records or addresses of Historic Places that exist in the immediate vicinity of the subject site and/or outfall location. The nearest National Historic Place to the subject site is the Memorial Hall Library which is located approximately 280 feet to the southwest of the subject site. It is not anticipated that dewatering activities at the subject site will affect the Memorial Hall Library National Historic Place.

Based upon the above, the site considered criterion 2 pursuant to Appendix IV of the RGP.

McPHAIL ASSOCIATES, INC

Geotechnical Engineers

APPENDIX F

Best Management Practice Plan

A Notice of Intent for a Remediation General Permit (RGP) under the National Pollutant Discharge Elimination System (NPDES) has been submitted to the US Environmental Protection Agency (EPA) in anticipation of temporary construction dewatering planned to occur at 15 Elm Street located in Andover, Massachusetts. This Best Management Practices Plan (BMPP) has been prepared as an Appendix to the RGP and will be posted at the site during the time period that temporary construction dewatering is occurring at the site.

Water Treatment and Management

Construction dewatering effluent is anticipated to be pumped from localized sumps and trenches within the excavation and directly into a treatment system that will consist of a settling tank, bag filters and a granular activated carbon filtration. The effluent will then flow through any necessary treatment systems and discharge through hoses directly into the Shawsheen River via the Town of Andover storm drain system.

Discharge Monitoring and Compliance

Regular sampling and testing will be conducted at the influent to the system and the treated effluent as required by the RGP. This includes chemical testing required within days 1 and 3 of initial discharge and the monthly testing to be conducted through the end of the scheduled discharge.

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

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

Monthly monitoring reports will be compiled and maintained at the site

McPHAIL ASSOCIATES, INC

Geotechnical Engineers

System Maintenance

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

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

Miscellaneous Items

It is anticipated that the erosion control measures and the nature of the site will minimize potential runoff to or from the site. The project specifications also include requirements for erosion control. Site security for the treatment system will be covered within the overall site security plan.

No adverse affects on designated uses of surrounding surface water bodies is anticipated. The nearest surface water body is the Shawsheen River which is located 1,800 feet to the west of the subject site. Dewatering effluent will be pumped to a settling tank. Water within the settling tank will pumped through bag filters and a granular activated carbon filter in series prior to discharge to the storm drains.

Management of Treatment System Materials

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

Sediment from the tank used in the treatment system will be characterized and removed from the site to an appropriate receiving facility, in accordance with applicable laws and regulations. Bag filters and granular activated carbon filters will be disposed of as necessary.