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

CERTIFIED MAIL RETURN RECEIPT REQUESTED

JAN 15 2015

Mr. Dan Yu
Project Manager
900 Beacon Street Realty Trust
675 VFW Parkway # 128
Chestnut Hill, MA 02467

Re: Authorization to discharge under the Remediation General Permit (RGP) – MAG910000. 900 Beacon Street site located in Boston, MA 02215, Suffolk County; Authorization # MAG 910653

Dear Mr. Yu:

Based on the review of a Notice of Intent (NOI) submitted by McPhail Associates, LLC on behalf of 900 Beacon Street Realty Trust, for the site referenced above, the U.S. Environmental Protection Agency (EPA) hereby authorizes you, as the named Operator, to discharge in accordance with the provisions of the RGP at that site. Your authorization number is listed above.

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

Please note the enclosed checklist includes parameters you have marked "Believed Present". This checklist mirrors the limited number of pollutants reported present in the intake ground water analysis reported with this Notice of Intent. The permittee is required to report and request insertion of more parameters if these are detected above the RGP limits during the site clean-up.

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 50.2 for this site is within

a dilution range greater than fifty to one hundred (50- 100), established in the RGP. (See the RGP Appendix IV for Massachusetts facilities). Therefore, the limits for total chromium of 1,710 ug/L, nickel of 1,451 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 September 30, 2015. 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. Please be advised that your permit will expire on the expiration date indicated above and you may be required to reapply for a permit reissuance if the clean-up date exceeds the September 30, 2015 dead line.

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

Sincerely,

Thelma Murphy

Thelma Murphy, Chief
Storm Water and Construction
Permits Section

Enclosure

cc: Robert Kubit, MassDEP
Stephen Shea, BWSC
Harry J. Berlis, McPhail Associates LLC.

2010 Remediation General Permit
Summary of Monitoring Parameters[1]

NPDES Authorization Number:	**MAG910653**
Authorization Issued:	Month, 2015
Facility/Site Name:	900 Beacon Street Realty
Facility/Site Address:	900 Beacon Street, Boston, MA 02215
	Email address of owner: dan@leaniageventures.com
Legal Name of Operator:	900 Beacon Street Realty Trust
Operator contact name, title, and Address:	Mr. Dan Yu. Project Manager, Project Manager, address same as the owner.
	Email: same as the owner
Estimated date of the site's Completion:	September 30, 2015
Category and Sub-Category:	Contaminated Construction Dewatering. Subcategory B. Urban Fill Sites.
RGP Termination Date:	September 10, 2015
Receiving Water:	Charles 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#160.2/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 100 ug/L

	Metal parameter	Total Recoverable MA/Metal Limit H [10] = 50 mg/l CaCO3, Units = ug/l [(11/12)] Freshwater Limits	Minimum level=ML	
	39. Antimony	5.6	ML	10
	40. Arsenic **	10	ML	20
	41. Cadmium **	0.2	ML	10
√	42. Chromium III (trivalent) **	1,710	ML	15
	43. Chromium VI (hexavalent) **	11.4	ML	10
	44. Copper **	5.2	ML	15
	45. Lead **	1.3	ML	20
	46. Mercury **	0.9	ML	02
√	47. Nickel **	1,451	ML	20
	48. Selenium **	5	ML	20
	49. Silver	1.2	ML	10
	50. Zinc **	66.6	ML	15
√	51. Iron	5,000	ML	20

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

Footnotes:

[1] Although the maximum values for TRC are 11ug/l and 7.5 ug/l for freshwater, and saltwater respectively, the compliance limits are equal to the minimum level (ML) of the test method used as listed in Appendix VI (i.e., Method 330.5, 20 ug/l).
[2] Limits for cyanide are based on EPA's water quality criteria expressed as micrograms per liter. There is currently no EPA approved test method for free cyanide. Therefore, total cyanide must be reported.
[3] Although the maximum values for cyanide are 5.2 ug/l and 1.0 ug/l for freshwater and saltwater, respectively, the compliance limits are equal to the minimum level (ML) of the Method 335.4 as listed in Appendix VI (i.e., 10 ug/l).
[4] BTEX = sum of Benzene, Toluene, Ethylbenzene, and total Xylenes.
[5] Naphthalene can be reported as both a purgeable (VOC) and extractable (SVOC) organic compound. If both VOC and SVOC are analyzed, the highest value must be used unless the QC criteria for one of the analyses is not met. In such cases, the value from the analysis meeting the QC criteria must be used.
[6] The sum of individual phthalate compounds(not including the #34, Bis (2-Ethylhexyl) Phthalate . The compliance limits are equal to the minimum level (ML) of the test method used as listed in Appendix VI.
Total values calculated for reporting on NOIs and discharge monitoring reports shall be calculated by adding the measured concentration of each constituent. If the measurement of a constituent is less than the ML, the permittee shall use a value of zero for that constituent. For each test, the permittee shall also attach the raw data for each constituent to the discharge monitoring report, including the minimum level and minimum detection level for the analysis.
[7] Although the maximum value for the individual PAH compounds is 0.0038 ug/l, the compliance limits are equal to the minimum level (ML) of the test method used as listed in Appendix VI.
[8] In the November 2002 WQC, EPA has revised the definition of Total PCBs for aquatic life as total PCBs is the sum of all homologue, all isomer, all congener, or all "Aroclor 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, LLC

NOTICE OF INTENT FOR DISCHARGE UNDER MASSACHUSETTS REMEDIAL GENERAL PERMIT MAG910000

900 BEACON STREET

BOSTON MASSACHUSETTS

to

U.S. Environmental Protection Agency
and
Massachusetts Department of
Environmental Protection
and
Boston Water and Sewer Commission

December 10, 2014

Project No. 5635

McPHAIL ASSOCIATES, LLC

December 10, 2014

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: 900 Beacon Street; Boston, Massachusetts
Notice of Intent for Construction Dewatering Discharge Under Massachusetts
Remedial General Permit 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 approval from the U.S. Environmental Protection Agency (EPA) for the temporary discharge of groundwater into the Charles River via a storm drain system during construction at the above referenced site. Refer to **Figure 1** Project Location Plan for the general site locus.

These services were performed and this report was prepared in accordance with our proposal dated July 31, 2014 (Revised August 6, 2014) and the subsequent authorization of 900 Beacon Street Realty Trust. These services are subject to the limitations contained in **Appendix A**.

Existing Conditions

Fronting onto Beacon Street to the south, the subject site consists of an approximate 12,000 square-foot parcel of land bounded by 906 Beacon Street to the west, 896 Beacon Street to the east and a private way to the north.

The project site is currently improved by a one to two-story brick building with an approximate 4,200 square-foot footprint. The ground surface surrounding the existing building consists primarily of an asphalt paved parking surface which slopes gradually downward from south to north from about Elevation +17.5 along Beacon Street to about Elevation +16.5 along the private way to the north. The existing site conditions are indicated on Figure 2, entitled "Subsurface Exploration Plan".

Elevations indicated herein are in feet and referenced to the Boston City Base (BCB) datum.

Site and Regulatory History

Based on our review of readily available building permit records provided by the City of Boston on-line data base for building permits, it is understood that the site was undeveloped until about the early 1900's. The on-line records indicate a permit to demolish the existing building during the 1940's and the construction of a one-story building for use as a bank. During the 1970's, a request to change the occupancy type for restaurant use was applied for. The most recent use of the existing building located at 900 Beacon Street was as a restaurant.

The above referenced project site is not listed on the Massachusetts Department of Environmental Protection (MA DEP) agency's on-line data base of disposal sites.

Proposed Site Development

It is understood that the proposed development will include the complete demolition and removal of the existing restaurant building and foundations, followed by the construction of a 6-story mixed use building with one level of below grade parking.

The proposed below grade level is anticipated to extend about 11 feet below the existing ground surface, corresponding to about Elevation +5, however foundation excavation will extend to about Elevation +1.

The approximate plan limits of the below and above grade portions of the propose building are indicated on the enclosed **Figure 2**, entitled "Subsurface Exploration Plan".

Subsurface Explorations

On October 15, 2013 two (2) borings and two (2) test pit excavations were completed at the site as part of a subsurface exploration performed by McPhail. The borings were performed by Carr Dee Corp. of Medford, Massachusetts and the test pits were performed by Mattuchio Construction Corp. of Malden, Massachusetts both under contract to McPhail.

Approximate locations of the explorations are as indicated on the enclosed Subsurface Exploration Plan, **Figure 2.** Boring logs prepared by Carr Dee Corp. and test pit logs prepared by McPhail are provided in **Appendix B**.

The borings were performed utilizing the case and wash drilling technique and NW casing. The borings were advanced to a depth of about 32 feet below existing ground surface and were terminated within the marine clay deposit. Standard 2.0 inch O.D. split spoon samples and standard penetration tests were generally obtained at 5-foot intervals of depth. The split spoon sampling was performed in accordance with the standard procedures described in ASTM D1586. A groundwater observation well was installed within the completed borehole located at boring B-2 (OW).

The test pits were performed with the use of a Case rubber tire backhoe and were performed adjacent to the exterior face of the building foundations which abut the west and east sides of the subject site. The test pits were advanced to depths of about 9 and 10 feet below the existing ground surface and were terminated within a natural sand and gravel deposit.

The subsurface explorations were monitored by a representative of McPhail who performed field layout, prepared field logs, obtained and visually classified soil samples, monitored groundwater conditions within the completed borings, observation wells and test pits, made minor adjustments to the exploration locations, and determined the required exploration depths based upon the actual subsurface conditions encountered. Field locations of the subsurface explorations were determined by taping from existing site features identified on a 10-scale Existing Conditions drawing entitled, "900 Beacon Street Boston, MA", dated June 28, 2011 prepared by Donohoe and Parkhurst, Inc. of Topsfield, Massachusetts. The existing ground surface elevation at each exploration location was determined by a level survey performed by McPhail utilizing vertical control identified on the above referenced Existing Conditions Plan.

Subsurface Conditions

Following is a discussion of the generalized subsurface conditions across the project site which are inferred primarily from the borings and test pits but also from our knowledge of the geology of the local area.

The ground surface across the site consists of an approximate 2 to 6-inch thick layer of asphalt and/or concrete which is underlain by a fill layer that extends to depths ranging from about 8.5 to 12.5 feet below the existing ground surface. In general, the fill material was observed to consist of a loose to compact brown to dark brown gravelly sand with some silt containing variable amounts of ash, cinders, brick, metal and concrete.

The fill layer was observed to be underlain by a discontinuous organic deposit. The organic deposit was encountered in boring B-2 between the depths of about 8.5 to 10 feet below the existing ground surface and consists of a fibrous peat.

Underlying fill and/or organic deposit a natural sand and gravel deposit was encountered and was observed to vary from of a dense to very dense grey gravelly sand to sandy gravel with trace silt. The surface of the natural sand and gravel deposit was encountered at depths ranging from 8.5 to 12 feet below the existing ground surface, corresponding to elevations ranging from about Elevation +5.2 and Elevation +6.2. The natural sand and gravel deposit was penetrated in borings B-1 and B-2 at depths of about 21 to 18 feet below the existing ground surface, respectively.

The natural sand and gravel deposit was observed to be underlain by a natural marine clay deposit known locally as Boston Blue Clay. The surface of the marine clay deposit was encountered at depths ranging from about 19 to 21 feet below the existing ground surface, corresponding to Elevation -2.8 to Elevation -3.3. In general, the marine clay deposit was observed to vary from a firm to stiff yellow to blue/grey silt and clay with trace sand.

The borings were terminated within the marine clay deposit at a depth of about 32 feet below the existing ground surface. Although not penetrated within the boring explorations, the marine clay deposit is anticipated to be underlain by a glacial till deposit which is in-turn underlain by bedrock.

At the time of our subsurface investigation, groundwater was encountered within the borings at depths ranging from about 12 to 12.5 feet below the existing ground surface. Groundwater levels within the groundwater monitoring well installed within Boring B-2(OW) were observed to range from about Elevation +3.1 to Elevation +4.9. It is anticipated that future groundwater conditions across the site may vary from those reported herein due to factors such as normal seasonal changes, periods of heavy precipitation, and alterations to existing drainage patterns. Groundwater at the site is also anticipated to become periodically perched on the surface of the relatively impervious marine clay deposit. A groundwater monitoring report is contained in **Appendix C** following the text of this report.

Construction Dewatering

Based upon the observed groundwater levels at the site during our subsurface exploration program, construction dewatering will be necessary to remove groundwater when excavating for the building foundations. Based on the observed groundwater levels at the site, it is anticipated that dewatering up to about 4 feet below the observed groundwater level will be required for excavation and construction of the proposed building foundations.

It is estimated that the typical continuous groundwater discharge required during the initial stages of the excavation phase of construction will be on the order of 100 to 200 gallons per minute (GPM). A reduction in the rate of discharge is anticipated to occur as the discharge approaches steady state. 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.

Construction dewatering will require the discharge of collected groundwater into the storm drain system under the requested Remedial General Permit (RGP). A review of the above referenced existing conditions plan and the utility plans provided by the City of Boston Water and Sewer Department indicate that a 24-inch diameter storm drainage pipe is located within the existing private way situated to the north of the site and a 15-inch diameter storm drain pile is located to the south of the site within Beacon Street. These drainage pipes flow west and connect into an 84-inch by 89-inch combined drainage pipe which flows to the north along St. Mary's Street and ultimately discharges into the Charles River at the outfall location identified as CSO 010.

The locations of the proposed catch basin within Beacon Street and drainage manholes within the private alley at which the project site's dewatering system could potentially discharge into, the flow path, and the final outfall location are indicated on **Figures 2 and/or 3**.

Groundwater Treatment

In our opinion and based on the results of the chemical testing performed on the groundwater samples obtained from the project site on September 10, 2014 and December 3, 2014 which are summarized in **Appendix E** and **Table 1**, the treatment of groundwater across a majority of the subject site will require one 5,000-gallon settling tank and bag filters in series to remove particulate matter in the effluent to meet allowable total suspended solids (TSS) discharge limits established by the US EPA. Although groundwater has not been indicated to have been impacted by the applicable contaminates tested for in the preparation and submittal of this temporary dewatering application, construction activities may disturb soil that could impact the discharged groundwater. In the event that elevated levels of contaminates are suspected, such as an observable evidence of an oily sheen or odor in the groundwater, the applicable treatments measures such as the use of a granular activated carbon (GAC) filtration system would be incorporated into the discharge procedures, as necessary. A schematic of the treatment system is shown on **Figure 4**.

To document the effectiveness of the treatment system, samples of the discharge water will be obtained and tested for the presence of TSS prior to the start of discharge into the storm drain system. Should the pre-start up testing indicate that the TSS levels in the effluent exceed the limits established under the RGP, additional treatment of the effluent will be implemented prior to initial discharge. In addition, should other contaminants be suspected or detected within the discharge water during the construction dewatering phase of the project, 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 Charles River via the 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;

- EPA Notice of Intent Transmittal Form for and Boston Water and Sewer Permit Application (**Appendix D**);

- A summary of groundwater analysis and laboratory data (**Appendix E, Table 1**);
- A review of Areas of Critical Concern and Endangered and Threatened Species (**Appendix F**);
- A review of National Historic Places **(Appendix G)**; and
- Best Management Practice Plan (**Appendix H**).

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

Very truly yours,

McPHAIL ASSOCIATES, LLC

Harry J. Berlis

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

Enclosures

F:\WP5\REPORTS\5635-900 Beacon_RGP.wpd

HJB/ajd

FIGURE 1

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

N

SCALE 1:25,000

PROJECT LOCATION PLAN

900 BEACON STREET

BOSTON MASSACHUSETTS

FIGURE 2

TRUSTEES OF BOSTON UNIVERSITY

TRUSTEES OF BOSTON UNIVERSITY

TRUSTEES OF BOSTON UNIVERSITY

LOT 2 L.C. PLAN 8814 B

POTENTIAL DISCHARGE LOCATION FROM SITE DEWATERING SYSTEM

APPROXIMATE LIMITS OF SUBJECT SITE

BENCHMARK: CUT-SPIKE IN UTILITY POLE ELEV. = 17.85'

UTILITY LINES APPEAR TO GO UNDERGROUND FROM POLE TO LOCUS

BRICK BUILDING

24" DRAIN

CITY RECORDS INDICATE THAT THE 24" DRAIN CONNECTS WITH A COMBINED SEWER IN SAINT MARYS STREET

GRAVEL

I.R. (SET)

PRIVATE WAY

15' WIDE

(ALLEY # 920)

I.PIPE (FD.)

92.00'

N 69°32'34" E

45.24'

DMH

APPROXIMATE LIMITS OF BELOW-GRADE BUILDING FOOTPRINT L.L. SLAB EL. +5±

B-2 (OW)

PAVED

CB RIM: ELEV. 15.69' COVER SEALED FILLED WITH DEBRIS

CB RIM: ELEV. 13.91'

CONC. RETAINING WALL

DUMPSTERS

SHED

GAS METER & PIPING

CONC. FLOOR ELEV. 17.65'

15.26'

896 BEACON STREET TRUST

PLAN: BK. 2894 PG. 596

TP-2

TP-1

906 BEACON ST.

N 20°35'51" W

130.00'

896 BEACON ST.

S 20°35'59" E

BRICK BUILDING # 900 (RESTAURANT)

LOT AREA: 11,952 S.F.

APPROXIMATE LIMITS OF ABOVE-GRADE BUILDING FOOTPRINT

B-1

BRICK WALL

FIRE HOSE CONNECTION

BRICK PLANTER

BRICK BACK 0.29'

BRICK BACK 0.31'

R = 20.00'

D = 104.47°

S 69°32'34" W

PLANTINGS & LAWN

CB RIM: ELEV. 16.08'

CONC. CURB

GRAN. CURB

CONC. WALK

D.H. (SET)

SPK. (SET)

(N-STAR)

EMH

DMH RIM ELEV. 16.75'

GV PM

6" ◊ MAPLE

4" ◊ MAPLE

UTILITY BOX

HYD

24" ◊ MAPLE

GAS (NATIONAL GRID)

15" DRAIN

GRAN. DRAIN INLET ELEV. = 15.73'

CITY RECORDS INDICATE THAT A 12" WATER MAIN EXISTS IN BEACON STREET

CITY RECORDS INDICATE THAT A 24" SANITARY SEWER CONNECTS WITH A COMBINED SEWER IN BEACON STREET

BENCMARK: RIGHT (EAST) BOLT OVER MAIN OUTLET

BEACON (PUBLIC) STREET

PARK DRIVE (PUBLIC)

NORTH

LEGEND

— APPROXIMATE LOCATION OF TEST PIT PERFORMED BY MATTUCHIO CONSTRUCTION Co. ON OCTOBER 15, 2013 FOR McPHAIL ASSOCIATES, LLC

— APPROXIMATE LOCATION OF BORING PERFORMED BY CARR-DEE CORP. ON OCTOBER 15, 2013 FOR McPHAIL ASSOCIATES, LLC

(OW) — INDICATES OBSERVATION WELL INSTALLED WITHIN COMPLETED BOREHOLE

REFERENCE: THIS PLAN WAS PREPARED FROM A 10-SCALE DRAWING ENTITLED, "EXISTING CONDITIONS PLAN" DATED JUNE 28, 2011 PREPARED BY DONAHUE & PARKHURST, INC.

GRAPHIC SCALE

20 0 20 40

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

900 BEACON STREET

BOSTON MASSACHUSETTS

SUBSURFACE EXPLORATION PLAN

FOR

900 BEACON STREET REALTY TRUST

BY

McPHAIL ASSOCIATES, LLC

Date: DECEMBER 2014	Dwn: F.G.P.	Chkd: H.J.B.	Scale: 1" = 20'
Project No: 5635			

FILE NAME: H:\Acad\JOBS\5635\Dewatering Permit\5635-F02.dwg

FIGURE 3

MWRA CS0010 UN
FINAL DISCHARGE LOCATION INTO CHARLES RIVER

DRAIN MANHOLE POTENTIAL DISCHARGE LOCATION FROM SITE DEWATERING SYSTEM

CATCH BASIN POTENTIAL DISCHARGE LOCATION FROM SITE DEWATERING SYSTEM

REFERENCE: THIS PLAN WAS PREPARED FROM A 100-SCALE DRAWING ENTITLED "BOSTON WATER AND SEWER" PRINTED DECEMBER 4, 2014 BY BOSTON WATER SEWER COMMISSION.

GRAPHIC SCALE
200 0 200 400

FILE NAME: H:\Acad\JOBS\5635\Dewatering Permit\5635-F03.dwg

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

900 BEACON STREET
BOSTON MASSACHUSETTS

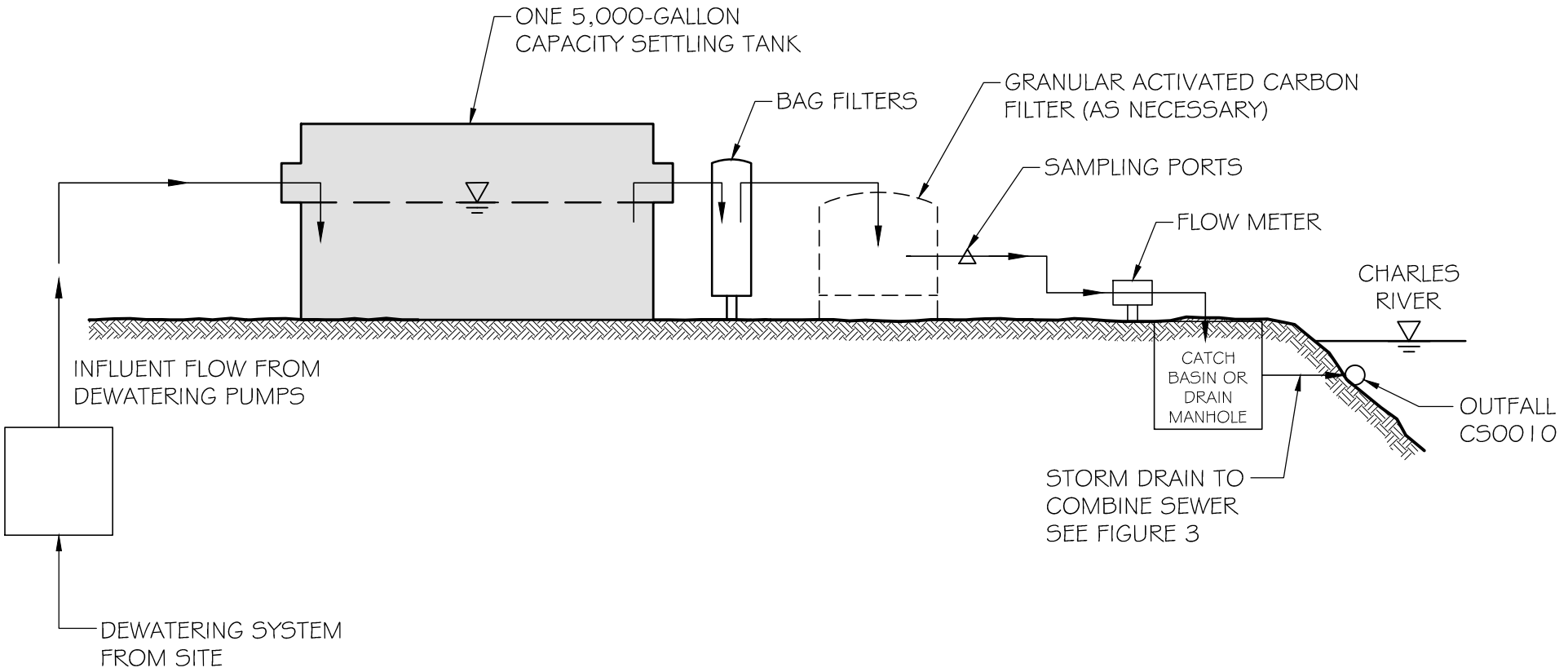
DISCHARGE LOCATION PLAN

FOR
900 BEACON STREET REALTY TRUST
BY
McPHAIL ASSOCIATES, LLC

Date: DECEMBER 2014	Dwn: F.G.P.	Chkd: H.J.B.	Scale: 1" = 20'
Project No: 5635			

FILE NAME: H:\Acad\JOBS\5635\Dewatering Permit\5635-F04.dwg

FIGURE 4



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

900 BEACON STREET

BOSTON MASSACHUSETTS

SCHEMATIC OF TREATMENT SYSTEM

FOR

900 BEACON STREET REALTY TRUST

BY

McPHAIL ASSOCIATES, LLC

CONSULTING GEOTECHNICAL ENGINEERS

Date: DECEMBER 2014	Dwn: F.G.P.	Chkd: H.J.B.	Scale: N.T.S.
Project No: 5635			

McPHAIL ASSOCIATES, LLC

APPENDIX A

LIMITATIONS

The purpose of this report is to present the results of testing of a groundwater sample obtained from a groundwater monitoring well located at 900 Beacon Street in Boston, Massachusetts, in support of an application for approval of temporary construction site dewatering discharge into surface waters of the Commonwealth of Massachusetts under the US 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 specific subsurface explorations that were performed become evident in the future, it may be necessary to re-evaluate the conclusions presented herein after performing on-site observations and noting the characteristics of any variations.

The conclusions submitted in this report are based in part upon analytical test data obtained from analysis of a groundwater sample 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.

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

This report and application have been prepared on behalf of and for the exclusive use of 900 Beacon Street Realty Trust. This report and the findings contained herein shall not, in whole or in part, be disseminated or conveyed to any other party except relevant governmental agencies associated with the subject permit application, nor used in whole or in part by any other party, without the prior written consent of McPhail Associates, LLC.

McPHAIL ASSOCIATES, LLC

APPENDIX B

Carr- Dee Corp.
Boring Logs
B-1(OW) and B-2(OW)

McPhail Associates, LLC
Test Pit Logs
TP-1 and TP-2

CARR-DEE CORP.

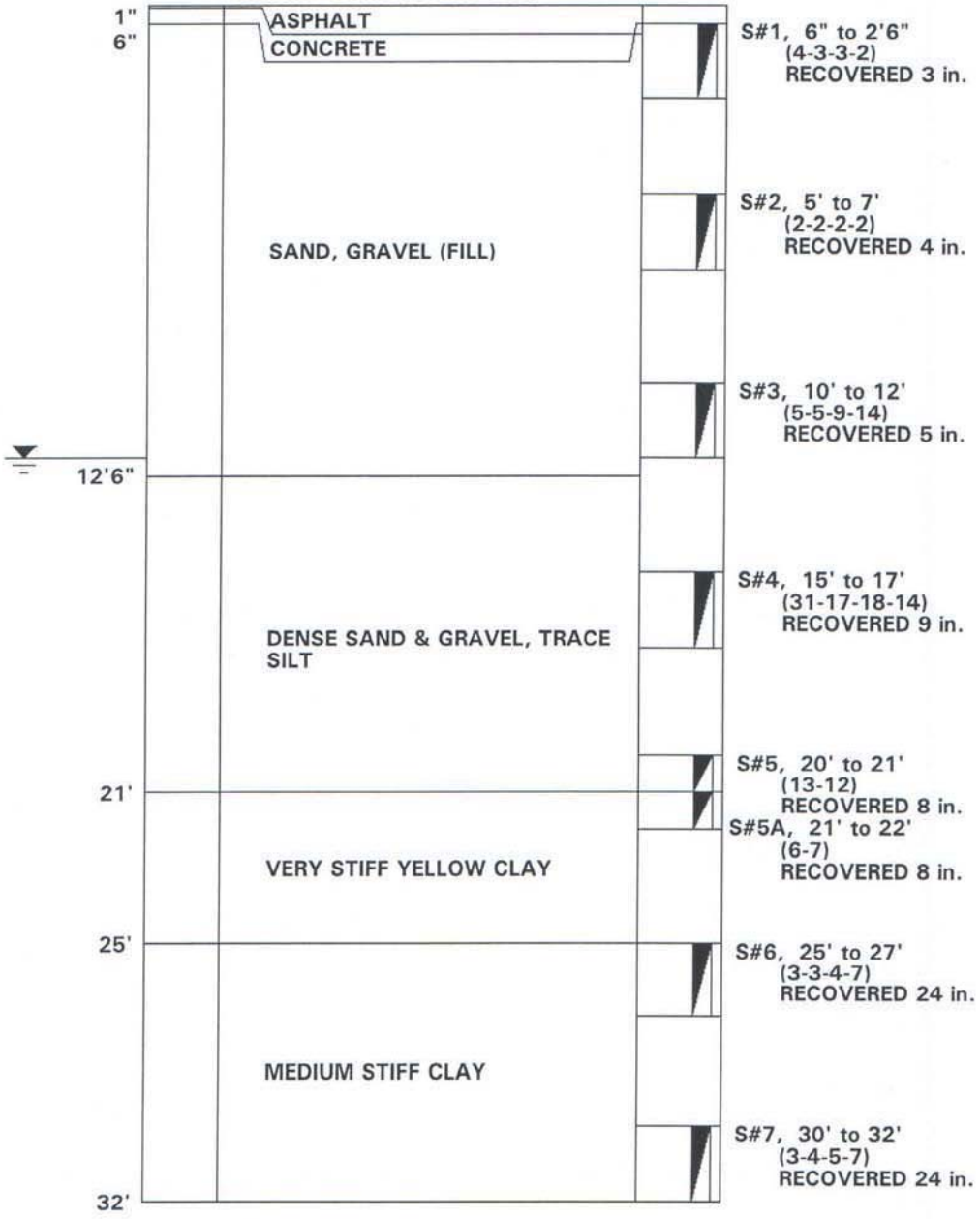
37 LINDEN STREET MEDFORD, MA 02155-0001 Telephone (781) 391-4500

To: MCPHAIL ASSOCIATES LLC, 2269 MASS. AVE., CAMBRIDGE, MA Date: 10-16-2013 Job No.: 2013-158

Location: 900 BEACON STREET, BOSTON, MA Scale: 1 in. = 5 ft.

BORING 1

GROUND SURFACE EL. +17.7



WATER LEVEL 12'
SIZE OF CASING: NW, LENGTH: 21'0"
DRILLER: S. DESIMONE, JR., INSPECTOR: B. CARLSON
DATE STARTED & COMPLETED: 10-15-2013

All samples have been visually classified by DRILLER. Unless otherwise specified, water levels noted were observed at completion of borings, and do not necessarily represent permanent ground water levels. Figures in parenthesis indicate the number of blows required to drive Two-inch Split Sampler 6 inches using 140 lb. weight falling 30 inches(±). Figures in column to left (if noted) indicate number of blows to drive casing one foot, using 300 lb. weight falling 24 inches (±).

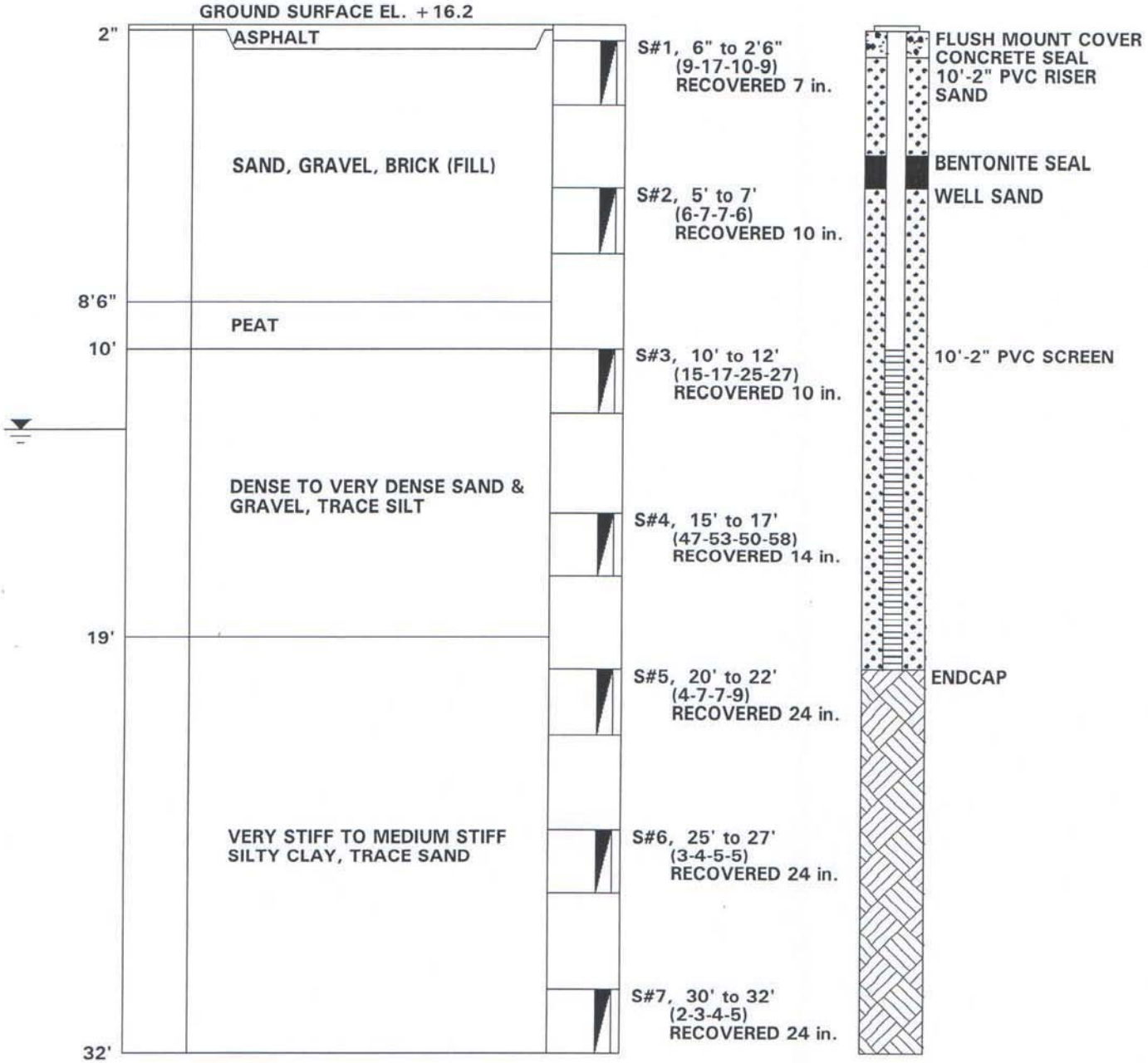
CARR-DEE CORP.

37 LINDEN STREET MEDFORD, MA 02155-0001 Telephone (781) 391-4500

To: MCPHAIL ASSOCIATES LLC, 2269 MASS. AVE., CAMBRIDGE, MA Date: 10-16-2013 Job No.: 2013-158

Location: 900 BEACON STREET, BOSTON, MA Scale: 1 in. = 5 ft.

BORING 2



WATER LEVEL 12'6"
SIZE OF CASING: NW, LENGTH: 20'0"
DRILLER: S. DESIMONE, JR., INSPECTOR: B. CARLSON
DATE STARTED & COMPLETED: 10-15-2013

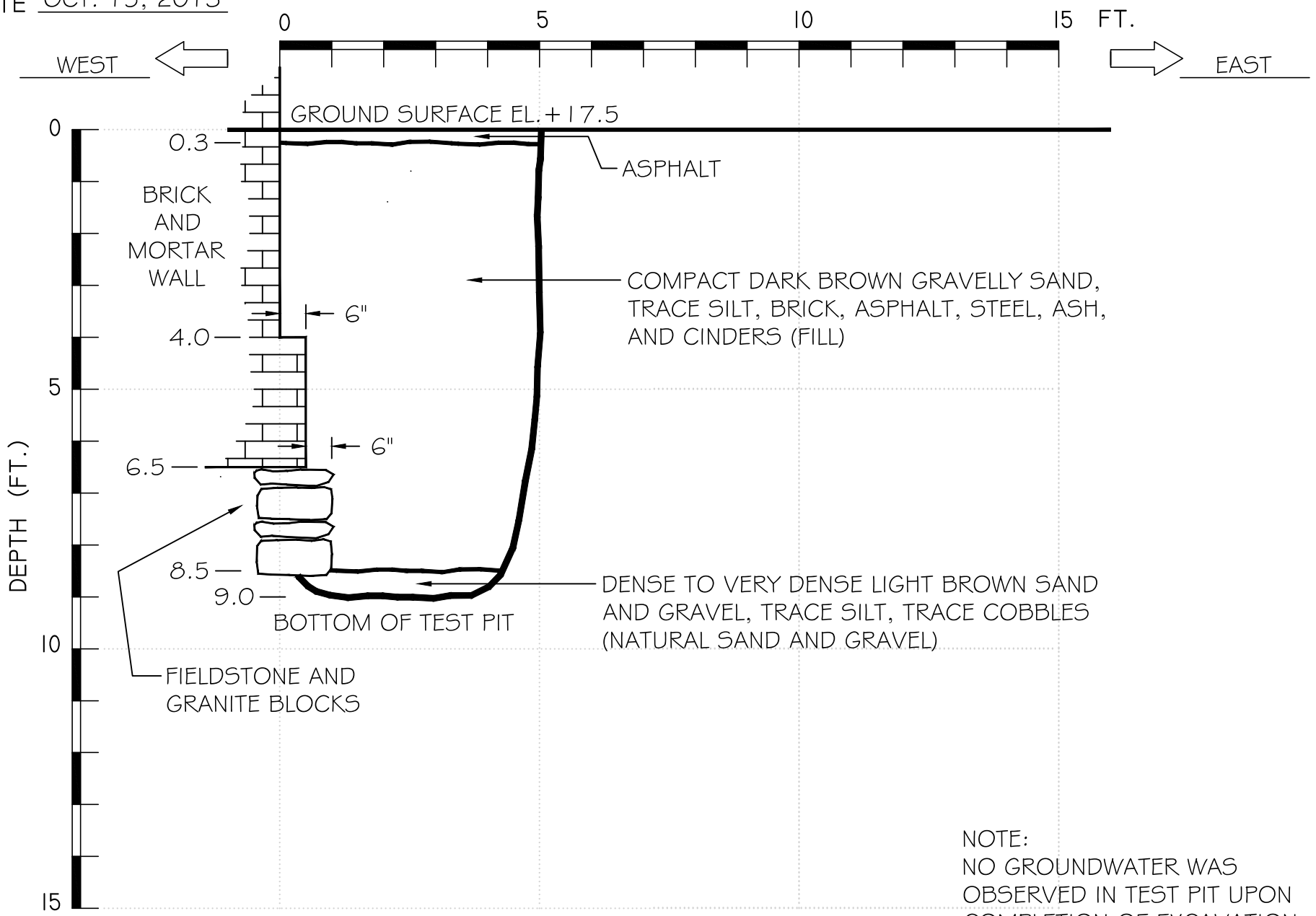
All samples have been visually classified by DRILLER. Unless otherwise specified, water levels noted were observed at completion of borings, and do not necessarily represent permanent ground water levels. Figures in parenthesis indicate the number of blows required to drive Two-inch Split Sampler 6 inches using 140 lb. weight falling 30 inches(±). Figures in column to left (if noted) indicate number of blows to drive casing one foot, using 300 lb. weight falling 24 inches (±).

JOB NO. 5635

DATE OCT. 15, 2013

TEST PIT LOG

TEST PIT NO. 1



NOTE:
NO GROUNDWATER WAS OBSERVED IN TEST PIT UPON COMPLETION OF EXCAVATION

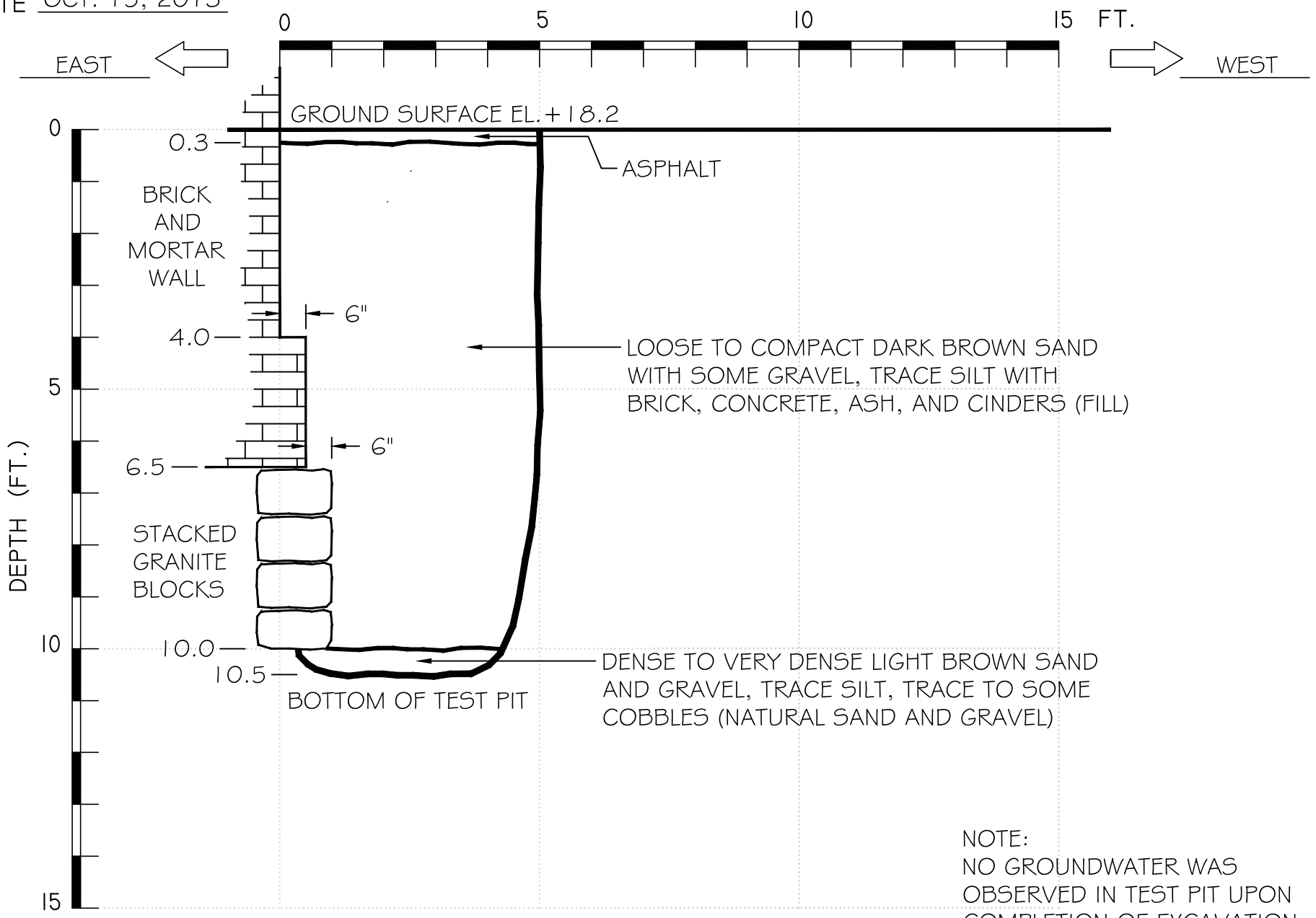
McPHAIL ASSOCIATES, LLC

JOB NO. 5635

DATE OCT. 15, 2013

TEST PIT LOG

TEST PIT NO. 2



McPHAIL ASSOCIATES, LLC

NOTE:
NO GROUNDWATER WAS OBSERVED IN TEST PIT UPON COMPLETION OF EXCAVATION

McPHAIL ASSOCIATES, LLC

APPENDIX C

McPhail Associates, LLC
Groundwater Monitoring Report

Boring
B-2(OW)

Groundwater Monitoring Report

900 Beacon Street
Boston, MA

Job No.: 5635

GROUNDWATER MONITORING REPORT						
OW Number: B-2(OW)		**Elevation Ground Surface : +16.2**		**Job No:** 5635 **Job Name:** 900 Beacon Street		
Date	**Time**	**Elapsed Time (Days)**	**Depth of Water from Ground Surface (Ft)**	**Elevation of Water**	**Remarks**	**Read By**
10/15/2013	3 pm	0	13.0	+3.2	Initial Reading/Well Purged	BC
10/16/2013	8 am	0.5	13.1	+3.1		BC
10/18/2013	11:30am	3	11.3	+4.9		SC
9/4/2014	3pm	324	11.0	+5.2		TMC
9/5/2014	3pm	325	11.0	+5.2	Well Purged	TMC
9/10/2014	9:00	330	11.2	+5.0	Well Sampled	MJG
12/8/2014	1:00pm	419	11.0	+5.0	Well Purged	JRM
12/10/2014	14:00	421	11.0	+5.0	Well Sampled	JRM

McPHAIL ASSOCIATES, LLC

McPHAIL ASSOCIATES, LLC

APPENDIX D

Notice of Intent Transmittal Form

and

Boston Water and Sewer Application

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**: 900 Beacons Street		**Facility/site** mailing address:		
Location of **facility/site**: longitude: -71.105711 latitude: 42.346825	Facility SIC code(s):	Street: 900 Beacon Street		
b) Name of **facility/site owner:** 900 Beacon Street Realty Trust		Town: Boston		
Email address of facility/site owner: dan@lineageventures.com		State: MA	Zip: 02215	County: Sufflolk
Telephone no. of facility/site **owner**: 617-780-8755				
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: 675 VFW Parkway #128				
Town: Chestnut Hill	State: MA	Zip: 02467	County: Middlesex	
c) Legal name of **operator**: 900 Beacon Street Realty Trust	**Operator** telephone no: 617-780-8755			
	Operator fax no.:	**Operator** email: dan@lineageventures.com		
Operator contact name and title: Mr. Dan Yu, Project Manager				
Address of **operator** (if different from owner):	Street:			
Town:	State:	Zip:	County:	

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

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

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

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

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

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 0.5 Is maximum flow a **design value**? Y ○ N ◉
Average flow (include units) 0.2 Is average flow a design value or estimate? Estimated

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

pt.1: lat	42.346825	long	-71.105711	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 Jan 1, 2015 end Sept. 30, 2015

d) Please attach a line drawing or flow schematic showing water flow through the facility including:
1. sources of intake water, 2. contributing flow from the operation, 3. treatment units, and 4. discharge points and receiving waters(s). 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	5.0 mg/l	31000	33.8		
2. Total Residual Chlorine (TRC)		☒	☐	1	grab	30,4500CL-D	0.02 mg/l	ND			
3. Total Petroleum Hydrocarbons (TPH)		☒	☐	1	grab	74, 1664A	4.0 mg/l	ND			
4. Cyanide (CN)	57125	☒	☐	1	grab	30,4500CN-CE	0.005 mg/l	ND			
5. Benzene (B)	71432	☒	☐	1	grab	8260C	0.5 ug/l	ND			
6. Toluene (T)	108883	☒	☐	1	grab	8260C	1 ug/l	ND			
7. Ethylbenzene (E)	100414	☒	☐	1	grab	8260C	1 ug/l	ND			
8. (m,p,o) Xylenes (X)	108883; 106423; 95476; 1330207	☒	☐	1	grab	8260C	1 ug/l	ND			
9. Total BTEX [2]	n/a	☒	☐	1	grab			ND			
10. Ethylene Dibromide (EDB) (1,2-Dibromoethane) [3]	106934	☒	☐	1	grab	8260C	2 ug/l	ND			
11. Methyl-tert-Butyl Ether (MtBE)	1634044	☒	☐	1	grab	8260C	2 ug/l	ND			
12. tert-Butyl Alcohol (TBA) (Tertiary-Butanol)	75650	☒	☐	1	grab	8260C	10 ug/l	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	8260C	2 ug/l	ND			
14. Naphthalene	91203	☒	☐	1	grab	8260C	0.2 ug/l	ND			
15. Carbon Tetrachloride	56235	☒	☐	1	grab	8260C	1 ug/l	ND			
16. 1,2 Dichlorobenzene (o-DCB)	95501	☒	☐	1	grab	8260C	2 ug/l	ND			
17. 1,3 Dichlorobenzene (m-DCB)	541731	☒	☐	1	grab	8260C	2 ug/l	ND			
18. 1,4 Dichlorobenzene (p-DCB)	106467	☒	☐	1	grab	8260C	2 ug/l	ND			
18a. Total dichlorobenzene		☒	☐	1	grab			ND			
19. 1,1 Dichloroethane (DCA)	75343	☒	☐	1	grab	8260C	1 ug/l	ND			
20. 1,2 Dichloroethane (DCA)	107062	☒	☐	1	grab	8260C	1 ug/l	ND			
21. 1,1 Dichloroethene (DCE)	75354	☒	☐	1	grab	8260C	1 ug/l	ND			
22. cis-1,2 Dichloroethene (DCE)	156592	☒	☐	1	grab	8260C	1 ug/l	ND			
23. Methylene Chloride	75092	☒	☐	1	grab	8260C	2 ug/l	ND			
24. Tetrachloroethene (PCE)	127184	☒	☐	1	grab	8260C	1 ug/l	ND			
25. 1,1,1 Trichloro-ethane (TCA)	71556	☒	☐	1	grab	8260C	1 ug/l	ND			
26. 1,1,2 Trichloro-ethane (TCA)	79005	☒	☐	1	grab	8260C	1 ug/l	ND			
27. Trichloroethene (TCE)	79016	☒	☐	1	grab	8260C	1 ug/l	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	8260C	1 ug/l	ND			
29. Acetone	67641	☒	☐	1	grab	8260C	5 ug/l	ND			
30. 1,4 Dioxane	123911	☒	☐	1	grab	8260C	250 ug/l	ND			
31. Total Phenols	108952	☒	☐		grab			ND			
32. Pentachlorophenol (PCP)	87865	☒	☐	1	grab	EPA 3510C	0.8 ug/l				
33. Total Phthalates (Phthalate esters) [4]		☒	☐	1	grab	EPA 3510C		ND			
34. Bis (2-Ethylhexyl) Phthalate [Di-(ethylhexyl) Phthalate]	117817	☒	☐	1	grab	EPA 3510C	3 ug/l	ND			
35. Total Group I Polycyclic Aromatic Hydrocarbons (PAH)		☒	☐	1	grab			ND			
a. Benzo(a) Anthracene	56553	☒	☐	1	grab	EPA 3510C	0.2 ug/l	ND			
b. Benzo(a) Pyrene	50328	☒	☐	1	grab	EPA 3510C	0.2 ug/l	ND			
c. Benzo(b)Fluoranthene	205992	☒	☐	1	grab	EPA 3510C	0.2 ug/l	ND			
d. Benzo(k)Fluoranthene	207089	☒	☐	1	grab	EPA 3510C	0.2 ug/l	ND			
e. Chrysene	21801	☒	☐	1	grab	EPA 3510C	0.2 ug/l	ND			
f. Dibenzo(a,h)anthracene	53703	☒	☐	1	grab	EPA 3510C	0.2 ug/l	ND			
g. Indeno(1,2,3-cd) Pyrene	193395	☒	☐	1	grab	EPA 3510C	0.2 ug/l	ND			
36. Total Group II Polycyclic Aromatic Hydrocarbons (PAH)		☒	☐		grab			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	EPA 3510C	0.2 ug/l	ND			
i. Acenaphthylene	208968	☒	☐	1	grab	EPA 3510C	0.2 ug/l	ND			
j. Anthracene	120127	☒	☐	1	grab	EPA 3510C	0.2 ug/l	ND			
k. Benzo(ghi) Perylene	191242	☒	☐	1	grab	EPA 3510C	0.2 ug/l	ND			
l. Fluoranthene	206440	☒	☐	1	grab	EPA 3510C	0.2 ug/l	ND			
m. Fluorene	86737	☒	☐	1	grab	EPA 3510C	0.2 ug/l	ND			
n. Naphthalene	91203	☒	☐	1	grab	EPA 3510C	0.2 ug/l	ND			
o. Phenanthrene	85018	☒	☐	1	grab	EPA 3510C	0.2 ug/l	ND			
p. Pyrene	129000	☒	☐	1	grab	EPA 3510C	0.2 ug/l	ND			
37. Total Polychlorinated Biphenyls (PCBs)	85687; 84742; 117840; 84662; 131113; 117817.	☒	☐	1	grab	EPA 608	0.250 ug/l	ND			
38. Chloride	16887006	☒	☐		grab						
39. Antimony	7440360	☒	☐	1	grab	EPA 3005A	0.0030 mg/l	ND			
40. Arsenic	7440382	☒	☐	1	grab	EPA 3005A	0.0005 mg/l	ND			
41. Cadmium	7440439	☒	☐	1	grab	EPA 3005A	0.0002 mg/l	ND			
42. Chromium III (trivalent)	16065831	☒	☐	1	grab	EPA 3005A					
43. Chromium VI (hexavalent)	18540299	☒	☐	1	grab	EPA 3005A					
44. Copper	7440508	☒	☐	1	grab	EPA 3005A	0.0020 mg/l	ND			
45. Lead	7439921	☒	☐	1	grab	EPA 3005A	0.0005 mg/l	ND			
46. Mercury	7439976	☒	☐	1	grab	EPA 7470A	0.002 mg/l	ND			
47. Nickel	7440020	☐	☒	1	grab	EPA 3005A	0.0005 mg/l	19.5 ug/l	0.02		
48. Selenium	7782492	☒	☐	1	grab	EPA 3005A	0.001 mg/l	ND			
49. Silver	7440224	☒	☐	1	grab	EPA 3005A	0.0005 mg/l	ND			
50. Zinc	7440666	☒	☐	1	grab	EPA 3005A	0.0050 mg/l	ND			
51. Iron	7439896	☐	☒	1	grab	EPA 3005A	0.05 mg/l	2900 ug/l	3.2		
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)
Total Chromium		☐	☒	1	grab	EPA 3005A	0.0010 mg/l	30 ug/l	0.03		
		☐	☐								

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: Iron DF: 48 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:

Sediment tank and/or bag filters 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 50 gpm Maximum flow rate of treatment system 200 gpm
Design flow rate of treatment system 500 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 the attached report for description of discharge pathway.

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 24.6 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)?
chlorophyll-a, combined biota/habitat bioassesements, DDT, dissolved oxygen, oil and grease, secchi disk transparency, nutruent /eutrophication, biological indicators, phosphorous, PCB in fish tissue.
Is there a final TMDL? Y ⊙ N ○ If yes, for which pollutant(s)? TMDL for pathogens and nutrients

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 the 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:	900 Beacon Street; Boston, MA
Operator signature:	
Printed Name &Title:	DAN YU. MGR
Date:	DEC. 10, 2014

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

DEWATERING DISCHARGE PERMIT APPLICATION

OWNER / AUTHORIZED APPLICANT PROVIDE INFORMATION HERE:

Company Name: 900 Beacon Street Realty Trust Address: 675 VFW Parkway #128, Chestnut Hill, MA 02467

Phone number: 617-780-8755 Fax number: _____

Contact person name: Mr. Dan Yu Title: Project Manager

Cell number: 617-780-8755 Email address: dan@lineageventures.com

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

Owner's Information (if different from above):

Owner of property being dewatered: _____

Owner's mailing address: _____ Phone number: _____

Location of Discharge & Proposed Treatment System(s):

Street number and name: 900 Beacon Street Neighborhood Audubon Circle

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

Describe Proposed Pre-Treatment System(s): settling tank and/or bag fileters in series. GAC system added if required

BWSC Outfall No. CSO010 Receiving Waters Charles River

Temporary Discharges (Provide Anticipated Dates of Discharge): From January 1, 2015 To Sept. 30, 2015

☐ Groundwater Remediation	☐ Tank Removal/Installation	☒ Foundation Excavation
☐ Utility/Manhole Pumping	☐ Test Pipe	☐ Trench Excavation
☐ Accumulated Surface Water	☐ Hydrogeologic Testing	☐ Other _____

Permanent Discharges

☐ Foundation Drainage	☐ Crawl Space/Footing Drain
☐ Accumulated Surface Water	☐ Non-contact/Uncontaminated Cooling
☐ Non-contact/Uncontaminated Process	☐ Other; _____

---

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

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

BWSC Use Only: Date Received _____ Comments: _____

McPHAIL ASSOCIATES, LLC

APPENDIX E

RESULTS OF RECENT GROUNDWATER ANALYSIS

On September 10, 2014 McPhail Associates, LLC obtained a sample of groundwater from on-site monitoring well B-2(OW) and submitted the sample for analytical testing for the presence of paramaters required under the EPA's Remediation General Permit (RGP) application, including pH, total suspended solids (TSS), total residual chlorine, total petroleum hydrocarbons (TPH), cyanide, volatile organic compounds (VOCs) including total benzene, toluene, ethylbenzene and xylenes (BTEX), poly-aromatic hydrocarbons (PAHs), total phenols, PCBs, and total recoverable metals.

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

1. **pH**: The tested samples exhibited a pH level of 6.5 Standard Units (S.U.) which is within the recommended range of 6.5 to 8.3 S.U. for discharge into freshwater.

2. **TSS**: Laboratory testing indicated a concentration of 31,000 micrograms per liter (ug/l) of TSS, which is slightly above the upper limit of 30000 ug/l established by the EPA for discharge into surface water. Therefore, groundwater will be pre-treated by passing the water through sediment tanks and/or bag filters prior to discharge in order to reduce the concentration of TSS in the effluent.

3. **VOC, TPH, PAH, PCB, Total Residual Chlorine, Total Cyanide and Total Phenolics**: Laboratory analysis of the groundwater samples did not indicate concentrations of VOC, TPH, PAH, PCB, Total Residual Chlorine, Total Cyanide and Total Phenolics above the applicable laboratory method detection limits, which are below the applicable limits established by the EPA for discharge into surface water.

4. **Total Metals**: Laboratory analysis of the groundwater samples did not indicate concentrations of antimony, arsenic, cadmium, copper, lead, mercury, selenium, silver, and zinc above the applicable laboratory method detection limit, which are below the applicable limits established by the EPA for discharge into surface water or were detected below the applicable maximum RGP concentration limit.

   Iron was detected in the groundwater sample obtained from boring B-2(OW) on September 10, 2014 at concentrations of 2,900 ug/l, which is above the applicable discharge EPA discharge limits of 1,000 ug/l for Iron. However, when the applicable dilution factor (DF) is applied, the detected concentration level of iron is below the adjusted maximum allowable maximum concentration limit of 5,000 ug/l for Iron.

McPHAIL ASSOCIATES, LLC

APPENDIX E
(Continued)
RESULTS OF RECENT GROUNDWATER ANALYSIS

Total Chromium was detected in the water sample obtained on September 10, 2014 at a concentration level of 30 ug/l which is above the applicable RGP limit for Chromium VI. It is noted that the sample obtained on September 10, 2014 consisted of a non-filtered water sample. Therefore, a December 3, 2014 a subsequent water sample was obtained for chemical testing for the presence of Chromium VI. The sample obtained on December 3, 2014 was field filtered. The results of the chemical testing performed on the sampled obtained on December 3, 2014 indicated that Total Chromium, Chromium III and Chromium VI, were not detected at concentrations above the applicable laboratory method detection limit, which are below the applicable limits established by the EPA for discharge into surface water. Therefore, the elevated levels of Total Chromium are considered attributable to particulate mater (TSS) that were present in the water sample obtained on September 10, 2014.

TABLE 1
Summary Table
Chemcial Testing Groundwater
900 Becaon Street
Boston, MA
Job No. 5635.2.DA

	LOCATION			B-2 (OW) 9/10/14	B-2 (OW) 12/3/14
	SAMPLING DATE			9/10/2014	12/3/2014
	LAB SAMPLE ID			L1420746-01	L1429022
	SAMPLE TYPE			GRAB	GRAB
	SAMPLE DEPTH (ft.)				
		RGP LIMIT W/O DF - With DF	Units		
1	Solids, Total Suspended	30,000	ug/l	**31,000**	
	pH (H)	6.5-8.3	SU	6.5	
2	Chlorine, Total Residual	11	ug/l	ND(20)	
3	TPH	5000	ug/l	ND(4000)	
4	Cyanide, Total	5.2	ug/l	ND(5)	
5	Benzene	5	ug/l	ND(0.5)	
6	Toluene	Total BTEX	ug/l	ND(1)	
7	Ethylbenzene	Total BTEX	ug/l	ND(1)	
	p/m-Xylene	Total BTEX	ug/l	ND(2)	
	o-Xylene	Total BTEX	ug/l	ND(1)	
8	Xylene (Total)	Total BTEX	ug/l	ND(1)	
9	Total BTEX	100	ug/l	ND	
10	1,2-Dibromoethane	0.05	ug/l	ND(2)	
11	Methyl tert butyl ether	70	ug/l	ND(2)	
12	Tert-Butyl Alcohol	Monitor Only	ug/l	ND(10)	
13	Tertiary-Amyl Methyl Ether	Monitor Only	ug/l	ND(2)	
14	Naphthalene	20	ug/l	ND(0.2)	
15	Carbon tetrachloride	4.4	ug/l	ND(1)	
16	1,2-Dichlorobenzene	600	ug/l	ND(2)	
17	1,3-Dichlorobenzene	320	ug/l	ND(2)	
18	1,4-Dichlorobenzene	5	ug/l	ND(2)	
19	1,1-Dichloroethane	70	ug/l	ND(1)	
20	1,2-Dichloroethane	5	ug/l	ND(1)	
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(2)	
24	Tetrachloroethene	5	ug/l	ND(1)	
25	1,1,1-Trichloroethane	200	ug/l	ND(1)	
26	1,1,2-Trichloroethane	5	ug/l	ND(1)	
27	Trichloroethene	5	ug/l	ND(1)	
28	Vinyl chloride	2	ug/l	ND(1)	
29	Acetone	Monitor Only	ug/l	ND(5)	
30	1,4-Dioxane	Monitor Only	ug/l	ND(250)	
31	Total Phenolics	300	ug/l	ND	
32	Pentachlorophenol	1	ug/l	ND(0.8)	
33	Total Phthalates	3	ug/l	ND	
a	Butyl benzyl phthalate	Total Phthalates	ug/l	ND(5)	
b	Di-n-butylphthalate	Total Phthalates	ug/l	ND(5)	
c	Diethyl phthalate	Total Phthalates	ug/l	ND(5)	
d	Dimethyl phthalate	Total Phthalates	ug/l	ND(5)	
e	Di-n-octylphthalate	Total Phthalates	ug/l	ND(5)	
34	Bis(2-ethylhexyl)phthalate	6	ug/l	ND(3)	
35	Total Group I PAHs	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 PAHs	100	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	
38	Chloride	Monitor Only	ug/l		
39	Antimony, Total	5.6	ug/l	ND(3)	
40	Arsenic, Total	10	ug/l	ND(0.5)	
	Beryllium, Total			ND(0.5)	
41	Cadmium, Total	0.2	ug/l	ND(0.2)	
42	Chromium, Trivalent	48.8	ug/l		ND(10)
43	Chromium, Hexavanlent	11.4 - 114	ug/l		ND(10)
	Chromium, Total		ug/l	30	ND(10)
44	Copper, Total	5.2	ug/l	ND(2)	
45	Lead, Total	1.3	ug/l	ND(0.5)	
46	Mercury, Total	0.9	ug/l	ND(0.2)	
47	Nickel, Total	29	ug/l	19.5	
48	Selenium, Total	5	ug/l	ND(1)	
49	Silver, Total	1.2	ug/l	ND(0.5)	
50	Zinc, Total	66.6	ug/l	ND(5)	
51	Iron, Total	1000 - 5000	ug/l	2900	

W/O - With out
DF - Dilution Factor
[ ] - Not Tested
ND(2) - Not detected. Lab detection limit in ( ).
BOLD - Detected above the applicable RGP Limit

ANALYTICAL REPORT

Lab Number:	L1420746
Client:	McPhail Associates 2269 Massachusetts Avenue Cambridge, MA 02140
ATTN:	Ambrose Donovan
Phone:	(617) 868-1420
Project Name:	900 BEACON ST
Project Number:	5635.2.DA
Report Date:	09/16/14

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: 900 BEACON ST
Project Number: 5635.2.DA

Lab Number: L1420746
Report Date: 09/16/14

Alpha Sample ID	Client ID	Matrix	Sample Location	Collection Date/Time	Receive Date
L1420746-01	B-2 (OW) 9/10/14	WATER	BOSTON, MA	09/10/14 09:00	09/10/14

Project Name:	900 BEACON ST	**Lab Number:**	L1420746
Project Number:	5635.2.DA	**Report Date:**	09/16/14

MADEP MCP Response Action Analytical Report Certification

This form provides certifications for all samples performed by MCP methods. Please refer to the Sample Results and Container Information sections of this report for specification of MCP methods used for each analysis. The following questions pertain only to MCP Analytical Methods.

An affirmative response to questions A through F is required for "Presumptive Certainty" status		
A	Were all samples received in a condition consistent with those described on the Chain-of-Custody, properly preserved (including temperature) in the field or laboratory, and prepared/analyzed within method holding times?	YES
B	Were the analytical method(s) and all associated QC requirements specified in the selected CAM protocol(s) followed?	NO
C	Were all required corrective actions and analytical response actions specified in the selected CAM protocol(s) implemented for all identified performance standard non-conformances?	YES
D	Does the laboratory report comply with all the reporting requirements specified in CAM VII A, "Quality Assurance and Quality Control Guidelines for the Acquisition and Reporting of Analytical Data?"	YES
E a.	VPH, EPH, and APH Methods only: Was each method conducted without significant modification(s)? (Refer to the individual method(s) for a list of significant modifications).	N/A
E b.	APH and TO-15 Methods only: Was the complete analyte list reported for each method?	N/A
F	Were all applicable CAM protocol QC and performance standard non-conformances identified and evaluated in a laboratory narrative (including all "No" responses to Questions A through E)?	YES

A response to questions G, H and I is required for "Presumptive Certainty" status		
G	Were the reporting limits at or below all CAM reporting limits specified in the selected CAM protocol(s)?	YES
H	Were all QC performance standards specified in the CAM protocol(s) achieved?	NO
I	Were results reported for the complete analyte list specified in the selected CAM protocol(s)?	NO

For any questions answered "No", please refer to the case narrative section on the following page(s).

Please note that sample matrix information is located in the Sample Results section of this report.

Project Name: 900 BEACON ST
Project Number: 5635.2.DA

Lab Number: L1420746
Report Date: 09/16/14

Case Narrative

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

Results contained within this report relate only to the samples submitted under this Alpha Lab Number and meet all of the requirements of NELAC, for all NELAC accredited parameters. The data presented in this report is organized by parameter (i.e. VOC, SVOC, etc.). Sample specific Quality Control data (i.e. Surrogate Spike Recovery) is reported at the end of the target analyte list for each individual sample, followed by the Laboratory Batch Quality Control at the end of each parameter. If a sample was re-analyzed or re-extracted due to a required quality control corrective action and if both sets of data are reported, the Laboratory ID of the re-analysis or re-extraction is designated with an "R" or "RE", respectively. When multiple Batch Quality Control elements are reported (e.g. more than one LCS), the associated samples for each element are noted in the grey shaded header line of each data table. Any Laboratory Batch, Sample Specific % recovery or RPD value that is outside the listed Acceptance Criteria is bolded in the report. All specific QC information is also incorporated in the Data Usability format of our Data Merger tool where it can be reviewed along with any associated usability implications. Soil/sediments, solids and tissues are reported on a dry weight basis unless otherwise noted. Definitions of all data qualifiers and acronyms used in this report are provided in the Glossary located at the back of the report.

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

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

HOLD POLICY
For samples submitted on hold, Alpha's policy is to hold samples (with the exception of Air canisters) free of charge for 21 calendar days from the date the project is completed. After 21 calendar days, we will dispose of all samples submitted including those put on hold unless you have contacted your Client Service Representative and made arrangements for Alpha to continue to hold the samples. Air canisters will be disposed after 3 business days from the date the project is completed.

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

Project Name:	900 BEACON ST	**Lab Number:**	L1420746
Project Number:	5635.2.DA	**Report Date:**	09/16/14

Case Narrative (continued)

MCP Related Narratives

Volatile Organics

In reference to question H:

The initial calibration, associated with L1420746-01, did not meet the method required minimum response factor on the lowest calibration standard for 1,4-dioxane (0.00359) and tert butyl alcohol (0.03319), as well as the average response factor for 1,4-dioxane and tert-butyl alcohol. In addition, a quadratic fit was utilized for acetone.

The continuing calibration standard, associated with L1420746-01, is outside the acceptance criteria for several compounds; however, it is within overall method allowances. A copy of the continuing calibration standard is included as an addendum to this report.

PCBs

In reference to question B:

At the client's request, the analytical method specified in the CAM protocol was not followed.

In reference to question I:

All samples were analyzed for a subset of MCP compounds per the Chain of Custody.

Metals

In reference to question I:

All samples were analyzed for a subset of MCP elements per the Chain of Custody.

Cyanide, Total

In reference to question B:

At the client's request, the analytical method specified in the CAM protocol was not followed.

In reference to question H:

WG721401: A laboratory duplicate was prepared with the sample batch, however, due to possible contamination, the duplicate result could not be reported.

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: Cristin Walker

Title: Technical Director/Representative Date: 09/16/14

ORGANICS

VOLATILES

Project Name: 900 BEACON ST
Project Number: 5635.2.DA
Lab Number: L1420746
Report Date: 09/16/14

SAMPLE RESULTS

Lab ID: L1420746-01
Client ID: B-2 (OW) 9/10/14
Sample Location: BOSTON, MA
Matrix: Water
Analytical Method: 97,8260C
Analytical Date: 09/15/14 09:42
Analyst: MM

Date Collected: 09/10/14 09:00
Date Received: 09/10/14
Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
MCP Volatile Organics - Westborough Lab						
Methylene chloride	ND		ug/l	2.0	--	1
1,1-Dichloroethane	ND		ug/l	1.0	--	1
Chloroform	ND		ug/l	1.0	--	1
Carbon tetrachloride	ND		ug/l	1.0	--	1
1,2-Dichloropropane	ND		ug/l	1.0	--	1
Dibromochloromethane	ND		ug/l	1.0	--	1
1,1,2-Trichloroethane	ND		ug/l	1.0	--	1
Tetrachloroethene	ND		ug/l	1.0	--	1
Chlorobenzene	ND		ug/l	1.0	--	1
Trichlorofluoromethane	ND		ug/l	2.0	--	1
1,2-Dichloroethane	ND		ug/l	1.0	--	1
1,1,1-Trichloroethane	ND		ug/l	1.0	--	1
Bromodichloromethane	ND		ug/l	1.0	--	1
trans-1,3-Dichloropropene	ND		ug/l	0.50	--	1
cis-1,3-Dichloropropene	ND		ug/l	0.50	--	1
1,3-Dichloropropene, Total	ND		ug/l	0.50	--	1
1,1-Dichloropropene	ND		ug/l	2.0	--	1
Bromoform	ND		ug/l	2.0	--	1
1,1,2,2-Tetrachloroethane	ND		ug/l	1.0	--	1
Benzene	ND		ug/l	0.50	--	1
Toluene	ND		ug/l	1.0	--	1
Ethylbenzene	ND		ug/l	1.0	--	1
Chloromethane	ND		ug/l	2.0	--	1
Bromomethane	ND		ug/l	2.0	--	1
Vinyl chloride	ND		ug/l	1.0	--	1
Chloroethane	ND		ug/l	2.0	--	1
1,1-Dichloroethene	ND		ug/l	1.0	--	1
trans-1,2-Dichloroethene	ND		ug/l	1.0	--	1
Trichloroethene	ND		ug/l	1.0	--	1
1,2-Dichlorobenzene	ND		ug/l	1.0	--	1

Project Name: 900 BEACON ST **Lab Number:** L1420746

Project Number: 5635.2.DA **Report Date:** 09/16/14

SAMPLE RESULTS

Lab ID: L1420746-01 Date Collected: 09/10/14 09:00

Client ID: B-2 (OW) 9/10/14 Date Received: 09/10/14

Sample Location: BOSTON, MA Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
MCP Volatile Organics - Westborough Lab						
1,3-Dichlorobenzene	ND		ug/l	1.0	--	1
1,4-Dichlorobenzene	ND		ug/l	1.0	--	1
Methyl tert butyl ether	ND		ug/l	2.0	--	1
p/m-Xylene	ND		ug/l	2.0	--	1
o-Xylene	ND		ug/l	1.0	--	1
Xylene (Total)	ND		ug/l	1.0	--	1
cis-1,2-Dichloroethene	ND		ug/l	1.0	--	1
1,2-Dichloroethene (total)	ND		ug/l	1.0	--	1
Dibromomethane	ND		ug/l	2.0	--	1
1,2,3-Trichloropropane	ND		ug/l	2.0	--	1
Styrene	ND		ug/l	1.0	--	1
Dichlorodifluoromethane	ND		ug/l	2.0	--	1
Acetone	ND		ug/l	5.0	--	1
Carbon disulfide	ND		ug/l	2.0	--	1
2-Butanone	ND		ug/l	5.0	--	1
4-Methyl-2-pentanone	ND		ug/l	5.0	--	1
2-Hexanone	ND		ug/l	5.0	--	1
Bromochloromethane	ND		ug/l	2.0	--	1
Tetrahydrofuran	ND		ug/l	2.0	--	1
2,2-Dichloropropane	ND		ug/l	2.0	--	1
1,2-Dibromoethane	ND		ug/l	2.0	--	1
1,3-Dichloropropane	ND		ug/l	2.0	--	1
1,1,1,2-Tetrachloroethane	ND		ug/l	1.0	--	1
Bromobenzene	ND		ug/l	2.0	--	1
n-Butylbenzene	ND		ug/l	2.0	--	1
sec-Butylbenzene	ND		ug/l	2.0	--	1
tert-Butylbenzene	ND		ug/l	2.0	--	1
o-Chlorotoluene	ND		ug/l	2.0	--	1
p-Chlorotoluene	ND		ug/l	2.0	--	1
1,2-Dibromo-3-chloropropane	ND		ug/l	2.0	--	1
Hexachlorobutadiene	ND		ug/l	0.60	--	1
Isopropylbenzene	ND		ug/l	2.0	--	1
p-Isopropyltoluene	ND		ug/l	2.0	--	1
Naphthalene	ND		ug/l	2.0	--	1
n-Propylbenzene	ND		ug/l	2.0	--	1
1,2,3-Trichlorobenzene	ND		ug/l	2.0	--	1
1,2,4-Trichlorobenzene	ND		ug/l	2.0	--	1
1,3,5-Trimethylbenzene	ND		ug/l	2.0	--	1
1,2,4-Trimethylbenzene	ND		ug/l	2.0	--	1

Project Name: 900 BEACON ST
Project Number: 5635.2.DA
Lab Number: L1420746
Report Date: 09/16/14

SAMPLE RESULTS

Lab ID: L1420746-01
Client ID: B-2 (OW) 9/10/14
Sample Location: BOSTON, MA
Date Collected: 09/10/14 09:00
Date Received: 09/10/14
Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
MCP Volatile Organics - Westborough Lab						
Ethyl ether	ND		ug/l	2.0	--	1
Isopropyl Ether	ND		ug/l	2.0	--	1
Ethyl-Tert-Butyl-Ether	ND		ug/l	2.0	--	1
Tertiary-Amyl Methyl Ether	ND		ug/l	2.0	--	1
1,4-Dioxane	ND		ug/l	250	--	1
tert-Butyl Alcohol	ND		ug/l	10	--	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	113		70-130
Toluene-d8	98		70-130
4-Bromofluorobenzene	104		70-130
Dibromofluoromethane	116		70-130

Project Name: 900 BEACON ST
Project Number: 5635.2.DA

Lab Number: L1420746
Report Date: 09/16/14

Method Blank Analysis
Batch Quality Control

Analytical Method: 97,8260C
Analytical Date: 09/15/14 06:59
Analyst: MM

Parameter	Result	Qualifier	Units	RL	MDL
MCP Volatile Organics - Westborough Lab for sample(s): 01 Batch: WG722267-3					
Methylene chloride	ND		ug/l	2.0	--
1,1-Dichloroethane	ND		ug/l	1.0	--
Chloroform	ND		ug/l	1.0	--
Carbon tetrachloride	ND		ug/l	1.0	--
1,2-Dichloropropane	ND		ug/l	1.0	--
Dibromochloromethane	ND		ug/l	1.0	--
1,1,2-Trichloroethane	ND		ug/l	1.0	--
Tetrachloroethene	ND		ug/l	1.0	--
Chlorobenzene	ND		ug/l	1.0	--
Trichlorofluoromethane	ND		ug/l	2.0	--
1,2-Dichloroethane	ND		ug/l	1.0	--
1,1,1-Trichloroethane	ND		ug/l	1.0	--
Bromodichloromethane	ND		ug/l	1.0	--
trans-1,3-Dichloropropene	ND		ug/l	0.50	--
cis-1,3-Dichloropropene	ND		ug/l	0.50	--
1,3-Dichloropropene, Total	ND		ug/l	0.50	--
1,1-Dichloropropene	ND		ug/l	2.0	--
Bromoform	ND		ug/l	2.0	--
1,1,2,2-Tetrachloroethane	ND		ug/l	1.0	--
Benzene	ND		ug/l	0.50	--
Toluene	ND		ug/l	1.0	--
Ethylbenzene	ND		ug/l	1.0	--
Chloromethane	ND		ug/l	2.0	--
Bromomethane	ND		ug/l	2.0	--
Vinyl chloride	ND		ug/l	1.0	--
Chloroethane	ND		ug/l	2.0	--
1,1-Dichloroethene	ND		ug/l	1.0	--
trans-1,2-Dichloroethene	ND		ug/l	1.0	--
Trichloroethene	ND		ug/l	1.0	--

Project Name: 900 BEACON ST
Project Number: 5635.2.DA

Lab Number: L1420746
Report Date: 09/16/14

Method Blank Analysis
Batch Quality Control

Analytical Method: 97,8260C
Analytical Date: 09/15/14 06:59
Analyst: MM

Parameter	Result	Qualifier	Units	RL	MDL
MCP Volatile Organics - Westborough Lab for sample(s): 01 Batch: WG722267-3					
1,2-Dichlorobenzene	ND		ug/l	1.0	--
1,3-Dichlorobenzene	ND		ug/l	1.0	--
1,4-Dichlorobenzene	ND		ug/l	1.0	--
Methyl tert butyl ether	ND		ug/l	2.0	--
p/m-Xylene	ND		ug/l	2.0	--
o-Xylene	ND		ug/l	1.0	--
Xylene (Total)	ND		ug/l	1.0	--
cis-1,2-Dichloroethene	ND		ug/l	1.0	--
1,2-Dichloroethene (total)	ND		ug/l	1.0	--
Dibromomethane	ND		ug/l	2.0	--
1,2,3-Trichloropropane	ND		ug/l	2.0	--
Styrene	ND		ug/l	1.0	--
Dichlorodifluoromethane	ND		ug/l	2.0	--
Acetone	ND		ug/l	5.0	--
Carbon disulfide	ND		ug/l	2.0	--
2-Butanone	ND		ug/l	5.0	--
4-Methyl-2-pentanone	ND		ug/l	5.0	--
2-Hexanone	ND		ug/l	5.0	--
Bromochloromethane	ND		ug/l	2.0	--
Tetrahydrofuran	ND		ug/l	2.0	--
2,2-Dichloropropane	ND		ug/l	2.0	--
1,2-Dibromoethane	ND		ug/l	2.0	--
1,3-Dichloropropane	ND		ug/l	2.0	--
1,1,1,2-Tetrachloroethane	ND		ug/l	1.0	--
Bromobenzene	ND		ug/l	2.0	--
n-Butylbenzene	ND		ug/l	2.0	--
sec-Butylbenzene	ND		ug/l	2.0	--
tert-Butylbenzene	ND		ug/l	2.0	--
o-Chlorotoluene	ND		ug/l	2.0	--

Project Name: 900 BEACON ST
Project Number: 5635.2.DA

Lab Number: L1420746
Report Date: 09/16/14

Method Blank Analysis
Batch Quality Control

Analytical Method: 97,8260C
Analytical Date: 09/15/14 06:59
Analyst: MM

Parameter	Result	Qualifier	Units	RL	MDL
MCP Volatile Organics - Westborough Lab for sample(s): 01 Batch: WG722267-3					
p-Chlorotoluene	ND		ug/l	2.0	--
1,2-Dibromo-3-chloropropane	ND		ug/l	2.0	--
Hexachlorobutadiene	ND		ug/l	0.60	--
Isopropylbenzene	ND		ug/l	2.0	--
p-Isopropyltoluene	ND		ug/l	2.0	--
Naphthalene	ND		ug/l	2.0	--
n-Propylbenzene	ND		ug/l	2.0	--
1,2,3-Trichlorobenzene	ND		ug/l	2.0	--
1,2,4-Trichlorobenzene	ND		ug/l	2.0	--
1,3,5-Trimethylbenzene	ND		ug/l	2.0	--
1,2,4-Trimethylbenzene	ND		ug/l	2.0	--
Ethyl ether	ND		ug/l	2.0	--
Isopropyl Ether	ND		ug/l	2.0	--
Ethyl-Tert-Butyl-Ether	ND		ug/l	2.0	--
Tertiary-Amyl Methyl Ether	ND		ug/l	2.0	--
1,4-Dioxane	ND		ug/l	250	--
tert-Butyl Alcohol	ND		ug/l	10	--

Tentatively Identified Compounds

No Tentatively Identified Compounds ND ug/l

Project Name: 900 BEACON ST
Project Number: 5635.2.DA

Lab Number: L1420746
Report Date: 09/16/14

Method Blank Analysis
Batch Quality Control

Analytical Method: 97,8260C
Analytical Date: 09/15/14 06:59
Analyst: MM

Parameter	Result	Qualifier	Units	RL	MDL
MCP Volatile Organics - Westborough Lab for sample(s): 01 Batch: WG722267-3					

Surrogate	%Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	108		70-130
Toluene-d8	99		70-130
4-Bromofluorobenzene	105		70-130
Dibromofluoromethane	112		70-130

Lab Control Sample Analysis

Batch Quality Control

Project Name: 900 BEACON ST

Project Number: 5635.2.DA

Lab Number: L1420746

Report Date: 09/16/14

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
MCP Volatile Organics - Westborough Lab Associated sample(s): 01 Batch: WG722267-1 WG722267-2								
Methylene chloride	100		97		70-130	3		20
1,1-Dichloroethane	99		96		70-130	3		20
Chloroform	101		99		70-130	2		20
Carbon tetrachloride	96		94		70-130	2		20
1,2-Dichloropropane	86		83		70-130	4		20
Dibromochloromethane	87		87		70-130	0		20
1,1,2-Trichloroethane	95		94		70-130	1		20
Tetrachloroethene	98		93		70-130	5		20
Chlorobenzene	100		96		70-130	4		20
Trichlorofluoromethane	101		100		70-130	1		20
1,2-Dichloroethane	107		103		70-130	4		20
1,1,1-Trichloroethane	100		100		70-130	0		20
Bromodichloromethane	100		100		70-130	0		20
trans-1,3-Dichloropropene	91		89		70-130	2		20
cis-1,3-Dichloropropene	93		90		70-130	3		20
1,1-Dichloropropene	99		97		70-130	2		20
Bromoform	81		80		70-130	1		20
1,1,2,2-Tetrachloroethane	102		102		70-130	0		20
Benzene	100		96		70-130	4		20
Toluene	99		96		70-130	3		20
Ethylbenzene	101		98		70-130	3		20

Lab Control Sample Analysis

Batch Quality Control

Project Name: 900 BEACON ST

Project Number: 5635.2.DA

Lab Number: L1420746

Report Date: 09/16/14

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
MCP Volatile Organics - Westborough Lab Associated sample(s): 01 Batch: WG722267-1 WG722267-2								
Chloromethane	82		79		70-130	4		20
Bromomethane	103		92		70-130	11		20
Vinyl chloride	89		84		70-130	6		20
Chloroethane	107		100		70-130	7		20
1,1-Dichloroethene	102		100		70-130	2		20
trans-1,2-Dichloroethene	103		100		70-130	3		20
Trichloroethene	103		100		70-130	3		20
1,2-Dichlorobenzene	101		100		70-130	1		20
1,3-Dichlorobenzene	102		101		70-130	1		20
1,4-Dichlorobenzene	99		100		70-130	1		20
Methyl tert butyl ether	101		96		70-130	5		20
p/m-Xylene	102		99		70-130	3		20
o-Xylene	100		96		70-130	4		20
cis-1,2-Dichloroethene	103		100		70-130	3		20
Dibromomethane	99		97		70-130	2		20
1,2,3-Trichloropropane	104		102		70-130	2		20
Styrene	100		96		70-130	4		20
Dichlorodifluoromethane	71		**68**	Q	70-130	4		20
Acetone	89		80		70-130	11		20
Carbon disulfide	89		87		70-130	2		20
2-Butanone	99		91		70-130	8		20

Lab Control Sample Analysis

Batch Quality Control

Project Name: 900 BEACON ST

Project Number: 5635.2.DA

Lab Number: L1420746

Report Date: 09/16/14

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
MCP Volatile Organics - Westborough Lab Associated sample(s): 01 Batch: WG722267-1 WG722267-2								
4-Methyl-2-pentanone	98		96		70-130	2		20
2-Hexanone	100		93		70-130	7		20
Bromochloromethane	102		100		70-130	2		20
Tetrahydrofuran	97		94		70-130	3		20
2,2-Dichloropropane	99		95		70-130	4		20
1,2-Dibromoethane	96		93		70-130	3		20
1,3-Dichloropropane	98		96		70-130	2		20
1,1,1,2-Tetrachloroethane	90		87		70-130	3		20
Bromobenzene	96		96		70-130	0		20
n-Butylbenzene	103		106		70-130	3		20
sec-Butylbenzene	102		102		70-130	0		20
tert-Butylbenzene	99		101		70-130	2		20
o-Chlorotoluene	105		105		70-130	0		20
p-Chlorotoluene	101		103		70-130	2		20
1,2-Dibromo-3-chloropropane	94		88		70-130	7		20
Hexachlorobutadiene	102		102		70-130	0		20
Isopropylbenzene	114		115		70-130	1		20
p-Isopropyltoluene	101		102		70-130	1		20
Naphthalene	80		82		70-130	2		20
n-Propylbenzene	105		104		70-130	1		20
1,2,3-Trichlorobenzene	86		88		70-130	2		20

Lab Control Sample Analysis

Batch Quality Control

Project Name: 900 BEACON ST

Project Number: 5635.2.DA

Lab Number: L1420746

Report Date: 09/16/14

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
MCP Volatile Organics - Westborough Lab Associated sample(s): 01 Batch: WG722267-1 WG722267-2								
1,2,4-Trichlorobenzene	92		93		70-130	1		20
1,3,5-Trimethylbenzene	101		101		70-130	0		20
1,2,4-Trimethylbenzene	101		101		70-130	0		20
Ethyl ether	106		102		70-130	4		20
Isopropyl Ether	92		89		70-130	3		20
Ethyl-Tert-Butyl-Ether	93		89		70-130	4		20
Tertiary-Amyl Methyl Ether	94		91		70-130	3		20
1,4-Dioxane	90		94		70-130	4		20
tert-Butyl Alcohol	95		94		70-130	1		20

Surrogate	LCS %Recovery	Qual	LCSD %Recovery	Qual	Acceptance Criteria
1,2-Dichloroethane-d4	105		101		70-130
Toluene-d8	101		98		70-130
4-Bromofluorobenzene	101		104		70-130
Dibromofluoromethane	106		105		70-130

SEMIVOLATILES

Project Name: 900 BEACON ST
Project Number: 5635.2.DA
Lab Number: L1420746
Report Date: 09/16/14

SAMPLE RESULTS

Lab ID: L1420746-01
Client ID: B-2 (OW) 9/10/14
Sample Location: BOSTON, MA
Matrix: Water
Analytical Method: 97,8270D
Analytical Date: 09/15/14 22:59
Analyst: JB

Date Collected: 09/10/14 09:00
Date Received: 09/10/14
Field Prep: Not Specified
Extraction Method: EPA 3510C
Extraction Date: 09/11/14 00:44

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
MCP Semivolatile Organics - Westborough Lab						
1,2,4-Trichlorobenzene	ND		ug/l	5.0	--	1
Bis(2-chloroethyl)ether	ND		ug/l	2.0	--	1
1,2-Dichlorobenzene	ND		ug/l	2.0	--	1
1,3-Dichlorobenzene	ND		ug/l	2.0	--	1
1,4-Dichlorobenzene	ND		ug/l	2.0	--	1
3,3'-Dichlorobenzidine	ND		ug/l	5.0	--	1
2,4-Dinitrotoluene	ND		ug/l	5.0	--	1
2,6-Dinitrotoluene	ND		ug/l	5.0	--	1
Azobenzene	ND		ug/l	2.0	--	1
4-Bromophenyl phenyl ether	ND		ug/l	2.0	--	1
Bis(2-chloroisopropyl)ether	ND		ug/l	2.0	--	1
Bis(2-chloroethoxy)methane	ND		ug/l	5.0	--	1
Isophorone	ND		ug/l	5.0	--	1
Nitrobenzene	ND		ug/l	2.0	--	1
Bis(2-Ethylhexyl)phthalate	ND		ug/l	3.0	--	1
Butyl benzyl phthalate	ND		ug/l	5.0	--	1
Di-n-butylphthalate	ND		ug/l	5.0	--	1
Di-n-octylphthalate	ND		ug/l	5.0	--	1
Diethyl phthalate	ND		ug/l	5.0	--	1
Dimethyl phthalate	ND		ug/l	5.0	--	1
Aniline	ND		ug/l	2.0	--	1
4-Chloroaniline	ND		ug/l	5.0	--	1
Dibenzofuran	ND		ug/l	2.0	--	1
Acetophenone	ND		ug/l	5.0	--	1
2,4,6-Trichlorophenol	ND		ug/l	5.0	--	1
2-Chlorophenol	ND		ug/l	2.0	--	1
2,4-Dichlorophenol	ND		ug/l	5.0	--	1
2,4-Dimethylphenol	ND		ug/l	5.0	--	1
2-Nitrophenol	ND		ug/l	10	--	1
4-Nitrophenol	ND		ug/l	10	--	1

Project Name: 900 BEACON ST **Lab Number:** L1420746

Project Number: 5635.2.DA **Report Date:** 09/16/14

SAMPLE RESULTS

Lab ID: L1420746-01 Date Collected: 09/10/14 09:00

Client ID: B-2 (OW) 9/10/14 Date Received: 09/10/14

Sample Location: BOSTON, MA Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
MCP Semivolatile Organics - Westborough Lab						
2,4-Dinitrophenol	ND		ug/l	20	--	1
Phenol	ND		ug/l	5.0	--	1
2-Methylphenol	ND		ug/l	5.0	--	1
3-Methylphenol/4-Methylphenol	ND		ug/l	5.0	--	1
2,4,5-Trichlorophenol	ND		ug/l	5.0	--	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
2-Fluorophenol	31		15-110
Phenol-d6	20		15-110
Nitrobenzene-d5	55		30-130
2-Fluorobiphenyl	69		30-130
2,4,6-Tribromophenol	90		15-110
4-Terphenyl-d14	85		30-130

Project Name: 900 BEACON ST
Project Number: 5635.2.DA
Lab Number: L1420746
Report Date: 09/16/14

SAMPLE RESULTS

Lab ID: L1420746-01
Client ID: B-2 (OW) 9/10/14
Sample Location: BOSTON, MA
Matrix: Water
Analytical Method: 97,8270D-SIM
Analytical Date: 09/14/14 00:27
Analyst: MW

Date Collected: 09/10/14 09:00
Date Received: 09/10/14
Field Prep: Not Specified
Extraction Method: EPA 3510C
Extraction Date: 09/11/14 00:42

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

Project Name: 900 BEACON ST **Lab Number:** L1420746

Project Number: 5635.2.DA **Report Date:** 09/16/14

SAMPLE RESULTS

Lab ID: L1420746-01 Date Collected: 09/10/14 09:00

Client ID: B-2 (OW) 9/10/14 Date Received: 09/10/14

Sample Location: BOSTON, MA Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor

MCP Semivolatile Organics by SIM - Westborough Lab

Surrogate	% Recovery	Qualifier	Acceptance Criteria
2-Fluorophenol	34		15-110
Phenol-d6	25		15-110
Nitrobenzene-d5	78		30-130
2-Fluorobiphenyl	68		30-130
2,4,6-Tribromophenol	77		15-110
4-Terphenyl-d14	78		30-130

Project Name: 900 BEACON ST
Project Number: 5635.2.DA

Lab Number: L1420746
Report Date: 09/16/14

Method Blank Analysis
Batch Quality Control

Analytical Method: 97,8270D
Analytical Date: 09/15/14 19:02
Analyst: JB

Extraction Method: EPA 3510C
Extraction Date: 09/11/14 00:44

Parameter	Result	Qualifier	Units	RL	MDL
MCP Semivolatile Organics - Westborough Lab for sample(s): 01 Batch: WG720976-1					
1,2,4-Trichlorobenzene	ND		ug/l	5.0	--
Bis(2-chloroethyl)ether	ND		ug/l	2.0	--
1,2-Dichlorobenzene	ND		ug/l	2.0	--
1,3-Dichlorobenzene	ND		ug/l	2.0	--
1,4-Dichlorobenzene	ND		ug/l	2.0	--
3,3'-Dichlorobenzidine	ND		ug/l	5.0	--
2,4-Dinitrotoluene	ND		ug/l	5.0	--
2,6-Dinitrotoluene	ND		ug/l	5.0	--
Azobenzene	ND		ug/l	2.0	--
4-Bromophenyl phenyl ether	ND		ug/l	2.0	--
Bis(2-chloroisopropyl)ether	ND		ug/l	2.0	--
Bis(2-chloroethoxy)methane	ND		ug/l	5.0	--
Isophorone	ND		ug/l	5.0	--
Nitrobenzene	ND		ug/l	2.0	--
Bis(2-Ethylhexyl)phthalate	ND		ug/l	3.0	--
Butyl benzyl phthalate	ND		ug/l	5.0	--
Di-n-butylphthalate	ND		ug/l	5.0	--
Di-n-octylphthalate	ND		ug/l	5.0	--
Diethyl phthalate	ND		ug/l	5.0	--
Dimethyl phthalate	ND		ug/l	5.0	--
Aniline	ND		ug/l	2.0	--
4-Chloroaniline	ND		ug/l	5.0	--
Dibenzofuran	ND		ug/l	2.0	--
Acetophenone	ND		ug/l	5.0	--
2,4,6-Trichlorophenol	ND		ug/l	5.0	--
2-Chlorophenol	ND		ug/l	2.0	--
2,4-Dichlorophenol	ND		ug/l	5.0	--
2,4-Dimethylphenol	ND		ug/l	5.0	--
2-Nitrophenol	ND		ug/l	10	--

Project Name: 900 BEACON ST
Project Number: 5635.2.DA

Lab Number: L1420746
Report Date: 09/16/14

Method Blank Analysis
Batch Quality Control

Analytical Method: 97,8270D
Analytical Date: 09/15/14 19:02
Analyst: JB

Extraction Method: EPA 3510C
Extraction Date: 09/11/14 00:44

Parameter	Result	Qualifier	Units	RL	MDL
MCP Semivolatile Organics - Westborough Lab for sample(s): 01 Batch: WG720976-1					
4-Nitrophenol	ND		ug/l	10	--
2,4-Dinitrophenol	ND		ug/l	20	--
Phenol	ND		ug/l	5.0	--
2-Methylphenol	ND		ug/l	5.0	--
3-Methylphenol/4-Methylphenol	ND		ug/l	5.0	--
2,4,5-Trichlorophenol	ND		ug/l	5.0	--

Surrogate	%Recovery	Qualifier	Acceptance Criteria
2-Fluorophenol	34		15-110
Phenol-d6	20		15-110
Nitrobenzene-d5	66		30-130
2-Fluorobiphenyl	71		30-130
2,4,6-Tribromophenol	107		15-110
4-Terphenyl-d14	97		30-130

Project Name: 900 BEACON ST
Project Number: 5635.2.DA

Lab Number: L1420746
Report Date: 09/16/14

Method Blank Analysis
Batch Quality Control

Analytical Method: 97,8270D-SIM
Analytical Date: 09/13/14 19:54
Analyst: MW

Extraction Method: EPA 3510C
Extraction Date: 09/11/14 00:42

Parameter	Result	Qualifier	Units	RL	MDL
MCP Semivolatile Organics by SIM - Westborough Lab for sample(s): 01 Batch: WG720977-1					
Acenaphthene	ND		ug/l	0.20	--
2-Chloronaphthalene	ND		ug/l	0.20	--
Fluoranthene	ND		ug/l	0.20	--
Hexachlorobutadiene	ND		ug/l	0.50	--
Naphthalene	ND		ug/l	0.20	--
Benzo(a)anthracene	ND		ug/l	0.20	--
Benzo(a)pyrene	ND		ug/l	0.20	--
Benzo(b)fluoranthene	ND		ug/l	0.20	--
Benzo(k)fluoranthene	ND		ug/l	0.20	--
Chrysene	ND		ug/l	0.20	--
Acenaphthylene	ND		ug/l	0.20	--
Anthracene	ND		ug/l	0.20	--
Benzo(ghi)perylene	ND		ug/l	0.20	--
Fluorene	ND		ug/l	0.20	--
Phenanthrene	ND		ug/l	0.20	--
Dibenzo(a,h)anthracene	ND		ug/l	0.20	--
Indeno(1,2,3-cd)Pyrene	ND		ug/l	0.20	--
Pyrene	ND		ug/l	0.20	--
2-Methylnaphthalene	ND		ug/l	0.20	--
Pentachlorophenol	ND		ug/l	0.80	--
Hexachlorobenzene	ND		ug/l	0.80	--
Hexachloroethane	ND		ug/l	0.80	--

Project Name: 900 BEACON ST
Project Number: 5635.2.DA

Lab Number: L1420746
Report Date: 09/16/14

Method Blank Analysis
Batch Quality Control

Analytical Method: 97,8270D-SIM
Analytical Date: 09/13/14 19:54
Analyst: MW

Extraction Method: EPA 3510C
Extraction Date: 09/11/14 00:42

Parameter	Result	Qualifier	Units	RL	MDL
MCP Semivolatile Organics by SIM - Westborough Lab for sample(s): 01 Batch: WG720977-1					

Surrogate	%Recovery	Qualifier	Acceptance Criteria
2-Fluorophenol	38		15-110
Phenol-d6	24		15-110
Nitrobenzene-d5	83		30-130
2-Fluorobiphenyl	70		30-130
2,4,6-Tribromophenol	87		15-110
4-Terphenyl-d14	84		30-130

Lab Control Sample Analysis

Batch Quality Control

Project Name: 900 BEACON ST

Project Number: 5635.2.DA

Lab Number: L1420746

Report Date: 09/16/14

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
MCP Semivolatile Organics - Westborough Lab Associated sample(s): 01 Batch: WG720976-2 WG720976-3								
1,2,4-Trichlorobenzene	51		52		40-140	2		20
Bis(2-chloroethyl)ether	61		60		40-140	2		20
1,2-Dichlorobenzene	48		50		40-140	4		20
1,3-Dichlorobenzene	48		48		40-140	0		20
1,4-Dichlorobenzene	47		48		40-140	2		20
3,3'-Dichlorobenzidine	82		76		40-140	8		20
2,4-Dinitrotoluene	96		94		40-140	2		20
2,6-Dinitrotoluene	97		92		40-140	5		20
Azobenzene	77		76		40-140	1		20
4-Bromophenyl phenyl ether	93		92		40-140	1		20
Bis(2-chloroisopropyl)ether	40		40		40-140	0		20
Bis(2-chloroethoxy)methane	68		69		40-140	1		20
Isophorone	70		69		40-140	1		20
Nitrobenzene	67		66		40-140	2		20
Bis(2-Ethylhexyl)phthalate	97		90		40-140	7		20
Butyl benzyl phthalate	99		90		40-140	10		20
Di-n-butylphthalate	96		90		40-140	6		20
Di-n-octylphthalate	100		94		40-140	6		20
Diethyl phthalate	95		89		40-140	7		20
Dimethyl phthalate	91		87		40-140	4		20
Aniline	**32**	Q	**22**	Q	40-140	**37**	Q	20

Lab Control Sample Analysis

Batch Quality Control

Project Name: 900 BEACON ST

Project Number: 5635.2.DA

Lab Number: L1420746

Report Date: 09/16/14

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
MCP Semivolatile Organics - Westborough Lab Associated sample(s): 01 Batch: WG720976-2 WG720976-3								
4-Chloroaniline	61		50		40-140	20		20
Dibenzofuran	75		76		40-140	1		20
Acetophenone	75		74		40-140	1		20
2,4,6-Trichlorophenol	98		93		30-130	5		20
2-Chlorophenol	55		55		30-130	0		20
2,4-Dichlorophenol	76		75		30-130	1		20
2,4-Dimethylphenol	54		51		30-130	6		20
2-Nitrophenol	69		68		30-130	1		20
4-Nitrophenol	36		36		30-130	0		20
2,4-Dinitrophenol	75		62		30-130	19		20
Phenol	**21**	Q	**21**	Q	30-130	0		20
2-Methylphenol	50		47		30-130	6		20
3-Methylphenol/4-Methylphenol	43		43		30-130	0		20
2,4,5-Trichlorophenol	103		101		30-130	2		20

Lab Control Sample Analysis

Batch Quality Control

Project Name: 900 BEACON ST

Project Number: 5635.2.DA

Lab Number: L1420746

Report Date: 09/16/14

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
MCP Semivolatile Organics - Westborough Lab Associated sample(s): 01 Batch: WG720976-2 WG720976-3								

Surrogate	LCS %Recovery	Qual	LCSD %Recovery	Qual	Acceptance Criteria
2-Fluorophenol	34		34		15-110
Phenol-d6	22		22		15-110
Nitrobenzene-d5	68		66		30-130
2-Fluorobiphenyl	84		84		30-130
2,4,6-Tribromophenol	**125**	Q	**118**	Q	15-110
4-Terphenyl-d14	102		95		30-130

Lab Control Sample Analysis
Batch Quality Control

Project Name: 900 BEACON ST
Project Number: 5635.2.DA

Lab Number: L1420746
Report Date: 09/16/14

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
MCP Semivolatile Organics by SIM - Westborough Lab Associated sample(s): 01 Batch: WG720977-2 WG720977-3								
Acenaphthene	76		73		40-140	4		20
2-Chloronaphthalene	69		67		40-140	3		20
Fluoranthene	98		90		40-140	9		20
Hexachlorobutadiene	54		53		40-140	2		20
Naphthalene	65		64		40-140	2		20
Benzo(a)anthracene	103		94		40-140	9		20
Benzo(a)pyrene	97		83		40-140	16		20
Benzo(b)fluoranthene	106		92		40-140	14		20
Benzo(k)fluoranthene	102		89		40-140	14		20
Chrysene	99		90		40-140	10		20
Acenaphthylene	69		66		40-140	4		20
Anthracene	92		86		40-140	7		20
Benzo(ghi)perylene	92		69		40-140	**29**	Q	20
Fluorene	86		80		40-140	7		20
Phenanthrene	92		85		40-140	8		20
Dibenzo(a,h)anthracene	98		77		40-140	**24**	Q	20
Indeno(1,2,3-cd)Pyrene	96		72		40-140	**29**	Q	20
Pyrene	96		88		40-140	9		20
2-Methylnaphthalene	72		70		40-140	3		20
Pentachlorophenol	80		76		30-130	5		20
Hexachlorobenzene	84		78		40-140	7		20

Lab Control Sample Analysis

Batch Quality Control

Project Name: 900 BEACON ST

Project Number: 5635.2.DA

Lab Number: L1420746

Report Date: 09/16/14

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
MCP Semivolatile Organics by SIM - Westborough Lab Associated sample(s): 01 Batch: WG720977-2 WG720977-3								
Hexachloroethane	62		60		40-140	3		20

Surrogate	LCS %Recovery	Qual	LCSD %Recovery	Qual	Acceptance Criteria
2-Fluorophenol	34		34		15-110
Phenol-d6	23		23		15-110
Nitrobenzene-d5	78		77		30-130
2-Fluorobiphenyl	68		67		30-130
2,4,6-Tribromophenol	93		86		15-110
4-Terphenyl-d14	83		77		30-130

PCBS

Project Name: 900 BEACON ST
Project Number: 5635.2.DA
Lab Number: L1420746
Report Date: 09/16/14

SAMPLE RESULTS

Lab ID:	L1420746-01	Date Collected:	09/10/14 09:00
Client ID:	B-2 (OW) 9/10/14	Date Received:	09/10/14
Sample Location:	BOSTON, MA	Field Prep:	Not Specified
Matrix:	Water	Extraction Method:	EPA 608
Analytical Method:	5,608	Extraction Date:	09/11/14 04:43
Analytical Date:	09/14/14 18:32	Cleanup Method:	EPA 3665A
Analyst:	JW	Cleanup Date:	09/13/14
		Cleanup Method:	EPA 3660B
		Cleanup Date:	09/13/14

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Column
Polychlorinated Biphenyls by GC - Westborough Lab							
Aroclor 1016	ND		ug/l	0.250	--	1	A
Aroclor 1221	ND		ug/l	0.250	--	1	A
Aroclor 1232	ND		ug/l	0.250	--	1	A
Aroclor 1242	ND		ug/l	0.250	--	1	A
Aroclor 1248	ND		ug/l	0.250	--	1	A
Aroclor 1254	ND		ug/l	0.250	--	1	A
Aroclor 1260	ND		ug/l	0.200	--	1	A

Surrogate	% Recovery	Qualifier	Acceptance Criteria	Column
2,4,5,6-Tetrachloro-m-xylene	64		30-150	A
Decachlorobiphenyl	59		30-150	A

Project Name: 900 BEACON ST

Project Number: 5635.2.DA

Lab Number: L1420746

Report Date: 09/16/14

Method Blank Analysis
Batch Quality Control

Analytical Method: 5,608
Analytical Date: 09/14/14 19:12
Analyst: JW

Extraction Method: EPA 608
Extraction Date: 09/11/14 04:43
Cleanup Method: EPA 3665A
Cleanup Date: 09/13/14
Cleanup Method: EPA 3660B
Cleanup Date: 09/13/14

Parameter	Result	Qualifier	Units	RL	MDL	Column
Polychlorinated Biphenyls by GC - Westborough Lab for sample(s): 01 Batch: WG721013-1						
Aroclor 1016	ND		ug/l	0.250	--	A
Aroclor 1221	ND		ug/l	0.250	--	A
Aroclor 1232	ND		ug/l	0.250	--	A
Aroclor 1242	ND		ug/l	0.250	--	A
Aroclor 1248	ND		ug/l	0.250	--	A
Aroclor 1254	ND		ug/l	0.250	--	A
Aroclor 1260	ND		ug/l	0.200	--	A

Surrogate	%Recovery	Qualifier	Acceptance Criteria	Column
2,4,5,6-Tetrachloro-m-xylene	49		30-150	A
Decachlorobiphenyl	70		30-150	A

Matrix Spike Analysis
Batch Quality Control

Project Name: 900 BEACON ST
Project Number: 5635.2.DA

Lab Number: L1420746
Report Date: 09/16/14

Parameter	Native Sample	MS Added	MS Found	MS %Recovery	Qual	MSD Found	MSD %Recovery	Qual	Recovery Limits	RPD	Qual	RPD Limits	Column
Polychlorinated Biphenyls by GC - Westborough Lab Associated sample(s): 01 QC Batch ID: WG721013-3 QC Sample: L1420746-01 Client ID: B-2 (OW) 9/10/14													
Aroclor 1016	ND	2	1.92	96		-	-		40-140	-		50	A
Aroclor 1260	ND	2	1.44	72		-	-		40-140	-		50	A

Surrogate	MS % Recovery	MS Qualifier	MSD % Recovery	MSD Qualifier	Acceptance Criteria	Column
2,4,5,6-Tetrachloro-m-xylene	73				30-150	A
Decachlorobiphenyl	54				30-150	A

Lab Control Sample Analysis

Batch Quality Control

Project Name: 900 BEACON ST

Project Number: 5635.2.DA

Lab Number: L1420746

Report Date: 09/16/14

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits	Column
Polychlorinated Biphenyls by GC - Westborough Lab Associated sample(s): 01 Batch: WG721013-2									
Aroclor 1016	83		-		40-140	-		50	A
Aroclor 1260	69		-		40-140	-		50	A

Surrogate	LCS %Recovery	Qual	LCSD %Recovery	Qual	Acceptance Criteria	Column
2,4,5,6-Tetrachloro-m-xylene	56				30-150	A
Decachlorobiphenyl	65				30-150	A

Lab Duplicate Analysis
Batch Quality Control

Project Name: 900 BEACON ST
Project Number: 5635.2.DA

Lab Number: L1420746
Report Date: 09/16/14

Parameter	Native Sample	Duplicate Sample	Units	RPD	Qual	RPD Limits	
Polychlorinated Biphenyls by GC - Westborough Lab Associated sample(s): 01 QC Batch ID: WG721013-4 QC Sample: L1420746-01 Client ID: B-2 (OW) 9/10/14							
Aroclor 1016	ND	ND	ug/l	NC		50	A
Aroclor 1221	ND	ND	ug/l	NC		50	A
Aroclor 1232	ND	ND	ug/l	NC		50	A
Aroclor 1242	ND	ND	ug/l	NC		50	A
Aroclor 1248	ND	ND	ug/l	NC		50	A
Aroclor 1254	ND	ND	ug/l	NC		50	A
Aroclor 1260	ND	ND	ug/l	NC		50	A

Surrogate	%Recovery	Qualifier	%Recovery	Qualifier	Acceptance Criteria	Column
2,4,5,6-Tetrachloro-m-xylene	64		71		30-150	A
Decachlorobiphenyl	59		50		30-150	A

METALS

Project Name: 900 BEACON ST
Project Number: 5635.2.DA
Lab Number: L1420746
Report Date: 09/16/14

SAMPLE RESULTS

Lab ID: L1420746-01
Client ID: B-2 (OW) 9/10/14
Sample Location: BOSTON, MA
Matrix: Water
Date Collected: 09/10/14 09:00
Date Received: 09/10/14
Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Prep Method	Analytical Method	Analyst
MCP Total Metals - Westborough Lab											
Antimony, Total	ND		mg/l	0.0030	--	1	09/11/14 08:43	09/12/14 14:13	EPA 3005A	97,6020A	KL
Arsenic, Total	ND		mg/l	0.0005	--	1	09/11/14 08:43	09/12/14 14:13	EPA 3005A	97,6020A	KL
Beryllium, Total	ND		mg/l	0.0005	--	1	09/11/14 08:43	09/12/14 14:13	EPA 3005A	97,6020A	KL
Cadmium, Total	ND		mg/l	0.0002	--	1	09/11/14 08:43	09/12/14 14:13	EPA 3005A	97,6020A	KL
Chromium, Total	0.0300		mg/l	0.0010	--	1	09/11/14 08:43	09/12/14 14:13	EPA 3005A	97,6020A	KL
Copper, Total	ND		mg/l	0.0020	--	1	09/11/14 08:43	09/12/14 14:13	EPA 3005A	97,6020A	KL
Iron, Total	2.9		mg/l	0.05	--	1	09/11/14 08:43	09/11/14 17:20	EPA 3005A	97,6010C	JH
Lead, Total	ND		mg/l	0.0005	--	1	09/11/14 08:43	09/12/14 14:13	EPA 3005A	97,6020A	KL
Mercury, Total	ND		mg/l	0.0002	--	1	09/12/14 12:25	09/15/14 14:10	EPA 7470A	97,7470A	AK
Nickel, Total	0.0195		mg/l	0.0005	--	1	09/11/14 08:43	09/12/14 14:13	EPA 3005A	97,6020A	KL
Selenium, Total	ND		mg/l	0.001	--	1	09/11/14 08:43	09/12/14 14:13	EPA 3005A	97,6020A	KL
Silver, Total	ND		mg/l	0.0005	--	1	09/11/14 08:43	09/12/14 14:13	EPA 3005A	97,6020A	KL
Thallium, Total	ND		mg/l	0.0005	--	1	09/11/14 08:43	09/12/14 14:13	EPA 3005A	97,6020A	KL
Zinc, Total	ND		mg/l	0.0050	--	1	09/11/14 08:43	09/12/14 14:13	EPA 3005A	97,6020A	KL

Project Name: 900 BEACON ST
Project Number: 5635.2.DA
Lab Number: L1420746
Report Date: 09/16/14

Method Blank Analysis
Batch Quality Control

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
MCP Total Metals - Westborough Lab for sample(s): 01 Batch: WG721038-1										
Iron, Total	ND		mg/l	0.05	--	1	09/11/14 08:43	09/11/14 17:08	97,6010C	JH

Prep Information

Digestion Method: EPA 3005A

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
MCP Total Metals - Westborough Lab for sample(s): 01 Batch: WG721039-1										
Antimony, Total	ND		mg/l	0.0030	--	1	09/11/14 08:43	09/12/14 12:19	97,6020A	KL
Arsenic, Total	ND		mg/l	0.0005	--	1	09/11/14 08:43	09/12/14 12:19	97,6020A	KL
Beryllium, Total	ND		mg/l	0.0005	--	1	09/11/14 08:43	09/12/14 12:19	97,6020A	KL
Cadmium, Total	ND		mg/l	0.0002	--	1	09/11/14 08:43	09/12/14 12:19	97,6020A	KL
Chromium, Total	ND		mg/l	0.0010	--	1	09/11/14 08:43	09/12/14 12:19	97,6020A	KL
Copper, Total	ND		mg/l	0.0020	--	1	09/11/14 08:43	09/12/14 12:19	97,6020A	KL
Lead, Total	ND		mg/l	0.0005	--	1	09/11/14 08:43	09/12/14 12:19	97,6020A	KL
Nickel, Total	ND		mg/l	0.0005	--	1	09/11/14 08:43	09/12/14 12:19	97,6020A	KL
Selenium, Total	ND		mg/l	0.001	--	1	09/11/14 08:43	09/12/14 12:19	97,6020A	KL
Silver, Total	ND		mg/l	0.0005	--	1	09/11/14 08:43	09/12/14 12:19	97,6020A	KL
Thallium, Total	ND		mg/l	0.0005	--	1	09/11/14 08:43	09/12/14 12:19	97,6020A	KL
Zinc, Total	ND		mg/l	0.0050	--	1	09/11/14 08:43	09/12/14 12:19	97,6020A	KL

Prep Information

Digestion Method: EPA 3005A

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
MCP Total Metals - Westborough Lab for sample(s): 01 Batch: WG721518-1										
Mercury, Total	ND		mg/l	0.0002	--	1	09/12/14 12:25	09/15/14 14:05	97,7470A	AK

Project Name: 900 BEACON ST
Project Number: 5635.2.DA
Lab Number: L1420746
Report Date: 09/16/14

Method Blank Analysis
Batch Quality Control

Prep Information

Digestion Method: EPA 7470A

Lab Control Sample Analysis

Batch Quality Control

Project Name: 900 BEACON ST

Project Number: 5635.2.DA

Lab Number: L1420746

Report Date: 09/16/14

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
MCP Total Metals - Westborough Lab Associated sample(s): 01 Batch: WG721038-2 WG721038-3								
Iron, Total	100		100		80-120	0		20
MCP Total Metals - Westborough Lab Associated sample(s): 01 Batch: WG721039-2 WG721039-3								
Antimony, Total	89		87		80-120	2		20
Arsenic, Total	101		92		80-120	9		20
Beryllium, Total	105		103		80-120	2		20
Cadmium, Total	109		110		80-120	1		20
Chromium, Total	105		104		80-120	1		20
Copper, Total	98		95		80-120	3		20
Lead, Total	104		103		80-120	1		20
Nickel, Total	103		101		80-120	2		20
Selenium, Total	110		101		80-120	9		20
Silver, Total	107		104		80-120	3		20
Thallium, Total	101		98		80-120	3		20
Zinc, Total	109		104		80-120	5		20
MCP Total Metals - Westborough Lab Associated sample(s): 01 Batch: WG721518-2 WG721518-3								
Mercury, Total	91		90		80-120	1		20

INORGANICS
&
MISCELLANEOUS

Project Name: 900 BEACON ST
Project Number: 5635.2.DA

Lab Number: L1420746
Report Date: 09/16/14

SAMPLE RESULTS

Lab ID: L1420746-01
Client ID: B-2 (OW) 9/10/14
Sample Location: BOSTON, MA
Matrix: Water

Date Collected: 09/10/14 09:00
Date Received: 09/10/14
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	31.		mg/l	5.0	NA	1	-	09/11/14 14:20	30,2540D	DW
Cyanide, Total	ND		mg/l	0.005	--	1	09/12/14 09:17	09/12/14 15:05	30,4500CN-CE	ML
Chlorine, Total Residual	ND		mg/l	0.02	--	1	-	09/10/14 20:35	30,4500CL-D	MR
pH (H)	6.5		SU	-	NA	1	-	09/10/14 21:50	30,4500H+-B	AS
TPH	ND		mg/l	4.00	--	1	09/15/14 08:00	09/15/14 13:30	74,1664A	ML

Project Name: 900 BEACON ST
Project Number: 5635.2.DA
Lab Number: L1420746
Report Date: 09/16/14

Method Blank Analysis
Batch Quality Control

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Westborough Lab for sample(s): 01 Batch: WG720923-1										
Chlorine, Total Residual	ND		mg/l	0.02	--	1	-	09/10/14 20:35	30,4500CL-D	MR
General Chemistry - Westborough Lab for sample(s): 01 Batch: WG721087-1										
Solids, Total Suspended	ND		mg/l	5.0	NA	1	-	09/11/14 14:20	30,2540D	DW
General Chemistry - Westborough Lab for sample(s): 01 Batch: WG721401-1										
Cyanide, Total	ND		mg/l	0.005	--	1	09/12/14 09:17	09/12/14 15:02	30,4500CN-CE	ML
General Chemistry - Westborough Lab for sample(s): 01 Batch: WG721967-1										
TPH	ND		mg/l	4.00	--	1	09/15/14 08:00	09/15/14 13:30	74,1664A	ML

Lab Control Sample Analysis

Batch Quality Control

Project Name: 900 BEACON ST

Project Number: 5635.2.DA

Lab Number: L1420746

Report Date: 09/16/14

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
General Chemistry - Westborough Lab Associated sample(s): 01 Batch: WG720923-2								
Chlorine, Total Residual	99		-		90-110	-		
General Chemistry - Westborough Lab Associated sample(s): 01 Batch: WG720937-1								
pH	100		-		99-101	-		5
General Chemistry - Westborough Lab Associated sample(s): 01 Batch: WG721401-2								
Cyanide, Total	95		-		90-110	-		
General Chemistry - Westborough Lab Associated sample(s): 01 Batch: WG721967-2								
TPH	75		-		64-132	-		34

Matrix Spike Analysis
Batch Quality Control

Project Name: 900 BEACON ST
Project Number: 5635.2.DA

Lab Number: L1420746
Report Date: 09/16/14

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: WG721401-3 QC Sample: L1420945-01 Client ID: MS Sample												
Cyanide, Total	ND	0.2	0.186	93		-	-		90-110	-		30
General Chemistry - Westborough Lab Associated sample(s): 01 QC Batch ID: WG721967-4 QC Sample: L1421046-01 Client ID: MS Sample												
TPH	14.6	20.8	30.3	75		-	-		64-132	-		34

Lab Duplicate Analysis
Batch Quality Control

Project Name: 900 BEACON ST
Project Number: 5635.2.DA

Lab Number: L1420746
Report Date: 09/16/14

Parameter	Native Sample	Duplicate Sample	Units	RPD	Qual	RPD Limits
General Chemistry - Westborough Lab Associated sample(s): 01 QC Batch ID: WG720923-3 QC Sample: L1420746-01 Client ID: B-2 (OW) 9/10/14						
Chlorine, Total Residual	ND	ND	mg/l	NC		20
General Chemistry - Westborough Lab Associated sample(s): 01 QC Batch ID: WG720937-2 QC Sample: L1420680-01 Client ID: DUP Sample						
pH	7.9	7.9	SU	0		5
General Chemistry - Westborough Lab Associated sample(s): 01 QC Batch ID: WG721087-2 QC Sample: L1420406-05 Client ID: DUP Sample						
Solids, Total Suspended	180	180	mg/l	0		29
General Chemistry - Westborough Lab Associated sample(s): 01 QC Batch ID: WG721967-3 QC Sample: L1421046-01 Client ID: DUP Sample						
TPH	14.6	15.0	mg/l	3		34

Project Name: 900 BEACON ST
Project Number: 5635.2.DA

Lab Number: L1420746
Report Date: 09/16/14

Sample Receipt and Container Information

Were project specific reporting limits specified? YES

Reagent H2O Preserved Vials Frozen on: NA

Cooler Information Custody Seal

Cooler	
A	Absent

Container Information

Container ID	Container Type	Cooler	pH	Temp deg C	Pres	Seal	Analysis(*)
L1420746-01A	Vial HCl preserved	A	N/A	2.3	Y	Absent	MCP-8260-10(14)
L1420746-01B	Vial HCl preserved	A	N/A	2.3	Y	Absent	MCP-8260-10(14)
L1420746-01D	Plastic 250ml unpreserved	A	7	2.3	Y	Absent	PH-4500(.01)
L1420746-01E	Plastic 250ml NaOH preserved	A	>12	2.3	Y	Absent	TCN-4500(14)
L1420746-01F	Plastic 250ml HNO3 preserved	A	<2	2.3	Y	Absent	MCP-FE-6010T-10(180),MCP-BE-6020T-10(180),MCP-CR-6020T-10(180),MCP-7470T-10(28),MCP-TL-6020T-10(180),MCP-CU-6020T-10(180),MCP-ZN-6020T-10(180),MCP-AS-6020T-10(180),MCP-NI-6020T-10(180),MCP-AG-6020T-10(180),MCP-CD-6020T-10(180),MCP-SE-6020T-10(180),MCP-PB-6020T-10(180),MCP-SB-6020T-10(180)
L1420746-01G	Plastic 500ml unpreserved	A	7	2.3	Y	Absent	TRC-4500(1)
L1420746-01H	Plastic 1000ml unpreserved	A	7	2.3	Y	Absent	TSS-2540(7)
L1420746-01I	Amber 1000ml unpreserved	A	7	2.3	Y	Absent	PCB-608(7)
L1420746-01J	Amber 1000ml unpreserved	A	7	2.3	Y	Absent	PCB-608(7)
L1420746-01K	Plastic 1000ml unpreserved	A	7	2.3	Y	Absent	HOLD-WETCHEM()
L1420746-01L	Plastic 1000ml unpreserved	A	7	2.3	Y	Absent	HOLD-WETCHEM()
L1420746-01M	Amber 1000ml unpreserved	A	7	2.3	Y	Absent	MCP-8270-10(7),MCP-8270SIM-10(7)
L1420746-01N	Amber 1000ml HCl preserved	A	N/A	2.3	Y	Absent	TPH-1664(28)

*Values in parentheses indicate holding time in days

Project Name: 900 BEACON ST
Project Number: 5635.2.DA

Lab Number: L1420746
Report Date: 09/16/14

Container Information

Container ID	Container Type	Cooler	pH	Temp deg C	Pres	Seal	Analysis(*)
L1420746-01O	Plastic 250ml HNO3 preserved	A	<2	2.3	Y	Absent	MCP-FE-6010T-10(180),MCP-BE-6020T-10(180),MCP-CR-6020T-10(180),MCP-7470T-10(28),MCP-TL-6020T-10(180),MCP-CU-6020T-10(180),MCP-ZN-6020T-10(180),MCP-AS-6020T-10(180),MCP-NI-6020T-10(180),MCP-AG-6020T-10(180),MCP-CD-6020T-10(180),MCP-SE-6020T-10(180),MCP-PB-6020T-10(180),MCP-SB-6020T-10(180)

Container Comments

L1420746-01F

*Values in parentheses indicate holding time in days

Project Name:	900 BEACON ST	**Lab Number:**	L1420746
Project Number:	5635.2.DA	**Report Date:**	09/16/14

GLOSSARY

Acronyms

EDL - Estimated Detection Limit: This value represents the level to which target analyte concentrations are reported as estimated values, when those target analyte concentrations are quantified below the reporting limit (RL). The EDL includes any adjustments from dilutions, concentrations or moisture content, where applicable. The use of EDLs is specific to the analysis of PAHs using Solid-Phase Microextraction (SPME).

EPA - Environmental Protection Agency.

LCS - Laboratory Control Sample: A sample matrix, free from the analytes of interest, spiked with verified known amounts of analytes or a material containing known and verified amounts of analytes.

LCSD - Laboratory Control Sample Duplicate: Refer to LCS.

LFB - Laboratory Fortified Blank: A sample matrix, free from the analytes of interest, spiked with verified known amounts of analytes or a material containing known and verified amounts of analytes.

MDL - Method Detection Limit: This value represents the level to which target analyte concentrations are reported as estimated values, when those target analyte concentrations are quantified below the reporting limit (RL). The MDL includes any adjustments from dilutions, concentrations or moisture content, where applicable.

MS - Matrix Spike Sample: A sample prepared by adding a known mass of target analyte to a specified amount of matrix sample for which an independent estimate of target analyte concentration is available.

MSD - Matrix Spike Sample Duplicate: Refer to MS.

NA - Not Applicable.

NC - Not Calculated: Term is utilized when one or more of the results utilized in the calculation are non-detect at the parameter's reporting unit.

NI - Not Ignitable.

RL - Reporting Limit: The value at which an instrument can accurately measure an analyte at a specific concentration. The RL includes any adjustments from dilutions, concentrations or moisture content, where applicable.

RPD - Relative Percent Difference: The results from matrix and/or matrix spike duplicates are primarily designed to assess the precision of analytical results in a given matrix and are expressed as relative percent difference (RPD). Values which are less than five times the reporting limit for any individual parameter are evaluated by utilizing the absolute difference between the values; although the RPD value will be provided in the report.

SRM - Standard Reference Material: A reference sample of a known or certified value that is of the same or similar matrix as the associated field samples.

Footnotes

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

Terms

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

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

Data Qualifiers

A - Spectra identified as "Aldol Condensation Product".

B - The analyte was detected above the reporting limit in the associated method blank. Flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank. For MCP-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank. For DOD-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank AND the analyte was detected above one-half the reporting limit (or above the reporting limit for common lab contaminants) in the associated method blank. For NJ-Air-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte above the reporting limit. For NJ-related projects (excluding Air), flag only applies to associated field samples that have detectable concentrations of the analyte, which was detected above the reporting limit in the associated method blank or above five times the reporting limit for common lab contaminants (Phthalates, Acetone, Methylene Chloride, 2-Butanone).

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.

Report Format: Data Usability Report

Project Name:	900 BEACON ST	**Lab Number:**	L1420746
Project Number:	5635.2.DA	**Report Date:**	09/16/14

Data Qualifiers

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 lower value for the two columns has been reported due to obvious interference.

M - Reporting Limit (RL) exceeds the MCP CAM Reporting Limit for this analyte.

NJ - Presumptive evidence of compound. This represents an estimated concentration for Tentatively Identified Compounds (TICs), where the identification is based on a mass spectral library search.

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

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

R - Analytical results are from sample re-analysis.

RE - Analytical results are from sample re-extraction.

S - Analytical results are from modified screening analysis.

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

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

Report Format: Data Usability Report

REFERENCES

5 Methods for the Organic Chemical Analysis of Municipal and Industrial Wastewater. Appendix A, Part 136, 40 CFR (Code of Federal Regulations).

30 Standard Methods for the Examination of Water and Wastewater. APHA-AWWA-WPCF. 18th Edition. 1992.

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.

97 EPA Test Methods (SW-846) with QC Requirements & Performance Standards for the Analysis of EPA SW-846 Methods under the Massachusetts Contingency Plan, WSC-CAM-IIA, IIB, IIIA, IIIB, IIIC, IIID, VA, VB, VC, VIA, VIB, VIIIA and VIIIB, July 2010.

LIMITATION OF LIABILITIES

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

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

Certification Information

Last revised April 15, 2014

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

Westborough Facility
EPA 524.2: Acetone, 2-Butanone (Methyl ethyl ketone (MEK)), Tert-butyl alcohol, 2-Hexanone, Tetrahydrofuran, 1,3,5-Trichlorobenzene, 4-Methyl-2-pentanone (MIBK), Carbon disulfide, Diethyl ether.
EPA 8260C: 1,2,4,5-Tetramethylbenzene, 4-Ethyltoluene, Iodomethane (methyl iodide), Methyl methacrylate, Azobenzene.
EPA 8330A/B: PETN, Picric Acid, Nitroglycerine, 2,6-DANT, 2,4-DANT.
EPA 8270D: 1-Methylnaphthalene, Dimethylnaphthalene,1,4-Diphenylhydrazine.
EPA 625: 4-Chloroaniline, 4-Methylphenol.
SM4500: Soil: Total Phosphorus, TKN, NO2, NO3.
EPA 9071: Total Petroleum Hydrocarbons, Oil & Grease.

Mansfield Facility
EPA 8270D: Biphenyl.
EPA 2540D: TSS
EPA TO-15: Halothane, 2,4,4-Trimethyl-2-pentene, 2,4,4-Trimethyl-1-pentene, Thiophene, 2-Methylthiophene, 3-Methylthiophene, 2-Ethylthiophene, 1,2,3-Trimethylbenzene, Indan, Indene, 1,2,4,5-Tetramethylbenzene, Benzothiophene, 1-Methylnaphthalene.

The following analytes are included in our Massachusetts DEP Scope of Accreditation, Westborough Facility:

Drinking Water
EPA 200.8: Sb,As,Ba,Be,Cd,Cr,Cu,Pb,Ni,Se,Tl; **EPA 200.7**: Ba,Be,Ca,Cd,Cr,Cu,Na; **EPA 245.1:** Mercury;
EPA 300.0: Nitrate-N, Fluoride, Sulfate; **EPA 353.2**: Nitrate-N, Nitrite-N; **SM4500NO3-F**: Nitrate-N, Nitrite-N; **SM4500F-C, SM4500CN-CE, EPA 180.1, SM2130B, SM4500Cl-D, SM2320B, SM2540C, SM4500H-B**
EPA 332: Perchlorate.
Microbiology: **SM9215B; SM9223-P/A, SM9223B-Colilert-QT, Enterolert-QT.**

Non-Potable Water
EPA 200.8: Al,Sb,As,Be,Cd,Cr,Cu,Pb,Mn,Ni,Se,Ag,Tl,Zn;
EPA 200.7: Al,Sb,As,Be,Cd,Ca,Cr,Co,Cu,Fe,Pb,Mg,Mn,Mo,Ni,K,Se,Ag,Na,Sr,Ti,Tl,V,Zn;
EPA 245.1, SM4500H,B, EPA 120.1, SM2510B, SM2540C, SM2340B, SM2320B, SM4500CL-E, SM4500F-BC, SM426C, SM4500NH3-BH, **EPA 350.1**: Ammonia-N, **LACHAT 10-107-06-1-B**: Ammonia-N, **SM4500NO3-F, EPA 353.2**: Nitrate-N**, SM4500NH3-BC-NES, EPA 351.1, SM4500P-E, SM4500P-B, E, SM5220D, EPA 410.4, SM5210B, SM5310C, SM4500CL-D, EPA 1664, SM14 510AC, EPA 420.1, SM4500-CN-CE, SM2540D.**
EPA 624: Volatile Halocarbons & Aromatics,
EPA 608: Chlordane, Toxaphene, Aldrin, alpha-BHC, beta-BHC, gamma-BHC, delta-BHC, Dieldrin, DDD, DDE, DDT, Endosulfan I, Endosulfan II, Endosulfan sulfate, Endrin, Endrin Aldehyde, Heptachlor, Heptachlor Epoxide, PCBs
EPA 625: SVOC (Acid/Base/Neutral Extractables), **EPA 600/4-81-045**: PCB-Oil.
Microbiology: **SM9223B-Colilert-QT; Enterolert-QT, SM9222D-MF**.

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

CHAIN OF CUSTODY

PAGE 1 OF 1

Date Rec'd in Lab: 9/10/14

ALPHA Job #: L1420746

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 Assoc LLC
Address: 2269 Mass Ave
Cambridge, MA
Phone: 617-868-1420
Fax:
Email: AJB@mcphailgeo.com AJD@mcphailgeo.com
☐ These samples have been previously analyzed by Alpha

Project Information

Project Name: 900 Beacon St
Project Location: Boston, MA
Project #: 5635.2.DA
Project Manager: AJB / AJD
ALPHA Quote #:

Turn-Around Time

☒ Standard ☐ RUSH (only confirmed if pre-approved!)
Date Due: 9/16/14 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: MA MCP Criteria:

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: TSS | TRC | TPH | Cyanide | VOCs | SVOCs | RCP-13 Metals (Total) | Total Iron | pH | PCB

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	TSS	TRC	TPH	Cyanide	VOCs	SVOCs	RCP-13 Metals (Total)	Total Iron	pH	PCB	Sample Specific Comments	TOTAL # BOTTLES
20746 - 01	B-2 (OW) 9/10/14	9/10/14	9:00	GW	MJG	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓		14

Container Type	P	P	A	P	V	A	P	P	P	A
Preservative	A	A	A	E	B	A	C	C	A	A

PLEASE ANSWER QUESTIONS ABOVE!

IS YOUR PROJECT MA MCP *or* CT RCP?

Relinquished By:	Date/Time	Received By:	Date/Time
	9/10/14 11:00		1545 9/10/14
	9/10/14 1756		9/10/14 1756

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)

7A
Volatile Organics CONTINUING CALIBRATION CHECK

Lab Name: Alpha Analytical Labs

SDG No.: L1420746

Instrument ID: Jack.i Calibration Date: 15-SEP-2014 Time: 04:50

Lab File ID: 0915A02 Init. Calib. Date(s): 03-AUG-2 03-AUG-2

Sample No: 8260 CCAL Init. Calib. Times : 11:07 15:59

Compound	RRF	RRF	MIN RRF	%D	MAX %D	
dichlorodifluoromethane	.75161	.53033	.1	-29	20	F
chloromethane	1.1523	.94126	.1	-18	20	
vinyl chloride	.91863	.81844	.1	-11	20	
bromomethane	.43671	.45102	.1	3	20	
chloroethane	.48637	.51968	.1	7	20	
trichlorofluoromethane	.88516	.89184	.1	1	20	
ethyl ether	.25228	.26796	.05	6	20	
1,1,-dichloroethene	.56308	.57593	.1	2	20	
carbon disulfide	1.8507	1.6416	.1	-11	20	
freon-113	.63053	.64985	.1	3	20	
iodomethane	.79631	.35163	.05	-56	20	F
acrolein	.07498	.07738	.05	3	20	
methylene chloride	.65793	.65553	.1	0	20	
acetone	100	88.939	.1	-11	20	
trans-1,2-dichloroethene	.64047	.6579	.1	3	20	
methyl acetate	.28743	.31152	.1	8	20	
methyl tert butyl ether	1.1286	1.1365	.1	1	20	
tert butyl alcohol	.03238	.03074	.05	-5	20	F
Diisopropyl Ether	2.3399	2.1545	.01	-8	20	
1,1-dichloroethane	1.3635	1.3462	.2	-1	20	
acrylonitrile	.13833	.15899	.05	15	20	
Halothane	.50999	.48862	.05	-4	20	
Ethyl-Tert-Butyl-Ether	1.8892	1.7583	.05	-7	20	
vinyl acetate	1.1241	1.1487	.05	2	20	
cis-1,2-dichloroethene	.7148	.73759	.1	3	20	
2,2-dichloropropane	.96857	.95907	.05	-1	20	
cyclohexane	1.5551	1.4637	.01	-6	30	
bromochloromethane	.31684	.32432	.05	2	20	
chloroform	1.1299	1.1434	.2	1	20	
carbontetrachloride	.89165	.85338	.1	-4	20	
tetrahydrofuran	.13642	.1328	.05	-3	20	
ethyl acetate	.4016	.36195	.05	-10	20	
1,1,1-trichloroethane	1.0050	1.0021	.1	0	20	
1,1-dichloropropene	.93156	.9213	.05	-1	20	
2-butanone	.16636	.16474	.1	-1	20	
benzene	2.6452	2.6602	.5	1	20	
Tertiary-Amyl Methyl Ether	1.2966	1.2155	.05	-6	20	
1,2-dichloroethane	.77061	.82464	.1	7	20	

FORM VII MCP-8260-10

7A
CONTINUING CALIBRATION CHECK

Lab Name: Alpha Analytical Labs

SDG No.: L1420746

Instrument ID: Jack.i Calibration Date: 15-SEP-2014 Time: 04:50

Lab File ID: 0915A02 Init. Calib. Date(s): 03-AUG-2 03-AUG-2

Sample No: 8260 CCAL Init. Calib. Times : 11:07 15:59

Compound	RRF	RRF	MIN RRF	%D	MAX %D	
methyl cyclohexane	1.231	1.2324	.01	0	30	
trichloroethene	.65087	.6717	.2	3	20	
dibromomethane	.31887	.31518	.05	-1	20	
1,2-dichloropropane	.83511	.71558	.1	-14	20	
bromodichloromethane	.58628	.58735	.2	0	20	
1,4-dioxane	.00355	.00319	.05	-10	20	F
2-chloroethylvinyl ether	.3144	.29518	.05	-6	20	
cis-1,3-dichloropropene	1.0059	.93517	.2	-7	20	
toluene	2.0009	1.9807	.4	-1	20	
tetrachloroethene	.94434	.9277	.2	-2	20	
4-methyl-2-pentanone	.14057	.13803	.1	-2	20	
trans-1,3-dichloropropene	.90802	.82729	.1	-9	20	
1,1,2-trichloroethane	.41759	.39682	.1	-5	20	
ethyl-methacrylate	.61494	.60629	.01	-1	30	
chlorodibromomethane	.64219	.55842	.1	-13	20	
1,3-dichloropropane	.88518	.86476	.05	-2	20	
1,2-dibromoethane	.51863	.49558	.1	-4	20	
2-hexanone	.27879	.27875	.1	0	20	
chlorobenzene	2.3036	2.3049	.5	0	20	
ethyl benzene	4.0078	4.0367	.1	1	20	
1,1,1,2-tetrachloroethane	.77667	.70024	.05	-10	20	
p/m xylene	1.6172	1.6523	.1	2	20	
o xylene	1.5645	1.5612	.3	0	20	
bromoform	.6713	.54291	.1	-19	20	
styrene	2.5409	2.5420	.3	0	20	
isopropylbenzene	7.728	8.8006	.1	14	20	
bromobenzene	1.7568	1.6950	.05	-4	20	
n-propylbenzene	8.3252	8.7298	.05	5	20	
1,4-dichlorobutane	1.7632	1.7900	.01	2	20	
1,1,2,2,-tetrachloroethane	.92828	.94263	.3	2	20	
4-ethyltoluene	7.4537	7.7524	.05	4	20	
2-chlorotoluene	5.3652	5.6513	.05	5	20	
1,2,3-trichloropropane	.77242	.80614	.05	4	20	
1,3,5-trimethybenzene	5.9812	6.0648	.05	1	20	
trans-1,4-dichloro-2-butene	.32054	.26684	.05	-17	20	
4-chorotoluene	4.8637	4.9289	.05	1	20	
tert-butylbenzene	5.4063	5.3761	.05	-1	20	
1,2,4-trimethylbenzene	6.0207	6.0644	.05	1	20	

FORM VII MCP-8260-10

7A
CONTINUING CALIBRATION CHECK

Lab Name: Alpha Analytical Labs

SDG No.: L1420746

Instrument ID: Jack.i Calibration Date: 15-SEP-2014 Time: 04:50

Lab File ID: 0915A02 Init. Calib. Date(s): 03-AUG-2 03-AUG-2

Sample No: 8260 CCAL Init. Calib. Times : 11:07 15:59

Compound	RRF	RRF	MIN RRF	%D	MAX %D
sec-butylbenzene	7.7906	7.9271	.01	2	20
p-isopropyltoluene	6.6817	6.7732	.05	1	20
1,3-dichlorobenzene	3.3739	3.4291	.6	2	20
1,4-dichlorobenzene	3.3819	3.3583	.5	-1	20
p-diethylbenzene	3.9675	3.9586	.05	0	20
n-butylbenzene	5.3321	5.5088	.05	3	20
1,2-dichlorobenzene	2.9804	3.0071	.4	1	20
1,2,4,5-tetramethylbenzene	5.4069	5.3407	.05	-1	20
1,2-dibromo-3-chloropropane	.15524	.14525	.05	-6	20
1,3,5-trichlorobenzene	1.1356	1.0666	.05	-6	20
1,2,4-trichlorobenzene	1.6421	1.5060	.2	-8	20
hexachlorobutadiene	.69636	.70734	.05	2	20
naphthalene	3.0772	2.4745	.05	-20	20
1,2,3-trichlorobenzene	1.2804	1.1050	.05	-14	20
dibromofluoromethane	.26525	.28046	.05	6	20
1,2-dichloroethane-d4	.28919	.30345	.05	5	20
toluene-d8	1.2392	1.2484	.01	1	20
4-bromofluorobenzene	.86874	.87514	.05	1	20

FORM VII MCP-8260-10

ANALYTICAL REPORT

Lab Number:	L1429022
Client:	McPhail Associates 2269 Massachusetts Avenue Cambridge, MA 02140
ATTN:	Ambrose Donovan
Phone:	(617) 868-1420
Project Name:	900 BEACON ST.
Project Number:	5635.2DA
Report Date:	12/09/14

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: 900 BEACON ST.
Project Number: 5635.2DA

Lab Number: L1429022
Report Date: 12/09/14

Alpha Sample ID	Client ID	Matrix	Sample Location	Collection Date/Time	Receive Date
L1429022-01	B-2(OW), 12-3-14	WATER	BOSTON, MA	12/03/14 15:00	12/03/14

Project Name: 900 BEACON ST. **Lab Number:** L1429022

Project Number: 5635.2DA **Report Date:** 12/09/14

MADEP MCP Response Action Analytical Report Certification

This form provides certifications for all samples performed by MCP methods. Please refer to the Sample Results and Container Information sections of this report for specification of MCP methods used for each analysis. The following questions pertain only to MCP Analytical Methods.

An affirmative response to questions A through F is required for "Presumptive Certainty" status		
A	Were all samples received in a condition consistent with those described on the Chain-of-Custody, properly preserved (including temperature) in the field or laboratory, and prepared/analyzed within method holding times?	YES
B	Were the analytical method(s) and all associated QC requirements specified in the selected CAM protocol(s) followed?	YES
C	Were all required corrective actions and analytical response actions specified in the selected CAM protocol(s) implemented for all identified performance standard non-conformances?	YES
D	Does the laboratory report comply with all the reporting requirements specified in CAM VII A, "Quality Assurance and Quality Control Guidelines for the Acquisition and Reporting of Analytical Data?"	YES
E a.	VPH, EPH, and APH Methods only: Was each method conducted without significant modification(s)? (Refer to the individual method(s) for a list of significant modifications).	N/A
E b.	APH and TO-15 Methods only: Was the complete analyte list reported for each method?	N/A
F	Were all applicable CAM protocol QC and performance standard non-conformances identified and evaluated in a laboratory narrative (including all "No" responses to Questions A through E)?	YES

A response to questions G, H and I is required for "Presumptive Certainty" status		
G	Were the reporting limits at or below all CAM reporting limits specified in the selected CAM protocol(s)?	YES
H	Were all QC performance standards specified in the CAM protocol(s) achieved?	YES
I	Were results reported for the complete analyte list specified in the selected CAM protocol(s)?	NO

For any questions answered "No", please refer to the case narrative section on the following page(s).

Please note that sample matrix information is located in the Sample Results section of this report.

Project Name: 900 BEACON ST.
Project Number: 5635.2DA

Lab Number: L1429022
Report Date: 12/09/14

Case Narrative

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

Results contained within this report relate only to the samples submitted under this Alpha Lab Number and meet all of the requirements of NELAC, for all NELAC accredited parameters. The data presented in this report is organized by parameter (i.e. VOC, SVOC, etc.). Sample specific Quality Control data (i.e. Surrogate Spike Recovery) is reported at the end of the target analyte list for each individual sample, followed by the Laboratory Batch Quality Control at the end of each parameter. If a sample was re-analyzed or re-extracted due to a required quality control corrective action and if both sets of data are reported, the Laboratory ID of the re-analysis or re-extraction is designated with an "R" or "RE", respectively. When multiple Batch Quality Control elements are reported (e.g. more than one LCS), the associated samples for each element are noted in the grey shaded header line of each data table. Any Laboratory Batch, Sample Specific % recovery or RPD value that is outside the listed Acceptance Criteria is bolded in the report. All specific QC information is also incorporated in the Data Usability format of our Data Merger tool where it can be reviewed along with any associated usability implications. Soil/sediments, solids and tissues are reported on a dry weight basis unless otherwise noted. Definitions of all data qualifiers and acronyms used in this report are provided in the Glossary located at the back of the report.

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

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

HOLD POLICY
For samples submitted on hold, Alpha's policy is to hold samples (with the exception of Air canisters) free of charge for 21 calendar days from the date the project is completed. After 21 calendar days, we will dispose of all samples submitted including those put on hold unless you have contacted your Client Service Representative and made arrangements for Alpha to continue to hold the samples. Air canisters will be disposed after 3 business days from the date the project is completed.

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

Project Name:	900 BEACON ST.	**Lab Number:**	L1429022
Project Number:	5635.2DA	**Report Date:**	12/09/14

Case Narrative (continued)

MCP Related Narratives

Metals

In reference to question I:

All samples were analyzed for a subset of MCP elements per the Chain of Custody.

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

Authorized Signature: Kelly Stenstrom

Title: Technical Director/Representative Date: 12/09/14

METALS

Project Name: 900 BEACON ST.
Lab Number: L1429022
Project Number: 5635.2DA
Report Date: 12/09/14

SAMPLE RESULTS

Lab ID: L1429022-01
Client ID: B-2(OW), 12-3-14
Sample Location: BOSTON, MA
Matrix: Water

Date Collected: 12/03/14 15:00
Date Received: 12/03/14
Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Prep Method	Analytical Method	Analyst
MCP Total Metals - Westborough Lab											
Chromium, Total	ND		mg/l	0.01	--	1	12/04/14 10:26	12/04/14 16:03	EPA 3005A	97,6010C	TT

Project Name: 900 BEACON ST.
Project Number: 5635.2DA
Lab Number: L1429022
Report Date: 12/09/14

Method Blank Analysis
Batch Quality Control

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
MCP Total Metals - Westborough Lab for sample(s): 01 Batch: WG745609-1										
Chromium, Total	ND		mg/l	0.01	--	1	12/04/14 10:26	12/04/14 15:50	97,6010C	TT

Prep Information

Digestion Method: EPA 3005A

Lab Control Sample Analysis

Batch Quality Control

Project Name: 900 BEACON ST.

Project Number: 5635.2DA

Lab Number: L1429022

Report Date: 12/09/14

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
MCP Total Metals - Westborough Lab Associated sample(s): 01 Batch: WG745609-2 WG745609-3								
Chromium, Total	95		100		80-120	5		20

INORGANICS
&
MISCELLANEOUS

Project Name: 900 BEACON ST.
Project Number: 5635.2DA
Lab Number: L1429022
Report Date: 12/09/14

SAMPLE RESULTS

Lab ID: L1429022-01
Client ID: B-2(OW), 12-3-14
Sample Location: BOSTON, MA
Matrix: Water

Date Collected: 12/03/14 15:00
Date Received: 12/03/14
Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
MCP General Chemistry - Westborough Lab										
Chromium, Hexavalent	ND		mg/l	0.010	--	1	12/04/14 00:55	12/04/14 01:31	97,7196A	MR
General Chemistry - Westborough Lab										
Chromium, Trivalent	ND		mg/l	0.010	--	1	-	12/09/14 12:24	107,-	JO

Project Name: 900 BEACON ST.
Project Number: 5635.2DA
Lab Number: L1429022
Report Date: 12/09/14

Method Blank Analysis
Batch Quality Control

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
MCP General Chemistry - Westborough Lab for sample(s): 01 Batch: WG745444-1										
Chromium, Hexavalent	ND		mg/l	0.010	--	1	12/04/14 00:55	12/04/14 01:31	97,7196A	MR

Lab Control Sample Analysis

Batch Quality Control

Project Name: 900 BEACON ST.

Project Number: 5635.2DA

Lab Number: L1429022

Report Date: 12/09/14

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
MCP General Chemistry - Westborough Lab	Associated sample(s): 01		Batch: WG745444-2		WG745444-3			
Chromium, Hexavalent	98		99		80-120	1		20

Project Name: 900 BEACON ST.
Project Number: 5635.2DA

Lab Number: L1429022
Report Date: 12/09/14

Sample Receipt and Container Information

Were project specific reporting limits specified? YES

Reagent H2O Preserved Vials Frozen on: NA

Cooler Information **Custody Seal**

Cooler	
A	Absent

Container Information

Container ID	Container Type	Cooler	pH	Temp deg C	Pres	Seal	Analysis(*)
L1429022-01A	Plastic 500ml HNO3 preserved	A	<2	2.4	Y	Absent	MCP-CR-6010T-10(180)
L1429022-01B	Plastic 950ml unpreserved	A	8	2.4	Y	Absent	MCP-HEXCR7196-10(1)

*Values in parentheses indicate holding time in days

Project Name:	900 BEACON ST.	**Lab Number:**	L1429022
Project Number:	5635.2DA	**Report Date:**	12/09/14

GLOSSARY

Acronyms

EDL - Estimated Detection Limit: This value represents the level to which target analyte concentrations are reported as estimated values, when those target analyte concentrations are quantified below the reporting limit (RL). The EDL includes any adjustments from dilutions, concentrations or moisture content, where applicable. The use of EDLs is specific to the analysis of PAHs using Solid-Phase Microextraction (SPME).

EPA - Environmental Protection Agency.

LCS - Laboratory Control Sample: A sample matrix, free from the analytes of interest, spiked with verified known amounts of analytes or a material containing known and verified amounts of analytes.

LCSD - Laboratory Control Sample Duplicate: Refer to LCS.

LFB - Laboratory Fortified Blank: A sample matrix, free from the analytes of interest, spiked with verified known amounts of analytes or a material containing known and verified amounts of analytes.

MDL - Method Detection Limit: This value represents the level to which target analyte concentrations are reported as estimated values, when those target analyte concentrations are quantified below the reporting limit (RL). The MDL includes any adjustments from dilutions, concentrations or moisture content, where applicable.

MS - Matrix Spike Sample: A sample prepared by adding a known mass of target analyte to a specified amount of matrix sample for which an independent estimate of target analyte concentration is available.

MSD - Matrix Spike Sample Duplicate: Refer to MS.

NA - Not Applicable.

NC - Not Calculated: Term is utilized when one or more of the results utilized in the calculation are non-detect at the parameter's reporting unit.

NI - Not Ignitable.

RL - Reporting Limit: The value at which an instrument can accurately measure an analyte at a specific concentration. The RL includes any adjustments from dilutions, concentrations or moisture content, where applicable.

RPD - Relative Percent Difference: The results from matrix and/or matrix spike duplicates are primarily designed to assess the precision of analytical results in a given matrix and are expressed as relative percent difference (RPD). Values which are less than five times the reporting limit for any individual parameter are evaluated by utilizing the absolute difference between the values; although the RPD value will be provided in the report.

SRM - Standard Reference Material: A reference sample of a known or certified value that is of the same or similar matrix as the associated field samples.

Footnotes

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

Terms

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

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

Data Qualifiers

A - Spectra identified as "Aldol Condensation Product".

B - The analyte was detected above the reporting limit in the associated method blank. Flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank. For MCP-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank. For DOD-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank AND the analyte was detected above one-half the reporting limit (or above the reporting limit for common lab contaminants) in the associated method blank. For NJ-Air-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte above the reporting limit. For NJ-related projects (excluding Air), flag only applies to associated field samples that have detectable concentrations of the analyte, which was detected above the reporting limit in the associated method blank or above five times the reporting limit for common lab contaminants (Phthalates, Acetone, Methylene Chloride, 2-Butanone).

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.

Report Format: Data Usability Report

Project Name:	900 BEACON ST.	**Lab Number:**	L1429022
Project Number:	5635.2DA	**Report Date:**	12/09/14

Data Qualifiers

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 lower value for the two columns has been reported due to obvious interference.

M - Reporting Limit (RL) exceeds the MCP CAM Reporting Limit for this analyte.

NJ - Presumptive evidence of compound. This represents an estimated concentration for Tentatively Identified Compounds (TICs), where the identification is based on a mass spectral library search.

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

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

R - Analytical results are from sample re-analysis.

RE - Analytical results are from sample re-extraction.

S - Analytical results are from modified screening analysis.

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

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

Report Format: Data Usability Report

Project Name:	900 BEACON ST.	**Lab Number:**	L1429022
Project Number:	5635.2DA	**Report Date:**	12/09/14

REFERENCES

97 EPA Test Methods (SW-846) with QC Requirements & Performance Standards for the Analysis of EPA SW-846 Methods under the Massachusetts Contingency Plan, WSC-CAM-IIA, IIB, IIIA, IIIB, IIIC, IIID, VA, VB, VC, VIA, VIB, VIIIA and VIIIB, July 2010.

107 Alpha Analytical - In-house calculation method.

LIMITATION OF LIABILITIES

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

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

Certification Information

Last revised April 15, 2014

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

Westborough Facility
EPA 524.2: Acetone, 2-Butanone (Methyl ethyl ketone (MEK)), Tert-butyl alcohol, 2-Hexanone, Tetrahydrofuran, 1,3,5-Trichlorobenzene, 4-Methyl-2-pentanone (MIBK), Carbon disulfide, Diethyl ether.
EPA 8260C: 1,2,4,5-Tetramethylbenzene, 4-Ethyltoluene, Iodomethane (methyl iodide), Methyl methacrylate, Azobenzene.
EPA 8330A/B: PETN, Picric Acid, Nitroglycerine, 2,6-DANT, 2,4-DANT.
EPA 8270D: 1-Methylnaphthalene, Dimethylnaphthalene,1,4-Diphenylhydrazine.
EPA 625: 4-Chloroaniline, 4-Methylphenol.
SM4500: Soil: Total Phosphorus, TKN, NO2, NO3.
EPA 9071: Total Petroleum Hydrocarbons, Oil & Grease.

Mansfield Facility
EPA 8270D: Biphenyl.
EPA 2540D: TSS
EPA TO-15: Halothane, 2,4,4-Trimethyl-2-pentene, 2,4,4-Trimethyl-1-pentene, Thiophene, 2-Methylthiophene, 3-Methylthiophene, 2-Ethylthiophene, 1,2,3-Trimethylbenzene, Indan, Indene, 1,2,4,5-Tetramethylbenzene, Benzothiophene, 1-Methylnaphthalene.

The following analytes are included in our Massachusetts DEP Scope of Accreditation, Westborough Facility:

Drinking Water
EPA 200.8: Sb,As,Ba,Be,Cd,Cr,Cu,Pb,Ni,Se,Tl; **EPA 200.7**: Ba,Be,Ca,Cd,Cr,Cu,Na; **EPA 245.1:** Mercury;
EPA 300.0: Nitrate-N, Fluoride, Sulfate; **EPA 353.2**: Nitrate-N, Nitrite-N; **SM4500NO3-F**: Nitrate-N, Nitrite-N; **SM4500F-C, SM4500CN-CE, EPA 180.1, SM2130B, SM4500Cl-D, SM2320B, SM2540C, SM4500H-B**
EPA 332: Perchlorate.
Microbiology: **SM9215B; SM9223-P/A, SM9223B-Colilert-QT, Enterolert-QT.**

Non-Potable Water
EPA 200.8: Al,Sb,As,Be,Cd,Cr,Cu,Pb,Mn,Ni,Se,Ag,Tl,Zn;
EPA 200.7: Al,Sb,As,Be,Cd,Ca,Cr,Co,Cu,Fe,Pb,Mg,Mn,Mo,Ni,K,Se,Ag,Na,Sr,Ti,Tl,V,Zn;
EPA 245.1, SM4500H,B, EPA 120.1, SM2510B, SM2540C, SM2340B, SM2320B, SM4500CL-E, SM4500F-BC, SM426C, SM4500NH3-BH, **EPA 350.1**: Ammonia-N, **LACHAT 10-107-06-1-B**: Ammonia-N, **SM4500NO3-F, EPA 353.2**: Nitrate-N**, SM4500NH3-BC-NES, EPA 351.1, SM4500P-E, SM4500P-B, E, SM5220D, EPA 410.4, SM5210B, SM5310C, SM4500CL-D, EPA 1664, SM14 510AC, EPA 420.1, SM4500-CN-CE, SM2540D.**
EPA 624: Volatile Halocarbons & Aromatics,
EPA 608: Chlordane, Toxaphene, Aldrin, alpha-BHC, beta-BHC, gamma-BHC, delta-BHC, Dieldrin, DDD, DDE, DDT, Endosulfan I, Endosulfan II, Endosulfan sulfate, Endrin, Endrin Aldehyde, Heptachlor, Heptachlor Epoxide, PCBs
EPA 625: SVOC (Acid/Base/Neutral Extractables), **EPA 600/4-81-045**: PCB-Oil.
Microbiology: **SM9223B-Colilert-QT; Enterolert-QT, SM9222D-MF**.

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

CHAIN OF CUSTODY

PAGE 1 OF 1

Serial_No:12091413:13

Date Rec'd in Lab: 12/3/14

ALPHA Job #: L1429022

ALPHA ANALYTICAL — Worlds Class Chemistry

8 Walkup Drive, Westboro, MA 01581, Tel: 508-898-9220
320 Forbes Blvd, Mansfield, MA 02048, Tel: 508-822-9300

Client Information

Client: McPhail Associates, LLC
Address: 2269 MASS AVE
CAMBRIDGE, MA
Phone: (617) 868-1420 (1423)
Email:

Additional Project Information:

Project Information

Project Name: 900 Beacon St
Project Location: Boston, MA
Project #: 5635.2 DA
Project Manager: HARRY BERLIS
ALPHA Quote #:

Turn-Around Time

☒ Standard ☐ RUSH (only confirmed if pre-approved!)
Date Due: 12/10/14

Report Information - Data Deliverables

☒ ADEx ☐ EMAIL

Billing Information

☐ Same as Client info PO #:

Regulatory Requirements & Project Information Requirements

☒ Yes ☐ No MA MCP Analytical Methods ☐ Yes ☒ No CT RCP Analytical Methods
☐ Yes ☒ No Matrix Spike Required on this SDG? (Required for MCP Inorganics)
☐ Yes ☒ No GW1 Standards (Info Required for Metals & EPH with Targets)
☒ Yes ☐ No NPDES RGP
☐ Other State /Fed Program _____ Criteria _____

ALPHA Lab ID (Lab Use Only)	Sample ID	Collection Date	Collection Time	Sample Matrix	Sampler Initials	ANALYSIS: Total Chromium	Tri-Chrom.	Hex-Chrom.	SAMPLE INFO: Filtration ☐ Field ☐ Lab to do / Preservation ☐ Lab to do	Sample Comments	TOTAL # BOTTLES
29022-01	B-2(OW), 12-3-14	12/3/14	1500	GW	JRM	X	X	X			2
Container Type						P	P	P			
Preservative						C	C	A			

Container Type
P= Plastic
A= Amber glass
V= Vial
G= Glass
B= Bacteria cup
C= Cube
O= Other
E= Encore
D= BOD Bottle

Preservative
A= None
B= HCl
C= HNO_3
D= H_2SO_4
E= NaOH
F= MeOH
G= $NaHSO_4$
H = $Na_2S_2O_3$
I= Ascorbic Acid
J = NH_4Cl
K= Zn Acetate
O= Other

Relinquished By:	Date/Time	Received By:	Date/Time
	12/3/14 1530		12/3/14 1640
	12/3/14 1835		12/3/14 1835

All samples submitted are subject to Alpha's Terms and Conditions. See reverse side.

FORM NO: 01-01 (rev. 12-Mar-2012)

McPHAIL ASSOCIATES, LLC

APPENDIX F

AREAS OF CRITICAL CONCERN,
ENDANGERED AND THREATENED SPECIES

The subject site located at 900 Beacon Street in Boston, Massachusetts. 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, no habitats of Species of Special Concern or Threatened or Endangered Species, and no 100-year flood zone at or within 500 feet of the subject site.

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

Based upon the above, the site is considered criterion A pursuant to Appendix VII of the RGP.

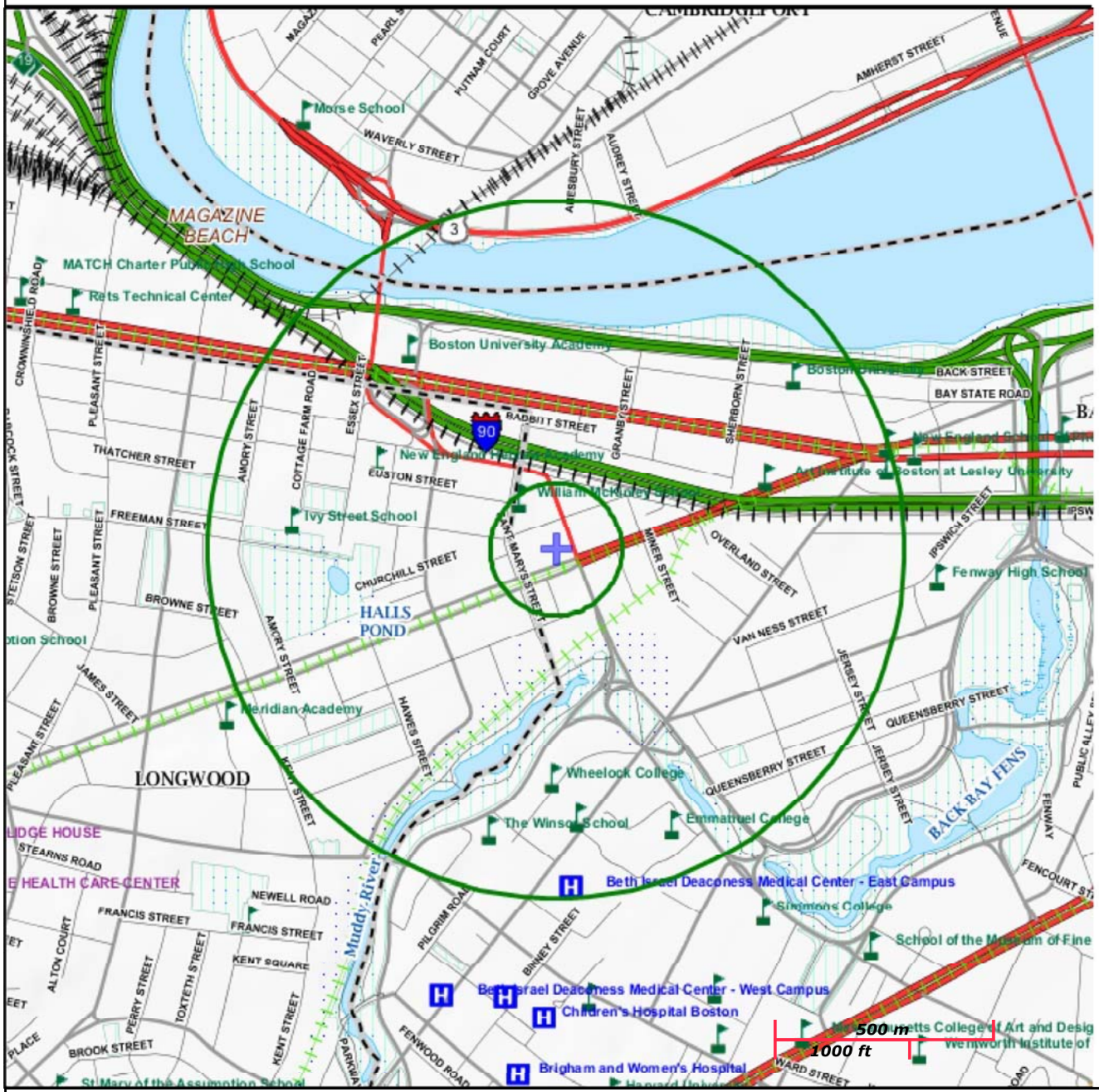
MassDEP - Bureau of Waste Site Cleanup

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

Site Information:
900 BEACON STREET
900 BEACON STREET BOSTON, MA
NAD83 UTM Meters:
5213085mN , -7915449mE (Zone: 18)
December 3, 2014

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

MassDEP
Commonwealth of Massachusetts
Department of Environmental Protection



Roads: Limited Access, Divided, Other Hwy, Major Road, Minor Road, Track, Trail
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
November 2010

Total Approximate Acreage: 268,000 acres
Approximate acreage and designation date follow ACEC names below.

Bourne Back River
(1,850 acres, 1989) Bourne

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

Cedar Swamp
(1,650 acres, 1975) Hopkinton and Westborough

Central Nashua River Valley
(12,900 acres, 1996) Bolton, Harvard, Lancaster, and Leominster

Cranberry Brook Watershed
(1,050 acres, 1983) Braintree and Holbrook

Ellisville Harbor
(600 acres, 1980) Plymouth

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

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

Great Marsh (originally designated as Parker River/Essex Bay)
(25,500 acres, 1979) Essex, Gloucester, Ipswich, Newbury, and Rowley

Herring River Watershed
(4,450 acres, 1991) Bourne and Plymouth

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

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

Inner Cape Cod Bay
(2,600 acres, 1985) Brewster, Eastham, and Orleans

Kampoosa Bog Drainage Basin
(1,350 acres, 1995) Lee and Stockbridge

Karner Brook Watershed
(7,000 acres, 1992) Egremont and Mount Washington

Miscoe, Warren, and Whitehall Watersheds
(8,700 acres, 2000) Grafton, Hopkinton, and Upton

Neponset River Estuary
(1,300 acres, 1995) Boston, Milton, and Quincy

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

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

Pocasset River
(160 acres, 1980) Bourne

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

Sandy Neck Barrier Beach System
(9,130 acres, 1978) Barnstable and Sandwich

Schenob Brook Drainage Basin
(13,750 acres, 1990) Mount Washington and Sheffield

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

Three Mile River Watershed
(14,280 acres, 2008) Dighton, Norton, Taunton

Upper Housatonic River
(12,280 acres, 2009) Lee, Lenox, Pittsfield, Washington

Waquoit Bay
(2,580 acres, 1979) Falmouth and Mashpee

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

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

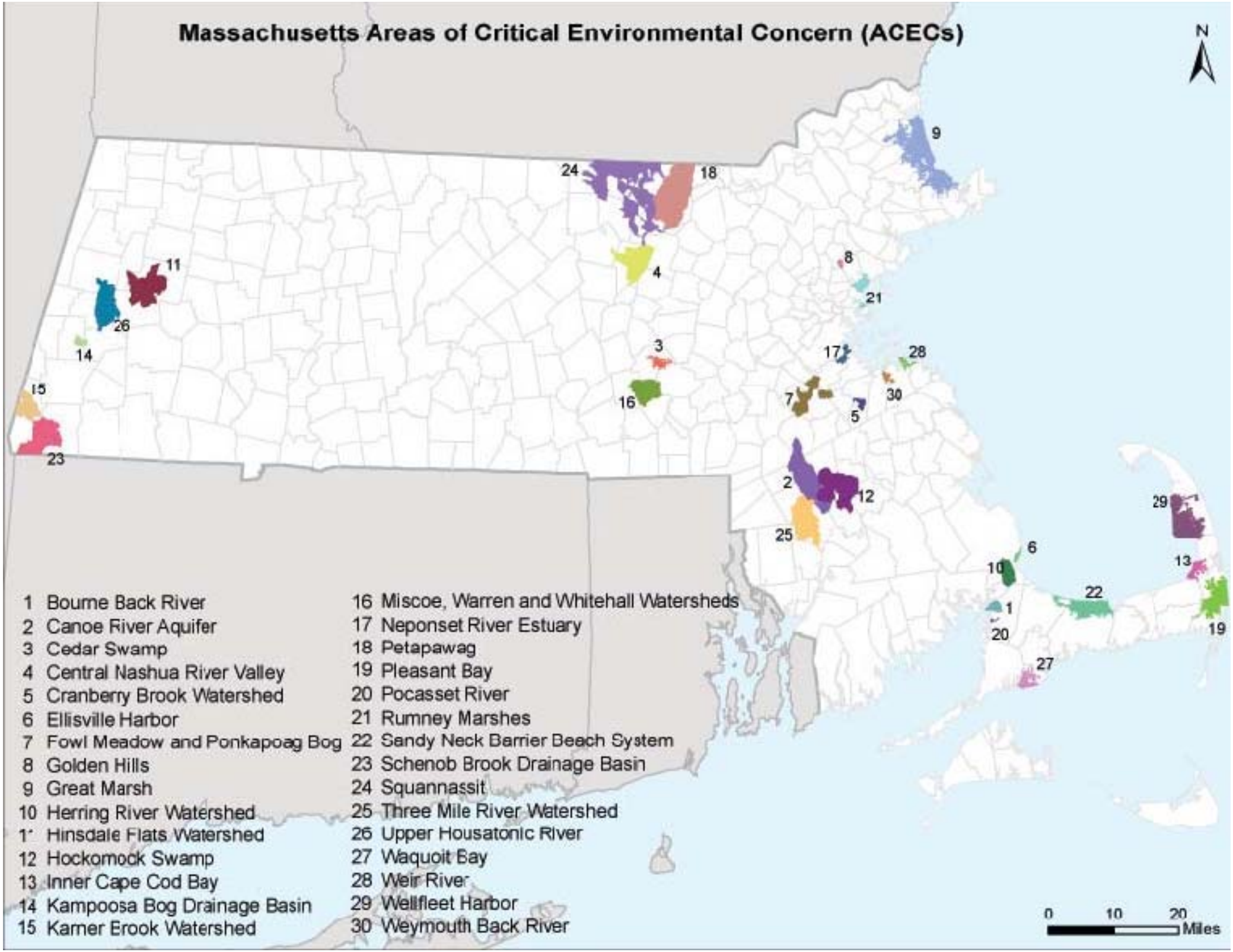
Weymouth Back River
(800 acres, 1982) Hingham and Weymouth

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 — November 2010

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
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)
N
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
0 10 20
Miles

FEDERALLY LISTED ENDANGERED AND THREATENED SPECIES IN MASSACHUSETTS

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

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

7/31/2008

McPHAIL ASSOCIATES, LLC

APPENDIX G

NATIONAL REGISTER OF HISTORIC PLACES

The National Register of Historic Places on-line database was reviewed for listings located within the immediate vicinity of the subject site in Boston, Massachusetts. A review of the most recent National Register of Historical Places for Suffolk County, Massachusetts did not identify records or addresses of Historic Places that exist in the immediate vicinity of the project site and outfall location. The nearest listing of a National Historic Place to the subject site is the Second Church of Boston located at 874 Beacon Street approximately 165 feet to the east of the subject site. We do not anticipate that dewatering activities at the subject site will affect the Second Church of Boston National Historic Place.

Based upon the above, the site is considered criterion A pursuant to Appendix VII of the RGP.

McPHAIL ASSOCIATES, LLC

APPENDIX H

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 the 50 Beharrell Street development site located in Concord, 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 a dewatering system that is anticipated to consist of well points and/or localized sumps and trenches within the excavation and directly into a settling tank. The effluent will then flow through any necessary treatment systems and discharge through hoses into on-site storm drainage which discharge into the Charles River. Dewatering effluent treatment will consist of a settlement tank and/or bag filter(s). GAC will also be used, if necessary.

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 analytical 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, and observing and recording daily flow rates and discharge quantities.

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, LLC

APPENDIX H
(Continued)
BEST MANAGEMENT PRACTICE PLAN

System Maintenance

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, GAC unit filters, hoses, pumps, and flow meters. Equipment will be monitored daily for potential issues and for unscheduled maintenance requirements.

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

Miscellaneous Items

Site security for the treatment system will be covered within the overall site security plan.

Management of Treatment System Materials

Dewatering effluent will be pumped directly to the treatment system from the excavation with the use of hoses well points and/or sumps to minimize handling. The Contractor will establish staging areas for equipment or materials storage that may be possible sources of pollution that will be located 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. The GAC resin may be recycled and/or removed from the site to an appropriate receiving facility. Bag filters will be disposed of as necessary.