NOTICE OF INTENT FOR DISCHARGE PURSUANT TO MASSACHUSETTS REMEDIATION GENERAL PERMIT MAG9100000

100 NORTHERN AVENUE

BOSTON, MASSACHUSETTS

NOVEMBER 8, 2017

Prepared For:

U.S. Environmental Protection Agency
Office of Ecosystem Protection
5 Post Office Square – Suite 100
Mail Code OEP06-01
Boston, MA 02109-3912

On Behalf Of:

100 Northern Ave, LLC
c/o CBRE New England
One Marina Park Drive
Boston, MA 02210

2269 Massachusetts Avenue
Cambridge, MA 02140
www.mcphailgeo.com
(617) 868-1420

PROJECT NO. 4426

November 8, 2017

U.S. Environmental Protection Agency
Dewatering GP Processing
Industrial Permit Unit (OEP 06-4)
5 Post Office Square – Suite 100
Mail Code OEP06-01
Boston, MA 02109-3912

Attention: To Whom It May Concern

Reference: 100 Northern Avenue, South Boston, Massachusetts
Notice of Intent for Dewatering Discharge Under
Massachusetts Remediation General Permit MAG910000

Ladies and Gentlemen:

On behalf of the 100 Northern Ave, LLC, McPhail Associates, LLC (McPhail) has prepared the attached Notice of Intent (NOI) for coverage under the Remediation General Permit (RGP) MAG910000 that has been prepared for the Commonwealth of Massachusetts for the discharge of permanent dewatering effluent into the Boston Inner Harbor via a private storm drainage system. The permanent discharge is located at 100 Northern Avenue in South Boston, Massachusetts (subject site). Refer to **Figure 1** entitled: "Project Location Plan" for the general site locus.

These services were performed and this permit application was prepared at the authorization of 100 Northern Ave, LLC. These services are subject to the limitations contained in **Appendix A**.

It is noted that this property has previously been assigned NPDES Permit Number MAG910606 by the EPA for a construction phase RGP permit. A copy of the signed letter of approval is included in **Appendix B**.

The required Notice of Intent Form contained in the RGP permit is included in **Appendix B** and supporting information is included in **Appendix C**.

Applicant/Operator

The applicant for the Notice of Intent-Dewatering General Permit is:

100 Northern Ave, LLC
Address: One Marina Park Drive Boston, MA 02210

Attention: Dave Martin
Phone: (617) 295 0020
Email: dave.martin@cbre-ne.com

Site Location and Existing Conditions

The property located at 100 Northern Avenue occupies an approximate 67,400 square-foot rectangular plan area bounded by Building G to the west, parking lots to the east, Fan Pier Cove and the Institute of Contemporary Art (ICA) to the north, and Northern Avenue and existing parking areas to the south. A majority of the property is occupied by the footprint of a three level below-grade parking garage, the western portion of which is covered by an above-grade 17-story building. The footprint of the below-grade garage occupies an approximate 65,300 square-foot rectangular plan area, the lowest level slab which is located approximately 20 feet below ground surface. The limits of the subject site are depicted on **Figure 2**.

Groundwater Treatment and Permanent Dewatering

A permanent under slab drainage system has been installed beneath the lowest level slab of the garage to manage groundwater. Groundwater that is collected within the under slab drainage is passed through a treatment prior to being discharged off-site. The design of the treatment system is based in part upon the results of groundwater testing, which is further discussed below, that indicate the presence of elevated levels of metals and cyanide in groundwater at the property. The treatment system that is currently in operation at the property consists of one 900 gallon settling tank, two 5 micron bag filters, and two 1 micron ion media resin filters and has a maximum flow rate of gallons per minute capacity (gpm) of 35. The filters are changed out weekly/monthly or as needed in the case of the ion media resin. The water treatment system schematic is provided in the attached **Figure 3**.

Site Environmental Setting and Surrounding Historical Places

Based on an on-line edition of the Massachusetts Geographic Information Systems DEP Priority Resources Map (GIS Map) viewed on August 10, 2017, the subject site is not located within the boundaries of a Sole Source Aquifer, Potentially Productive Aquifer or within a Zone II, Interim Wellhead Protection Area as defined by the Massachusetts Department of Environmental Protection. Further, there are no public drinking water supply wells, no Areas of Critical Environmental Concern, no fish habitats, no habitats of Species of Special Concern or Threatened or Endangered Species within specified distances of the subject site.

A review of information provided by the U.S. Fish and Wildlife Service in an Information for Planning and Conservation (IPaC) Trust Resource Report for the subject site identified the presence of one (1) endangered species at or in the vicinity of the discharge location and/or discharge outfall. IPaC indicates the Red Knot is a threatened species with respect to the proposed discharge, however, the report did not identify the presence of a critical habitat in the vicinity of the discharge outfall and/or discharge location. Furthermore, information obtained from an ornithology database, the Red Knot has not been observed in the vicinity of the discharge outfall and/or discharge location in approximately 100 years of data collection. Based upon the above, the site is considered a criterion C pursuant to Appendix

IV of the RGP. A copy of the IPaC Trust Resource Report and correspondence are included in **Appendix C**.

The GIS Map indicates that there are no water bodies or wetland areas on the subject site, but Boston Inner Harbor is located approximately 75 feet from the subject site. The map indicates that there are no known Protected Open Space within 0.5 miles of the subject site. A copy of the Massachusetts GIS Priority Resources Map is included in **Appendix C**.

A review of available subgrade sanitary and storm sewer system plans accessed from the BWSC indicates the presence of a private dedicated stormwater drain system located on the subject site. Records supplied by BWSC indicate a single discharge flow path adjacent to the site flow to a primary discharge outfall location. The primary discharge location is an outfall pipe listed SDO15 according to the BWSC. Multiple discharge locations and discharge flow paths are shown on the enclosed **Figure 2.**

A review of the online Massachusetts Cultural Resource Information System (MACRIS) and the National Register of Historical Places for Suffolk County in Boston, Massachusetts did not identify records or addresses of historic places that exist in the immediate vicinity of the subject site and/or outfall location. A copy of the MACRIS Report is included in **Appendix C**.

MCP Regulatory Status

Based upon pre-characterization chemical testing was completed in 1999, the entire 21-acre Fan Pier property, including the subject site, was listed as an MCP site under Release Tracking Number (RTN) 3-19647 on June 14, 2000. Reportable concentrations consisted of the presence of total petroleum hydrocarbons (TPH) and hazardous materials (lead, PCBs, and PAHs) in historical urban fill and underlying organic soils at the site at concentrations exceeding RCS-1 reportable concentrations. To satisfy the 120-day reporting obligation, a Release Notification Form (RNF) was prepared and submitted to Massachusetts Department of Environmental Protection (DEP) on June 14, 2000. A second RNF was filed with the DEP on October 4, 2013 for the presence of PCBs above the RCS-1 Standard of 2 milligrams per kilogram (mg/kg). DEP assigned RTN 3-31799 to this release.

According to Release Abatement Measure (RAM) Plans associated with RTNs 3-19647 and 3-31799, contaminated material was excavated from within the limits of the property and removed off-site. In addition to contaminated soil, construction of the below grade parking garage included the excavation and off-site removal of non-contaminated soil to a depth of approximately 25 feet below ground surface. Based upon the RAM activities that were completed at the property, a Class A2 Release Action Outcome (RAO) was filed with the DEP on June 14, 2004 for RTN 3-19647 and a Permanent Solution Statement was filed on September 26, 2014 for RTN 3-31799.

Summary of Groundwater Analysis

On June 28, 2017, an influent groundwater sample was collected and submitted for laboratory analysis for the parameters required by the previous RGP Authorization MAG910606. The results of this laboratory testing is summarized in **Table 1** and the laboratory report is included **Appendix D**. In conjunction with the updated 2017 NPDES RGP, a sample of water from the Boston Inner Harbor was obtained and analyzed for recoverable metals, ammonia, pH, and salinity, the results of which are summarized in **Table 2** and the laboratory data report is included in **Appendix E**.

In summary, ammonia, cyanide, arsenic, cadmium, copper, chloride, iron, lead, nickel, and zinc were detected in the influent sample obtained that was obtained prior to treatment. These detected concentrations were utilized in Appendix V of the 2017 RGP, to determine if Water Quality-Based Effluent Limitations (WQBELs) for specific inorganics apply. For discharging to saltwater with a dilution factor of 0, WQBELs apply for copper. It is noted that a Compliance Level for total polychlorinated biphenyls is indicated on the Appendix V calculations worksheet, the compliance level does not apply because no SVOCs were detected in the influent water sample and is therefore not applicable to the discharge. The Appendix V calculations also indicate Technology-Based Effluent Limitations (TBELs) apply for other Inorganics. A copy of the TBEL and WQBEL calculations is attached in **Appendix C**.

Summary and Conclusions

The purpose of this report is to assess site environmental conditions and groundwater data to support an application for a Massachusetts Remediation General Permit for off-site discharge of dewatered groundwater which is generated from the under-slab drainage system of Parcels H&I located at 88-110 Northern Avenue in South Boston, Massachusetts

Based on the results of the above referenced groundwater analyses, the ongoing treatment of under slab drainage effluent is necessary to meet allowable WQBELs for copper as well as allowable TBELs for other inorganics established by the US EPA prior to off-site discharge. The current effluent treatment system consists of one 900 gallon settling tank, two 5 micron bag filters, and two 1 micron ion media resin filters and has a max gallons per minute capacity (gpm) of 35. Treatment of the effluent water will continue under the provisions of the new 2017 RGP (MAG9100000)

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.

Sincerely,

McPHAIL ASSOCIATES, LLC

Kirk W. Seaman

William J. Burns, L.S.P.

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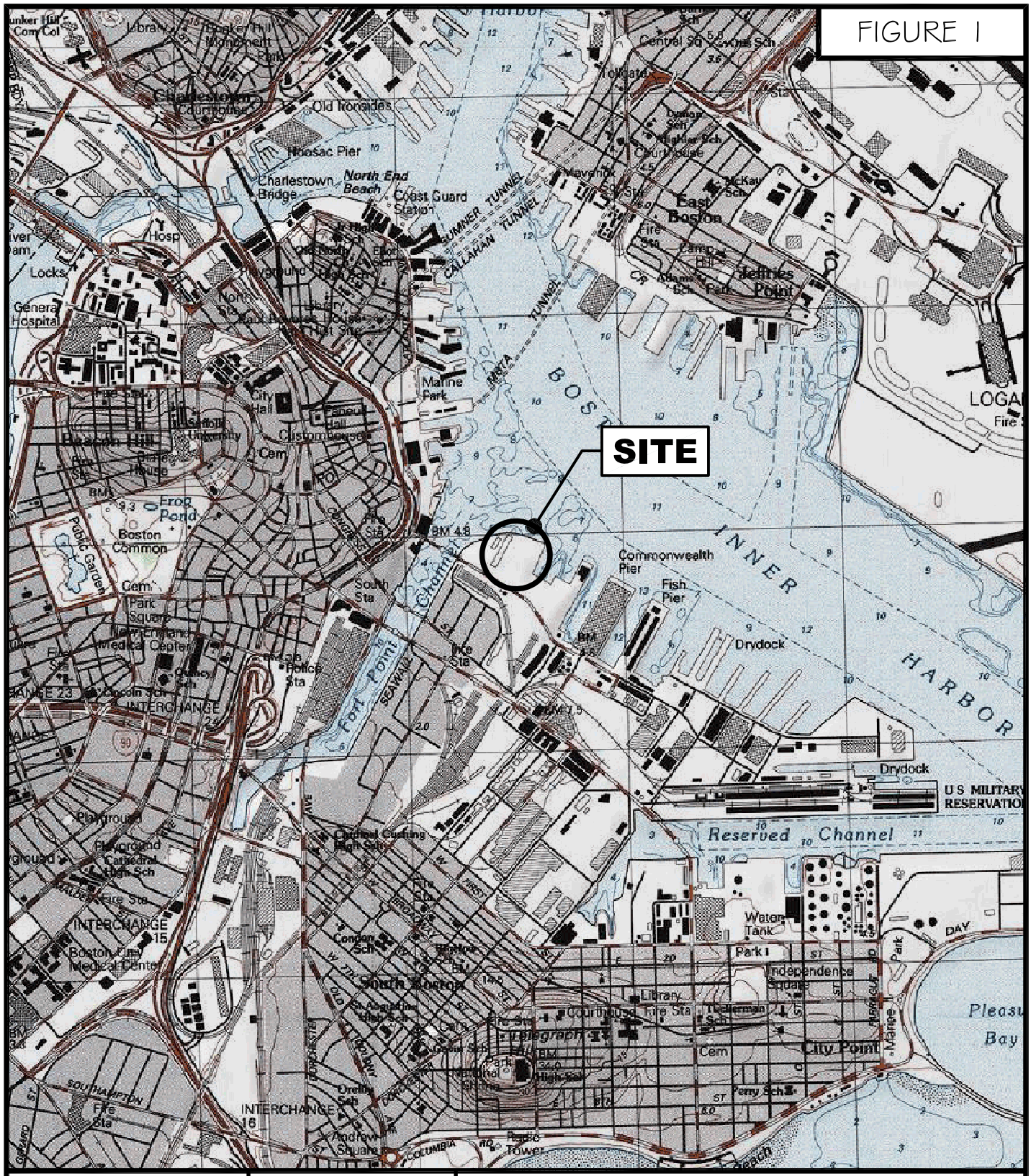
KWS/bed/wjb

FIGURE 1



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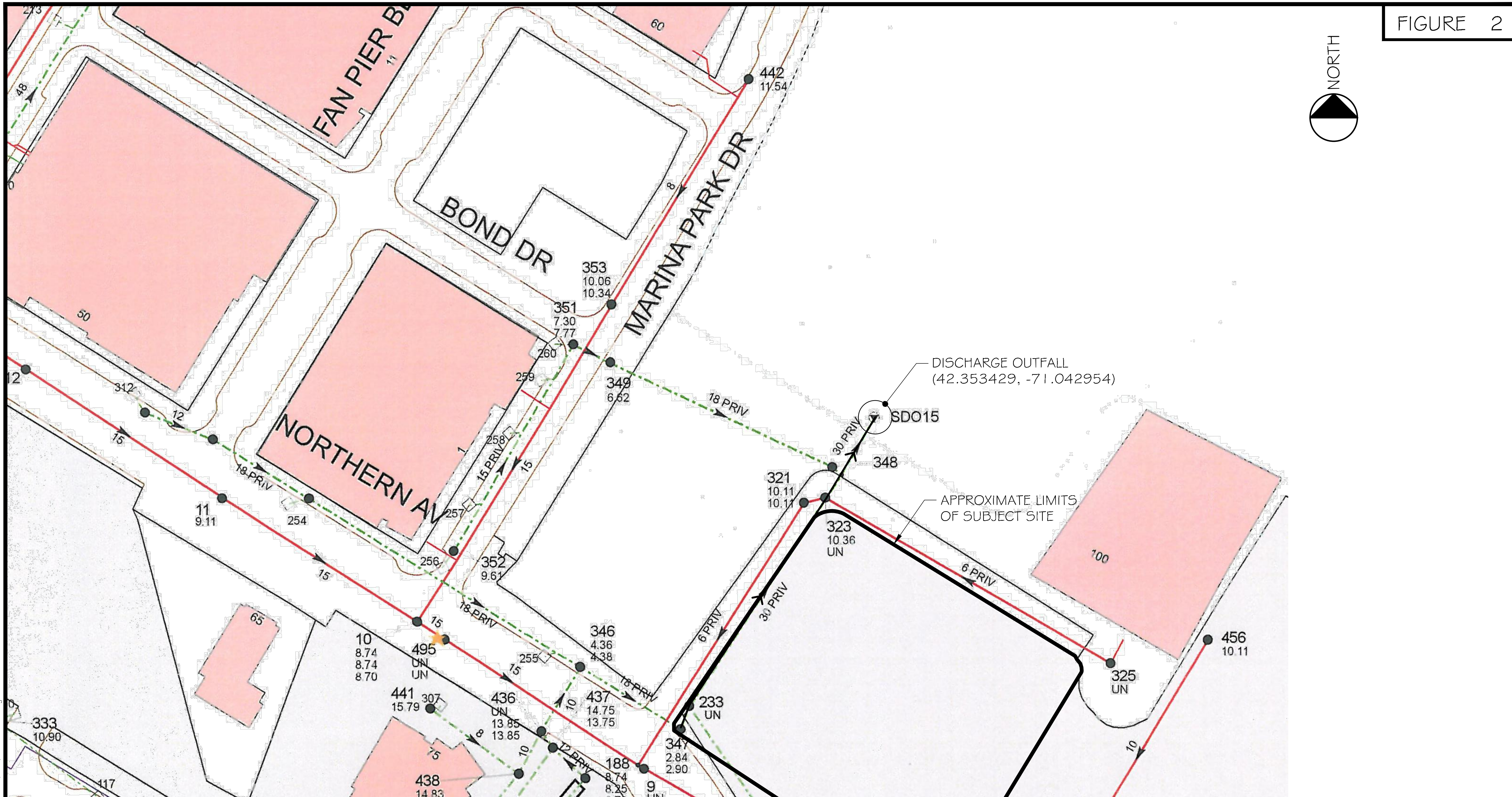
SCALE 1:25,000

PROJECT LOCATION PLAN

FAN PIER

BOSTON MASSACHUSETTS

FIGURE 2



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REFERENCE: THIS PLAN WAS PREPARED FROM A 1 11-SCALE DRAWING GENERATED FROM THE BOSTON WATER AND SEWER DATABASE ON MAY 24, 2017

GRAPHIC SCALE

80 0 80 160

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FAN PIER - PARCELS H AND I

SOUTH BOSTON MASSACHUSETTS

DISCHARGE LOCATION PLAN

FOR

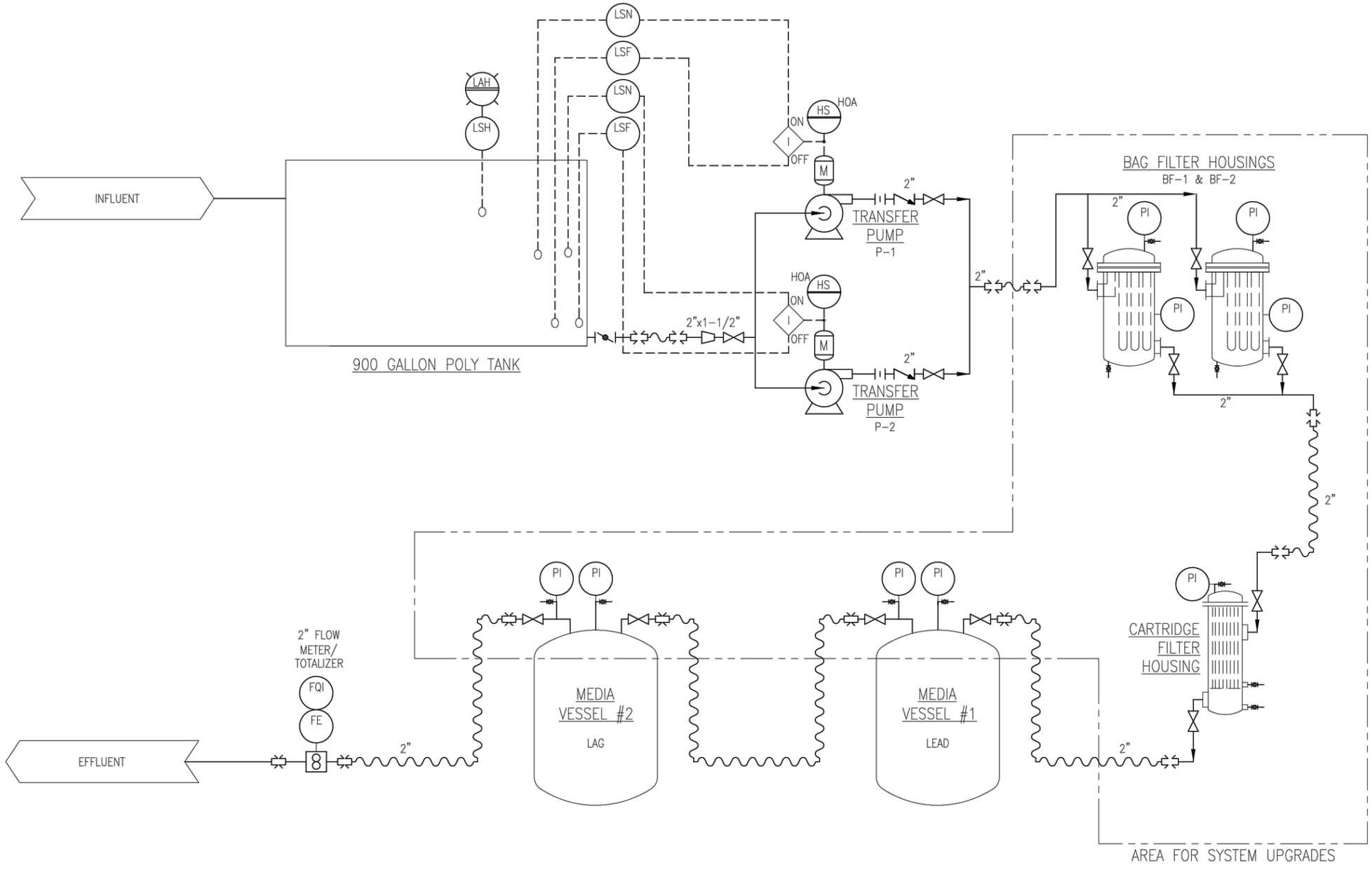
100 NORTHERN AVE, LLC

BY

McPHAIL ASSOCIATES, LLC

Date: NOVEMBER 2017	Dwn: M.B.S.	Chkd: K.W.S.	Scale: 1 = 80'
Project No: 4426			

FIGURE 3



REFERENCE: THIS PLAN WAS PREPARED FROM A NOT-TO-SCALE DRAWING ENTITLED, "PROCESS AND INSTRUMENTATION DIAGRAM TEMPORARY TREATMENT SYSTEM" DATED MAY 10, 2017 PREPARED BY GROUNDWATER TREATMENT AND TECHNOLOGY, LLC

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PARCEL H AND I

BOSTON MASSACHUSETTS

IN PLACE PERMANENT DISCHARGE TREATMENT SYSTEM

FOR

100 NORTHERN AVE, LLC

BY

McPHAIL ASSOCIATES, LLC

Date: NOVEMBER 2017	Dwn: M.B.S.	Chkd: K.W.S.	Scale: N.T.S.
Project No: 4426			

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TABLE 1

Analytical Test Results - Groundwater

100 Northern Avenue
Boston, Massachusetts
Project No. 4426

LOCATION	NPDES RGP Limits	Parcel H&I
SAMPLING DATE		6/27/2017
LAB SAMPLE ID		L1721071-01
pH	6.5-8.3	7.4
Arsenic	36	5.002
Cadmium	8.9	<.2
Copper	3.7	**82.6**
Lead	8.5	1.08
Nickel	8.2	4.41
Zinc	85.6	**1516**
Selenium	71	<5.0
Iron	1,000	**320**
Chloride	Monitor Only	**2670**
Cyanide	0.001	**0.003**
Acetone	Monitor Only	<5.0
Salinity	Monitor Only	4.6
Ammonia	Monitor Only	0.33
Total Suspended Solids	30	<5.0
Total Petroleum Hydrocarbons (TPH), Silica Gel Treated HEM (SGT-HEM)	5.0	<4.0
Polychlorinated Biphenyls (PCB's)	0.5	<.25
PolyCyclic Aromatic Hydrocarbons Part 1 (PAH)	10.0	
a. Benzo (a) Anthracene	0.0038	<0.10
b. Benzo (a) Pyrene	0.0038	<0.10
c. Benzo (b) Fluoranthene	0.0038	<0.10
d. Benzo (k) Flouranthene	0.0038	<0.10
e. Chrysene	0.0038	<0.10
f. Dibenzo (a,h) anthracene	0.0038	<0.10
g. Indeno (1,2,3-cd) Pyrene	0.0038	<0.10
PolyCyclic Aromatic Hydrocarbons Part 2 (PAH)	100.0 (total)	-
h. Acenaphthene	5.0	<0.10
i. Acenaphthylene	5.0	<0.10
j. Anthracene	5.0	<0.10
k. Benzo(ghi) Perylene	5.0	<0.10
l. Fluorathene	5.0	<0.10
m. Fluorene	5.0	<0.10
n. Naphthalene	5.0	<0.10
o. Phenanthrene	5.0	<0.10

ND - Not detected above laboratory
method detection limits in ()
Bold - Exceeds RGP Limits

TABLE 2
Analytical Test Results - Surface Water

100 Northern Avenue
Boston, Massachusetts
Project No. 4426

	LOCATION	**BOSTON INNER HARBOR**
	SAMPLING DATE	**5/11/2017**
	LAB SAMPLE ID	**L1715446-01**
		Results
General Chemistry (SU & ug/l)		
	SALINITY	20
	Nitrogen, Ammonia	95
Total Metals (ug/l)		
	Arsenic, Total	ND
	Copper, Total	ND
	Iron, Total	136
	Lead, Total	ND
	Zinc, Total	ND

ND - not detected laboratory method detection limits
(#) - detetion limit
Blank - not tested

APPENDIX A:

LIMITATIONS

LIMITATIONS

The purpose of this report is to present a summary of environmental conditions, including the results of testing of groundwater samples obtained from a sump pit located on the property located at 100 Northern Ave in Boston, Massachusetts in support of an application for approval of permanent discharge of groundwater into surface waters of the Commonwealth of Massachusetts under EPA's Massachusetts Remediation 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 spaced subsurface explorations become evident in the future, it will be necessary to re-evaluate the conclusions presented herein after performing on-site observations and noting the characteristics of any variations.

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

Laboratory analyses have been performed for specific constituents during the course of this 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 100 Northern Ave, LLC and CBRE of New England. This report and the findings contained herein shall not, in whole or in part, be disseminated or conveyed to any other party, other than the submission to relevant governmental agencies, nor used in whole or in part by any other party without prior written consent of McPhail Associates, LLC.

APPENDIX B:

NOTICE OF INTENT - NPDES REMEDIATION GENERAL PERMIT

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

CERTIFIED MAIL RETURN RECEIPT REQUESTED

JAN 2 8 2014

The Fallon Company

JAN 2 8 2014

Received

James Heighton
Senior Project Manager
One Marina Park Drive
Boston, MA 02210

Re: Authorization to discharge under the Remediation General Permit (RGP) – MAG910000. Fan Pier Parcels H and I site located at 88-110 Northern Avenue, Boston, MA 02210, Suffolk County; Authorization # MAG910606

Dear Mr. Heighton:

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

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

Please note the enclosed checklist includes parameters that exceeded Appendix III limits. The checklist also includes other parameters based on the history of pollution at the site.

Also, please note that the metals included on the checklist are dilution dependent pollutants and subject to limitations based on selected dilution ranges and technology-based ceiling limitations. With the absence of dilution of freshwater into tidal water, EPA determined that the Dilution Factor Range (DFR) for each parameter for this site is in the one and five (1-5) range. (See the RGP Appendix IV for Massachusetts facilities). Therefore, the limits for arsenic of 36 ug/L, trivalent chromium of 100 ug/L, copper of 3.7 ug/L, lead of 8.5 ug/L, nickel of 8.2 ug/L, zinc of 85.6 ug/L and iron of 1,000 ug/L, are required to achieve permit compliance at your site.

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

This general permit and authorization to discharge will expire on September 9, 2015. You have reported that this project will terminate on September 1, 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.

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

Sincerely,

Thelma Murphy, Chief
Storm Water and Construction
Permits Section

Enclosure

cc: Robert Kubit, MassDEP
Paul Canavan, Boston, BWSC

2010 Remediation General Permit
Summary of Monitoring Parameters[1]

NPDES Authorization Number:	**MAG910606**
Authorization Issued:	January, 2014
Facility/Site Name:	Fan Pierce Parcels H and I
Facility/Site Address:	88-110 Northern Ave. Boston, MA 02210, Suffolk County
	Email address of owner: jheighton@falloncompany.com
Legal Name of Operator:	Two Harbor Shore LLC
Operator contact name, title, and Address:	James Heighton, Senior Project Manager Address same as Owner
	Email: Same as the Owner
Estimated date of the Site's work completion:	September 1, 2015
Category and Sub-Category:	Category III- Contaminated Construction Dewatering. Subcategory B. Known Contaminated Sites
RGP Termination Date:	September 10, 2015
Receiving Water:	Boston Harbor

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 = .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 Parameters	Total Recoverable MA/Metal Limit H [10] = 50 mg/l CaCO3, Units = ug/l [(11/12)]	Minimum level=ML

			Saltwater Limits		
	39. Antimony	5.6		ML	10
√	40. Arsenic **		36	ML	20
	41. Cadmium **		8.9	ML	10
√	42. Chromium III (trivalent) **		100	ML	15
	43. Chromium VI (hexavalent) **		50.3	ML	10
√	44. Copper **		3.7	ML	15
√	45. Lead **		8.5	ML	20
	46. Mercury **		1.1	ML	02
√	47. Nickel **		8.2	ML	20
	48. Selenium **		71	ML	20
	49. Silver		2.2	ML	10
√	50. Zinc **		85.6	ML	15
√	51. Iron	1,000		ML	20

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

Footnotes:

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

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

II. Suggested Format for the Remediation General Permit Notice of Intent (NOI)

A. General site information:

<table>
<tr><td rowspan="2">1. Name of site:
100 Northern Ave</td><td colspan="3">Site address:
88-110 Northern Avenue
Street:</td></tr>
<tr><td>City: Boston</td><td>State: MA</td><td>Zip: 02210</td></tr>
<tr><td rowspan="4">2. Site owner
100 Northern Ave, LLC

Owner is (check one): ☐ Federal ☐ State/Tribal ■ Private
☐ Other; if so, specify:</td><td colspan="3">Contact Person: James Heighton</td></tr>
<tr><td colspan="2">Telephone: 617 737 4100</td><td>Email: jheighton@falloncompany.com</td></tr>
<tr><td colspan="3">Mailing address:
Street: One Marina Park Drive</td></tr>
<tr><td>City: Boston</td><td>State: MA</td><td>Zip: 02210</td></tr>
<tr><td rowspan="4">3. Site operator, if different than owner
CBRE/ New England</td><td colspan="3">Contact Person: Dave Martin</td></tr>
<tr><td colspan="2">Telephone: 617-295-0020</td><td>Email: dave.martin@cbre-ne.com</td></tr>
<tr><td colspan="3">Mailing address:
Street: One Marina Park Drive</td></tr>
<tr><td>City: Boston</td><td>State: MA</td><td>Zip: 02210</td></tr>
<tr><td>4. NPDES permit number assigned by EPA:
MAG910606

NPDES permit is (check all that apply: ■ RGP ☐ DGP ☐ CGP
☐ MSGP ☐ Individual NPDES permit ☐ Other; if so, specify:</td><td colspan="3">5. Other regulatory program(s) that apply to the site (check all that apply):
■ MA Chapter 21e; list RTN(s): 3-19647 & 3-31799
☐ NH Groundwater Management Permit or Groundwater Release Detection Permit:
☐ CERCLA
☐ UIC Program
☐ POTW Pretreatment
☐ CWA Section 404</td></tr>
</table>

B. Receiving water information:

1. Name of receiving water(s):	Waterbody identification of receiving water(s):	Classification of receiving water(s):
Boston Inner Harbor	MA70-02	SB

Receiving water is (check any that apply): ☐ Outstanding Resource Water ☐ Ocean Sanctuary ☐ territorial sea ☐ Wild and Scenic River

2. Has the operator attached a location map in accordance with the instructions in B, above? (check one): ■ Yes ☐ No

Are sensitive receptors present near the site? (check one): ☐ Yes ■ No
If yes, specify:

3. Indicate if the receiving water(s) is listed in the State's Integrated List of Waters (i.e., CWA Section 303(d)). Include which designated uses are impaired, and any pollutants indicated. Also, indicate if a final TMDL is available for any of the indicated pollutants. For more information, contact the appropriate State as noted in Part 4.6 of the RGP.
Charles River MA72-36 - See Appendix C for further information

4. Indicate the seven day-ten-year low flow (7Q10) of the receiving water determined in accordance with the instructions in Appendix V for sites located in Massachusetts and Appendix VI for sites located in New Hampshire.	0
5. Indicate the requested dilution factor for the calculation of water quality-based effluent limitations (WQBELs) determined in accordance with the instructions in Appendix V for sites in Massachusetts and Appendix VI for sites in New Hampshire.	0

6. Has the operator received confirmation from the appropriate State for the 7Q10and dilution factor indicated? (check one): ■ Yes ☐ No
If yes, indicate date confirmation received: 0

7. Has the operator attached a summary of receiving water sampling results as required in Part 4.2 of the RGP in accordance with the instruction in Appendix VIII? (check one): ■ Yes ☐ No

C. Source water information:

1. Source water(s) is (check any that apply):

■ Contaminated groundwater Has the operator attached a summary of influent sampling results as required in Part 4.2 of the RGP in accordance with the instruction in Appendix VIII? (check one): ■ Yes ☐ No	☐ Contaminated surface water Has the operator attached a summary of influent sampling results as required in Part 4.2 of the RGP in accordance with the instruction in Appendix VIII? (check one): ☐ Yes ☐ No	☐ The receiving water ☐ A surface water other than the receiving water; if so, indicate waterbody:	☐ Potable water; if so, indicate municipality or origin: ☐ Other; if so, specify:

2. Source water contaminants: TSS, Chloride, Arsenic, Chromium, Copper, Iron, Lead, and Zinc	
a. For source waters that are contaminated groundwater or contaminated surface water, indicate are any contaminants present that are not included in the RGP? (check one): ☐ Yes ■ No If yes, indicate the contaminant(s) and the maximum concentration present in accordance with the instructions in Appendix VIII.	b. For a source water that is a surface water other than the receiving water, potable water or other, indicate any contaminants present at the maximum concentration in accordance with the instructions in Appendix VIII? (check one): ☐ Yes ☐ No
3. Has the source water been previously chlorinated or otherwise contains residual chlorine? (check one): ☐ Yes ■ No	

D. Discharge information

1.The discharge(s) is a(n) (check any that apply): ☐ Existing discharge ■ New discharge ☐ New source	
Outfall(s): SDO 15	Outfall location(s): (Latitude, Longitude) 42.353429, -71.042954

Discharges enter the receiving water(s) via (check any that apply): ■ Direct discharge to the receiving water ☐ Indirect discharge, if so, specify:

Discharge outfall direct into Boston Inner Harbor

■ A private storm sewer system ☐ A municipal storm sewer system

If the discharge enters the receiving water via a private or municipal storm sewer system:

Has notification been provided to the owner of this system? (check one): ■ Yes ☐ No

Has the operator has received permission from the owner to use such system for discharges? (check one): ■ Yes ☐ No, if so, explain, with an estimated timeframe for obtaining permission:

Has the operator attached a summary of any additional requirements the owner of this system has specified? (check one): ☐ Yes ■ No

Provide the expected start and end dates of discharge(s) (month/year): Permanent System

Indicate if the discharge is expected to occur over a duration of: ☐ less than 12 months ■ 12 months or more ☐ is an emergency discharge

Has the operator attached a site plan in accordance with the instructions in D, above? (check one): ■ Yes ☐ No

<table>
<tr><td>2. Activity Category: (check all that apply)</td><td colspan="2">3. Contamination Type Category: (check all that apply)</td></tr>
<tr><td rowspan="4">☐ I – Petroleum-Related Site Remediation
☐ II – Non-Petroleum-Related Site Remediation
■ III – Contaminated Site Dewatering
☐ IV – Dewatering of Pipelines and Tanks
☐ V – Aquifer Pump Testing
☐ VI – Well Development/Rehabilitation
☐ VII – Collection Structure Dewatering/Remediation
☐ VIII – Dredge-Related Dewatering</td><td colspan="2">a. If Activity Category I or II: (check all that apply)

☐ A. Inorganics
☐ B. Non-Halogenated Volatile Organic Compounds
☐ C. Halogenated Volatile Organic Compounds
☐ D. Non-Halogenated Semi-Volatile Organic Compounds
☐ E. Halogenated Semi-Volatile Organic Compounds
☐ F. Fuels Parameters</td></tr>
<tr><td colspan="2">b. If Activity Category III, IV, V, VI, VII or VIII: (check either G or H)</td></tr>
<tr><td>■ G. Sites with Known Contamination</td><td>☐ H. Sites with Unknown Contamination</td></tr>
<tr><td>c. If Category III-G, IV-G, V-G, VI-G, VII-G or VIII-G: (check all that apply)

■ A. Inorganics
☐ B. Non-Halogenated Volatile Organic Compounds
☐ C. Halogenated Volatile Organic Compounds
☐ D. Non-Halogenated Semi-Volatile Organic Compounds
☐ E. Halogenated Semi-Volatile Organic Compounds
☐ F. Fuels Parameters</td><td>d. If Category III-H, IV-H, V-H, VI-H, VII-H or VIII-H Contamination Type Categories A through F apply</td></tr>
</table>

4. Influent and Effluent Characteristics

Parameter	Known or believed absent	Known or believed present	# of samples	Test method (#)	Detection limit (µg/l)	Influent		Effluent Limitations	
						Daily maximum (µg/l)	Daily average (µg/l)	TBEL	WQBEL
A. Inorganics									
Ammonia		✓	1	44350.1	75	0.33	0.33	Report mg/L	---
Chloride		✓	1	443000	500	2670	2670	Report µg/l	---
Total Residual Chlorine	✓		1	121.4500C	20	<DL	<DL	0.2 mg/L	
Total Suspended Solids	✓		1	1212540D	5000	<DL	<DL	30 mg/L	
Antimony	✓		1	1.6020A	4	<DL	<DL	206 µg/L	
Arsenic		✓	1	1.6020A	0.5	5.002	5.002	104 µg/L	
Cadmium	✓		1	1.6020A	2	<DL	<DL	10.2 µg/L	
Chromium III	✓		1	1.6020A	1	<DL	<DL	323 µg/L	
Chromium VI	✓		1	1.6020A	1	<DL	<DL	323 µg/L	
Copper		✓	1	1.6020A	1	82.6	82.6	242 µg/L	
Iron		✓	1	19200.7	500	320	320	5,000 µg/L	
Lead		✓	1	1.6020A	0.5	1.08	1.08	160 µg/L	
Mercury	✓		1	3.245.1	0.2	<DL	<DL	0.739 µg/L	
Nickel		✓	1	1.6020A	0.5	4.41	4.41	1,450 µg/L	
Selenium	✓		1	1.6020A	5	<DL	<DL	235.8 µg/L	
Silver	✓		1	1.6020A	0.4	<DL	<DL	35.1 µg/L	
Zinc		✓	1	1.6020A	10	1516	1516	420 µg/L	
Cyanide		✓	1	121.4500C	5	0.003	0.003	178 mg/L	
B. Non-Halogenated VOCs									
Total BTEX	✓		0			<DL	<DL	100 µg/L	---
Benzene	✓		0			<DL	<DL	5.0 µg/L	---
1,4 Dioxane	✓		0			<DL	<DL	200 µg/L	---
Acetone	✓		0			<DL	<DL	7.97 mg/L	---
Phenol	✓		0			<DL	<DL	1,080 µg/L	

Parameter	Known or believed absent	Known or believed present	# of samples	Test method (#)	Detection limit (µg/l)	Influent		Effluent Limitations	
						Daily maximum (µg/l)	Daily average (µg/l)	TBEL	WQBEL
C. Halogenated VOCs									
Carbon Tetrachloride	✓		1	18260C	0.5	<DL	<DL	4.4 µg/L	
1,2 Dichlorobenzene	✓		1	18260C	2.5	<DL	<DL	600 µg/L	---
1,3 Dichlorobenzene	✓		1	18260C	2.5	<DL	<DL	320 µg/L	---
1,4 Dichlorobenzene	✓		1	18260C	2.5	<DL	<DL	5.0 µg/L	---
Total dichlorobenzene	✓		1	18260C	2.5	<DL	<DL	763 µg/L in NH	---
1,1 Dichloroethane	✓		1	18260C	0.5	<DL	<DL	70 µg/L	---
1,2 Dichloroethane	✓		1	18260C	0.5	<DL	<DL	5.0 µg/L	---
1,1 Dichloroethylene	✓		0					3.2 µg/L	---
Ethylene Dibromide	✓		0					0.05 µg/L	---
Methylene Chloride	✓		1	18260C	3.0	<DL	<DL	4.6 µg/L	---
1,1,1 Trichloroethane	✓		1	18260C	0.75	<DL	<DL	200 µg/L	---
1,1,2 Trichloroethane	✓		1	18260C	0.75	<DL	<DL	5.0 µg/L	---
Trichloroethylene	✓		0					5.0 µg/L	---
Tetrachloroethylene	✓		1	18260C	0.5	<DL	<DL	5.0 µg/L	
cis-1,2 Dichloroethylene	✓		0					70 µg/L	---
Vinyl Chloride	✓		1	18260C	1.0	<DL	<DL	2.0 µg/L	---
D. Non-Halogenated SVOCs									
Total Phthalates	✓		1	18270D-SI	5.0	<DL	<DL	190 µg/L	
Diethylhexyl phthalate	✓		1	18270D-SI	5.0	<DL	<DL	101 µg/L	
Total Group I PAHs	✓		1	18270D-SI	0.10	<DL	<DL	1.0 µg/L	---
Benzo(a)anthracene	✓		1	18270D-SI	0.10	<DL	<DL	As Total PAHs	
Benzo(a)pyrene	✓		1	18270D-SI	0.10	<DL	<DL		
Benzo(b)fluoranthene	✓		1	18270D-SI	0.10	<DL	<DL		
Benzo(k)fluoranthene	✓		1	18270D-SI	0.10	<DL	<DL		
Chrysene	✓		1	18270D-SI	0.10	<DL	<DL		
Dibenzo(a,h)anthracene	✓		1	18270D-SI	0.10	<DL	<DL		
Indeno(1,2,3-cd)pyrene	✓		1	18270D-SI	0.10	<DL	<DL		

Parameter	Known or believed absent	Known or believed present	# of samples	Test method (#)	Detection limit (µg/l)	Influent		Effluent Limitations	
						Daily maximum (µg/l)	Daily average (µg/l)	TBEL	WQBEL
Total Group II PAHs	✓		1	18270D-SI	0.10	<DL	<DL	100 µg/L	---
Naphthalene	✓		1	18270D-SI	2.5	<DL	<DL	20 µg/L	---
E. Halogenated SVOCs									
Total PCBs	✓		1	5.608	0.250	<DL	<DL	0.000064 µg/L	---
Pentachlorophenol	✓		1	18270D-SI	0.80	<DL	<DL	1.0 µg/L	---
F. Fuels Parameters									
Total Petroleum Hydrocarbons	✓		1	74.1664A	400	<DL	<DL	5.0 mg/L	---
Ethanol	✓		0					Report mg/L	---
Methyl-tert-Butyl Ether	✓		1	1.8260C	1.0	<DL	<DL	70 µg/L	
tert-Butyl Alcohol	✓		1	1.8260C	10	<DL	<DL	120 µg/L in MA 40 µg/L in NH	---
tert-Amyl Methyl Ether	✓		1	1.8260C	2.0	<DL	<DL	90 µg/L in MA 140 µg/L in NH	---
Other (i.e., pH, temperature, hardness, salinity, LC_{50}, additional pollutants present); if so, specify:									
pH - Influent		✓	1	121.4500H		7			
Salinity - Influent		✓	1	YSI	660	14.46			
Temp - Influent		✓	1	YSI		12.84 C			
pH - Receiving Water		✓	1	121.4500H		8.4			
Salinity - Receiving Water		✓	1	YSI		20			
Temp - Receiving Water		✓	1	YSI		11.68 C			

E. Treatment system information

1. Indicate the type(s) of treatment that will be applied to effluent prior to discharge: (check all that apply)

☐ Adsorption/Absorption ☐ Advanced Oxidation Processes ☐ Air Stripping ☐ Granulated Activated Carbon ("GAC")/Liquid Phase Carbon Adsorption
■ Ion Exchange ☐ Precipitation/Coagulation/Flocculation ■ Separation/Filtration ☐ Other; if so, specify:

2. Provide a written description of all treatment system(s) or processes that will be applied to the effluent prior to discharge.
Settling tank and bag filters, and Ion exchange resin filter

Identify each major treatment component (check any that apply):
■ Fractionation tanks☐ Equalization tank ☐ Oil/water separator ☐ Mechanical filter ■ Media filter
☐ Chemical feed tank ☐ Air stripping unit ■ Bag filter ☐ Other; if so, specify:

Indicate if either of the following will occur (check any that apply):
☐ Chlorination ☐ De-chlorination

3. Provide the **design flow capacity** in gallons per minute (gpm) of the most limiting component. Indicate the most limiting component: Frac Tank Is use of a flow meter feasible? (check one): ■ Yes ☐ No, if so, provide justification:	35
Provide the proposed maximum effluent flow in gpm.	35
Provide the average effluent flow in gpm.	5
If Activity Category IV applies, indicate the estimated total volume of water that will be discharged:	

4. Has the operator attached a schematic of flow in accordance with the instructions in E, above? (check one): ■ Yes ☐ No

F. Chemical and additive information

1. Indicate the type(s) of chemical or additive that will be applied to effluent prior to discharge or that may otherwise be present in the discharge(s): (check all that apply)

☐ Algaecides/biocides ☐ Antifoams ☐ Coagulants ☐ Corrosion/scale inhibitors ☐ Disinfectants ☐ Flocculants ☐ Neutralizing agents ☐ Oxidants ☐ Oxygen ☐ scavengers ☐ pH conditioners ☐ Bioremedial agents, including microbes ☐ Chlorine or chemicals containing chlorine ☐ Other; if so, specify:
n/a

2. Provide the following information for each chemical/additive, using attachments, if necessary:

a. Product name, chemical formula, and manufacturer of the chemical/additive;
b. Purpose or use of the chemical/additive or remedial agent;
c. Material Safety Data Sheet (MSDS) and Chemical Abstracts Service (CAS) Registry number for each chemical/additive;
d. The frequency (hourly, daily, etc.), duration (hours, days), quantity (maximum and average), and method of application for the chemical/additive;
e. Any material compatibility risks for storage and/or use including the control measures used to minimize such risks; and
f. If available, the vendor's reported aquatic toxicity (NOAEL and/or LC50 in percent for aquatic organism(s)).

3. Has the operator attached an explanation which demonstrates that the addition of such chemicals/additives may be authorized under this general permit in accordance with the instructions in F, above? (check one): ☐ Yes ☐ No; if no, has the operator attached data that demonstrates each of the 126 priority pollutants in CWA Section 307(a) and 40 CFR Part 423.15(j)(1) are non-detect in discharges with the addition of the proposed chemical/additive?
(check one): ☐ Yes ☐ No

G. Endangered Species Act eligibility determination

1. Indicate under which criterion the discharge(s) is eligible for coverage under this general permit:

☐ **FWS Criterion A**: No endangered or threatened species or critical habitat are in proximity to the discharges or related activities or come in contact with the "action area".

☐ **FWS Criterion B**: Formal or informal consultation with the FWS under section 7 of the ESA resulted in either a no jeopardy opinion (formal consultation) or a written concurrence by FWS on a finding that the discharges and related activities are "not likely to adversely affect" listed species or critical habitat (informal consultation). Has the operator completed consultation with FWS? (check one): ☐ Yes ☐ No; if no, is consultation underway? (check one): ☐ Yes ☐ No

☐ **FWS Criterion C**: Using the best scientific and commercial data available, the effect of the discharges and related activities on listed species and critical habitat have been evaluated. Based on those evaluations, a determination is made by EPA, or by the operator and affirmed by EPA, that the discharges and related activities will have "no effect" on any federally threatened or endangered listed species or designated critical habitat under the jurisdiction of the FWS. This determination was made by: (check one) ☐ the operator ☐ EPA ☐ Other; if so, specify:

■ **NMFS Criterion**: A determination made by EPA is affirmed by the operator that the discharges and related activities will have "no effect" or are "not likely to adversely affect" any federally threatened or endangered listed species or critical habitat under the jurisdiction of NMFS and will not result in any take of listed species. Has the operator previously completed consultation with NMFS? (check one): ☐ Yes ■ No

2. Has the operator attached supporting documentation of ESA eligibility in accordance with the instructions in Appendix I, and G, above? (check one): ■ Yes ☐ No

Does the supporting documentation include any written concurrence or finding provided by the Services? (check one): ■ Yes ☐ No; if yes, attach.

H. National Historic Preservation Act eligibility determination

1. Indicate under which criterion the discharge(s) is eligible for coverage under this general permit:

■ **Criterion A**: No historic properties are present. The discharges and discharge-related activities (e.g., BMPs) do not have the potential to cause effects on historic properties.

☐ **Criterion B**: Historic properties are present. Discharges and discharge related activities do not have the potential to cause effects on historic properties.

☐ **Criterion C**: Historic properties are present. The discharges and discharge-related activities have the potential to have an effect or will have an adverse effect on historic properties.

2. Has the operator attached supporting documentation of NHPA eligibility in accordance with the instructions in H, above? (check one): ■ Yes ☐ No

Does the supporting documentation include any written agreement with the State Historic Preservation Officer (SHPO), Tribal Historic Preservation Officer (TPHO), or other tribal representative that outlines measures the operator will carry out to mitigate or prevent any adverse effects on historic properties? (check one): ☐ Yes ■ No

I. Supplemental information

Describe any supplemental information being provided with the NOI. Include attachments if required or otherwise necessary.

NMFS Supporting Information

Has the operator attached data, including any laboratory case narrative and chain of custody used to support the application? (check one): ■ Yes ☐ No

Has the operator attached the certification requirement for the Best Management Practices Plan (BMPP)? (check one): ■ Yes ☐ No

J. Certification requirement

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 gathered and evaluated 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, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I have no personal knowledge that the information submitted is other than true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

BMPP certification statement: A BMPP Statement has been implemented in accordance with good engineering practices following Part 2.5 of the RGP.	
Notification provided to the appropriate State, including a copy of this NOI, if required.	Check one: Yes ■ No ☐
Notification provided to the municipality in which the discharge is located, including a copy of this NOI, if requested.	Check one: Yes ■ No ☐
Notification provided to the owner of a private or municipal storm sewer system, if such system is used for site discharges, including a copy of this NOI, if requested.	Check one: Yes ■ No ☐ NA ☐
Permission obtained from the owner of a private or municipal storm sewer system, if such system is used for site discharges. If yes, attach additional conditions. If no, attach explanation and timeframe for obtaining permission.	Check one: Yes ☐ No ☐ NA ■
Notification provided to the owner/operator of the area associated with activities covered by an additional discharge permit(s). Additional discharge permit is (check one): ■ RGP ☐ DGP ☐ CGP ☐ MSGP ☐ Individual NPDES permit ☐ Other; if so, specify: MAG 910606	Check one: Yes ■ No ☐ NA ☐
Signature: James L Heighton	Date: 11/8/17
Print Name and Title: James L. Heighton Senior Vice President	

APPENDIX C:

DEP PRIORITY RESOURCES MAP

USGS STREAMFLOW STATISTICS REPORT

DILUTION FACTOR AND WQBEL CALCULATIONS

ADDITIONAL NOI SUPPORT INFORMATION

United States Department of the Interior

FISH AND WILDLIFE SERVICE
New England Ecological Services Field Office
70 Commercial Street, Suite 300
Concord, NH 03301-5094
Phone: (603) 223-2541 Fax: (603) 223-0104
http://www.fws.gov/newengland

In Reply Refer To: May 24, 2017
Consultation Code: 05E1NE00-2017-SLI-1624
Event Code: 05E1NE00-2017-E-03281
Project Name: Parcel H&I

Subject: List of threatened and endangered species that may occur in your proposed project location, and/or may be affected by your proposed project

To Whom It May Concern:

The enclosed species list identifies threatened, endangered, proposed and candidate species, as well as proposed and final designated critical habitat, that may occur within the boundary of your proposed project and/or may be affected by your proposed project. The species list fulfills the requirements of the U.S. Fish and Wildlife Service (Service) under section 7(c) of the Endangered Species Act (Act) of 1973, as amended (16 U.S.C. 1531 et seq.).

New information based on updated surveys, changes in the abundance and distribution of species, changed habitat conditions, or other factors could change this list. Please feel free to contact us if you need more current information or assistance regarding the potential impacts to federally proposed, listed, and candidate species and federally designated and proposed critical habitat. Please note that under 50 CFR 402.12(e) of the regulations implementing section 7 of the Act, the accuracy of this species list should be verified after 90 days. This verification can be completed formally or informally as desired. The Service recommends that verification be completed by visiting the ECOS-IPaC website at regular intervals during project planning and implementation for updates to species lists and information. An updated list may be requested through the ECOS-IPaC system by completing the same process used to receive the enclosed list.

The purpose of the Act is to provide a means whereby threatened and endangered species and the ecosystems upon which they depend may be conserved. Under sections 7(a)(1) and 7(a)(2) of the Act and its implementing regulations (50 CFR 402 et seq.), Federal agencies are required to utilize their authorities to carry out programs for the conservation of threatened and endangered species and to determine whether projects may affect threatened and endangered species and/or designated critical habitat.

A Biological Assessment is required for construction projects (or other undertakings having similar physical impacts) that are major Federal actions significantly affecting the quality of the

human environment as defined in the National Environmental Policy Act (42 U.S.C. 4332(2)(c)). For projects other than major construction activities, the Service suggests that a biological evaluation similar to a Biological Assessment be prepared to determine whether the project may affect listed or proposed species and/or designated or proposed critical habitat. Recommended contents of a Biological Assessment are described at 50 CFR 402.12.

If a Federal agency determines, based on the Biological Assessment or biological evaluation, that listed species and/or designated critical habitat may be affected by the proposed project, the agency is required to consult with the Service pursuant to 50 CFR 402. In addition, the Service recommends that candidate species, proposed species and proposed critical habitat be addressed within the consultation. More information on the regulations and procedures for section 7 consultation, including the role of permit or license applicants, can be found in the "Endangered Species Consultation Handbook" at:

http://www.fws.gov/endangered/esa-library/pdf/TOC-GLOS.PDF

Please be aware that bald and golden eagles are protected under the Bald and Golden Eagle Protection Act (16 U.S.C. 668 et seq.), and projects affecting these species may require development of an eagle conservation plan (http://www.fws.gov/windenergy/eagle_guidance.html). Additionally, wind energy projects should follow the wind energy guidelines (http://www.fws.gov/windenergy/) for minimizing impacts to migratory birds and bats.

Guidance for minimizing impacts to migratory birds for projects including communications towers (e.g., cellular, digital television, radio, and emergency broadcast) can be found at: http://www.fws.gov/migratorybirds/CurrentBirdIssues/Hazards/towers/towers.htm; http://www.towerkill.com; and http://www.fws.gov/migratorybirds/CurrentBirdIssues/Hazards/towers/comtow.html.

We appreciate your concern for threatened and endangered species. The Service encourages Federal agencies to include conservation of threatened and endangered species into their project planning to further the purposes of the Act. Please include the Consultation Tracking Number in the header of this letter with any request for consultation or correspondence about your project that you submit to our office.

Attachment(s):

- Official Species List

Official Species List

This list is provided pursuant to Section 7 of the Endangered Species Act, and fulfills the requirement for Federal agencies to "request of the Secretary of the Interior information whether any species which is listed or proposed to be listed may be present in the area of a proposed action".

This species list is provided by:

New England Ecological Services Field Office
70 Commercial Street, Suite 300
Concord, NH 03301-5094
(603) 223-2541

Project Summary

Consultation Code: 05E1NE00-2017-SLI-1624

Event Code: 05E1NE00-2017-E-03281

Project Name: Parcel H&I

Project Type: DEVELOPMENT

Project Description: <1 Acre

Project Location:

Approximate location of the project can be viewed in Google Maps: https://www.google.com/maps/place/42.351568873126425N71.0436029895875W

Counties: Suffolk, MA

Endangered Species Act Species

There is a total of 2 threatened, endangered, or candidate species on your species list. Species on this list should be considered in an effects analysis for your project and could include species that exist in another geographic area. For example, certain fish may appear on the species list because a project could affect downstream species. See the "Critical habitats" section below for those critical habitats that lie wholly or partially within your project area. Please contact the designated FWS office if you have questions.

Birds

NAME	STATUS
Red Knot *(Calidris canutus rufa)* No critical habitat has been designated for this species. Species profile: https://ecos.fws.gov/ecp/species/1864	Threatened
Roseate Tern *(Sterna dougallii dougallii)* Population: northeast U.S. nesting pop. No critical habitat has been designated for this species. Species profile: https://ecos.fws.gov/ecp/species/2083	Endangered

Critical habitats

There are no critical habitats within your project area.

MassDEP - Bureau of Waste Site Cleanup

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

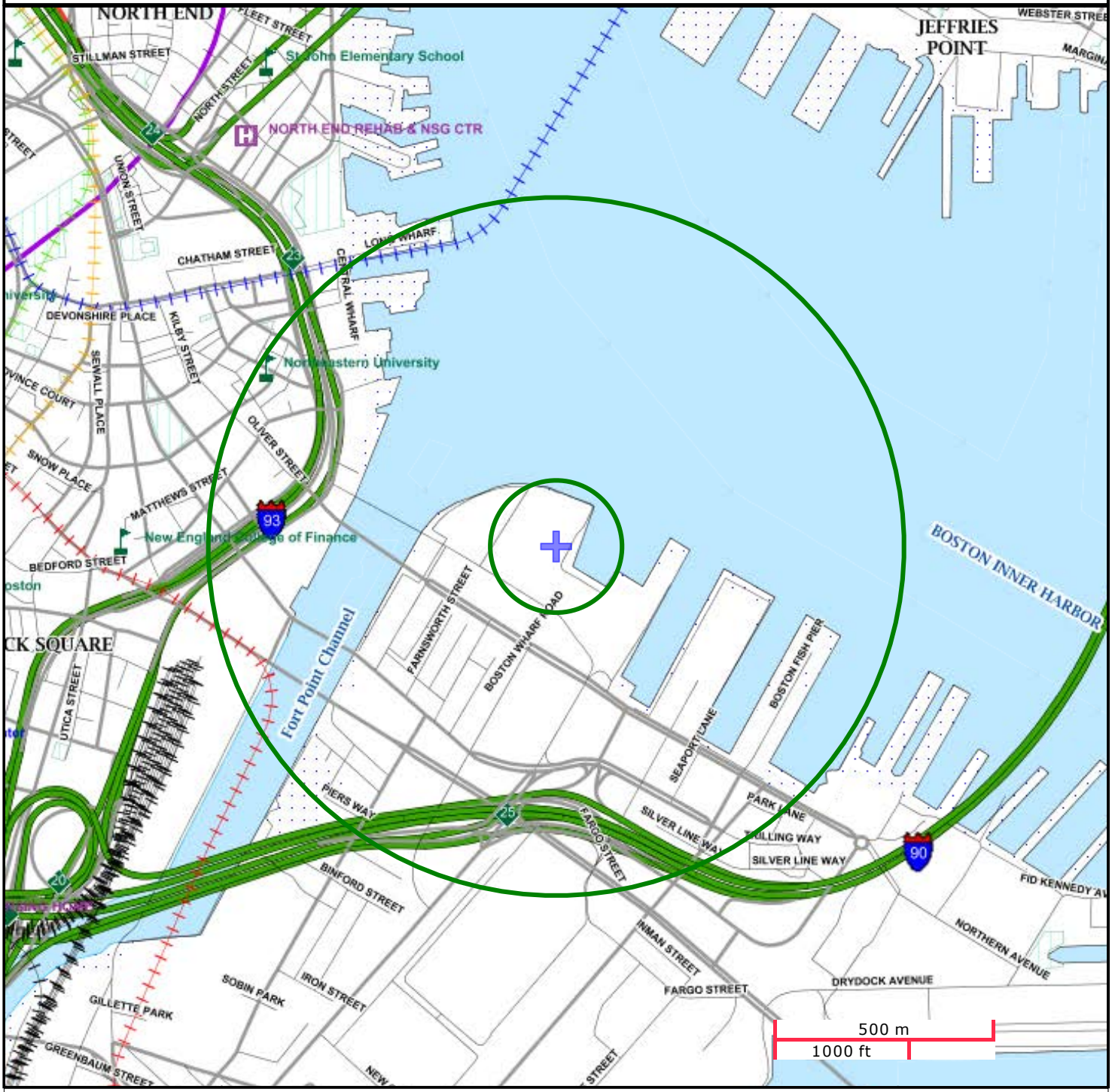
Site Information:

60 NORTHERN AVE BOSTON, MA

NAD83 UTM Meters:
4691088mN , 331594mE (Zone: 19)
May 31, 2017

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 Cultural Resource Information System

MACRIS

MACRIS Search Results

Search Criteria: Town(s): Boston; Place: South Boston East; Street No: 110; Street Name: Northern Ave; Resource Type(s): Area, Building, Burial Ground, Object, Structure;

Inv. No.	Property Name	Street	Town	Year

APPENDIX D:

LABORATORY ANALYTIC DATA - GROUNDWATER

ANALYTICAL REPORT

Lab Number:	L1722001
Client:	Ground/Water Treatment & Technology 39 River Street Millbury, MA 01527
ATTN:	TJ McGoff
Phone:	(508) 755-7075
Project Name:	FAN PIER
Project Number:	16-3194
Report Date:	07/07/17

Certifications & Approvals: MA (M-MA086), NH NELAP (2064), NJ NELAP (MA935), CT (PH-0574), IL (200077), ME (MA00086), MD (348), NY (11148), NC (25700/666), PA (68-03671), RI (LAO00065), TX (T104704476), VT (VT-0935), VA (460195), USDA (Permit #P330-14-00197).

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

Project Name: FAN PIER
Project Number: 16-3194

Lab Number: L1722001
Report Date: 07/07/17

Alpha Sample ID	Client ID	Matrix	Sample Location	Collection Date/Time	Receive Date
L1722001-01	INF-BLDG (H&I)	WATER	100 NORTHERN AVE.	06/27/17 10:45	06/28/17
L1722001-02	EFF-BLDG (H&I)	WATER	100 NORTHERN AVE.	06/27/17 10:30	06/28/17
L1722001-03	INF-BLDG (H&I)	WATER	100 NORTHERN AVE.	06/27/17 10:45	06/29/17

Project Name: FAN PIER
Project Number: 16-3194

Lab Number: L1722001
Report Date: 07/07/17

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 NELAP requirements for all NELAP accredited parameters unless otherwise noted in the following narrative. 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. Tentatively Identified Compounds (TICs), if requested, are reported for compounds identified to be present and are not part of the method/program Target Compound List, even if only a subset of the TCL are being reported. 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:	FAN PIER	**Lab Number:**	L1722001
Project Number:	16-3194	**Report Date:**	07/07/17

Case Narrative (continued)

Report Submission

All non-detect (ND) or estimated concentrations (J-qualified) have been quantitated to the limit noted in the MDL column.

Solids, Total Suspended

WG1018668: A laboratory duplicate could not be performed due to insufficient sample volume available for analysis.

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: 07/07/17

ORGANICS

VOLATILES

Project Name: FAN PIER
Project Number: 16-3194
Lab Number: L1722001
Report Date: 07/07/17

SAMPLE RESULTS

Lab ID: L1722001-01
Client ID: INF-BLDG (H&I)
Sample Location: 100 NORTHERN AVE.

Date Collected: 06/27/17 10:45
Date Received: 06/28/17
Field Prep: Not Specified

Matrix: Water
Analytical Method: 1,8260C
Analytical Date: 07/06/17 18:32
Analyst: NL

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
Acetone	ND		ug/l	5.0	1.5	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	103		70-130
Toluene-d8	97		70-130
4-Bromofluorobenzene	102		70-130
Dibromofluoromethane	99		70-130

Project Name: FAN PIER
Project Number: 16-3194
Lab Number: L1722001
Report Date: 07/07/17

SAMPLE RESULTS

Lab ID: L1722001-02
Client ID: EFF-BLDG (H&I)
Sample Location: 100 NORTHERN AVE.

Date Collected: 06/27/17 10:30
Date Received: 06/28/17
Field Prep: Not Specified

Matrix: Water
Analytical Method: 1,8260C
Analytical Date: 07/06/17 19:06
Analyst: PK

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
Acetone	ND		ug/l	5.0	1.5	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	106		70-130
Toluene-d8	97		70-130
4-Bromofluorobenzene	102		70-130
Dibromofluoromethane	100		70-130

Project Name: FAN PIER
Project Number: 16-3194
Lab Number: L1722001
Report Date: 07/07/17

Method Blank Analysis
Batch Quality Control

Analytical Method: 1,8260C
Analytical Date: 07/06/17 10:15
Analyst: PD

Parameter	Result	Qualifier	Units	RL	MDL
Volatile Organics by GC/MS - Westborough Lab for sample(s): 01-02 Batch: WG1020160-5					
Methylene chloride	ND		ug/l	3.0	0.68
1,1-Dichloroethane	ND		ug/l	0.75	0.21
Chloroform	ND		ug/l	0.75	0.16
Carbon tetrachloride	ND		ug/l	0.50	0.13
1,2-Dichloropropane	ND		ug/l	1.8	0.14
Dibromochloromethane	ND		ug/l	0.50	0.15
1,1,2-Trichloroethane	ND		ug/l	0.75	0.14
2-Chloroethylvinyl ether	ND		ug/l	10	0.40
Tetrachloroethene	ND		ug/l	0.50	0.18
Chlorobenzene	ND		ug/l	0.50	0.18
Trichlorofluoromethane	ND		ug/l	2.5	0.16
1,2-Dichloroethane	ND		ug/l	0.50	0.13
1,1,1-Trichloroethane	ND		ug/l	0.50	0.16
Bromodichloromethane	ND		ug/l	0.50	0.19
trans-1,3-Dichloropropene	ND		ug/l	0.50	0.16
cis-1,3-Dichloropropene	ND		ug/l	0.50	0.14
1,3-Dichloropropene, Total	ND		ug/l	0.50	0.14
1,1-Dichloropropene	ND		ug/l	2.5	0.17
Bromoform	ND		ug/l	2.0	0.25
1,1,2,2-Tetrachloroethane	ND		ug/l	0.50	0.17
Benzene	ND		ug/l	0.50	0.16
Toluene	ND		ug/l	0.75	0.16
Ethylbenzene	ND		ug/l	0.50	0.17
Chloromethane	ND		ug/l	2.5	0.18
Bromomethane	ND		ug/l	1.0	0.26
Vinyl chloride	ND		ug/l	1.0	0.07
Chloroethane	ND		ug/l	1.0	0.13
1,1-Dichloroethene	ND		ug/l	0.50	0.17
trans-1,2-Dichloroethene	ND		ug/l	0.75	0.16

Project Name: FAN PIER
Project Number: 16-3194

Lab Number: L1722001
Report Date: 07/07/17

Method Blank Analysis
Batch Quality Control

Analytical Method: 1,8260C
Analytical Date: 07/06/17 10:15
Analyst: PD

Parameter	Result	Qualifier	Units	RL	MDL
Volatile Organics by GC/MS - Westborough Lab for sample(s): 01-02 Batch: WG1020160-5					
1,2-Dichloroethene, Total	ND		ug/l	0.50	0.16
Trichloroethene	ND		ug/l	0.50	0.18
1,2-Dichlorobenzene	ND		ug/l	2.5	0.18
1,3-Dichlorobenzene	ND		ug/l	2.5	0.19
1,4-Dichlorobenzene	ND		ug/l	2.5	0.19
Methyl tert butyl ether	ND		ug/l	1.0	0.17
p/m-Xylene	ND		ug/l	1.0	0.33
o-Xylene	ND		ug/l	1.0	0.33
Xylenes, Total	ND		ug/l	1.0	0.33
cis-1,2-Dichloroethene	ND		ug/l	0.50	0.19
Dibromomethane	ND		ug/l	5.0	0.36
1,4-Dichlorobutane	ND		ug/l	5.0	0.46
Iodomethane	ND		ug/l	5.0	0.25
1,2,3-Trichloropropane	ND		ug/l	5.0	0.18
Styrene	ND		ug/l	1.0	0.36
Dichlorodifluoromethane	ND		ug/l	5.0	0.24
Acetone	ND		ug/l	5.0	1.5
Carbon disulfide	ND		ug/l	5.0	0.30
2-Butanone	ND		ug/l	5.0	1.9
Vinyl acetate	ND		ug/l	5.0	0.31
4-Methyl-2-pentanone	ND		ug/l	5.0	0.42
2-Hexanone	ND		ug/l	5.0	0.52
Ethyl methacrylate	ND		ug/l	5.0	0.61
Acrolein	ND		ug/l	5.0	0.44
Acrylonitrile	ND		ug/l	5.0	0.43
Bromochloromethane	ND		ug/l	2.5	0.15
Tetrahydrofuran	ND		ug/l	5.0	0.83
2,2-Dichloropropane	ND		ug/l	2.5	0.20
1,2-Dibromoethane	ND		ug/l	2.0	0.19

Project Name: FAN PIER
Project Number: 16-3194
Lab Number: L1722001
Report Date: 07/07/17

Method Blank Analysis
Batch Quality Control

Analytical Method: 1,8260C
Analytical Date: 07/06/17 10:15
Analyst: PD

Parameter	Result	Qualifier	Units	RL	MDL
Volatile Organics by GC/MS - Westborough Lab for sample(s): 01-02 Batch: WG1020160-5					
1,3-Dichloropropane	ND		ug/l	2.5	0.21
1,1,1,2-Tetrachloroethane	ND		ug/l	0.50	0.16
Bromobenzene	ND		ug/l	2.5	0.15
n-Butylbenzene	ND		ug/l	0.50	0.19
sec-Butylbenzene	ND		ug/l	0.50	0.18
tert-Butylbenzene	ND		ug/l	2.5	0.18
o-Chlorotoluene	ND		ug/l	2.5	0.17
p-Chlorotoluene	ND		ug/l	2.5	0.18
1,2-Dibromo-3-chloropropane	ND		ug/l	2.5	0.35
Hexachlorobutadiene	ND		ug/l	0.50	0.22
Isopropylbenzene	ND		ug/l	0.50	0.19
p-Isopropyltoluene	ND		ug/l	0.50	0.19
Naphthalene	ND		ug/l	2.5	0.22
n-Propylbenzene	ND		ug/l	0.50	0.17
1,2,3-Trichlorobenzene	ND		ug/l	2.5	0.23
1,2,4-Trichlorobenzene	ND		ug/l	2.5	0.22
1,3,5-Trimethylbenzene	ND		ug/l	2.5	0.17
1,3,5-Trichlorobenzene	ND		ug/l	2.0	0.14
1,2,4-Trimethylbenzene	ND		ug/l	2.5	0.19
trans-1,4-Dichloro-2-butene	ND		ug/l	2.5	0.18
Halothane	ND		ug/l	2.5	0.29
Ethyl ether	ND		ug/l	2.5	0.16
Methyl Acetate	ND		ug/l	10	0.23
Ethyl Acetate	ND		ug/l	10	0.72
Isopropyl Ether	ND		ug/l	2.0	0.42
Cyclohexane	ND		ug/l	10	0.27
Tert-Butyl Alcohol	ND		ug/l	10	1.4
Ethyl-Tert-Butyl-Ether	ND		ug/l	2.0	0.18
Tertiary-Amyl Methyl Ether	ND		ug/l	2.0	0.28

Project Name: FAN PIER
Project Number: 16-3194

Lab Number: L1722001
Report Date: 07/07/17

Method Blank Analysis
Batch Quality Control

Analytical Method: 1,8260C
Analytical Date: 07/06/17 10:15
Analyst: PD

Parameter	Result	Qualifier	Units	RL	MDL
Volatile Organics by GC/MS - Westborough Lab for sample(s): 01-02 Batch: WG1020160-5					
1,4-Dioxane	ND		ug/l	250	61.
1,1,2-Trichloro-1,2,2-Trifluoroethane	ND		ug/l	10	0.15
Methyl cyclohexane	ND		ug/l	10	0.40
p-Diethylbenzene	ND		ug/l	2.0	0.39
4-Ethyltoluene	ND		ug/l	2.0	0.34
1,2,4,5-Tetramethylbenzene	ND		ug/l	2.0	0.54

Surrogate	%Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	103		70-130
Toluene-d8	101		70-130
4-Bromofluorobenzene	103		70-130
Dibromofluoromethane	99		70-130

Lab Control Sample Analysis
Batch Quality Control

Project Name: FAN PIER
Project Number: 16-3194

Lab Number: L1722001
Report Date: 07/07/17

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Volatile Organics by GC/MS - Westborough Lab Associated sample(s): 01-02 Batch: WG1020160-3 WG1020160-4								
Methylene chloride	100		88		70-130	13		20
1,1-Dichloroethane	97		88		70-130	10		20
Chloroform	98		90		70-130	9		20
Carbon tetrachloride	97		92		63-132	5		20
1,2-Dichloropropane	99		99		70-130	0		20
Dibromochloromethane	91		89		63-130	2		20
1,1,2-Trichloroethane	97		95		70-130	2		20
2-Chloroethylvinyl ether	77		79		70-130	3		20
Tetrachloroethene	96		92		70-130	4		20
Chlorobenzene	95		94		75-130	1		25
Trichlorofluoromethane	94		89		62-150	5		20
1,2-Dichloroethane	95		95		70-130	0		20
1,1,1-Trichloroethane	97		93		67-130	4		20
Bromodichloromethane	100		100		67-130	0		20
trans-1,3-Dichloropropene	89		86		70-130	3		20
cis-1,3-Dichloropropene	91		90		70-130	1		20
1,1-Dichloropropene	97		95		70-130	2		20
Bromoform	91		87		54-136	4		20
1,1,2,2-Tetrachloroethane	97		97		67-130	0		20
Benzene	98		96		70-130	2		25
Toluene	97		96		70-130	1		25
Ethylbenzene	100		99		70-130	1		20
Chloromethane	80		79		64-130	1		20

Lab Control Sample Analysis
Batch Quality Control

Project Name: FAN PIER
Project Number: 16-3194

Lab Number: L1722001
Report Date: 07/07/17

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Volatile Organics by GC/MS - Westborough Lab Associated sample(s): 01-02 Batch: WG1020160-3 WG1020160-4								
Bromomethane	83		80		39-139	4		20
Vinyl chloride	88		83		55-140	6		20
Chloroethane	100		97		55-138	3		20
1,1-Dichloroethene	97		82		61-145	17		25
trans-1,2-Dichloroethene	98		84		70-130	15		20
Trichloroethene	95		92		70-130	3		25
1,2-Dichlorobenzene	94		94		70-130	0		20
1,3-Dichlorobenzene	95		94		70-130	1		20
1,4-Dichlorobenzene	93		93		70-130	0		20
Methyl tert butyl ether	110		95		63-130	15		20
p/m-Xylene	100		100		70-130	0		20
o-Xylene	100		95		70-130	5		20
cis-1,2-Dichloroethene	98		84		70-130	15		20
Dibromomethane	94		95		70-130	1		20
1,4-Dichlorobutane	96		96		70-130	0		20
Iodomethane	**33**	Q	**44**	Q	70-130	**29**	Q	20
1,2,3-Trichloropropane	91		91		64-130	0		20
Styrene	100		100		70-130	0		20
Dichlorodifluoromethane	84		78		36-147	7		20
Acetone	100		92		58-148	8		20
Carbon disulfide	78		65		51-130	18		20
2-Butanone	100		87		63-138	14		20
Vinyl acetate	110		99		70-130	11		20

Lab Control Sample Analysis
Batch Quality Control

Project Name: FAN PIER
Project Number: 16-3194

Lab Number: L1722001
Report Date: 07/07/17

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Volatile Organics by GC/MS - Westborough Lab Associated sample(s): 01-02 Batch: WG1020160-3 WG1020160-4								
4-Methyl-2-pentanone	91		91		59-130	0		20
2-Hexanone	92		88		57-130	4		20
Ethyl methacrylate	100		100		70-130	0		20
Acrolein	93		85		70-130	9		20
Acrylonitrile	92		84		70-130	9		20
Bromochloromethane	97		90		70-130	7		20
Tetrahydrofuran	90		87		58-130	3		20
2,2-Dichloropropane	130		120		63-133	8		20
1,2-Dibromoethane	100		98		70-130	2		20
1,3-Dichloropropane	95		94		70-130	1		20
1,1,1,2-Tetrachloroethane	99		98		64-130	1		20
Bromobenzene	96		95		70-130	1		20
n-Butylbenzene	100		99		53-136	1		20
sec-Butylbenzene	100		99		70-130	1		20
tert-Butylbenzene	100		97		70-130	3		20
o-Chlorotoluene	99		97		70-130	2		20
p-Chlorotoluene	98		99		70-130	1		20
1,2-Dibromo-3-chloropropane	81		78		41-144	4		20
Hexachlorobutadiene	94		89		63-130	5		20
Isopropylbenzene	100		100		70-130	0		20
p-Isopropyltoluene	100		98		70-130	2		20
Naphthalene	92		93		70-130	1		20
n-Propylbenzene	100		100		69-130	0		20

Lab Control Sample Analysis
Batch Quality Control

Project Name: FAN PIER
Project Number: 16-3194

Lab Number: L1722001
Report Date: 07/07/17

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Volatile Organics by GC/MS - Westborough Lab Associated sample(s): 01-02 Batch: WG1020160-3 WG1020160-4								
1,2,3-Trichlorobenzene	97		99		70-130	2		20
1,2,4-Trichlorobenzene	90		91		70-130	1		20
1,3,5-Trimethylbenzene	100		100		64-130	0		20
1,3,5-Trichlorobenzene	90		90		70-130	0		20
1,2,4-Trimethylbenzene	100		100		70-130	0		20
trans-1,4-Dichloro-2-butene	96		90		70-130	6		20
Halothane	95		82		70-130	15		20
Ethyl ether	94		96		59-134	2		20
Methyl Acetate	93		82		70-130	13		20
Ethyl Acetate	91		83		70-130	9		20
Isopropyl Ether	93		84		70-130	10		20
Cyclohexane	93		88		70-130	6		20
Tert-Butyl Alcohol	100		84		70-130	17		20
Ethyl-Tert-Butyl-Ether	**160**	Q	**150**	Q	70-130	6		20
Tertiary-Amyl Methyl Ether	110		110		66-130	0		20
1,4-Dioxane	90		74		56-162	20		20
1,1,2-Trichloro-1,2,2-Trifluoroethane	92		85		70-130	8		20
Methyl cyclohexane	96		89		70-130	8		20
p-Diethylbenzene	97		94		70-130	3		20
4-Ethyltoluene	100		96		70-130	4		20
1,2,4,5-Tetramethylbenzene	98		96		70-130	2		20

Lab Control Sample Analysis
Batch Quality Control

Project Name: FAN PIER
Project Number: 16-3194

Lab Number: L1722001
Report Date: 07/07/17

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Volatile Organics by GC/MS - Westborough Lab Associated sample(s): 01-02 Batch: WG1020160-3 WG1020160-4								

Surrogate	LCS %Recovery	Qual	LCSD %Recovery	Qual	Acceptance Criteria
1,2-Dichloroethane-d4	97		98		70-130
Toluene-d8	99		99		70-130
4-Bromofluorobenzene	101		102		70-130
Dibromofluoromethane	101		98		70-130

SEMIVOLATILES

Project Name: FAN PIER
Project Number: 16-3194
Lab Number: L1722001
Report Date: 07/07/17

SAMPLE RESULTS

Lab ID: L1722001-01
Client ID: INF-BLDG (H&I)
Sample Location: 100 NORTHERN AVE.

Matrix: Water
Analytical Method: 1,8270D-SIM
Analytical Date: 07/06/17 15:33
Analyst: DV

Date Collected: 06/27/17 10:45
Date Received: 06/28/17
Field Prep: Not Specified
Extraction Method: EPA 3510C
Extraction Date: 06/30/17 07:04

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
PAHs by GC/MS-SIM - Westborough Lab						
Acenaphthene	ND		ug/l	0.10	0.04	1
2-Chloronaphthalene	ND		ug/l	0.20	0.04	1
Fluoranthene	ND		ug/l	0.10	0.04	1
Naphthalene	ND		ug/l	0.10	0.04	1
Benzo(a)anthracene	ND		ug/l	0.10	0.02	1
Benzo(a)pyrene	ND		ug/l	0.10	0.04	1
Benzo(b)fluoranthene	ND		ug/l	0.10	0.02	1
Benzo(k)fluoranthene	ND		ug/l	0.10	0.04	1
Chrysene	ND		ug/l	0.10	0.04	1
Acenaphthylene	ND		ug/l	0.10	0.04	1
Anthracene	ND		ug/l	0.10	0.04	1
Benzo(ghi)perylene	ND		ug/l	0.10	0.04	1
Fluorene	ND		ug/l	0.10	0.04	1
Phenanthrene	ND		ug/l	0.10	0.02	1
Dibenzo(a,h)anthracene	ND		ug/l	0.10	0.04	1
Indeno(1,2,3-cd)pyrene	ND		ug/l	0.10	0.04	1
Pyrene	ND		ug/l	0.10	0.04	1
1-Methylnaphthalene	ND		ug/l	0.10	0.04	1
2-Methylnaphthalene	ND		ug/l	0.10	0.05	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
Nitrobenzene-d5	80		23-120
2-Fluorobiphenyl	85		15-120
4-Terphenyl-d14	79		41-149

Project Name: FAN PIER
Project Number: 16-3194
Lab Number: L1722001
Report Date: 07/07/17

SAMPLE RESULTS

Lab ID: L1722001-02
Client ID: EFF-BLDG (H&I)
Sample Location: 100 NORTHERN AVE.

Matrix: Water
Analytical Method: 1,8270D-SIM
Analytical Date: 07/06/17 16:05
Analyst: DV

Date Collected: 06/27/17 10:30
Date Received: 06/28/17
Field Prep: Not Specified
Extraction Method: EPA 3510C
Extraction Date: 06/30/17 07:04

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
PAHs by GC/MS-SIM - Westborough Lab						
Acenaphthene	ND		ug/l	0.10	0.04	1
2-Chloronaphthalene	ND		ug/l	0.20	0.04	1
Fluoranthene	ND		ug/l	0.10	0.04	1
Naphthalene	ND		ug/l	0.10	0.04	1
Benzo(a)anthracene	ND		ug/l	0.10	0.02	1
Benzo(a)pyrene	ND		ug/l	0.10	0.04	1
Benzo(b)fluoranthene	ND		ug/l	0.10	0.02	1
Benzo(k)fluoranthene	ND		ug/l	0.10	0.04	1
Chrysene	ND		ug/l	0.10	0.04	1
Acenaphthylene	ND		ug/l	0.10	0.04	1
Anthracene	ND		ug/l	0.10	0.04	1
Benzo(ghi)perylene	ND		ug/l	0.10	0.04	1
Fluorene	ND		ug/l	0.10	0.04	1
Phenanthrene	ND		ug/l	0.10	0.02	1
Dibenzo(a,h)anthracene	ND		ug/l	0.10	0.04	1
Indeno(1,2,3-cd)pyrene	ND		ug/l	0.10	0.04	1
Pyrene	ND		ug/l	0.10	0.04	1
1-Methylnaphthalene	ND		ug/l	0.10	0.04	1
2-Methylnaphthalene	ND		ug/l	0.10	0.05	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
Nitrobenzene-d5	78		23-120
2-Fluorobiphenyl	84		15-120
4-Terphenyl-d14	79		41-149

Project Name: FAN PIER
Project Number: 16-3194

Lab Number: L1722001
Report Date: 07/07/17

Method Blank Analysis
Batch Quality Control

Analytical Method: 1,8270D-SIM
Analytical Date: 07/04/17 15:41
Analyst: KL

Extraction Method: EPA 3510C
Extraction Date: 06/30/17 07:04

Parameter	Result	Qualifier	Units	RL	MDL
Semivolatile Organics by GC/MS-SIM - Westborough Lab for sample(s): 01-02 Batch: WG1018705-1					
Acenaphthene	ND		ug/l	0.10	0.04
2-Chloronaphthalene	ND		ug/l	0.20	0.04
Fluoranthene	0.08	J	ug/l	0.10	0.04
Naphthalene	ND		ug/l	0.10	0.04
Benzo(a)anthracene	0.04	J	ug/l	0.10	0.02
Benzo(a)pyrene	ND		ug/l	0.10	0.04
Benzo(b)fluoranthene	ND		ug/l	0.10	0.02
Benzo(k)fluoranthene	ND		ug/l	0.10	0.04
Chrysene	ND		ug/l	0.10	0.04
Acenaphthylene	ND		ug/l	0.10	0.04
Anthracene	ND		ug/l	0.10	0.04
Benzo(ghi)perylene	ND		ug/l	0.10	0.04
Fluorene	ND		ug/l	0.10	0.04
Phenanthrene	ND		ug/l	0.10	0.02
Dibenzo(a,h)anthracene	ND		ug/l	0.10	0.04
Indeno(1,2,3-cd)pyrene	ND		ug/l	0.10	0.04
Pyrene	0.06	J	ug/l	0.10	0.04
1-Methylnaphthalene	ND		ug/l	0.10	0.04
2-Methylnaphthalene	ND		ug/l	0.10	0.05

Surrogate	%Recovery	Qualifier	Acceptance Criteria
Nitrobenzene-d5	36		23-120
2-Fluorobiphenyl	46		15-120
4-Terphenyl-d14	50		41-149

Lab Control Sample Analysis
Batch Quality Control

Project Name: FAN PIER
Project Number: 16-3194

Lab Number: L1722001
Report Date: 07/07/17

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Semivolatile Organics by GC/MS-SIM - Westborough Lab Associated sample(s): 01-02 Batch: WG1018705-2 WG1018705-3								
Acenaphthene	52		53		37-111	2		40
2-Chloronaphthalene	55		56		40-140	2		40
Fluoranthene	53		55		40-140	4		40
Naphthalene	46		49		40-140	6		40
Benzo(a)anthracene	48		49		40-140	2		40
Benzo(a)pyrene	45		46		40-140	2		40
Benzo(b)fluoranthene	46		48		40-140	4		40
Benzo(k)fluoranthene	43		45		40-140	5		40
Chrysene	45		47		40-140	4		40
Acenaphthylene	56		58		40-140	4		40
Anthracene	51		52		40-140	2		40
Benzo(ghi)perylene	45		48		40-140	6		40
Fluorene	57		58		40-140	2		40
Phenanthrene	49		50		40-140	2		40
Dibenzo(a,h)anthracene	44		47		40-140	7		40
Indeno(1,2,3-cd)pyrene	47		50		40-140	6		40
Pyrene	52		54		26-127	4		40
1-Methylnaphthalene	51		53		40-140	4		40
2-Methylnaphthalene	50		52		40-140	4		40

Lab Control Sample Analysis
Batch Quality Control

Project Name: FAN PIER
Project Number: 16-3194

Lab Number: L1722001
Report Date: 07/07/17

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Semivolatile Organics by GC/MS-SIM - Westborough Lab Associated sample(s): 01-02 Batch: WG1018705-2 WG1018705-3								

Surrogate	LCS %Recovery	Qual	LCSD %Recovery	Qual	Acceptance Criteria
Nitrobenzene-d5	48		52		23-120
2-Fluorobiphenyl	55		56		15-120
4-Terphenyl-d14	56		57		41-149

PCBS

Project Name: FAN PIER
Project Number: 16-3194
Lab Number: L1722001
Report Date: 07/07/17

SAMPLE RESULTS

Lab ID: L1722001-01
Client ID: INF-BLDG (H&I)
Sample Location: 100 NORTHERN AVE.

Matrix: Water
Analytical Method: 5,608
Analytical Date: 07/05/17 15:58
Analyst: HT

Date Collected: 06/27/17 10:45
Date Received: 06/28/17
Field Prep: Not Specified
Extraction Method: EPA 608
Extraction Date: 07/01/17 00:04
Cleanup Method: EPA 3665A
Cleanup Date: 07/01/17
Cleanup Method: EPA 3660B
Cleanup Date: 07/02/17

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Column
Polychlorinated Biphenyls by GC - Westborough Lab							
Aroclor 1016	ND		ug/l	0.250	0.042	1	A
Aroclor 1221	ND		ug/l	0.250	0.056	1	A
Aroclor 1232	ND		ug/l	0.250	0.024	1	A
Aroclor 1242	ND		ug/l	0.250	0.028	1	A
Aroclor 1248	ND		ug/l	0.250	0.028	1	A
Aroclor 1254	ND		ug/l	0.250	0.043	1	A
Aroclor 1260	ND		ug/l	0.200	0.045	1	A

Surrogate	% Recovery	Qualifier	Acceptance Criteria	Column
2,4,5,6-Tetrachloro-m-xylene	72		30-150	A
Decachlorobiphenyl	62		30-150	A

Project Name: FAN PIER
Project Number: 16-3194
Lab Number: L1722001
Report Date: 07/07/17

SAMPLE RESULTS

Lab ID: L1722001-02
Client ID: EFF-BLDG (H&I)
Sample Location: 100 NORTHERN AVE.

Matrix: Water
Analytical Method: 5,608
Analytical Date: 07/05/17 16:10
Analyst: HT

Date Collected: 06/27/17 10:30
Date Received: 06/28/17
Field Prep: Not Specified
Extraction Method: EPA 608
Extraction Date: 07/01/17 00:04
Cleanup Method: EPA 3665A
Cleanup Date: 07/01/17
Cleanup Method: EPA 3660B
Cleanup Date: 07/02/17

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Column
Polychlorinated Biphenyls by GC - Westborough Lab							
Aroclor 1016	ND		ug/l	0.250	0.042	1	A
Aroclor 1221	ND		ug/l	0.250	0.056	1	A
Aroclor 1232	ND		ug/l	0.250	0.024	1	A
Aroclor 1242	ND		ug/l	0.250	0.028	1	A
Aroclor 1248	ND		ug/l	0.250	0.028	1	A
Aroclor 1254	ND		ug/l	0.250	0.043	1	A
Aroclor 1260	ND		ug/l	0.200	0.045	1	A

Surrogate	% Recovery	Qualifier	Acceptance Criteria	Column
2,4,5,6-Tetrachloro-m-xylene	72		30-150	A
Decachlorobiphenyl	65		30-150	A

Project Name: FAN PIER
Project Number: 16-3194

Lab Number: L1722001
Report Date: 07/07/17

Method Blank Analysis
Batch Quality Control

Analytical Method: 5,608
Analytical Date: 07/05/17 14:56
Analyst: HT

Extraction Method: EPA 608
Extraction Date: 07/01/17 00:04
Cleanup Method: EPA 3665A
Cleanup Date: 07/01/17
Cleanup Method: EPA 3660B
Cleanup Date: 07/02/17

Parameter	Result	Qualifier	Units	RL	MDL	Column
Polychlorinated Biphenyls by GC - Westborough Lab for sample(s): 01-02 Batch: WG1019020-1						
Aroclor 1016	ND		ug/l	0.250	0.042	A
Aroclor 1221	ND		ug/l	0.250	0.056	A
Aroclor 1232	ND		ug/l	0.250	0.024	A
Aroclor 1242	ND		ug/l	0.250	0.028	A
Aroclor 1248	ND		ug/l	0.250	0.028	A
Aroclor 1254	ND		ug/l	0.250	0.043	A
Aroclor 1260	ND		ug/l	0.200	0.045	A

Surrogate	%Recovery	Qualifier	Acceptance Criteria	Column
2,4,5,6-Tetrachloro-m-xylene	69		30-150	A
Decachlorobiphenyl	65		30-150	A

Lab Control Sample Analysis

Batch Quality Control

Project Name: FAN PIER

Project Number: 16-3194

Lab Number: L1722001

Report Date: 07/07/17

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits	Column
Polychlorinated Biphenyls by GC - Westborough Lab Associated sample(s): 01-02 Batch: WG1019020-2									
Aroclor 1016	75		-		30-150	-		30	A
Aroclor 1260	73		-		30-150	-		30	A

Surrogate	LCS %Recovery	Qual	LCSD %Recovery	Qual	Acceptance Criteria	Column
2,4,5,6-Tetrachloro-m-xylene	71				30-150	A
Decachlorobiphenyl	65				30-150	A

Matrix Spike Analysis

Batch Quality Control

Project Name: FAN PIER
Project Number: 16-3194

Lab Number: L1722001
Report Date: 07/07/17

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): 01-02	QC Batch ID: WG1019020-3	QC Sample: L1722003-01	Client ID: MS Sample									
Aroclor 1016	ND	3.12	2.38	76		-	-		40-126	-		30	A
Aroclor 1260	ND	3.12	2.29	73		-	-		40-127	-		30	A

Surrogate	MS % Recovery	MS Qualifier	MSD % Recovery	MSD Qualifier	Acceptance Criteria	Column
2,4,5,6-Tetrachloro-m-xylene	77				30-150	A
Decachlorobiphenyl	61				30-150	A

Lab Duplicate Analysis
Batch Quality Control

Project Name: FAN PIER
Project Number: 16-3194

Lab Number: L1722001
Report Date: 07/07/17

Parameter	Native Sample	Duplicate Sample	Units	RPD	Qual	RPD Limits	
Polychlorinated Biphenyls by GC - Westborough Lab Associated sample(s): 01-02 QC Batch ID: WG1019020-4 QC Sample: L1722003-02 Client ID: DUP Sample							
Aroclor 1016	ND	ND	ug/l	NC		30	A
Aroclor 1221	ND	ND	ug/l	NC		30	A
Aroclor 1232	ND	ND	ug/l	NC		30	A
Aroclor 1242	ND	ND	ug/l	NC		30	A
Aroclor 1248	ND	ND	ug/l	NC		30	A
Aroclor 1254	ND	ND	ug/l	NC		30	A
Aroclor 1260	ND	ND	ug/l	NC		30	A

Surrogate	%Recovery	Qualifier	%Recovery	Qualifier	Acceptance Criteria	Column
2,4,5,6-Tetrachloro-m-xylene	75		73		30-150	A
Decachlorobiphenyl	64		65		30-150	A

METALS

Project Name: FAN PIER
Project Number: 16-3194
Lab Number: L1722001
Report Date: 07/07/17

SAMPLE RESULTS

Lab ID: L1722001-01
Client ID: INF-BLDG (H&I)
Sample Location: 100 NORTHERN AVE.
Matrix: Water
Date Collected: 06/27/17 10:45
Date Received: 06/28/17
Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Prep Method	Analytical Method	Analyst
Total Metals - Mansfield Lab											
Arsenic, Total	0.00502		mg/l	0.00050	0.00016	1	07/06/17 12:00	07/07/17 18:46	EPA 3005A	1,6020A	BV
Cadmium, Total	0.00009	J	mg/l	0.00020	0.00005	1	07/06/17 12:00	07/07/17 18:46	EPA 3005A	1,6020A	BV
Copper, Total	0.08260		mg/l	0.00100	0.00038	1	07/06/17 12:00	07/07/17 18:46	EPA 3005A	1,6020A	BV
Iron, Total	0.320		mg/l	0.050	0.009	1	07/06/17 12:00	07/06/17 20:06	EPA 3005A	19,200.7	AB
Lead, Total	0.00108		mg/l	0.00050	0.00034	1	07/06/17 12:00	07/07/17 18:46	EPA 3005A	1,6020A	BV
Nickel, Total	0.00441		mg/l	0.00200	0.00055	1	07/06/17 12:00	07/07/17 18:46	EPA 3005A	1,6020A	BV
Selenium, Total	ND		mg/l	0.00500	0.00173	1	07/06/17 12:00	07/07/17 18:46	EPA 3005A	1,6020A	BV
Zinc, Total	1.516		mg/l	0.01000	0.00341	1	07/06/17 12:00	07/07/17 18:46	EPA 3005A	1,6020A	BV

Project Name: FAN PIER
Lab Number: L1722001
Project Number: 16-3194
Report Date: 07/07/17

SAMPLE RESULTS

Lab ID: L1722001-02
Client ID: EFF-BLDG (H&I)
Sample Location: 100 NORTHERN AVE.
Matrix: Water

Date Collected: 06/27/17 10:30
Date Received: 06/28/17
Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Prep Method	Analytical Method	Analyst
Total Metals - Mansfield Lab											
Arsenic, Total	0.00495		mg/l	0.00050	0.00016	1	07/06/17 12:00	07/07/17 18:49	EPA 3005A	1,6020A	BV
Cadmium, Total	0.00009	J	mg/l	0.00020	0.00005	1	07/06/17 12:00	07/07/17 18:49	EPA 3005A	1,6020A	BV
Copper, Total	0.04813		mg/l	0.00100	0.00038	1	07/06/17 12:00	07/07/17 18:49	EPA 3005A	1,6020A	BV
Iron, Total	0.239		mg/l	0.050	0.009	1	07/06/17 12:00	07/06/17 20:11	EPA 3005A	19,200.7	AB
Lead, Total	0.00089		mg/l	0.00050	0.00034	1	07/06/17 12:00	07/07/17 18:49	EPA 3005A	1,6020A	BV
Nickel, Total	0.00284		mg/l	0.00200	0.00055	1	07/06/17 12:00	07/07/17 18:49	EPA 3005A	1,6020A	BV
Selenium, Total	ND		mg/l	0.00500	0.00173	1	07/06/17 12:00	07/07/17 18:49	EPA 3005A	1,6020A	BV
Zinc, Total	0.1311		mg/l	0.01000	0.00341	1	07/06/17 12:00	07/07/17 18:49	EPA 3005A	1,6020A	BV

Project Name: FAN PIER
Project Number: 16-3194
Lab Number: L1722001
Report Date: 07/07/17

Method Blank Analysis
Batch Quality Control

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
Total Metals - Mansfield Lab for sample(s): 01-02 Batch: WG1020068-1										
Iron, Total	ND		mg/l	0.050	0.009	1	07/06/17 12:00	07/06/17 18:43	19,200.7	AB

Prep Information

Digestion Method: EPA 3005A

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
Total Metals - Mansfield Lab for sample(s): 01-02 Batch: WG1020080-1										
Arsenic, Total	ND		mg/l	0.00050	0.00016	1	07/06/17 12:00	07/07/17 17:34	1,6020A	BV
Cadmium, Total	ND		mg/l	0.00020	0.00005	1	07/06/17 12:00	07/07/17 17:34	1,6020A	BV
Copper, Total	ND		mg/l	0.00100	0.00038	1	07/06/17 12:00	07/07/17 17:34	1,6020A	BV
Lead, Total	ND		mg/l	0.00050	0.00034	1	07/06/17 12:00	07/07/17 17:34	1,6020A	BV
Nickel, Total	ND		mg/l	0.00200	0.00055	1	07/06/17 12:00	07/07/17 17:34	1,6020A	BV
Selenium, Total	ND		mg/l	0.00500	0.00173	1	07/06/17 12:00	07/07/17 17:34	1,6020A	BV
Zinc, Total	ND		mg/l	0.01000	0.00341	1	07/06/17 12:00	07/07/17 17:34	1,6020A	BV

Prep Information

Digestion Method: EPA 3005A

Lab Control Sample Analysis

Batch Quality Control

Project Name: FAN PIER

Project Number: 16-3194

Lab Number: L1722001

Report Date: 07/07/17

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Total Metals - Mansfield Lab Associated sample(s): 01-02 Batch: WG1020068-2								
Iron, Total	102		-		85-115	-		
Total Metals - Mansfield Lab Associated sample(s): 01-02 Batch: WG1020080-2								
Arsenic, Total	102		-		80-120	-		
Cadmium, Total	104		-		80-120	-		
Copper, Total	101		-		80-120	-		
Lead, Total	113		-		80-120	-		
Nickel, Total	103		-		80-120	-		
Selenium, Total	97		-		80-120	-		
Zinc, Total	97		-		80-120	-		

Matrix Spike Analysis
Batch Quality Control

Project Name: FAN PIER
Project Number: 16-3194

Lab Number: L1722001
Report Date: 07/07/17

Parameter	Native Sample	MS Added	MS Found	MS %Recovery	Qual	MSD Found	MSD %Recovery	Qual	Recovery Limits	RPD	Qual	RPD Limits
Total Metals - Mansfield Lab Associated sample(s): 01-02 QC Batch ID: WG1020068-3 QC Sample: L1721821-02 Client ID: MS Sample												
Iron, Total	0.772	1	1.71	94		-	-		75-125	-		20
Total Metals - Mansfield Lab Associated sample(s): 01-02 QC Batch ID: WG1020068-7 QC Sample: L1722072-01 Client ID: MS Sample												
Iron, Total	0.845	1	1.88	104		-	-		75-125	-		20
Total Metals - Mansfield Lab Associated sample(s): 01-02 QC Batch ID: WG1020080-3 QC Sample: L1722072-01 Client ID: MS Sample												
Arsenic, Total	0.00463	0.12	0.1248	100		-	-		75-125	-		20
Cadmium, Total	0.0001J	0.051	0.05294	104		-	-		75-125	-		20
Copper, Total	0.0073	0.25	0.2685	104		-	-		75-125	-		20
Lead, Total	0.0015	0.51	0.5794	113		-	-		75-125	-		20
Nickel, Total	0.0009J	0.5	0.5388	108		-	-		75-125	-		20
Selenium, Total	ND	0.12	0.108	90		-	-		75-125	-		20
Zinc, Total	0.04468	0.5	0.5238	96		-	-		75-125	-		20

Lab Duplicate Analysis
Batch Quality Control

Project Name: FAN PIER
Project Number: 16-3194

Lab Number: L1722001
Report Date: 07/07/17

Parameter	Native Sample	Duplicate Sample	Units	RPD	Qual	RPD Limits
Total Metals - Mansfield Lab Associated sample(s): 01-02 QC Batch ID: WG1020068-8 QC Sample: L1722072-01 Client ID: DUP Sample						
Iron, Total	0.845	0.849	mg/l	0		20
Total Metals - Mansfield Lab Associated sample(s): 01-02 QC Batch ID: WG1020080-4 QC Sample: L1722072-01 Client ID: DUP Sample						
Arsenic, Total	0.00463	0.00433	mg/l	7		20
Zinc, Total	0.04468	0.04262	mg/l	5		20

INORGANICS
&
MISCELLANEOUS

Project Name: FAN PIER
Project Number: 16-3194

Lab Number: L1722001
Report Date: 07/07/17

SAMPLE RESULTS

Lab ID: L1722001-01
Client ID: INF-BLDG (H&I)
Sample Location: 100 NORTHERN AVE.
Matrix: Water

Date Collected: 06/27/17 10:45
Date Received: 06/28/17
Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Westborough Lab										
SALINITY	4.6		SU	2.0	2.0	1	-	07/05/17 19:04	121,2520B	AS
Solids, Total Suspended	ND		mg/l	5.0	NA	1	-	06/30/17 05:55	121,2540D	VB
Cyanide, Total	0.003	J	mg/l	0.005	0.001	1	06/29/17 13:00	06/29/17 15:27	121,4500CN-CE	LK
Nitrogen, Ammonia	0.330		mg/l	0.075	0.022	1	07/03/17 23:00	07/05/17 13:38	121,4500NH3-BH	JO
TPH, SGT-HEM	ND		mg/l	4.00	1.24	1	06/29/17 16:45	06/29/17 22:20	74,1664A	ML

Project Name: FAN PIER
Project Number: 16-3194

Lab Number: L1722001
Report Date: 07/07/17

SAMPLE RESULTS

Lab ID: L1722001-02
Client ID: EFF-BLDG (H&I)
Sample Location: 100 NORTHERN AVE.
Matrix: Water

Date Collected: 06/27/17 10:30
Date Received: 06/28/17
Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Westborough Lab										
Solids, Total Suspended	ND		mg/l	5.0	NA	1	-	06/30/17 05:55	121,2540D	VB
Cyanide, Total	0.002	J	mg/l	0.005	0.001	1	06/29/17 13:00	06/29/17 15:28	121,4500CN-CE	LK
TPH, SGT-HEM	ND		mg/l	4.00	1.24	1	06/29/17 16:45	06/29/17 22:20	74,1664A	ML
Anions by Ion Chromatography - Westborough Lab										
Chloride	2660		mg/l	50.0	8.39	100	-	07/03/17 01:14	44,300.0	JC

Project Name: FAN PIER
Project Number: 16-3194

Lab Number: L1722001
Report Date: 07/07/17

SAMPLE RESULTS

Lab ID: L1722001-03
Client ID: INF-BLDG (H&I)
Sample Location: 100 NORTHERN AVE.
Matrix: Water

Date Collected: 06/27/17 10:45
Date Received: 06/29/17
Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
Anions by Ion Chromatography - Westborough Lab										
Chloride	2670		mg/l	50.0	8.39	100	-	07/03/17 01:26	44,300.0	JC

Project Name: FAN PIER
Project Number: 16-3194
Lab Number: L1722001
Report Date: 07/07/17

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): 01-02 Batch: WG1018398-1										
Cyanide, Total	ND		mg/l	0.005	0.001	1	06/29/17 13:00	06/29/17 15:24	121,4500CN-CE	LK
General Chemistry - Westborough Lab for sample(s): 01-02 Batch: WG1018514-1										
TPH, SGT-HEM	ND		mg/l	4.00	1.24	1	06/29/17 16:45	06/29/17 22:20	74,1664A	ML
General Chemistry - Westborough Lab for sample(s): 01-02 Batch: WG1018668-1										
Solids, Total Suspended	ND		mg/l	5.0	NA	1	-	06/30/17 05:55	121,2540D	VB
Anions by Ion Chromatography - Westborough Lab for sample(s): 02-03 Batch: WG1019266-1										
Chloride	ND		mg/l	0.500	0.083	1	-	07/02/17 16:13	44,300.0	JC
General Chemistry - Westborough Lab for sample(s): 01 Batch: WG1019534-1										
Nitrogen, Ammonia	ND		mg/l	0.075	0.022	1	07/03/17 23:00	07/05/17 13:20	121,4500NH3-BH	JO

Lab Control Sample Analysis

Batch Quality Control

Project Name: FAN PIER
Project Number: 16-3194

Lab Number: L1722001
Report Date: 07/07/17

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
General Chemistry - Westborough Lab Associated sample(s): 01-02 Batch: WG1018398-2								
Cyanide, Total	107		-		90-110	-		
General Chemistry - Westborough Lab Associated sample(s): 01-02 Batch: WG1018514-2								
TPH	88		-		64-132	-		34
Anions by Ion Chromatography - Westborough Lab Associated sample(s): 02-03 Batch: WG1019266-2								
Chloride	98		-		90-110	-		
General Chemistry - Westborough Lab Associated sample(s): 01 Batch: WG1019534-2								
Nitrogen, Ammonia	90		-		80-120	-		20
General Chemistry - Westborough Lab Associated sample(s): 01 Batch: WG1019854-1								
SALINITY	90		-			-		

Matrix Spike Analysis
Batch Quality Control

Project Name: FAN PIER
Project Number: 16-3194

Lab Number: L1722001
Report Date: 07/07/17

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): 01-02 QC Batch ID: WG1018398-4 QC Sample: L1722031-02 Client ID: MS Sample												
Cyanide, Total	0.009	0.2	0.205	98		-	-		90-110	-		30
General Chemistry - Westborough Lab Associated sample(s): 01-02 QC Batch ID: WG1018514-4 QC Sample: L1721828-01 Client ID: MS Sample												
TPH	13.1	20	31.6	92		-	-		64-132	-		34
Anions by Ion Chromatography - Westborough Lab Associated sample(s): 02-03 QC Batch ID: WG1019266-3 QC Sample: L1722298-01 Client ID: MS Sample												
Chloride	ND	4	3.91	98		-	-		90-110	-		18
General Chemistry - Westborough Lab Associated sample(s): 01 QC Batch ID: WG1019534-4 QC Sample: L1721419-01 Client ID: MS Sample												
Nitrogen, Ammonia	0.128	4	3.79	92		-	-		80-120	-		20

Lab Duplicate Analysis
Batch Quality Control

Project Name: FAN PIER
Project Number: 16-3194

Lab Number: L1722001
Report Date: 07/07/17

Parameter	Native Sample	Duplicate Sample	Units	RPD	Qual	RPD Limits
General Chemistry - Westborough Lab Associated sample(s): 01-02 QC Batch ID: WG1018398-3 QC Sample: L1722031-01 Client ID: DUP Sample						
Cyanide, Total	0.008	0.008	mg/l	1		30
General Chemistry - Westborough Lab Associated sample(s): 01-02 QC Batch ID: WG1018514-3 QC Sample: L1721828-01 Client ID: DUP Sample						
TPH	13.1	9.30	mg/l	34		34
Anions by Ion Chromatography - Westborough Lab Associated sample(s): 02-03 QC Batch ID: WG1019266-4 QC Sample: L1722298-01 Client ID: DUP Sample						
Chloride	ND	ND	mg/l	NC		18
General Chemistry - Westborough Lab Associated sample(s): 01 QC Batch ID: WG1019534-3 QC Sample: L1721419-01 Client ID: DUP Sample						
Nitrogen, Ammonia	0.128	0.122	mg/l	5		20
General Chemistry - Westborough Lab Associated sample(s): 01 QC Batch ID: WG1019854-2 QC Sample: L1722085-01 Client ID: DUP Sample						
SALINITY	ND	ND	SU	NC		

Project Name: FAN PIER
Project Number: 16-3194

Lab Number: L1722001
Report Date: 07/07/17

Sample Receipt and Container Information

Were project specific reporting limits specified? YES

Cooler Information

Cooler	Custody Seal
A	Absent
B	Absent
C	Absent

Container Information

Container ID	Container Type	Cooler	Initial pH	Final pH	Temp deg C	Pres	Seal	Frozen Date/Time	Analysis(*)
L1722001-01A	Vial HCl preserved	C	NA		3.7	Y	Absent		8260(14)
L1722001-01B	Vial HCl preserved	C	NA		3.7	Y	Absent		8260(14)
L1722001-01C	Vial HCl preserved	C	NA		3.7	Y	Absent		8260(14)
L1722001-01E	Plastic 250ml NaOH preserved	B	>12	>12	4.1	Y	Absent		TCN-4500(14)
L1722001-01F	Plastic 250ml HNO3 preserved	B	<2	<2	4.1	Y	Absent		SE-6020T(180),NI-6020T(180),CU-6020T(180),ZN-6020T(180),FE-UI(180),PB-6020T(180),AS-6020T(180),CD-6020T(180)
L1722001-01G	Plastic 950ml unpreserved	C	7	7	3.7	Y	Absent		TSS-2540(7)
L1722001-01H	Amber 1000ml unpreserved	C	7	7	3.7	Y	Absent		PAHTCL-SIM(7)
L1722001-01I	Amber 1000ml unpreserved	C	7	7	3.7	Y	Absent		PAHTCL-SIM(7)
L1722001-01J	Amber 1000ml Na2S2O3	C	7	7	3.7	Y	Absent		PCB-608(7)
L1722001-01K	Amber 1000ml Na2S2O3	B	7	7	4.1	Y	Absent		PCB-608(7)
L1722001-01L	Amber 1000ml HCl preserved	C	NA		3.7	Y	Absent		TPH-1664(28)
L1722001-01M	Amber 1000ml HCl preserved	C	NA		3.7	Y	Absent		TPH-1664(28)
L1722001-01X	Amber 250ml unpreserved split	C	7	7	3.7	Y	Absent		SALINITY(28)
L1722001-01Y	Plastic 250ml H2SO4 preserved split	C	7	<2	3.7	N	Absent		NH3-4500(28)
L1722001-02A	Vial HCl preserved	C	NA		3.7	Y	Absent		8260(14)
L1722001-02B	Vial HCl preserved	C	NA		3.7	Y	Absent		8260(14)
L1722001-02C	Vial HCl preserved	C	NA		3.7	Y	Absent		8260(14)
L1722001-02D	Plastic 250ml unpreserved	C	7	7	3.7	Y	Absent		CL-300(28)
L1722001-02E	Plastic 250ml NaOH preserved	C	>12	>12	3.7	Y	Absent		TCN-4500(14)

*Values in parentheses indicate holding time in days

Project Name: FAN PIER
Project Number: 16-3194

Lab Number: L1722001
Report Date: 07/07/17

Container Information

Container ID	Container Type	Cooler	Initial pH	Final pH	Temp deg C	Pres	Seal	Frozen Date/Time	Analysis(*)
L1722001-02F	Plastic 250ml HNO3 preserved	C	<2	<2	3.7	Y	Absent		SE-6020T(180),NI-6020T(180),CU-6020T(180),ZN-6020T(180),FE-UI(180),PB-6020T(180),AS-6020T(180),CD-6020T(180)
L1722001-02G	Plastic 950ml unpreserved	C	7	7	3.7	Y	Absent		TSS-2540(7)
L1722001-02H	Amber 1000ml unpreserved	C	7	7	3.7	Y	Absent		PAHTCL-SIM(7)
L1722001-02I	Amber 1000ml unpreserved	C	7	7	3.7	Y	Absent		PAHTCL-SIM(7)
L1722001-02J	Amber 1000ml Na2S2O3	C	7	7	3.7	Y	Absent		PCB-608(7)
L1722001-02K	Amber 1000ml Na2S2O3	B	7	7	4.1	Y	Absent		PCB-608(7)
L1722001-02L	Amber 1000ml HCl preserved	B	NA		4.1	Y	Absent		TPH-1664(28)
L1722001-02M	Amber 1000ml HCl preserved	B	NA		4.1	Y	Absent		TPH-1664(28)
L1722001-03A	Plastic 60ml unpreserved	A	NA		3.0	Y	Absent		CL-300(28)

*Values in parentheses indicate holding time in days

Project Name:	FAN PIER	**Lab Number:**	L1722001
Project Number:	16-3194	**Report Date:**	07/07/17

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.
NDPA/DPA	- N-Nitrosodiphenylamine/Diphenylamine.
NI	- Not Ignitable.
NP	- Non-Plastic: Term is utilized for the analysis of Atterberg Limits in soil.
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.
STLP	- Semi-dynamic Tank Leaching Procedure per EPA Method 1315.
TIC	- Tentatively Identified Compound: A compound that has been identified to be present and is not part of the target compound list (TCL) for the method and/or program. All TICs are qualitatively identified and reported as estimated concentrations.

Footnotes

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

Terms

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

Final pH: As it pertains to Sample Receipt & Container Information section of the report, Final pH reflects pH of container determined after adjustment at the laboratory, if applicable. If no adjustment required, value reflects Initial pH.

Frozen Date/Time: With respect to Volatile Organics in soil, Frozen Date/Time reflects the date/time at which associated Reagent Water-preserved vials were initially frozen. Note: If frozen date/time is beyond 48 hours from sample collection, value will be reflected in 'bold'.

Initial pH: As it pertains to Sample Receipt & Container Information section of the report, Initial pH reflects pH of container determined upon receipt, if applicable.

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.

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

Report Format: DU Report with 'J' Qualifiers

Project Name:	FAN PIER	**Lab Number:**	L1722001
Project Number:	16-3194	**Report Date:**	07/07/17

Data Qualifiers

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.

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. The Target analyte concentration is below the quantitation limit (RL), but above the Method Detection Limit (MDL) or Estimated Detection Limit (EDL) for SPME-related analyses. This represents an estimated concentration for Tentatively Identified Compounds (TICs).

ND - Not detected at the method detection limit (MDL) for the sample, or estimated detection limit (EDL) for SPME-related analyses.

Report Format: DU Report with 'J' Qualifiers

Project Name:	FAN PIER	**Lab Number:**	L1722001
Project Number:	16-3194	**Report Date:**	07/07/17

REFERENCES

1 Test Methods for Evaluating Solid Waste: Physical/Chemical Methods. EPA SW-846. Third Edition. Updates I - IV, 2007.

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

19 Inductively Coupled Plasma Atomic Emission Spectrometric Method for Trace Element Analysis of Water and Wastes. Appendix C, Part 136, 40 CFR (Code of Federal Regulations). July 1, 1999 edition.

44 Methods for the Determination of Inorganic Substances in Environmental Samples, EPA/600/R-93/100, August 1993.

74 Method 1664,Revision A: N-Hexane Extractable Material (HEM; Oil & Grease) and Silica Gel Treated N-Hexane Extractable Material (SGT-HEM; Non-polar Material) by Extraction and Gravimetry, EPA-821-R-98-002, February 1999.

121 Standard Methods for the Examination of Water and Wastewater. APHA-AWWA-WEF. Standard Methods Online.

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

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

Westborough Facility
EPA 624: m/p-xylene, o-xylene
EPA 8260C: NPW: 1,2,4,5-Tetramethylbenzene; 4-Ethyltoluene, Azobenzene; SCM: Iodomethane (methyl iodide), Methyl methacrylate, 1,2,4,5-Tetramethylbenzene; 4-Ethyltoluene.
EPA 8270D: NPW: Dimethylnaphthalene,1,4-Diphenylhydrazine; SCM: Dimethylnaphthalene,1,4-Diphenylhydrazine.
EPA 300: DW: Bromide
EPA 6860: NPW and SCM: Perchlorate
EPA 9010: NPW and SCM: Amenable Cyanide Distillation
EPA 9012B: NPW: Total Cyanide
EPA 9050A: NPW: Specific Conductance
SM3500: NPW: Ferrous Iron
SM4500: NPW: Amenable Cyanide, Dissolved Oxygen; SCM: Total Phosphorus, TKN, NO2, NO3.
SM5310C: DW: Dissolved Organic Carbon

Mansfield Facility
SM 2540D: TSS
EPA 3005A NPW
EPA 8082A: NPW: PCB: 1, 5, 31, 87,101, 110, 141, 151, 153, 180, 183, 187.
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.
Biological Tissue Matrix: EPA 3050B

The following analytes are included in our Massachusetts DEP Scope of Accreditation

Westborough Facility:

Drinking Water
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; **EPA 524.2:** THMs and VOCs; **EPA 504.1:** EDB, DBCP.
Microbiology: **SM9215B; SM9223-P/A, SM9223B-Colilert-QT,SM9222D**.

Non-Potable Water
SM4500H,B, EPA 120.1, SM2510B, SM2540C, SM2320B, SM4500CL-E, SM4500F-BC, SM4500NH3-BH, **EPA 350.1**: Ammonia-N, **LACHAT 10-107-06-1-B**: Ammonia-N, **SM4500NO3-F, EPA 353.2**: Nitrate-N**, EPA 351.1, SM4500P-E, SM4500P-B, E, SM4500SO4-E, SM5220D, EPA 410.4, SM5210B, SM5310C, SM4500CL-D, EPA 1664, 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, SM9221E.**

Mansfield Facility:

Drinking Water
EPA 200.7: Ba, Be, Cd, Cr, Cu, Ni, Na, Ca. **EPA 200.8:** Sb, As, Ba, Be, Cd, Cr, Cu, Pb, Ni, Se, TL. **EPA 245.1** Hg.

Non-Potable Water
EPA 200.7: Al, Sb, As, Be, Cd, Ca, Cr, Co, Cu, Fe, Pb, Mg, Mn, Mo, Ni, K, Se, Ag, Na, Sr, TL, Ti, V, Zn.
EPA 200.8: Al, Sb, As, Be, Cd, Cr, Cu, Pb, Mn, Ni, Se, Ag, TL, Zn.
EPA 245.1 Hg.
SM2340B

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

ALPHA ANALYTICAL
World Class Chemistry

CHAIN OF CUSTODY

PAGE 1 OF 1

Date Rec'd in Lab: 6/28/17

ALPHA Job #: L1722001

Westborough, MA
TEL: 508-898-9220
FAX: 508-898-9193

Mansfield, MA
TEL: 508-822-9300
FAX: 508-822-3288

Project Information

Project Name: Fan Pier

Project Location: ~~One Marina Park Drive~~ 100 Northern Ave

Project #: 16-3194

Project Manager: TJ McGoff

ALPHA Quote #: 2015518

Client Information

Client: GroundWater & Treatment Technology

Address: 39 River Street

Millbury, MA 01527

Phone: (508)755-7075

Fax: (508)755-7206

Email: tmcgoff@gwttllc.com

☐ These samples have been Previously analyzed by Alpha

Turn-Around Time

☐ Standard ☐ Rush (ONLY IF PRE-APPROVED)

Due Date: Time:

Report Information Data Deliverables

☐ FAX ☐ EMAIL

☐ ADEx ☐ Add'l Deliverables

Billing Information

☐ Same as Client info PO #: 16-3194-TJ

Regulatory Requirements/Report Limits

State/Fed Program *Criteria*

MCP PRESUMPTIVE CERTAINTY-CT REASONABLE CONFIDENCE PROTOCOLS

☐ Yes ☒ No Are MCP Analytical Methods Required?

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

Other Project Specific Requirements/Comments/Detection Limits:

(dsullivan@gwttllc.com)

INF pH: 7.40 @ 22.4°C

EFF pH: 7.24 @ 21.8°C

Flow meter: 00889895.0 @ 10 45 AM

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	8260C	TPH-1664	PAHs-8270	PCBs-608	TSS	TCN	Total AsCdCuFeNiPbSeZn	Cl-300					Sample Specific Comments	TOTAL # BOTTLES
22001-01	INF-BLDG (H&I)	6/27/17	10 45 AM	GW	CGT	☒	☒	☒	☒	☒	☒	☒	☒	☐	☐	☐	☐		13
-02	EFF-BLDG (H&I)	6/27/17	10 30 AM	GW	CGT	☒	☒	☒	☒	☒	☒	☒	☒	☐	☐	☐	☐		13
					Container Type	V	A	A	A	P	P	P	P	-	-	-	-		
					Preservative	B	B	A	H	A	E	C	A	-	-	-	-		

PLEASE ANSWER QUESTIONS ABOVE!

IS YOUR PROJECT MA MCP or CT RCP?

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

Relinquished By:	Date/Time	Received By:	Date/Time
[signature]	6/27/17 3:00 PM	[signature] AAL	6/28/17 10—
[signature]	6/28/17 1940	[signature]	6/28/17 1940

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

CHAIN OF CUSTODY

PAGE 1 OF

ALPHA ANALYTICAL

Westborough, MA
TEL: 508-898-9220
FAX: 508-898-9193

Mansfield, MA
TEL: 508-822-9300
FAX: 508-822-3288

Date Rec'd in Lab: 6/29/17

ALPHA Job #: L1722001

Client Information

Client: GroundWater & tretment Technology

Address: 39 River street

Millbury, MA 01527

Phone: 508 755-7075

Fax:

Email: tmcgoff@gwttllc.com

☐ These samples have been Previously analyzed by Alpha

Project Information

Project Name: Fan Pier

Project Location: 100 Northern Ave

Project #: 16-3194

Project Manager: TJ McGoff

ALPHA Quote #: 2015518

Turn-Around Time

☒ Standard ☐ Rush (ONLY IF PRE-APPROVED)

5 Day

Due Date: Time:

Report Information Data Deliverables

☐ FAX ☒ EMAIL

☐ ADEx ☐ Add'l Deliverables

Billing Information

☐ Same as Client info PO #: 16-3194-TJ

Regulatory Requirements/Report Limits

State/Fed Program | Criteria

MCP PRESUMPTIVE CERTAINTY-CT REASONABLE CONFIDENCE PROTOCOLS

☐ 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)
(dsullivan@gwttlc.com)

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

ANALYSIS

ALPHA Lab ID (Lab Use Only)	Sample ID	Collection Date	Collection Time	Sample Matrix	Sampler's Initials	8260C	TPH-1664	PAHs-8270	PCBs-608	TSS	TCN	Total AsCdCuFeNiPbSeZn	CL-300					Sample Specific Comments	TOTAL # BOTTLES
22001-03	INF-BLDG (H&I)	6/27/17	1045	GW	CGT	☐	☐	☐	☐	☐	☐	☐	☒	☐	☐	☐	☐		
				GW		☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐		
Container Type						-	-	-	-	-	-	-	-	-	-	-	-		
Preservative						-	-	-	-	-	-	-	-	-	-	-	-		

PLEASE ANSWER QUESTIONS ABOVE!

IS YOUR PROJECT MA MCP or CT RCP?

Relinquished By:	Date/Time	Received By:	Date/Time
[signature]	6/28/17, 1330	[signature]	6/29/17
[signature]	6/29/17 1347	[signature] AAL	6/29/17 1347
[signature] AAL	6/29/17 1840	[signature]	6/29/17 1840

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

FORM NO: 01-01(I) (rev. 20-JAN-2010)

APPENDIX E:

LABORATORY ANALYTICAL DATA – SURFACE WATER

ANALYTICAL REPORT

Lab Number:	L1715446
Client:	McPhail Associates 2269 Massachusetts Avenue Cambridge, MA 02140
ATTN:	Ambrose Donovan
Phone:	(617) 868-1420
Project Name:	399 CONGRESS ST
Project Number:	4540.2.D7
Report Date:	05/16/17

Certifications & Approvals: MA (M-MA086), NH NELAP (2064), NJ NELAP (MA935), CT (PH-0574), IL (200077), ME (MA00086), MD (348), NY (11148), NC (25700/666), PA (68-03671), RI (LAO00065), TX (T104704476), VT (VT-0935), VA (460195), USDA (Permit #P330-14-00197).

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

Project Name: 399 CONGRESS ST
Project Number: 4540.2.D7

Lab Number: L1715446
Report Date: 05/16/17

Alpha Sample ID	Client ID	Matrix	Sample Location	Collection Date/Time	Receive Date
L1715446-01	BOSTON INNER HARBOR	WATER	399 CONGRESS	05/11/17 13:30	05/11/17

Project Name: 399 CONGRESS ST
Project Number: 4540.2.D7

Lab Number: L1715446
Report Date: 05/16/17

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 NELAP requirements for all NELAP accredited parameters unless otherwise noted in the following narrative. 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. Tentatively Identified Compounds (TICs), if requested, are reported for compounds identified to be present and are not part of the method/program Target Compound List, even if only a subset of the TCL are being reported. 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:	399 CONGRESS ST	**Lab Number:**	L1715446
Project Number:	4540.2.D7	**Report Date:**	05/16/17

Case Narrative (continued)

Metals

L1715446-01, WG1002864-4: The internal standard (IS) response(s) for Arsenic, Copper, Lead, and Zinc were outside the acceptance criteria due to sample matrix interference; however, the criteria were achieved upon re-analysis on dilution. The results of the re-analysis are 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: Lisa Westerlind

Title: Technical Director/Representative Date: 05/16/17

METALS

Project Name: 399 CONGRESS ST
Lab Number: L1715446
Project Number: 4540.2.D7
Report Date: 05/16/17

SAMPLE RESULTS

Lab ID: L1715446-01
Client ID: BOSTON INNER HARBOR
Sample Location: 399 CONGRESS
Matrix: Water
Date Collected: 05/11/17 13:30
Date Received: 05/11/17
Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Prep Method	Analytical Method	Analyst
Total Metals - Mansfield Lab											
Arsenic, Total	ND		mg/l	0.01000	--	10	05/12/17 11:15	05/13/17 12:44	EPA 3005A	3,200.8	BV
Copper, Total	ND		mg/l	0.01000	--	10	05/12/17 11:15	05/13/17 12:44	EPA 3005A	3,200.8	BV
Iron, Total	0.136		mg/l	0.050	--	1	05/12/17 11:15	05/12/17 17:57	EPA 3005A	19,200.7	AB
Lead, Total	ND		mg/l	0.01000	--	10	05/12/17 11:15	05/13/17 12:44	EPA 3005A	3,200.8	BV
Zinc, Total	ND		mg/l	0.1000	--	10	05/12/17 11:15	05/13/17 12:44	EPA 3005A	3,200.8	BV

Project Name: 399 CONGRESS ST
Project Number: 4540.2.D7
Lab Number: L1715446
Report Date: 05/16/17

Method Blank Analysis
Batch Quality Control

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
Total Metals - Mansfield Lab for sample(s): 01 Batch: WG1002863-1										
Iron, Total	ND		mg/l	0.050	--	1	05/12/17 11:15	05/12/17 17:33	19,200.7	AB

Prep Information

Digestion Method: EPA 3005A

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
Total Metals - Mansfield Lab for sample(s): 01 Batch: WG1002864-1										
Arsenic, Total	ND		mg/l	0.00100	--	1	05/12/17 11:15	05/13/17 10:13	3,200.8	BV
Copper, Total	ND		mg/l	0.00100	--	1	05/12/17 11:15	05/13/17 10:13	3,200.8	BV
Lead, Total	ND		mg/l	0.00100	--	1	05/12/17 11:15	05/13/17 10:13	3,200.8	BV
Zinc, Total	ND		mg/l	0.01000	--	1	05/12/17 11:15	05/13/17 10:13	3,200.8	BV

Prep Information

Digestion Method: EPA 3005A

Lab Control Sample Analysis

Batch Quality Control

Project Name: 399 CONGRESS ST

Project Number: 4540.2.D7

Lab Number: L1715446

Report Date: 05/16/17

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Total Metals - Mansfield Lab Associated sample(s): 01 Batch: WG1002863-2								
Iron, Total	105		-		85-115	-		
Total Metals - Mansfield Lab Associated sample(s): 01 Batch: WG1002864-2								
Arsenic, Total	95		-		85-115	-		
Copper, Total	101		-		85-115	-		
Lead, Total	107		-		85-115	-		
Zinc, Total	99		-		85-115	-		

Matrix Spike Analysis
Batch Quality Control

Project Name: 399 CONGRESS ST
Project Number: 4540.2.D7

Lab Number: L1715446
Report Date: 05/16/17

Parameter	Native Sample	MS Added	MS Found	MS %Recovery	Qual	MSD Found	MSD %Recovery	Qual	Recovery Limits	RPD	Qual	RPD Limits
Total Metals - Mansfield Lab Associated sample(s): 01 QC Batch ID: WG1002863-3 QC Sample: L1715446-01 Client ID: BOSTON INNER HARBOR												
Iron, Total	0.136	1	1.08	94		-	-		75-125	-		20
Total Metals - Mansfield Lab Associated sample(s): 01 QC Batch ID: WG1002863-7 QC Sample: L1715328-01 Client ID: MS Sample												
Iron, Total	17.0	1	17.0	**0**	Q	-	-		75-125	-		20
Total Metals - Mansfield Lab Associated sample(s): 01 QC Batch ID: WG1002864-3 QC Sample: L1715446-01 Client ID: BOSTON INNER HARBOR												
Arsenic, Total	ND	0.12	0.1326	110		-	-		70-130	-		20
Copper, Total	ND	0.25	0.2733	109		-	-		70-130	-		20
Lead, Total	ND	0.51	0.5631	110		-	-		70-130	-		20
Zinc, Total	ND	0.5	0.5660	113		-	-		70-130	-		20

Lab Duplicate Analysis
Batch Quality Control

Project Name: 399 CONGRESS ST
Project Number: 4540.2.D7

Lab Number: L1715446
Report Date: 05/16/17

Parameter	Native Sample	Duplicate Sample	Units	RPD	Qual	RPD Limits
Total Metals - Mansfield Lab Associated sample(s): 01 QC Batch ID: WG1002863-4 QC Sample: L1715446-01 Client ID: BOSTON INNER HARBOR						
Iron, Total	0.136	0.124	mg/l	9		20
Total Metals - Mansfield Lab Associated sample(s): 01 QC Batch ID: WG1002863-8 QC Sample: L1715328-01 Client ID: DUP Sample						
Iron, Total	17.0	17.4	mg/l	2		20
Total Metals - Mansfield Lab Associated sample(s): 01 QC Batch ID: WG1002864-4 QC Sample: L1715446-01 Client ID: BOSTON INNER HARBOR						
Arsenic, Total	ND	ND	mg/l	NC		20
Copper, Total	ND	ND	mg/l	NC		20
Lead, Total	ND	ND	mg/l	NC		20
Zinc, Total	ND	ND	mg/l	NC		20

INORGANICS
&
MISCELLANEOUS

Project Name: 399 CONGRESS ST
Project Number: 4540.2.D7

Lab Number: L1715446
Report Date: 05/16/17

SAMPLE RESULTS

Lab ID: L1715446-01
Client ID: BOSTON INNER HARBOR
Sample Location: 399 CONGRESS
Matrix: Water

Date Collected: 05/11/17 13:30
Date Received: 05/11/17
Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Westborough Lab										
SALINITY	20		SU	2.0	--	1	-	05/15/17 16:30	121,2520B	AS
Nitrogen, Ammonia	0.095		mg/l	0.075	--	1	05/12/17 14:38	05/12/17 21:45	121,4500NH3-BH	AT

Project Name: 399 CONGRESS ST
Project Number: 4540.2.D7

Lab Number: L1715446
Report Date: 05/16/17

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: WG1002792-1										
Nitrogen, Ammonia	ND		mg/l	0.075	--	1	05/12/17 14:38	05/12/17 21:23	121,4500NH3-BH	AT

Lab Control Sample Analysis

Batch Quality Control

Project Name: 399 CONGRESS ST

Project Number: 4540.2.D7

Lab Number: L1715446

Report Date: 05/16/17

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
General Chemistry - Westborough Lab Associated sample(s): 01 Batch: WG1002792-2								
Nitrogen, Ammonia	98		-		80-120	-		20
General Chemistry - Westborough Lab Associated sample(s): 01 Batch: WG1003620-1								
SALINITY	96		-			-		

Matrix Spike Analysis
Batch Quality Control

Project Name: 399 CONGRESS ST
Project Number: 4540.2.D7

Lab Number: L1715446
Report Date: 05/16/17

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: WG1002792-4 QC Sample: L1715071-01 Client ID: MS Sample												
Nitrogen, Ammonia	0.076	4	3.92	96		-	-		80-120	-		20

Lab Duplicate Analysis
Batch Quality Control

Project Name: 399 CONGRESS ST
Project Number: 4540.2.D7

Lab Number: L1715446
Report Date: 05/16/17

Parameter	Native Sample	Duplicate Sample	Units	RPD	Qual	RPD Limits
General Chemistry - Westborough Lab Associated sample(s): 01 QC Batch ID: WG1002792-3 QC Sample: L1715071-01 Client ID: DUP Sample						
Nitrogen, Ammonia	0.076	ND	mg/l	NC		20
General Chemistry - Westborough Lab Associated sample(s): 01 QC Batch ID: WG1003620-2 QC Sample: L1715446-01 Client ID: BOSTON INNER HARBOR						
SALINITY	20	22	SU	10		

Project Name: 399 CONGRESS ST
Project Number: 4540.2.D7

Lab Number: L1715446
Report Date: 05/16/17

Sample Receipt and Container Information

Were project specific reporting limits specified? YES

Cooler Information Custody Seal

Cooler	
A	Absent

Container Information

Container ID	Container Type	Cooler	pH	Temp deg C	Pres	Seal	Analysis(*)
L1715446-01A	Plastic 250ml HNO3 preserved	A	<2	5.3	Y	Absent	ZN-2008T(180),CU-2008T(180),FE-UI(180),AS-2008T(180),PB-2008T(180)
L1715446-01B	Plastic 250ml H2SO4 preserved	A	<2	5.3	Y	Absent	NH3-4500(28)
L1715446-01C	Amber 500ml unpreserved	A	7	5.3	Y	Absent	SALINITY(28)
L1715446-01D	Vial MeOH preserved	A	N/A	5.3	Y	Absent	ARCHIVE(0)
L1715446-01E	Vial water preserved	A	N/A	5.3	Y	Absent	ARCHIVE(0)
L1715446-01F	Vial water preserved	A	N/A	5.3	Y	Absent	ARCHIVE(0)

*Values in parentheses indicate holding time in days

Project Name:	399 CONGRESS ST	**Lab Number:**	L1715446
Project Number:	4540.2.D7	**Report Date:**	05/16/17

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.
NDPA/DPA	- N-Nitrosodiphenylamine/Diphenylamine.
NI	- Not Ignitable.
NP	- Non-Plastic: Term is utilized for the analysis of Atterberg Limits in soil.
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.
STLP	- Semi-dynamic Tank Leaching Procedure per EPA Method 1315.
TIC	- Tentatively Identified Compound: A compound that has been identified to be present and is not part of the target compound list (TCL) for the method and/or program. All TICs are qualitatively identified and reported as estimated concentrations.

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

Report Format: Data Usability Report

Project Name:	399 CONGRESS ST	**Lab Number:**	L1715446
Project Number:	4540.2.D7	**Report Date:**	05/16/17

Data Qualifiers

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.

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: 399 CONGRESS ST
Project Number: 4540.2.D7
Lab Number: L1715446
Report Date: 05/16/17

REFERENCES

3 Methods for the Determination of Metals in Environmental Samples, Supplement I. EPA/600/R-94/111. May 1994.

19 Inductively Coupled Plasma Atomic Emission Spectrometric Method for Trace Element Analysis of Water and Wastes. Appendix C, Part 136, 40 CFR (Code of Federal Regulations). July 1, 1999 edition.

121 Standard Methods for the Examination of Water and Wastewater. APHA-AWWA-WEF. Standard Methods Online.

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

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

Westborough Facility
EPA 624: m/p-xylene, o-xylene
EPA 8260C: NPW: 1,2,4,5-Tetramethylbenzene; 4-Ethyltoluene, Azobenzene; SCM: Iodomethane (methyl iodide), Methyl methacrylate, 1,2,4,5-Tetramethylbenzene; 4-Ethyltoluene.
EPA 8270D: NPW: Dimethylnaphthalene,1,4-Diphenylhydrazine; SCM: Dimethylnaphthalene,1,4-Diphenylhydrazine.
EPA 300: DW: Bromide
EPA 6860: NPW and SCM: Perchlorate
EPA 9010: NPW and SCM: Amenable Cyanide Distillation
EPA 9012B: NPW: Total Cyanide
EPA 9050A: NPW: Specific Conductance
SM3500: NPW: Ferrous Iron
SM4500: NPW: Amenable Cyanide, Dissolved Oxygen; SCM: Total Phosphorus, TKN, NO2, NO3.
SM5310C: DW: Dissolved Organic Carbon

Mansfield Facility
SM 2540D: TSS
EPA 3005A NPW
EPA 8082A: NPW: PCB: 1, 5, 31, 87,101, 110, 141, 151, 153, 180, 183, 187.
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.
Biological Tissue Matrix: EPA 3050B

The following analytes are included in our Massachusetts DEP Scope of Accreditation

Westborough Facility:

Drinking Water
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; **EPA 524.2:** THMs and VOCs; **EPA 504.1:** EDB, DBCP.
Microbiology: **SM9215B; SM9223-P/A, SM9223B-Colilert-QT,SM9222D**.

Non-Potable Water
SM4500H,B, EPA 120.1, SM2510B, SM2540C, SM2320B, SM4500CL-E, SM4500F-BC, SM4500NH3-BH, **EPA 350.1**: Ammonia-N, **LACHAT 10-107-06-1-B**: Ammonia-N, **SM4500NO3-F, EPA 353.2**: Nitrate-N**, EPA 351.1, SM4500P-E, SM4500P-B, E, SM4500SO4-E, SM5220D, EPA 410.4, SM5210B, SM5310C, SM4500CL-D, EPA 1664, 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, SM9221E.**

Mansfield Facility:

Drinking Water
EPA 200.7: Ba, Be, Cd, Cr, Cu, Ni, Na, Ca. **EPA 200.8:** Sb, As, Ba, Be, Cd, Cr, Cu, Pb, Ni, Se, TL. **EPA 245.1** Hg.

Non-Potable Water
EPA 200.7: Al, Sb, As, Be, Cd, Ca, Cr, Co, Cu, Fe, Pb, Mg, Mn, Mo, Ni, K, Se, Ag, Na, Sr, TL, Ti, V, Zn.
EPA 200.8: Al, Sb, As, Be, Cd, Cr, Cu, Pb, Mn, Ni, Se, Ag, TL, Zn.
EPA 245.1 Hg.
SM2340B

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

mg 5/15/17 MG/BFM- updated COC

Serial_No:05161710:36

CHAIN OF CUSTODY

PAGE ____ OF ____

Date Rec'd in Lab: 5/11/17

ALPHA Job #: L1715446

ALPHA ANALYTICAL — World 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 Massachusetts Avenue, Cambridge, MA 02140

Phone: 617-868-1420

Email:

Project Information

Project Name: 399 Congress St

Project Location: 399 Congress

Project #: 4540.2.D7

Project Manager: WJB

ALPHA Quote #:

Turn-Around Time

☐ Standard ☒ RUSH (only confirmed if pre-approved!)

Date Due: 3 day

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 ____________

Additional Project Information:

** Metals List: As, CU, FE,PB and Zn Only

ANALYSIS

VOC: ☐ 8260 ☐ 624 ☐ 524.2; SVOC: ☐ ABN ☐ PAH; METALS: ☐ MCP 13 ☐ MCP 14 ☐ RCP 15 ☐ PP13; METALS: ☐ RCRA5 ☐ RCRA8; EPH: ☐ Ranges & Targets ☐ Ranges Only; VPH: ☐ Ranges & Targets ☐ Ranges Only; ☐ PCB ☐ PEST; TPH: ☐ Quant Only ☐ Fingerprint; Total Metals - RGP 13 **; Ammonia; Salinity; ~~PAH~~; ~~[illegible]~~

SAMPLE INFO — Filtration: ☐ Field ☐ Lab to do; Preservation: ☐ Lab to do

ALPHA Lab ID (Lab Use Only)	Sample ID	Collection Date	Collection Time	Sample Matrix	Sampler Initials	Total Metals - RGP 13 **	Ammonia	Salinity	~~PAH~~	~~[illegible]~~	Sample Comments	TOTAL # BOTTLES
15446-01	Boston Inner Harbor	5/11/17	1:30	~~S~~W	JRS	X	X	X	~~X~~	~~X~~		~~5~~ 3

	Total Metals - RGP 13 **	Ammonia	Salinity
Container Type	P	P	A
Preservative	C	D	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
[signature]	5/11/17 2:45	[signature]	5/11/17 [illegible]
[signature]	5/11/17 8:01	[signature]	5/11/17 [illegible]

CHAIN OF CUSTODY

PAGE _____ OF _____

Date Rec'd in Lab: 5/11/17

ALPHA Job #: L1715946

ALPHA ANALYTICAL
World 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 Massachusetts Avenue, Cambridge, MA 02140
Phone: 617-868-1420
Email:

Project Information

Project Name: 399 Congress St
Project Location: 399 Congress
Project #: 4540.07
Project Manager: WJB
ALPHA Quote #:

Turn-Around Time

☐ Standard ☒ RUSH (only confirmed if pre-approved!)
Date Due: 3 day

Additional Project Information:

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 Metals - RCP 13	Ammonia	Salinity	PAH	PCB	SAMPLE INFO	Sample Comments	TOTAL # BOTTLES
15946-01	Boston Inner Harbor	5/11/17	1:30	GW	JRS	X	X	X	X	X			5

SAMPLE INFO
Filtration
☐ Field
☐ Lab to do
Preservation
☐ Lab to do

Container Type	P	P	A									
Preservative	C	D	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
	5/11/17 2:45		
	5/11/17 8:1		5/11/17

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

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