



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

Region 1

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

CERTIFIED MAIL RETURN RECEIPT REQUESTED

**MAR 18 2013**

James Ham, Project Manager  
Suffolk Construction Company  
65 Allerton Street  
Boston, MA 02119

Re: Authorization to discharge under the Remediation General Permit (RGP) –  
MAG910000. Lovejoy Wharf site located at 160 North Washington Street, Boston, MA  
02114 Suffolk County; Authorization # MAG910568

Dear Mr. Ham:

Based on the review of a Notice of Intent (NOI) submitted on behalf of the property owner, Related LJW Acquisition Company LLC, by the firm Haley & Aldrich, for the site referenced above, the U.S. Environmental Protection Agency (EPA) hereby authorizes you, as the named Operator, to discharge in accordance with the provisions of the RGP at that site. Your authorization number is listed above.

Please note this site was previously assigned RGP # MAG910232 issued on May 22, 2006 and was reissued on April 27, 2011 for sump discharges from the Hoffman Building at the location referenced above.

The operator for the site was PES Associates, under the direction of its President Mr. Stephan White, located at 858 Washington Street, Dedham, MA 02026. The consultant in charge of obtaining the RGP authorization was Cooperstown Environmental under the direction of its President Mr. James T. Curtis a firm located at 23 Main Street in Andover, MA 01810.

On February 1, 2013 PES Associates submitted a letter of resignation as the operator of record effective on the date of the sale of the property December 31, 2012. Haley & Aldrich the new consultant for the project decided to terminate the existing permit authorization and submit a new NOI for the development of Lovejoy Wharf which includes the renovation of Hoffman building and construction of a new wharf off Lovejoy Place as part of the City of Boston Harbor Walk.

The checklist enclosed with this RGP authorization indicates the pollutants which Suffolk Construction Company is required to monitor. Also indicated on the checklist are the

effluent limits, test methods and minimum levels (MLs) for each pollutant. Please note 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>.


The check list enclosed includes also parameters that exceeded Appendix III limits and metals. 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, mercury of 1.1 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 March 15, 2014. If for any reason the discharge terminates sooner you are required to submit a Notice of Termination (NOT) to the attention of the contact person indicated below within 30 days of project completion.

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

Sincerely,

  
Thelma Murphy, Manager  
Storm Water and Construction  
Permits Section

Enclosure

cc: Robert Kubit, MassDEP  
Paul Canavan, BWSC  
Peter Zawadzkas, Haley & Aldrich



**2010 Remediation General Permit  
Summary of Monitoring Parameters<sup>[1]</sup>**

<b>NPDES Authorization Number:</b>		<b>MAG910568</b>
Authorization Issued:	March, 2013	
Facility/Site Name:	Lovejoy Wharf	
Facility/Site Address:	160 North Washington Street Boston, MA 02114, Suffolk County	
	Email address of owner: JMcCool@Related.com	
Legal Name of Operator:	Suffolk Construction Company	
Operator contact name, title, and Address:	James Ham, Project Manager	
	Email: JHam@suffolkconstruction.com	
Estimated date of Project Completion:	March 15, 2014	
Category and Sub-Category:	Category I- Petroleum Related Remediation. Sub-category B. Fuel Oils and Other Oil Sites	
RGP Termination Date:	September 10, 2015	
Receiving Water:	Boston Inner Harbor	

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

	<u>Parameter</u>	<u>Effluent Limit/Method#/ML</u> (All Effluent Limits are shown as Daily Maximum Limit, unless denoted by a **, in that case it will be a Monthly Average Limit)
✓	1. Total Suspended Solids (TSS)	30 milligrams/liter (mg/L) **, 50 mg/L for hydrostatic testing ** Me#160.2/ML5ug/L
	2. Total Residual Chlorine (TRC) <sup>1</sup>	Freshwater = 11 ug/L ** Saltwater = 7.5 ug/L **/ Me#330.5/ML 20ug/L
✓	3. Total Petroleum Hydrocarbons (TPH)	5.0 mg/L/ Me# 1664A/ML 5.0mg/L
	4. Cyanide (CN) <sup>2,3</sup>	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



	<b><u>Parameter</u></b>	<b><u>Effluent Limit/Method#/ML</u></b> (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) <sup>4</sup>	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 <sup>5</sup>	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) <sup>6</sup>	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



	<b>Parameter</b>	<b>Effluent Limit/Method#/ML</b> (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 <sup>7</sup>	0.0038 ug/L /Me#8270D/ ML 5ug/L, Me#610/ML 5ug/L& Me#625/ML 5ug/L
✓	b. Benzo(a) Pyrene <sup>7</sup>	0.0038 ug/L /Me#8270D/ ML 5ug/L, Me#610/ML 5ug/L& Me#625/ML 5ug/L
✓	c. Benzo(b)Fluoranthene <sup>7</sup>	0.0038 ug/L /Me#8270D/ ML 5ug/L, Me#610/ML 5ug/L& Me#625/ML 5ug/L
✓	d. Benzo(k)Fluoranthene <sup>7</sup>	0.0038 ug/L /Me#8270D/ ML 5ug/L, Me#610/ML 5ug/L& Me#625/ML 5ug/L
✓	e. Chrysene <sup>7</sup>	0.0038 ug/L /Me#8270D/ML 5ug/L, Me#610/ML 5ug/L& Me#625/ML 5ug/L
	f. Dibenzo(a,h)anthracene <sup>7</sup>	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 <sup>7</sup>	0.0038 ug/L /Me#8270D/ML 5ug/L, Me#610/ML 5ug/L& Me#625/ML 5ug/L
	36. Total Group II Polycyclic Aromatic Hydrocarbons (PAH)	100 ug/L
	h. Acenaphthene	X/Me#8270D/ML 5ug/L, Me#610/ML 5ug/L & Me#625/ML 5ug/L
	i. Acenaphthylene	X/Me#8270D/ML 5ug/L, Me#610/ML 5ug/L & Me#625/ML 5ug/L
	j. Anthracene	X/Me#8270D/ML 5ug/L, Me#610/ML 5ug/L & Me#625/ML 5ug/L
✓	k. Benzo(ghi) Perylene	X/Me#8270D/ML 5ug/L, Me#610/ML 5ug/L & Me#625/ML 5ug/L
✓	l. Fluoranthene	X/Me#8270D/ML 5ug/L, Me#610/ML 5ug/L & Me#625/ML 5ug/L
	m. Fluorene	X/Me#8270D/ML 5ug/L, Me#610/ML 5ug/L & Me#625/ML 5ug/L
	n. Naphthalene <sup>5</sup>	20 ug/L / Me#8270/ML 5ug/L, Me#610/ML 5ug/L & Me#625/ML 5ug/L
✓	o. Phenanthrene	X/Me#8270D/ML 5ug/L, Me#610/ML 5ug/L & Me#625/ML 5ug/L
✓	p. Pyrene	X/Me#8270D/ML 5ug/L, Me#610/ML 5ug/L & Me#625/ML 5ug/L
	37. Total Polychlorinated Biphenyls (PCBs) <sup>8,9</sup>	0.000064 ug/L/Me# 608/ ML 0.5 ug/L
✓	38. Chloride	Monitor only/Me# 300.0/ ML 100 ug/L

<b>Metal parameter</b>	<b>Total Recoverable Metal Limit @ H <sup>10</sup> = 50 mg/l CaCO3 for discharges in Massachusetts (ug/l) <sup>11/12</sup></b>	<b>Minimum level=ML</b>
------------------------	--	-------------------------



		<b>Saltwater</b>	
	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 0.2	
	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	

	<b>Other Parameters</b>	<b>Limit</b>
✓	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 <sup>13</sup>
✓	55. pH Range for Class SA & Class SB Waters in MA	6.5-8.3; 1/Month/Grab <sup>13</sup>
	56. pH Range for Class B Waters in NH	6.5-8; 1/Month/Grab <sup>13</sup>
	57. Daily maximum temperature - Warm water fisheries	83°F; 1/Month/Grab <sup>14</sup>
	58. Daily maximum temperature - Cold water fisheries	68°F; 1/Month/Grab <sup>14</sup>
	59. Maximum Change in Temperature in MA - Any Class A water body	1.5°F; 1/Month/Grab <sup>14</sup>
	60. Maximum Change in Temperature in MA - Any Class B water body- Warm Water	5°F; 1/Month/Grab <sup>14</sup>
	61. Maximum Change in Temperature in MA - Any Class B water body - Cold water and Lakes/Ponds	3°F; 1/Month/Grab <sup>14</sup>
	62. Maximum Change in Temperature in MA - Any Class SA water body - Coastal	1.5°F; 1/Month/Grab <sup>14</sup>
	63. Maximum Change in Temperature in MA - Any Class SB water body - July to September	1.5°F; 1/Month/Grab <sup>14</sup>
	64. Maximum Change in Temperature in MA -Any Class SB water body - October to June	4°F; 1/Month/Grab <sup>14</sup>

**Footnotes:**

<sup>1</sup> 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).

<sup>2</sup> 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.



<sup>3</sup> 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).

<sup>4</sup> BTEX = sum of Benzene, Toluene, Ethylbenzene, and total Xylenes.

<sup>5</sup> 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.

<sup>6</sup> 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.*

<sup>7</sup> 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.

<sup>8</sup> 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.

<sup>9</sup> 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).

<sup>10</sup> Hardness. Cadmium, Chromium III, Copper, Lead, Nickel, Silver, and Zinc are Hardness Dependent.

<sup>11</sup> For a Dilution Factor (DF) from 1 to 5, metals limits are calculated using DF times the base limit for the metal. See Appendix IV. For example, iron limits are calculated using  $DF \times 1,000 \text{ ug/L}$  (the iron base limit). Therefore DF is 1.5, the iron limit will be 1,500 ug/L; DF 2, then iron limit =  $1,000 \times 2 = 2,000 \text{ ug/L}$ , etc. not to exceed the DF=5.

<sup>12</sup> 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).

<sup>13</sup> pH sampling for compliance with permit limits may be performed using field methods as provided for in EPA test Method 150.1.

<sup>14</sup> Temperature sampling per Method 170.1

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

Tel: 617.886.7400  
Fax: 617.886.7600  
HaleyAldrich.com



5 March 2013  
File No. 12622-045

US Environmental Protection Agency  
5 Post Office Square, Suite 100  
Mail Code OEP06-4  
Boston, Massachusetts 02109-3912  
ATTN: Remediation General Permit NOI Processing

Subject: Notice of Intent (NOI)  
Temporary Construction Dewatering  
Lovejoy Wharf  
160 North Washington Street  
Boston, Massachusetts  
RTN 3-22351

Ladies and Gentlemen:

On behalf of the property owner, Related LJW Acquisition Company LLC, and in accordance with the National Pollutant Discharge Elimination System (NPDES) Remediation General Permit (RGP) in Massachusetts, MAG910000, this letter submits a Notice of Intent (NOI) and the applicable documentation as required by the US Environmental Protection Agency (EPA) for temporary construction site dewatering under the RGP. Temporary dewatering is planned in support of proposed site redevelopment, known as the Lovejoy Wharf project, which includes excavations below the existing 160 North Washington Street foundation mat for explorations and construction of a new elevator pit. Project Locus is shown on Figure 1.

The site is currently occupied by a 9-story building with a basement, half of Lovejoy Place (an alleyway), and a dilapidated wood wharf along the Charles River at the mouth of the Boston Harbor. The Lovejoy Wharf project involves: demolition of the 131 Beverly Street portion of the building for future redevelopment; renovation of the 160 North Washington Street building for use as a corporate headquarters; demolition of the existing dilapidated wood wharf; installation of a new steel sheet pile bulkhead; and construction of a new wharf as part of the City of Boston Harbor Walk.

A National Pollutant Discharge Elimination System (NPDES) Remediation General Permit (RGP) is currently in place (MAG910232) for the 160 North Washington Street portion of the property in connection with Massachusetts Contingency Plan (MCP) response actions by the previous owner for a petroleum release (for RTN 3-22351). The EPA was contacted in view of the recent change of site ownership, and planned remediation and redevelopment. It was agreed in discussions between Haley & Aldrich and Victor Alvarez of the EPA, that the existing NPDES RGP should be terminated. A Notice of Termination (NOT) for MAG910232 is attached in Appendix A. Recent groundwater quality data is being submitted with this Notice of Intent for a new RGP and is considered representative of current conditions in the area of proposed dewatering activities.



## Site History

Prior to 1903, the Site was occupied by various lumber and coal wharves, identified as Fletcher's Wharf, Roby's Wharf, and Goodnow's Wharf. In 1907, the subject building was constructed and occupied by W.F. Schrafft & Sons Confectionery Company. In 1951 the eastern portion of the building was utilized by Raytheon Manufacturing Company – Submarine Division for the manufacture of electrical control devices. Historical Sanborn Insurance Maps from 1988 through 1995 indicate the building was used as a loft. The building was most recently utilized primarily as office space. From at least 2001 through 2004 occupied portions of the subject building were primarily for office space. The subject building was vacated between 2007 and 2012.

The pier located adjacent to the subject building was part of Fletcher's Wharf in 1909 and later developed for use as a paper warehouse. The paper warehouse was razed sometime between 1988 and 1990 and the pier was utilized for parking until it became structurally unsound. This portion of the pier is in poor condition, some of which has collapsed into the harbor, and is currently undergoing demolition.

## Regulatory Background

MCP response actions and remediation have been conducted by previous owners of the 160 North Washington Street site since November 2002 following a fuel oil release and observations of Light Non-Aqueous Phase Liquid (LNAPL) on water in the basement (RTN 3-22351). An Immediate Response Action (IRA) Plan was submitted to the MassDEP on 31 January 2003 which included the installation a remedial system equipped with a 50-gallon per minute capacity water treatment system. The system originally included sump pumps and recovery wells which served to prevent water seepage into the basement and to recover and treat LNAPL, prior to discharge to Boston Harbor under an NPDES RGP (MAG910232). A plan by others illustrating the treatment system and sump pump locations is attached in Appendix A. The RGP was last authorized for the operator of the previous owner on 27 April 2011. Currently, the system is not operational.

Related LJW Acquisition Company LLC (LJW) acquired the property 28 December 2012. As new owner and eligible person, LJW is committed to bringing the 160 North Washington Street site into regulatory compliance and ultimately to achieve a Class A-3 RAO Permanent Solution, and if feasible, a Class A-2 RAO which does not rely on an Activity and Use Limitation. LJW submitted an MCP Tier II Transfer to MassDEP on 28 February 2013 to document the change in persons undertaking response actions for RTN 3-22351 pursuant to 310 CMR 40.0560(8).

LJW is in the process of preparing a RAM Plan to cover the construction-related subsurface response actions and remediation waste management. These response actions conceptually include:

- Installation of a new steel sheet pile bulkhead along the entire north side of the building to provide a groundwater/tidal cutoff;
- Cement grouting of a crushed stone layer underlying the 5-ft. thick concrete foundation mat to enhance recovery of remaining NAPL beneath the mat, encapsulate/solidify residual petroleum concentrations within the crushed stone layer, and further seal cold joints/cracks/core holes within the concrete mat;

- Demolition of a raised structural slab above a pipe chase (the bottom of which is the top of the 5-ft. thick concrete foundation mat) and removal of PCBs contaminated debris from the chase within the basement. These remedial activities will also be performed under the EPA Performance Based Option provided at 40 CFR 761.61(b).
- Demolition of the top 6- to 12-in. thickness of the concrete foundation mat across the building footprint and installation of a new geo-composite drainage layer, concrete topping slab and associated sump pump system to maintain dry conditions in the basement.

Based on these planned construction and remedial actions, the existing remedial system and associated sumps, as shown on the plan by others in Appendix A, will not be required. Accordingly, a Notice of Termination (NOT) for existing RGP MAG910232 is attached in Appendix A.

### **Current Water Quality Information**

In support of the NOI, two groundwater samples were collected from the project site, as shown on Figure 2. One sample, designated HA-NPDES, was collected from the point of anticipated construction dewatering in the area of a proposed elevator pit structure. The sample was collected from within a 5-ft. diameter test pit that was cored through the building foundation mat. A second sample, HA-NPDES-B, was collected from the vicinity of proposed discharge in Boston Harbor to characterize background conditions. The results of water quality testing conducted for this NOI are summarized in Table I and attached in Appendix F.

It should be noted that the water to be pumped from the proposed elevator pit area underlying the foundation mat is anticipated to be less contaminated than the water collected from various sumps in the boiler room and mechanical areas of the building covered under the existing RGP MAG910232. In particular, PCBs were not detected in the current water samples. Accordingly, the NOI proposes Activity Category I.B - Petroleum Related Site Remediation for Fuel Oils and Other Oil Sites.

### **Planned Dewatering and Treatment**

The location of planned dewatering for elevator pit construction is shown on Figure 2. Dewatering is necessary to control tidal fluctuations from the adjacent Boston Harbor and groundwater inflow to enable construction in-the-dry. Construction dewatering for further explorations beneath the mat in the elevator pit area to investigate existing pile foundations are planned to begin upon approval of this NOI.

Prior to discharge, it is planned to pump collected water through sedimentation tank(s), an oil/water separator equipped with coalescing filters, and bag filters to remove suspended solids and undissolved chemical constituents. It is anticipated that supplemental pretreatment such as granular activated carbon (GAC) will not be required to meet discharge criteria. Figure 3 illustrates a schematic diagram of the proposed treatment system. The treated effluent water will flow through PVC piping or hose, discharge onto rip rap, and subsequently flow directly into Boston Harbor. The discharge location is situated adjacent to an existing storm water outfall, as shown on Figure 2.



### **RGP Notice of Intent Form**

The completed "Suggested Notice of Intent" (NOI) form as provided in the RGP is enclosed in Appendix B. Related LJW Acquisition Company LLC currently owns the site. Suffolk Construction Company (Suffolk) is the construction manager and will hire a subcontractor to conduct the Site work, including the dewatering and treatment activities. Haley & Aldrich, Inc. (Haley & Aldrich) will monitor the subcontractor's dewatering activities and conduct water quality sampling to evaluate compliance with RGP discharge criteria on behalf of Related LJW Acquisition Company LLC. In accordance with the requirements for this NOI submission, James Ham, General Superintendent of Suffolk Construction, is listed as the "Contractor as Operator and Sole Permittee" for this NPDES RGP and has signed the NOI form.

Project construction is anticipated to disturb more than 1 acre of land and buildings, and therefore an application for an EPA Construction General Permit may be filed by Suffolk. However the need for such additional EPA permits, as listed on the NOI form under Section 1.f, have not currently been determined and therefore these questions have been answered as "No."

### **Supporting Information**

A Best Management Practices Plan (BMPP), which outlines the proposed discharge operations covered under the RGP, is included in Appendix C. In response to NOI Section 6 regarding information on Endangered Species and Historic Places, available public documentation on the National Register of Historic Places and Endangered Species Act are provided in Appendices D and E, respectively. It should also be noted that the responses in NOI Section 6 followed the previously approved NOI for RGP MAG910232. Alpha Analytical laboratory reports for collected water samples are provided in Appendix F.

### **Closure**

Thank you very much for your consideration of this NOI. Please contact the undersigned at 617-886-7454 should you wish to discuss the information contained herein or need additional information.

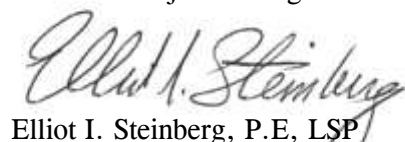
Sincerely yours,

HALEY & ALDRICH, INC



Peter Zawadzkas

Assistant Project Manager



Elliot I. Steinberg, P.E., LSP

Brownfields Program Manager | Vice President

Attachments:

Table I - Summary of Water Quality Data

Figure 1 - Project Locus

Figure 2 - Site and Proposed Dewatering Discharge Route

Figure 3 - Proposed Treatment System Schematic

Appendix A - Notice of Termination (NOT) for RGP #MAG 910232

Appendix B - Notice of Intent (NOI) for Remediation General Permit (RGP)

Appendix C - Best Management Practices Plan (BMPP)

Appendix D - National Register of Historic Places and Massachusetts Historical  
Commission Documentation

Appendix E - Endangered Species Act Documentation

Appendix F - Laboratory Data Reports

c: Suffolk Construction; Attn: James Ham  
The Beal Companies, LLP; Attn: Adam Kaplan  
Related Companies; Attn: Michael Winston

G:\12622\045\Text\2013 0304 160 N Washington NPDES RGP-f.doc



## TABLES

TABLE I  
SUMMARY OF WATER QUALITY DATA  
LOVEJOY WHARF  
131 BEVERLY STREET  
BOSTON, MASSACHUSETTS  
FILE NO. 12622-045

SAMPLE DESIGNATION SAMPLING DATE LAB SAMPLE ID SAMPLE TYPE	NPDES RGP Category I Sub-Category B Effluent Limits (ug/L)	HA-NPDES 2/19/2013 L1302810-02 Sub-Slab Water	HA-NPDES-B 2/18/2013 L1302810-01 Background
VOCs by GC/MS (ug/L)			
Total BTEX	100	ND	ND
Total VOCs	NA	ND	ND
SVOCs (ug/L)			
Total SVOCS	NA	ND	ND
PAHs (ug/L)			
Acenaphthene	Group II	ND(1)	ND(0.1)
Fluoranthene	Group II	5.5	ND(0.1)
Naphthalene	20	ND(1)	ND(0.1)
Benzo(a)anthracene	Group I	4.9	ND(0.1)
Benzo(a)pyrene	Group I	6.3	ND(0.1)
Benzo(b)fluoranthene	Group I	5.2	ND(0.1)
Benzo(k)fluoranthene	Group I	3.8	ND(0.1)
Chrysene	Group I	5.5	ND(0.1)
Acenaphthylene	Group II	ND(1)	ND(0.1)
Anthracene	Group II	ND(1)	ND(0.1)
Benzo(g,h,i)perylene	Group II	5.2	ND(0.1)
Fluorene	Group II	ND(1)	ND(0.1)
Phenanthrene	Group II	2	ND(0.1)
Dibenzo(a,h)anthracene	Group I	ND(1)	ND(0.1)
Indeno(1,2,3-c,d)Pyrene	Group I	3.7	ND(0.1)
Pyrene	Group II	10	ND(0.1)
Pentachlorophenol	1	ND(4)	ND(0.4)
Group I PAHs	10	29.4	ND
Group II PAHs	100	22.7	ND
Total Metals (ug/L)			
Antimony	5.6	ND(5)	ND(5)
Arsenic	36	6	ND(2.5)
Cadmium	8.9	ND(1)	ND(1)
Chromium	100	13.6	ND(5)
Chromium, Hexavalent	50.3	ND(5)	ND(5)
Copper	3.7	29.3	ND(5)
Iron	1000	4000	100
Lead	8.5	90.7	ND(2.5)
Mercury	1.1	0.3	ND(0.1)
Nickel	8.2	ND(2.5)	ND(2.5)
Selenium	71	ND(25)	ND(25)
Silver	2.2	ND(2)	ND(2)
Zinc	85.6	301.6	ND(50)
PCBs by GC (ug/L)			
Aroclor 1016	ND	ND(0.125)	ND(0.125)
Aroclor 1221	ND	ND(0.125)	ND(0.125)
Aroclor 1232	ND	ND(0.125)	ND(0.125)
Aroclor 1242	ND	ND(0.125)	ND(0.125)
Aroclor 1248	ND	ND(0.125)	ND(0.125)
Aroclor 1254	ND	ND(0.125)	ND(0.125)
Aroclor 1260	ND	ND(0.125)	ND(0.125)
Total PCBs	0.000064*	ND	ND
Pesticides by GC (ug/L)			
1,2-Dibromoethane (EDB)	0.05	ND(0.005)	ND(0.005)
General Chemistry			
Chloride (ug/L)	monitor only	12,300,000	16,000,000
Solids, Total Suspended (ug/L)	30000	140,000	36,000
Cyanide, Total (ug/L)	1	ND(2.5)	ND(2.5)
Chlorine, Total Residual (ug/L)	7.5	ND(10)	ND(10)
TPH (ug/L)	5000	10000	ND(2000)
Phenolics, Total (ug/L)	300	ND(15)	60

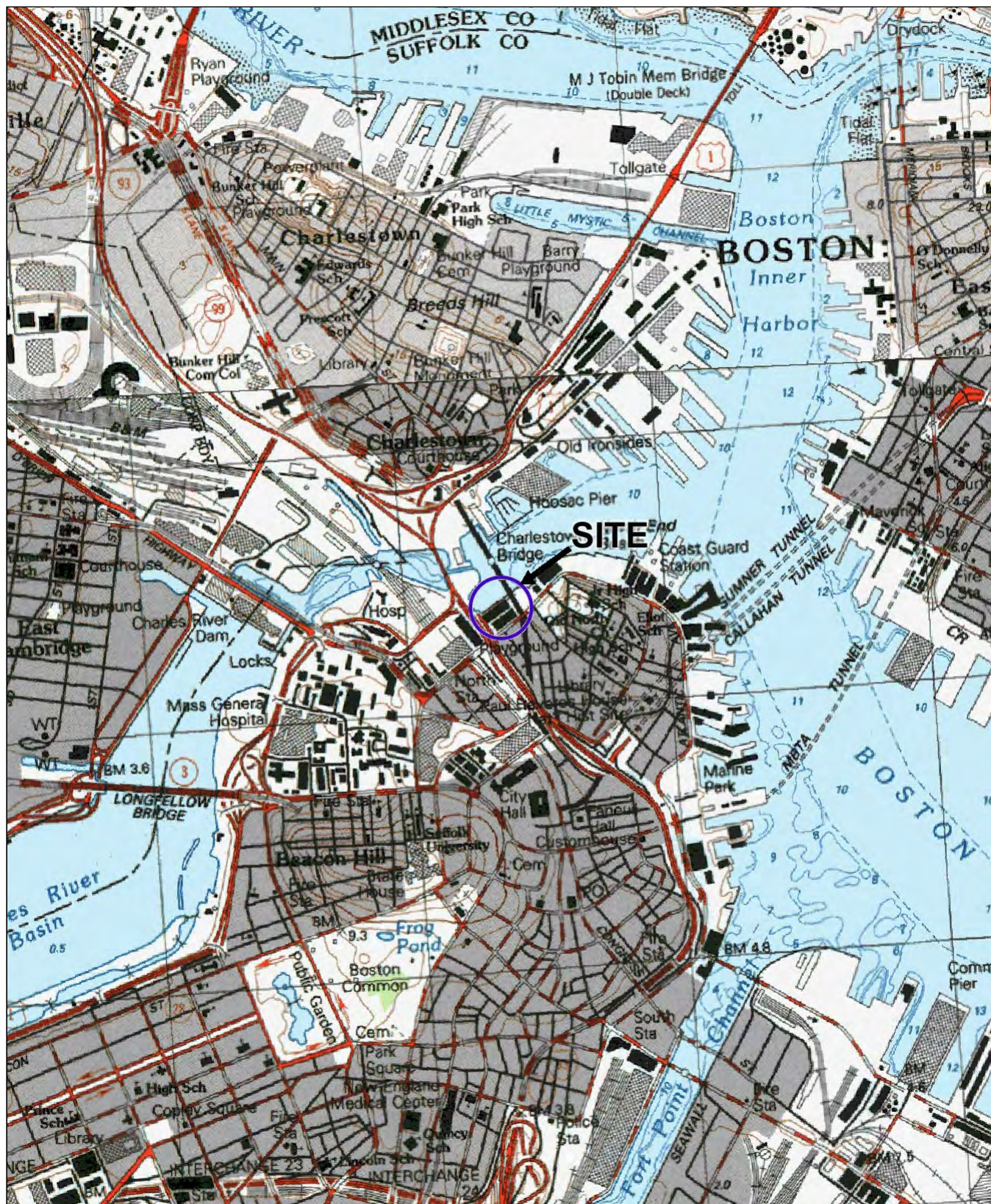
Abbreviations:  
NA : Not applicable  
ND(2.5): Not detected; number in parentheses is one-half the laboratory detection limit

- Notes:
- NPDES Effluent Limits taken from Appendix III of the EPA Remediation & Miscellaneous Contaminated Sites General Permit (RGP).
  - NPDES RGP effluent limits provided for saltwater receiving waters.
  - Metals samples were not filtered, therefore are not applicable for comparison to MCP RCGW criteria.
  - Bold indicates exceedance of NPDES RGP Effluent criteria.
  - VOC, SVOC, and PAH constituents with RGP effluent limits shown. Additional constituents are ND and not shown in this table.
  - \* Or minimum limits per acceptable test method used (ND)

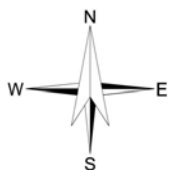


## FIGURES





SITE COORDINATES: 42°22'2"N 71°3'34"W



U.S.G.S. QUADRANGLE: BOSTON SOUTH, MA

**HALEY & ALDRICH**

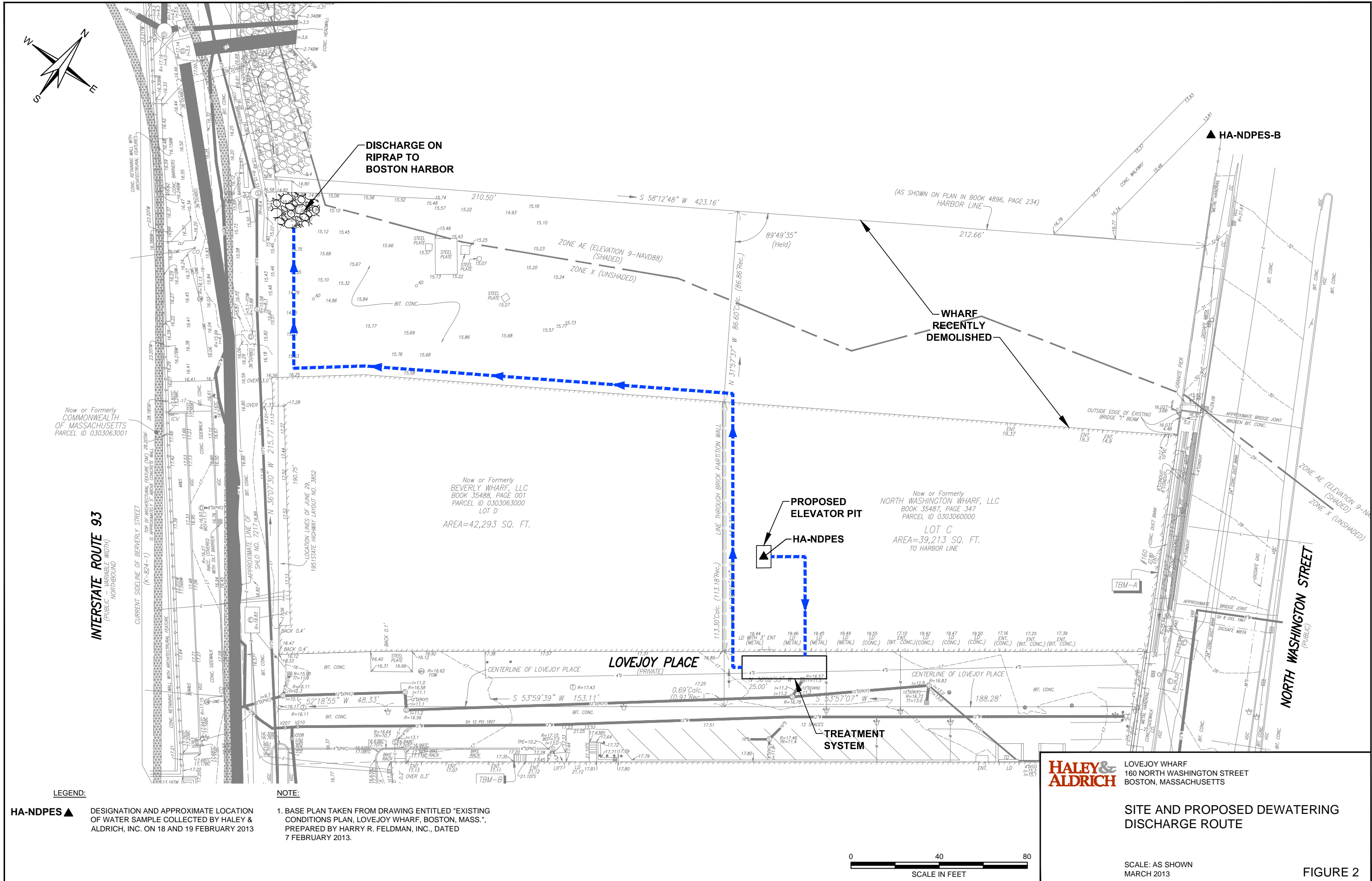
LOVEJOY WHARF  
160 NORTH WASHINGTON STREET  
BOSTON, MASSACHUSETTS

PROJECT LOCUS

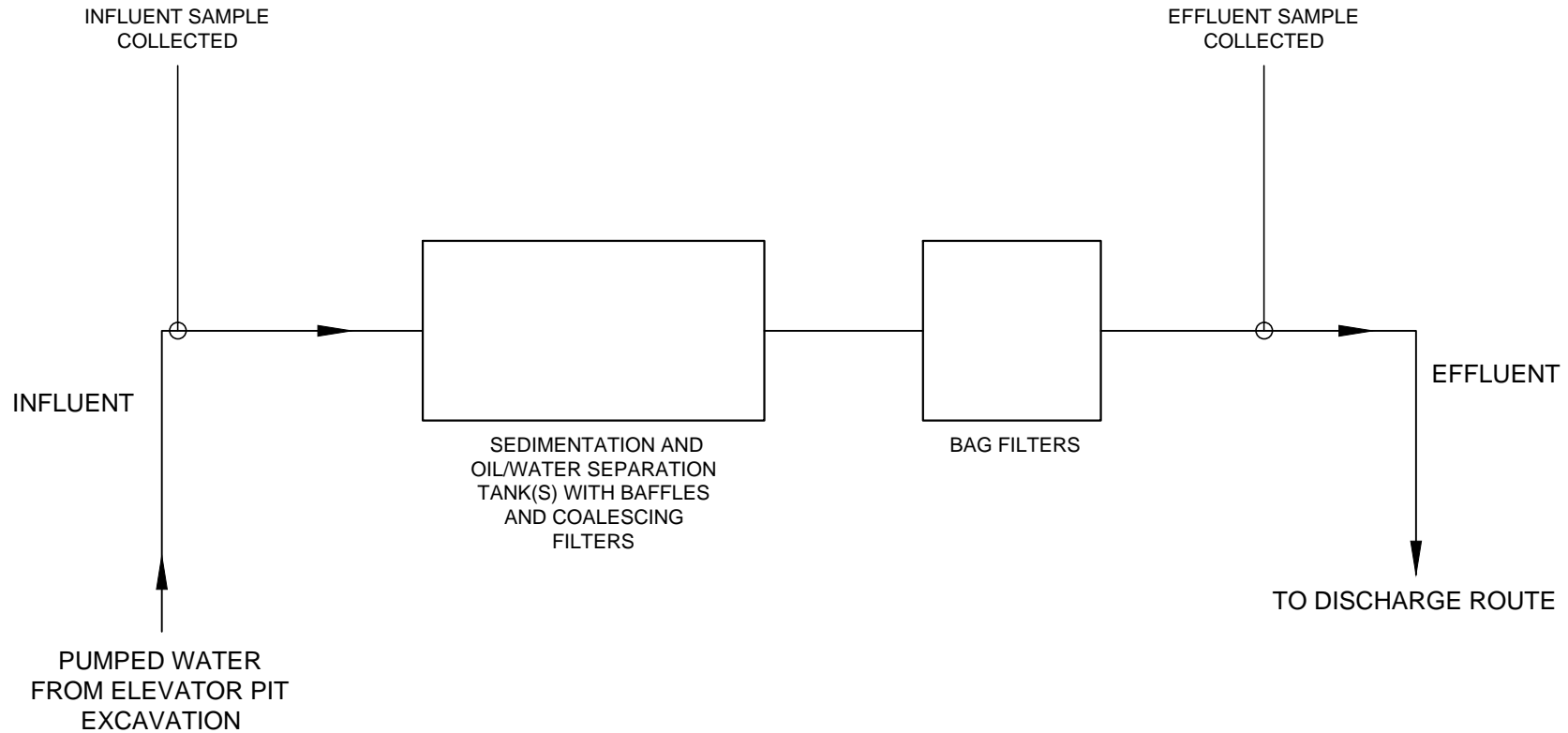
SCALE: 1:24,000  
MARCH 2013

FIGURE 1









LEGEND:

—▶ DIRECTION OF FLOW

NOTE:

1. DETAILS OF TREATMENT SYSTEM MAY VARY FROM SYSTEM INDICATED ABOVE. SPECIFIC MEANS AND METHODS OF TREATMENT TO BE SELECTED BY CONTRACTOR. WATER WILL BE TREATED TO MEET REQUIRED EFFLUENT STANDARDS.

**HALEY &  
ALDRICH**

LOVEJOY WHARF  
160 NORTH WASHINGTON STREET  
BOSTON, MASSACHUSETTS

**PROPOSED TREATMENT SYSTEM  
SCHEMATIC**

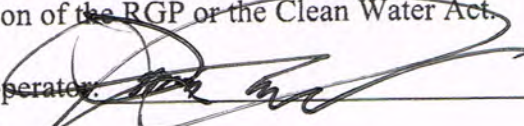
SCALE: NONE  
MARCH 2013

**FIGURE 3**

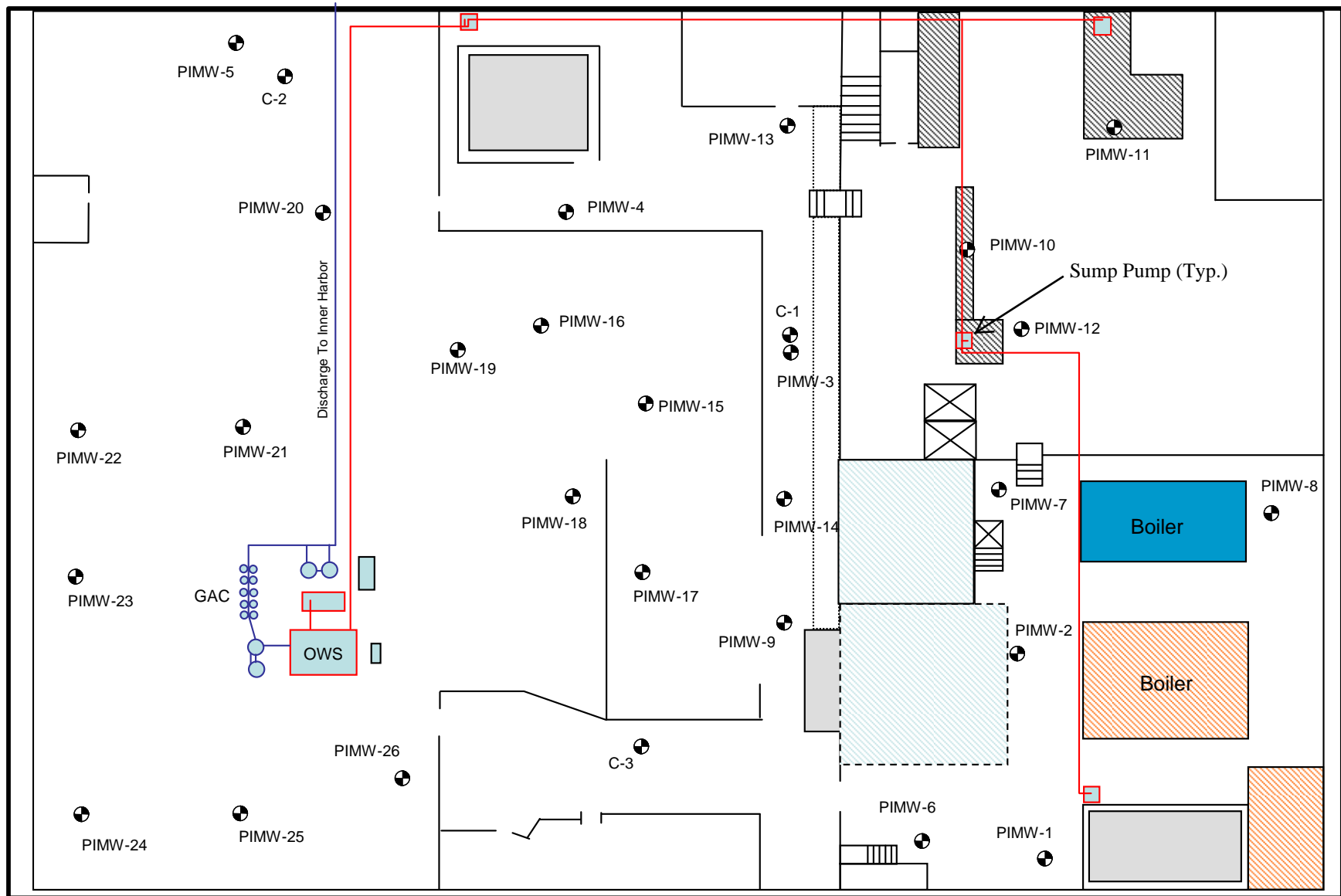
## **APPENDIX A**

**Notice of Termination (NOT) for RGP #MAG 910232**

**C. Suggested Form for the Remediation General Permit Notice of Termination (NOT)**

1) Name of site/facility: Hoffman Building		Mailing address of site/facility: 160 North Washington Street Boston, Massachusetts	
2) Name of the operator: Jim Ham		Address of operator: Suffolk Construction 65 Allerton Street Boston, Massachusetts 02119	
3) NPDES permit number assigned by EPA: MAG 910232	Telephone number of the operator: 617-650-5042	Email of the operator: JHam@suffolkconstruction.com	
Location of the facility or site: Latitude: 71.06 Longitude: 42.37			
4) Has the discharge been permanently terminated? Yes <input checked="" type="radio"/> No <input type="radio"/>			
5) Signatory requirements according to 40 CFR § 122.22 and certification:  I certify under penalty of law that all discharges from the identified facility that are authorized by the "Remediation General Permit" have been terminated. I understand that by submitting this Notice of Termination (NOT), I am no longer authorized to discharge waters covered by the RGP and that discharging pollutants from the activity covered by the RGP is unlawful under the Clean Water Act where the discharge is not authorized by a permit. I also understand that the submission of this NOT does not release an owner/operator from liability for any violation of the RGP or the Clean Water Act.			
Signature of operator: 		Date: <u>Mar 04, 13</u>	
Print Full Name and Title: <u>JAMES HAM GENERAL SUPERINTENDENT</u>			





Source: Ajax Management Partners, LLC.

### FIGURE 3 – BASEMENT LAYOUT

160 NORTH WASHINGTON STREET  
BOSTON, MASSACHUSETTS

No Scale

## **APPENDIX B**

### **Notice of Intent (NOI) for Remediation General Permit (RGP)**

## Remediation General Permit Appendix V

### Notice of Intent (NOI) Suggested Forms & Instructions

#### I. Notice of Intent (NOI) Suggested Form and Instructions

In order to be covered by the remediation general permit (RGP), applicants must submit a completed Notice of Intent (NOI) to EPA Region I and the appropriate state agency. The owner or operator, as defined by 40 CFR § 122.2, means the owner or operator of any "facility or activity" subject to regulation under the NPDES program.

The following are three general "**operator**" scenarios (variations on any of these three are possible, especially as the number of owners and contractors increases):

- ▶ "**Owner**" as "**Operator**" - *sole permittee*. The property owner designs the structures and control systems for the site, develops and implements the BMPP, and serves as general contractor (or has an on-site representative with full authority to direct day-to-day operations). Under the definition of operator, in this case, the "Owner" would be considered the "operator" and therefore the only party that needs permit coverage. Everyone else working on the site may be considered subcontractors and do not need to apply for permit coverage.
- ▶ "**Contractor**" as "**Operator**" - *sole permittee*. The property owner hires a company (e.g., a contractor) to design the project and oversee all aspects, including preparation and implementation of the BMPP and compliance with the permit (e.g., a "turnkey" project). Here, the contractor would likely be the only party needing a permit. Similarly, EPA expects that property owners hiring a contractor or consultant to perform groundwater remediation work (e.g., due to a leaking fuel oil tank) would come under this type of scenario. EPA believes that the contractor, being a professional in the industry, should be the responsible entity rather than the individual. The contractor is better equipped to meet the requirements of both applying for permit coverage and developing and properly implementing the plans needed to comply with the permit. However, property owners would also meet the definition of "operator" and require permit coverage in instances where they perform any of the required tasks on their personal properties.
- ▶ "**Owner**" and "**Contractor**" as "**Operators**" - *co-permittees*. The owner retains control over any changes to site plans, BMPPs, or wastewater conveyance or control designs, but the contractor is responsible for conducting and overseeing the actual activities (e.g., excavation, installation and operation of treatment train, etc.) and daily implementation of BMPP and other permit conditions. In this case, both parties need to apply for coverage.

Generally, a person would not be considered an "operator," and subsequently would not need permit coverage, if: 1) that person is a subcontractor hired by, and under the supervision of, the owner or a general contractor (e.g., if the contractor directs the



subcontractor's activities on-site, it is probably not an operator); or 2) the person's activities would otherwise result in the need for coverage under the RGP but another operator has legally assumed responsibility for the impacts of project activities.

**A. Instructions for the Suggested Notice of Intent (NOI)** - At a minimum, the Notice of Intent must include the following for each individual facility or site. Additional information may be attached as needed.

**1. General facility/site information.**

- a) Provide the facility/site name, mailing address, and telephone and fax numbers. Provide the facility Standard Industrial Classification (SIC ) code(s), which can be found online at [http://www.osha.gov/pls/imis/sic\\_manual.html](http://www.osha.gov/pls/imis/sic_manual.html). Provide the site location, including longitude and latitude.
- b) Provide the facility/site owner's name, address, email address, telephone and fax numbers, if different from the site information. Indicate whether the owner is a Federal, State/Tribal, private, or other entity.
- c) Provide the site operator's (e.g., contractor's) name, mailing address, telephone and fax numbers, and email address if different from the owner's information.
- d) For the site for which the application is being submitted, indicate whether:
  - 1) a prior NPDES permit exclusion has been granted for the discharge (if so, provide the tracking number of the exclusion letter);
  - 2) a prior NPDES application (Form 1 & 2C – for reference, please visit [http://www.epa.gov/region1/npdes/epa\\_attach.html](http://www.epa.gov/region1/npdes/epa_attach.html)) has ever been filed for the discharge (if so, provide the tracking number and date that the application was submitted to EPA);
  - 3) the discharge is a “new discharge” as defined by 40 CFR 122.2; and
  - 4) for sites in Massachusetts, is the discharge covered under the Massachusetts Contingency Plan (MCP) 310 CMR 40.0000 and exempt from state permitting.
- e) Indicate whether there is any ongoing state permitting, licensing, or other action regarding the facility or site which is generating the discharge. If “yes,” provide any site identification number assigned by the state of NH or MA, any permit or license number assigned, and the state agency contact information (e.g. name, location, telephone no.).
- f) Indicate whether or not the facility is covered by other EPA permits including:
  - 1) the Multi-Sector General Permit (MSGP)  
<http://cfpub.epa.gov/npdes/stormwater/msgp.cfm>;
  - 2) the Final NPDES General Permit for Dewatering Activity Discharges in Massachusetts and New Hampshire  
<http://www.epa.gov/region1/npdes/dewatering.html>;
  - 3) the EPA Construction General Permit  
<http://cfpub.epa.gov/npdes/stormwater/cgp.cfm>;
  - 4) an individual NPDES permit; or
  - 5) any other water quality-related individual or general permit.If so, provide permit tracking number(s).
- g) Indicate if the site/facility discharge(s) to an Area of Critical Environmental Concern (ACEC), as shown on the tables and maps in Appendix I.

h) Based on the nature of the facility/site and any historical sampling data, the applicant must indicate which of the sub-categories within which the potential discharge falls.

## **2. Discharge information.**

- a) Describe the discharge activities to be covered by the permit. Attach additional sheets as needed.
- b) Provide the following information about each discharge:
- 1) the number of discharge points;
  - 2) the maximum and average flow rate of the discharge in cubic feet per second. For the average flow magnitude, include the units and appropriate notation if this value is a calculated design value or estimate if technical/design information is not available;
  - 3) the latitude and longitude of each discharge with an accuracy of 100 feet (see EPA's siting tool at: [http://www.epa.gov/tri/report/siting\\_tool](http://www.epa.gov/tri/report/siting_tool) );
  - 4) the total volume of potential discharge (gal), only if hydrostatic testing;
  - 5) whether the discharge(s) is intermittent or seasonal and if ongoing.
- c) Provide the expected start and end dates of discharge (month/day/year).
- d) Attach a line drawing or flow schematic showing water flow through the facility including:
- 1) sources of intake water;
  - 2) contributing flow from the operation;
  - 3) treatment units; and
  - 4) discharge points and receiving waters(s).

## **3. Contaminant information.**

In order to complete the NOI, the applicant will need to take a minimum of one sample of the untreated water and have it analyzed for the parameters applicable to the sub-category into which the discharge falls, as listed in Appendix III of the permit and selected in Part 1 of the NOI form, except as noted below.

Permittees shall provide additional sampling results with the NOI if such sampling already exists, or if the permittee has reason to believe the site contains additional contaminants not listed in Appendix III for that sub-category or contains additional contaminants not included in Appendix III.

The applicant may use historical data as a substitute for the new sample if the data was collected no more than 2 years prior to the "Submittal of the NOI" and if collected pursuant to:

- i. for sites in Massachusetts, 310 CMR 40.0000, the Massachusetts Contingency Plan ("Chapter 21E");
- ii. for sites in New Hampshire, New Hampshire's Title 50 RSA 485-A: Water Pollution and Waste Disposal or Title 50 RSA 485-C: Groundwater Protection Act;

a) Based on the analysis of the untreated influent, the applicant must indicate whether each listed chemical is believed present or believed absent in the potential discharge.

Based on the required sampling and analysis, the applicant must fill in the table, or provide a narrative description, with the following additional information for each chemical that is believed present (chemical that violate EPA's criteria limitations):

- 1) the number of samples taken (minimum of one sample for applicable parameters per Appendix III);
- 2) the type of sample (e.g. grab, composite, etc.);
- 3) the analytical method used, including the method number;
- 4) the minimum level (ML) of the method used (based on Appendix VI);
- 5) the maximum daily amount (concentration (ug/l) and mass (kg)) of each pollutant, based on the sampling data

lb/day (pounds per day) equals flow (in million gallons per day, MGD) times concentration in milligrams per liter (mg/l) times 8.34.

Example: 2.5 MGD x 30 mg/l TSS x 8.34 = 625.5 lb TSS/day

MGD = gallons per minute (gpm) x 0.00144

1 kg = 2.2 lbs

And;

- 6) the average daily amount (concentration and mass) of each pollutant, based on the sampling data.

If the results of any sampling indicate that pollutants exist in addition to those listed in Appendix III of the RGP of the permit, the applicant must also describe those contaminants on the NOI in boxes in section I.3.c.) on the line marked "Other," or use additional sheets as needed. Subsequently, EPA may require monitoring for such parameters or will decide if an individual permit is necessary.

**c) Determination of Reasonable Potential and Allowable Dilution for Discharges of Metals:**

If any *metals* are believed present in the potential discharge to freshwater<sup>1</sup>, the applicant must follow the procedures below to determine the dilution factor for each metal.

***Step 1: Initial Evaluation***

1) The applicant must evaluate all metals believed present in the discharge subject to this permit, including "naturally occurring" metals such as dissolved and/or total Iron. Applicants must enter the highest detected concentration of the metal at zero dilution in the "Maximum value" column of the NOI.

2) Based on the maximum concentration of each metal, the applicant must perform an initial evaluation assuming zero dilution in the receiving water. The applicant must compare the metals concentrations in the untreated (intake) waters to the effluent limits contained in Appendix III.

---

<sup>1</sup>Dilution factors may be available for discharges to saline waters but only with approval of the flow modeling information from the State prior to the submission of the NOI.



- i. If potential discharges (untreated influent) with metals contain concentrations above the concentration limits listed in Appendix III, applicant must proceed to step 2.
- ii. If potential discharges (untreated influent) with metals contain concentrations below the concentrations listed in Appendix III, the applicant may skip step 2 and those metals will **not** be subject to permit limitations or monitoring requirements.

***Step 2: Calculation of Dilution Factor***

**1) For applicants in NH:** If a metal concentration in a potential discharge (untreated influent) to **freshwater** exceeds the limits in Appendix III with zero dilution, the applicant shall evaluate the potential concentration considering a dilution factor (DF) using the formula below. **For sites in New Hampshire, the applicant must contact NH DES to determine the 7Q10 and dilution factor.**

$$DF = [(Q_d + Q_s)/Q_d] \times 0.9$$

**Where:**

<b>DF</b>	<b>= Dilution Factor</b>
<b>Q<sub>d</sub></b>	<b>= Maximum flow rate of the discharge in cubic feet per second (cfs) (1.0 gpm = .00223 cfs)</b>
<b>Q<sub>s</sub></b>	<b>= Receiving water 7Q10 flow, in cfs, where 7Q10 is the annual minimum flow for 7 consecutive days with a recurrence interval of 10 years</b>
<b>0.9</b>	<b>= Allowance for reserving 10% of the assets in the receiving stream as per Chapter ENV-Wq 1700, Surface Water Quality Regulations</b>

i. Using the DF calculated from the formula above, the applicant must refer to the corresponding dilution range column in Appendix IV. The applicant then compares the maximum concentration of the metal entered on the NOI to the corresponding total recoverable metals limits listed in Appendix IV. Please note that for this reissuance the applicant will be permitted to determine a limit using any fraction within the 1-5 dilution factor range times the metal limit (for all regulated metals). For example: if the DF is 1.5, the Iron limit is 1,500 ug/L; if the DF is 1.5, the antimony limit is 8.4, etc. All limits above a dilution factor of 5 are maintained.

1. If a metal concentration in the potential discharge (untreated influent) is less than the corresponding limit in Appendix IV, the metal will **not** be subject to permit limitations or monitoring requirements.
2. If a metal concentration in the potential discharge (untreated influent) is equal to or exceeds the corresponding limit in Appendix IV, the applicant must reduce it in the effluent to a concentration below the applicable total recoverable metals limit in Appendix IV prior to discharge.

ii. In either case, the applicant must submit the results of this calculation as part of the NOI. EPA and NH DES will review the proposed effluent limitations for each metal and approve or disapprove the limits in the notification of coverage letter to the applicant.

**2) For applicants in MA:** If a metal concentration in a potential discharge (untreated influent) to **freshwater** exceeds the limits in Appendix III with zero dilution, the applicant must evaluate the potential concentration considering a dilution factor (DF) using the formula below.

$$DF = (Qd + Qs)/Qd$$

**Where:** **DF** = Dilution Factor  
**Qd** = Maximum flow rate of the discharge in cubic feet per second (cfs) (1.0 gpm = .00223 cfs)  
**Qs** = Receiving water 7Q10 flow (cfs) where 7Q10 is the minimum flow (cfs) for 7 consecutive days with a recurrence interval of 10 years

i. The applicant may estimate the 7Q10 for receiving water by using available information such as nearby USGS stream gauging stations directly or by application of certain “flow factors,” using historic streamflow publication information, calculations based on drainage area, information from state water quality offices, or other means. In many cases Massachusetts has calculated 7Q10 information using “flow factors” for a number of streams in the state. The source of the low flow value(s) used by the applicant must be included on NOI application form. Flow data can also be obtained from web applications such as the one located at: <http://ma.water.usgs.gov/streamstats/>.

ii. Using the DF calculated from the formula above, the applicant must refer to the corresponding dilution range column in Appendix IV. The applicant then shall compare the maximum concentration of each metal entered on the NOI to the corresponding total recoverable metals limit listed in Appendix IV. Please note that for this reissuance the applicant will be permitted to determine a limit using any fraction of the 0-5 of DF times the metal limit (for all regulated metals). For example: if the DF is 1.5, the Iron limit is 1,500 ug/L; if the DF is 1.5, the antimony limit is 8.4, etc. Not to exceed DF of 5.

1. If a metal concentration in the potential discharge (untreated influent) is less than the corresponding limit in Appendix IV, the metal will **not** be subject to permit limitations or monitoring requirements.
2. If a metal concentration in a potential discharge (untreated influent) is equal to or exceeds the corresponding limit in Appendix IV, the applicant must reduce it in the effluent to a concentration below the applicable total recoverable metals limit in Appendix IV prior to discharge.

iii. The applicant must submit the results of this calculation as part of the NOI. EPA (and MassDEP where the discharge is not covered by 310 CMR 40.0000) will review the proposed effluent limitations for each metal and approve or disapprove the limits in the notification of coverage letter to the applicant.

#### **4. Treatment system information.**

- a) Provide a written description of the treatment train and how the system will be set up for each discharge and attach a schematic of the proposed or existing treatment system(s).
- b) Identify each major treatment unit (e.g. frac tanks, filters, air stripper, liquid phase/vapor phase activated carbon, oil/water separators, etc.) by checking all that apply and describing any additional equipment not listed. Attach additional sheets as needed.
- c) Provide the proposed average and maximum flow rates (in gallons per minute, gpm) for the discharge and the design flow rates (in gpm) of the treatment system. Clearly identify the component of the treatment with the most limited flow, i.e., the part of the treatment train that establishes the design flow.
- d) Describe any chemical additives being used, or planned to be used, and attach MSDS sheets for each. EPA may request further information regarding the chemical composition of the additive, potential toxic effects, or other information to insure that approval of the use of the additive will not cause or contribute to a violation of State water quality standards. Approval of coverage under the RGP will constitute approval of the use of the chemical additive(s). If coverage of the discharge under the RGP has already been granted and the use of a chemical additive becomes necessary, the permittee must submit a Notice of Change (NOC).

#### **5. Receiving surface water(s) information.**

- a) Identify the discharge pathway by checking whether it is discharged: directly to the receiving water (river, stream, or brook), within the facility (e.g., through a sewer drain), to a storm drain, to a wetland, or other receiving body.
- b) Provide a narrative description of the discharge pathway, including the name(s) of the receiving waters into which discharge will occur.
- c) Provide a detailed map(s) indicating the location of the site and outfall(s) to the receiving water(s):
  - 1) For multiple discharges, the discharges should be numbered sequentially.
  - 2) In the case of indirect dischargers (to municipal storm sewer, etc) the map(s) must be sufficient to indicate the location of the discharge to the indirect conveyance and the discharge to the state classified surface water. The map should also include the location and distance to the nearest sanitary sewer as well as the locus of nearby sensitive receptors (based on USGS topographical mapping), such as surface waters, drinking water supplies, and wetland areas.
- d) Provide the state water quality classification of the receiving water and the basin (for Massachusetts, the Surface Water Quality Standards (314 CMR 4.00) are available at <http://www.mass.gov/dep/water/laws/regulati.htm#wqual>) (for New Hampshire, contact the NH DES at (603) 271-2984).
- e) Specify the reported seven day-ten year low flow (7Q10) of the receiving water (see Section I.A.3) c. above). In New Hampshire, the 7Q10 must be provided by to the applicant by the New Hampshire Department of Environmental Services.



f) Indicate whether the receiving water is a listed 303(d) water quality impaired or limited water and if so, for which pollutants (see Section IX of the Fact Sheet for additional information).

For MA, the most updated integrated list of waters (CWA 303(d) and 305(b)) is available at <http://www.mass.gov/dep/water/resources/tmdls.htm#info>.

For NH, the most updated integrated list of waters (CWA 303(d) and 305(b)) is available at <http://des.nh.gov/organization/divisions/water/wmb/swqa/index.htm>.

Also, indicate if there is a final TMDL for any of the listed pollutants. For MA, final TMDLs can be found at: <http://www.mass.gov/dep/water/resources/tmdls.htm> and for NH, final TMDLs can be found at

<http://des.nh.gov/organization/divisions/water/wmb/tmdl/index.htm>. For more information, contact the states at: New Hampshire Department of Environmental Services, Watershed Management Bureau at 603-271-3503 or the Massachusetts Department of Environmental Protection at 508-767-2796 or 508-767-2873.

#### **6. ESA and NHPA Eligibility.**

As required in Parts I.A.4 and Appendix VII the operator of a site/facility must ensure that the potential discharge will not adversely affect endangered species, designated critical habitat, or national historic places that are in proximity to the potential discharge. If the potential discharge is to certain water bodies, the applicant must also submit a formal certification with the NOI that indicates the consultation, with the U.S. Fish and Wildlife Service and National Marine Fisheries Service (the Services), resulted in either a no jeopardy opinion or a written concurrence on a finding that the discharge is not likely to adversely affect any endangered species or critical habitat. Facilities should begin the consultation as early in the process as possible.

- a) Using the instructions in Appendix VII and information in Appendix II, indicate under which criterion listed you are eligible for coverage under this general permit.
- b) If you selected criterion D or F, indicate if consultation with the federal services has been completed or if it is underway.
- c) If consultation with the U.S. Fish and Wildlife Service and/or NOAA Fisheries Service was completed, indicate if a written concurrence finding that the discharge is “not likely to adversely affect” listed species or critical habitat was received.
- d) Attach documentation of ESA eligibility as described below and required in Appendix VII, Part I.C, Step 4.

*Criterion A - No federally-listed threatened or endangered species or federally-designated critical habitat are present:* A copy of the most current county species list pages for the county(ies) where your site or facility and discharges are located. You must also include a statement on how you determined that no listed species or critical habitat are in proximity to your site or facility or discharge locations.

*Criterion B – Section 7 consultation completed with the Service(s) on a prior project:* A copy of the USFWS and/or NOAA Fisheries, as appropriate, biological opinion or concurrence on a finding of “unlikely to adversely effect” regarding the ESA Section 7 consultation.

*Criterion C – Activities are covered by a Section 10 Permit:* A copy of the USFWS and/or the NOAA Fisheries, as appropriate, letter transmitting the ESA Section 10 authorization.

*Criterion D - Concurrence from the Service(s) that the discharge is "not likely to adversely affect" federally-listed species or federally-designated critical habitat (not including the four species of concern identified in Section I of Appendix I):* A copy of the USFWS and/or the NOAA Fisheries, as appropriate, letter or memorandum concluding that the discharge is consistent with the general permit's "not likely to adversely affect" determination.

*Criterion E - Activities are covered by certification of eligibility:* A copy of the documents originally used by the other operator of your site or facility (or area including your site) to satisfy the documentation requirement of Criteria A, B, C or D.

*Criterion F - Concurrence from the Service(s) that the discharge is "not likely to adversely affect" species of concern, as identified in Section I of Appendix I:* A copy of the USFWS and/or the NOAA Fisheries, as appropriate, concurrence with the applicant's determination that the discharge is "not likely to adversely affect" listed species.

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

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

**7. Supplemental information.** Applicants should provide any supplemental information needed to meet the requirements of the permit, including any analytical data used to support the application, and any certification(s) required.

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

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

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

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

a) Name of facility/site: Lovejoy Wharf		Facility/site mailing address:	
Location of facility/site:		Street: 160 North Washington Street	
Longitude: 42.37	Facility SIC code(s): None		
Latitude: 71.06			
b) Name of facility/site owner: Michael Winston Related LJW Acquisition Company LLC		Town: Boston	
Email address of facility/site owner: JMcCool@Related.com		State: MA	County: Suffolk
Telephone no. of facility/site owner: (212) 801-3478		Zip: 02114	
Fax no. of facility/site owner:		Owner is (check one): 1. Federal <input type="radio"/> 2. State/Tribal <input type="radio"/>	
Address of owner (if different from site):		3. Private <input checked="" type="radio"/> 4. Other <input type="radio"/> if so, describe:	
Street: 60 Columbus Circle			
Town: New York	State: NY	Zip: 10021	County: New York
c) Legal name of operator:		Operator telephone no: 617-650-5042	
Suffolk Construction Company		Operator fax no.: 617-541-6092	Operator email: JHam@suffolkconstruction.com
Operator contact name and title: James Ham, Project Manager			
Address of operator (if different from owner):		Street: 65 Allerton Street	
Town: Boston	State: MA	Zip: 02119	County: Suffolk



<p>d) Check Y for "yes" or N for "no" for the following:</p> <p>1. Has a prior NPDES permit exclusion been granted for the discharge? Y <input type="radio"/> N <input type="radio"/> if Y, number: <input type="text" value="MA021-089"/></p> <p>2. Has a prior NPDES application (Form 1 &amp; 2C) ever been filed for the discharge? Y <input type="radio"/> N <input type="radio"/> if Y, date and tracking #: <input type="text" value="MAG910232"/></p> <p>3. Is the discharge a "new discharge" as defined by 40 CFR 122.2? Y <input type="radio"/> N <input type="radio"/></p> <p>4. For sites in Massachusetts, is the discharge covered under the Massachusetts Contingency Plan (MCP) and exempt from state permitting? Y <input type="radio"/> N <input type="radio"/></p>	
<p>e) Is site/facility subject to any State permitting, license, or other action which is causing the generation of discharge? Y <input type="radio"/> N <input type="radio"/></p> <p>If Y, please list:</p> <p>1. site identification # assigned by the state of NH or MA: <input type="text" value="RTN 3-22351"/></p> <p>2. permit or license # assigned: <input type="text"/></p> <p>3. state agency contact information: name, location, and telephone number: <input type="text"/></p>	<p>f) Is the site/facility covered by any other EPA permit, including:</p> <p>1. Multi-Sector General Permit? Y <input type="radio"/> N <input type="radio"/> if Y, number: <input type="text"/></p> <p>2. Final Dewatering General Permit? Y <input type="radio"/> N <input type="radio"/> if Y, number: <input type="text"/></p> <p>3. EPA Construction General Permit? Y <input type="radio"/> N <input type="radio"/> if Y, number: <input type="text"/></p> <p>4. Individual NPDES permit? Y <input type="radio"/> N <input type="radio"/> if Y, number: <input type="text"/></p> <p>5. any other water quality related individual or general permit? Y <input type="radio"/> N <input type="radio"/> if Y, number: <input type="text"/></p>
<p>g) Is the site/facility located within or does it discharge to an Area of Critical Environmental Concern (ACEC)? Y <input type="radio"/> N <input type="radio"/></p>	
<p>h) Based on the facility/site information and any historical sampling data, identify the sub-category into which the potential discharge falls.</p>	
<p><b>Activity Category</b></p> <p>I - Petroleum Related Site Remediation</p>	<p><b>Activity Sub-Category</b></p> <p>A. Gasoline Only Sites <input type="checkbox"/></p> <p>B. Fuel Oils and Other Oil Sites (including Residential Non-Business Remediation Discharges) <input checked="" type="checkbox"/></p> <p>C. Petroleum Sites with Additional Contamination <input type="checkbox"/></p>
<p>II - Non Petroleum Site Remediation</p>	<p>A. Volatile Organic Compound (VOC) Only Sites <input type="checkbox"/></p> <p>B. VOC Sites with Additional Contamination <input type="checkbox"/></p> <p>C. Primarily Heavy Metal Sites <input type="checkbox"/></p>
<p>III - Contaminated Construction Dewatering</p>	<p>A. General Urban Fill Sites <input type="checkbox"/></p> <p>B. Known Contaminated Sites <input type="checkbox"/></p>

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

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

a) Describe the discharge activities for which the owner/applicant is seeking coverage:	
Temporary construction dewatering in support of site redevelopment.	
b) Provide the following information about each discharge:	
1) Number of discharge points: 1	2) What is the <b>maximum</b> and <b>average flow rate</b> of discharge (in cubic feet per second, ft <sup>3</sup> /s)? Max. flow 0.45 Is maximum flow a design value? Y <input type="radio"/> N <input checked="" type="radio"/> Average flow (include units) 200 gal/min Is average flow a design value or estimate? estimate
3) Latitude and longitude of each discharge within 100 feet:	
pt. 1: lat. 42°22'2.47" long 71°3'34.59"	pt. 2: lat. long
pt. 3: lat. long	pt. 4: lat. long
pt. 5: lat. long	pt. 6: lat. long
pt. 7: lat. long	pt. 8: lat. long etc.
4) If hydrostatic testing, total volume of the discharge (gals):	5) Is the discharge intermittent <input checked="" type="radio"/> or seasonal <input type="radio"/> Is discharge ongoing? Y <input type="radio"/> N <input checked="" type="radio"/>
c) Expected dates of discharge (mm/dd/yy): start 3/15/2013 end 3/15/2014	
d) Please attach a line drawing or flow schematic showing water flow through the facility including: 1. sources of intake water. 2. contributing flow from the operation. 3. treatment units. and 4. discharge points and receiving waters(s). See attached Figures 2 (Site and Proposed Dewatering Discharge Route) and 3 (Proposed Treatment System Schematic).	

### 3. Contaminant information.

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

Parameter *	CAS Number	Believed Absent	Believed Present	# of Samples	Sample Type (e.g., grab)	Analytical Method Used (method #)	Minimum Level (ML) of Test Method	Maximum daily value		Average daily value	
								concentration (ug/l)	mass (kg)	concentration (ug/l)	mass (kg)
1. Total Suspended Solids (TSS)		<input type="checkbox"/>	<input checked="" type="checkbox"/>	1	GRAB	2540D	5000	140,000			
2. Total Residual Chlorine (TRC)		<input checked="" type="checkbox"/>	<input type="checkbox"/>	1	GRAB	4500CL-D	200	ND			
3. Total Petroleum Hydrocarbons (TPH)		<input type="checkbox"/>	<input checked="" type="checkbox"/>	1	GRAB	1664A	5000	10000			
4. Cyanide (CN)	57125	<input checked="" type="checkbox"/>	<input type="checkbox"/>	1	GRAB	4500CN-CE	5	ND			
5. Benzene (B)	71432	<input checked="" type="checkbox"/>	<input type="checkbox"/>	1	GRAB	8260C	2	ND			
6. Toluene (T)	108883	<input checked="" type="checkbox"/>	<input type="checkbox"/>	1	GRAB	8260C	2	ND			
7. Ethylbenzene (E)	100414	<input checked="" type="checkbox"/>	<input type="checkbox"/>	1	GRAB	8260C	2	ND			
8. (m,p,o) Xylenes (X)	10883; 106423; 95476; 1330207	<input checked="" type="checkbox"/>	<input type="checkbox"/>	1	GRAB	8260C	4	ND			
9. Total BTEX <sup>2</sup>	n/a	<input checked="" type="checkbox"/>	<input type="checkbox"/>	1	GRAB	8260C	2	ND			
10. Ethylene Dibromide (EDB) (1,2-Dibromoethane) <sup>3</sup>	106934	<input checked="" type="checkbox"/>	<input type="checkbox"/>	1	GRAB	504.1	0.01	ND			
11. Methyl-tert-Butyl Ether (MtBE)	1634044	<input checked="" type="checkbox"/>	<input type="checkbox"/>	1	GRAB	8260C	10	ND			
12. tert-Butyl Alcohol (TBA) (Tertiary-Butanol)	75650	<input checked="" type="checkbox"/>	<input type="checkbox"/>	1	GRAB	8260C	10	ND			

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

<sup>2</sup> BTEX = Sum of Benzene, Toluene, Ethylbenzene, total Xylenes.

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



<u>Parameter *</u>	<u>CAS Number</u>	<u>Believed Absent</u>	<u>Believed Present</u>	<u># of Samples</u>	<u>Sample Type (e.g., grab)</u>	<u>Analytical Method Used (method #)</u>	<u>Minimum Level (ML) of Test Method</u>	<u>Maximum daily value</u>		<u>Average daily value</u>	
								<u>concentration (ug/l)</u>	<u>mass (kg)</u>	<u>concentration (ug/l)</u>	<u>mass (kg)</u>
13. tert-Amyl Methyl Ether (TAME)	9940508	<input checked="" type="checkbox"/>	<input type="checkbox"/>	1	GRAB	8260C	10	ND			
14. Naphthalene	91203	<input checked="" type="checkbox"/>	<input type="checkbox"/>	1	GRAB	8260C	2	ND			
15. Carbon Tetrachloride	56235	<input checked="" type="checkbox"/>	<input type="checkbox"/>	1	GRAB	8260C	5	ND			
16. 1,2 Dichlorobenzene (o-DCB)	95501	<input checked="" type="checkbox"/>	<input type="checkbox"/>	1	GRAB	8260C	5	ND			
17. 1,3 Dichlorobenzene (m-DCB)	541731	<input checked="" type="checkbox"/>	<input type="checkbox"/>	1	GRAB	8260C	5	ND			
18. 1,4 Dichlorobenzene (p-DCB)	106467	<input checked="" type="checkbox"/>	<input type="checkbox"/>	1	GRAB	8260C	5	ND			
18a. Total dichlorobenzene		<input checked="" type="checkbox"/>	<input type="checkbox"/>	1	GRAB	8260C	5	ND			
19. 1,1 Dichloroethane (DCA)	75343	<input checked="" type="checkbox"/>	<input type="checkbox"/>	1	GRAB	8260C	5	ND			
20. 1,2 Dichloroethane (DCA)	107062	<input checked="" type="checkbox"/>	<input type="checkbox"/>	1	GRAB	8260C	5	ND			
21. 1,1 Dichloroethene (DCE)	75354	<input checked="" type="checkbox"/>	<input type="checkbox"/>	1	GRAB	8260C	5	ND			
22. cis-1,2 Dichloroethene (DCE)	156592	<input checked="" type="checkbox"/>	<input type="checkbox"/>	1	GRAB	8260C	5	ND			
23. Methylene Chloride	75092	<input checked="" type="checkbox"/>	<input type="checkbox"/>	1	GRAB	8260C	5	ND			
24. Tetrachloroethene (PCE)	127184	<input checked="" type="checkbox"/>	<input type="checkbox"/>	1	GRAB	8260C	5	ND			
25. 1,1,1 Trichloro-ethane (TCA)	71556	<input checked="" type="checkbox"/>	<input type="checkbox"/>	1	GRAB	8260C	5	ND			
26. 1,1,2 Trichloro-ethane (TCA)	79005	<input checked="" type="checkbox"/>	<input type="checkbox"/>	1	GRAB	8260C	5	ND			
27. Trichloroethene (TCE)	79016	<input checked="" type="checkbox"/>	<input type="checkbox"/>	1	GRAB	8260C	5	ND			

Parameter *	CAS Number	Believed Absent	Believed Present	# of Samples	Sample Type (e.g., grab)	Analytical Method Used (method #)	Minimum Level (ML) of Test Method	Maximum daily value		Average daily value	
								concentration (ug/l)	mass (kg)	concentration (ug/l)	mass (kg)
28. Vinyl Chloride (Chloroethene)	75014	<input checked="" type="checkbox"/>	<input type="checkbox"/>	1	GRAB	8260C	5	ND			
29. Acetone	67641	<input checked="" type="checkbox"/>	<input type="checkbox"/>	1	GRAB	8260C	50	ND			
30. 1,4 Dioxane	123911	<input checked="" type="checkbox"/>	<input type="checkbox"/>	1	GRAB	8260C-SIM	50	ND			
31. Total Phenols	108952	<input checked="" type="checkbox"/>	<input type="checkbox"/>	1	GRAB	420.1	50	ND			
32. Pentachlorophenol (PCP)	87865	<input checked="" type="checkbox"/>	<input type="checkbox"/>	1	GRAB	8270D-SIM	5	ND			
33. Total Phthalates (Phthalate esters) <sup>4</sup>		<input checked="" type="checkbox"/>	<input type="checkbox"/>	1	GRAB	8270D	5	ND			
34. Bis (2-Ethylhexyl) Phthalate [Di-(ethylhexyl) Phthalate]	117817	<input checked="" type="checkbox"/>	<input type="checkbox"/>	1	GRAB	8270D	5	ND			
35. Total Group I Polycyclic Aromatic Hydrocarbons (PAH)		<input type="checkbox"/>	<input checked="" type="checkbox"/>	1	GRAB	8270D-SIM	-	29.4			
a. Benzo(a) Anthracene	56533	<input type="checkbox"/>	<input checked="" type="checkbox"/>	1	GRAB	8270D-SIM	0.1	4.9			
b. Benzo(a) Pyrene	50328	<input type="checkbox"/>	<input checked="" type="checkbox"/>	1	GRAB	8270D-SIM	0.1	6.3			
c. Benzo(b)Fluoranthene	205992	<input type="checkbox"/>	<input checked="" type="checkbox"/>	1	GRAB	8270D-SIM	0.1	5.2			
d. Benzo(k)Fluoranthene	207089	<input type="checkbox"/>	<input checked="" type="checkbox"/>	1	GRAB	8270D-SIM	0.1	3.8			
e. Chrysene	21801	<input type="checkbox"/>	<input checked="" type="checkbox"/>	1	GRAB	8270D-SIM	0.1	5.5			
f. Dibenzo(a,h)anthracene	53703	<input checked="" type="checkbox"/>	<input type="checkbox"/>	1	GRAB	8270D-SIM	0.1	ND			
g. Indeno(1,2,3-cd) Pyrene	193395	<input type="checkbox"/>	<input checked="" type="checkbox"/>	1	GRAB	8270D-SIM	0.1	3.7			
36. Total Group II Polycyclic Aromatic Hydrocarbons (PAH)		<input type="checkbox"/>	<input checked="" type="checkbox"/>	1	GRAB	8270D-SIM	-	22.7			

<sup>4</sup> The sum of individual phthalate compounds.

Parameter *	CAS Number	Believed Absent	Believed Present	# of Samples	Sample Type (e.g., grab)	Analytical Method Used (method #)	Minimum Level (ML) of Test Method	Maximum daily value		Average daily value	
								concentration (ug/l)	mass (kg)	concentration (ug/l)	mass (kg)
h. Acenaphthene	83329	<input checked="" type="checkbox"/>	<input type="checkbox"/>	2	GRAB	8270D-SIM	0.1	ND			
i. Acenaphthylene	208968	<input checked="" type="checkbox"/>	<input type="checkbox"/>	2	GRAB	8270D-SIM	0.1	ND			
j. Anthracene	120127	<input checked="" type="checkbox"/>	<input type="checkbox"/>	2	GRAB	8270D-SIM	0.1	ND			
k. Benzo(ghi) Perylene	191242	<input type="checkbox"/>	<input checked="" type="checkbox"/>	2	GRAB	8270D-SIM	0.1	5.2			
l. Fluoranthene	206440	<input type="checkbox"/>	<input checked="" type="checkbox"/>	2	GRAB	8270D-SIM	0.1	5.5			
m. Fluorene	86737	<input checked="" type="checkbox"/>	<input type="checkbox"/>	2	GRAB	8270D-SIM	0.1	ND			
n. Naphthalene	91203	<input checked="" type="checkbox"/>	<input type="checkbox"/>	2	GRAB	8270D-SIM	0.1	ND			
o. Phenanthrene	85018	<input type="checkbox"/>	<input checked="" type="checkbox"/>	2	GRAB	8270D-SIM	0.1	2			
p. Pyrene	129000	<input type="checkbox"/>	<input checked="" type="checkbox"/>	2	GRAB	8270D-SIM	0.1	10			
37. Total Polychlorinated Biphenyls (PCBs)	85687; 84742; 117840; 84662; 131113; 117817.	<input checked="" type="checkbox"/>	<input type="checkbox"/>	2	GRAB	608	0.5	ND			
38. Chloride	16887006	<input type="checkbox"/>	<input checked="" type="checkbox"/>	2	GRAB	300.0	100	12300000			
39. Antimony	7440360	<input checked="" type="checkbox"/>	<input type="checkbox"/>	2	GRAB	6020A	0.5	ND			
40. Arsenic	7440382	<input type="checkbox"/>	<input checked="" type="checkbox"/>	2	GRAB	6020A	1	6			
41. Cadmium	7440439	<input checked="" type="checkbox"/>	<input type="checkbox"/>	2	GRAB	6020A	0.2	ND			
42. Chromium III (trivalent)	16065831	<input type="checkbox"/>	<input checked="" type="checkbox"/>	2	GRAB	6020A	1	13.6			
43. Chromium VI (hexavalent)	18540299	<input checked="" type="checkbox"/>	<input type="checkbox"/>	1	GRAB	3500CR-D	10	ND			
44. Copper	7440508	<input type="checkbox"/>	<input checked="" type="checkbox"/>	2	GRAB	6020A	0.5	29.3			
45. Lead	7439921	<input type="checkbox"/>	<input checked="" type="checkbox"/>	2	GRAB	6020A	0.2	90.7			
46. Mercury	7439976	<input type="checkbox"/>	<input checked="" type="checkbox"/>	2	GRAB	245.1	0.2	0.3			
47. Nickel	7440020	<input checked="" type="checkbox"/>	<input type="checkbox"/>	2	GRAB	6020A	0.2	ND			
48. Selenium	7782492	<input checked="" type="checkbox"/>	<input type="checkbox"/>	2	GRAB	6020A	2	ND			
49. Silver	7440224	<input checked="" type="checkbox"/>	<input type="checkbox"/>	2	GRAB	6020A	0.2	ND			
50. Zinc	7440666	<input type="checkbox"/>	<input checked="" type="checkbox"/>	2	GRAB	6020A	5	301.6			
51. Iron	7439896	<input type="checkbox"/>	<input checked="" type="checkbox"/>	2	GRAB	200.7	50	4000			
Other (describe):		<input type="checkbox"/>	<input type="checkbox"/>								



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

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

<p><i>Step 1:</i> Do any of the metals in the influent exceed the effluent limits in Appendix III (i.e., the limits set at zero dilution)? Y <input checked="" type="radio"/> N <input type="radio"/></p>		<p>If yes, which metals? Cooper, Iron, Lead, Zinc</p>
<p><i>Step 2:</i> For any metals which exceed the Appendix III limits, calculate the dilution factor (DF) using the formula in Part I.A.3.c (step 2) of the NOI instructions or as determined by the State prior to the submission of this NOI. What is the dilution factor for applicable metals?</p> <p>Metal: <input type="text"/> DF: <input type="text"/></p> <p>Metal: <input type="text"/> DF: <input type="text"/></p> <p>Metal: <input type="text"/> DF: <input type="text"/></p> <p>Metal: <input type="text"/> DF: <input type="text"/></p> <p>Etc. Not Applicable - Saltwater Discharge</p>		<p>Look up the limit calculated at the corresponding dilution factor in Appendix IV. Do any of the metals in the influent have the potential to exceed the corresponding effluent limits in Appendix IV (i.e., is the influent concentration above the limit set at the calculated dilution factor)?</p> <p>Y <input type="radio"/> N <input checked="" type="radio"/> If Y, list which metals:</p>

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

<p>a) A description of the treatment system, including a schematic of the proposed or existing treatment system:</p> <p>See attached Figure 3.</p>					
<p>b) Identify each applicable treatment unit (check all that apply):</p>	<p>Frac. tank <input checked="" type="checkbox"/></p> <p>Chlorination <input type="checkbox"/></p>	<p>Air stripper <input type="checkbox"/></p> <p>De-chlorination <input type="checkbox"/></p>	<p>Oil/water separator <input checked="" type="checkbox"/></p> <p>Other (please describe):</p>	<p>Equalization tanks <input type="checkbox"/></p>	<p>Bag filter <input checked="" type="checkbox"/></p> <p>GAC filter <input type="checkbox"/></p>

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

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

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

a) Identify the discharge pathway:	Direct to receiving water <input checked="" type="checkbox"/>	Within facility (sewer) <input type="checkbox"/>	Storm drain <input type="checkbox"/>	Wetlands <input type="checkbox"/>	Other (describe): <input type="text"/>
------------------------------------	---	--	--------------------------------------	-----------------------------------	--

b) Provide a narrative description of the discharge pathway, including the name(s) of the receiving waters:  
Treated effluent will be discharged through a PVC pipe or hose onto rip-rap adjacent to an existing storm water out fall to Boston Harbor.

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

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

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

f) Is the receiving water a listed 303(d) water quality impaired or limited water? Y ☐ N ☐ If yes, for which pollutant(s)? Pathogens

Is there a final TMDL? Y ☐ N ☐ If yes, for which pollutant(s)? Microbial (Pathogens)

**6. ESA and NHPA Eligibility.**

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

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


**7. Supplemental information.**

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



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

*I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, I certify that there are no significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.*

Facility/Site Name:	LOVES OF WHALE, 160 NORTH WASHINGTON ST, BOSTON, MA
Operator signature:	
Printed Name & Title:	James Ham General Superintendent
Date:	Mar. 04, 13

## **APPENDIX C**

### **Best Management Practices Plan (BMPP)**

**NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM  
REMEDIAL GENERAL PERMIT  
LOVEJOY WHARF  
160 NORTH WASHINGTON STREET  
BOSTON, MASSACHUSETTS**

**Best Management Practices Plan**

A Notice of Intent for a Remediation General Permit (RGP) under the National Pollutant Discharge Elimination System (NPDES) has been submitted to the US Environmental Protection Agency (EPA) in anticipation of temporary construction dewatering planned to occur at the Lovejoy Wharf project site located at 160 North Washington Street in Boston, Massachusetts. This Best Management Practices Plan (BMPP) has been prepared as an Appendix to the RGP and will be posted at the site during the time period that temporary construction dewatering is occurring at the site.

**Water Treatment and Management**

Construction dewatering will be conducted from sumps located in excavations for below grade structures and utilities. The treatment system will be designed by the contractor. Prior to discharge, collected water will likely be routed through sedimentation tank(s), oil/water separator equipped with coalescing filters, and bag filters to remove suspended solids and undissolved chemical constituents, as shown in the Proposed Treatment System Schematic included in Figure 3. It is anticipated that supplemental pretreatment such granular activated carbon (GAC) will not be required to meet discharge criteria. The treated effluent water will flow through PVC piping or hose, discharge onto rip rap, and subsequently flow directly into Boston Harbor. The discharge location is situated adjacent to an existing storm water outfall, as shown on Figure 2.

**Discharge Monitoring and Compliance**

Regular sampling and testing will be conducted at the influent to the system and the treated effluent as required by the RGP. This includes chemical testing required within the first month of discharging, and the monthly testing to be conducted through the end of the scheduled discharge.

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

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

Monthly monitoring reports will be compiled and maintained at the site.



## **Appendix D**

### **National Register of Historic Places and Massachusetts Historical Commission Documentation**

# Massachusetts Historical Commission

William Francis Galvin, Secretary of the Commonwealth

[Home](#) | [Feedback](#) | [Contact Us](#)

[MHC Home](#)

## Massachusetts Cultural Resource Information System **MACRIS**

*Scanned forms and photos now available for selected towns!*

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

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

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



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

# Massachusetts Cultural Resource Information System

## Scanned Record Cover Page

<b>Inventory No:</b>	BOS.1915
<b>Historic Name:</b>	Schrafts Candy Factory - Quincy Cold Storage
<b>Common Name:</b>	Hoffman - Mass. Registry of Motor Vehicles Bldg.
<b>Address:</b>	160 North Washington St
<b>City/Town:</b>	Boston
<b>Village/Neighborhood:</b>	Central Business District; North Station
<b>Local No:</b>	
<b>Year Constructed:</b>	
<b>Architect(s):</b>	Codman and Despradelle
<b>Architectural Style(s):</b>	Not researched; Panel Brick
<b>Use(s):</b>	Food Processing and Packaging; Other Commercial; Warehouse
<b>Significance:</b>	Architecture; Commerce; Industry
<b>Area(s):</b>	
<b>Designation(s):</b>	



The Massachusetts Historical Commission (MHC) has converted this paper record to digital format as part of ongoing projects to scan records of the Inventory of Historic Assets of the Commonwealth and National Register of Historic Places nominations for Massachusetts. Efforts are ongoing and not all inventory or National Register records related to this resource may be available in digital format at this time.

The MACRIS database and scanned files are highly dynamic; new information is added daily and both database records and related scanned files may be updated as new information is incorporated into MHC files. Users should note that there may be a considerable lag time between the receipt of new or updated records by MHC and the appearance of related information in MACRIS. Users should also note that not all source materials for the MACRIS database are made available as scanned images. Users may consult the records, files and maps available in MHC's public research area at its offices at the State Archives Building, 220 Morrissey Boulevard, Boston, open M-F, 9-5.

Users of this digital material acknowledge that they have read and understood the MACRIS Information and Disclaimer (<http://mhc-macris.net/macrisdisclaimer.htm>)

Data available via the MACRIS web interface, and associated scanned files are for information purposes only. THE ACT OF CHECKING THIS DATABASE AND ASSOCIATED SCANNED FILES DOES NOT SUBSTITUTE FOR COMPLIANCE WITH APPLICABLE LOCAL, STATE OR FEDERAL LAWS AND REGULATIONS. IF YOU ARE REPRESENTING A DEVELOPER AND/OR A PROPOSED PROJECT THAT WILL REQUIRE A PERMIT, LICENSE OR FUNDING FROM ANY STATE OR FEDERAL AGENCY YOU MUST SUBMIT A PROJECT NOTIFICATION FORM TO MHC FOR MHC'S REVIEW AND COMMENT. You can obtain a copy of a PNF through the MHC web site ([www.sec.state.ma.us/mhc](http://www.sec.state.ma.us/mhc)) under the subject heading "MHC Forms."

Commonwealth of Massachusetts  
Massachusetts Historical Commission  
220 Morrissey Boulevard, Boston, Massachusetts 02125  
[www.sec.state.ma.us/mhc](http://www.sec.state.ma.us/mhc)

This file was accessed on:

Saturday, February 16, 2013 at 12:48 PM





160 North  
ADDRESS Washington COR. Lovejoy Pl.  
Hoffman Building/  
NAME Registry of Motor Vehicles/  
present original

MAP No. 27N/12&13 E SUB AREA No. Station 1  
 1) side sections: 1907 (Bldg Dept. records)  
 DATE 2) center section: 1908-12 (Atlas)  
source

ARCHITECT attributed to  
Codman and Despradelle  
source (see signif. section)

BUILDER	OWNER	original	present
Codman & Russell, source	Trustees /		

PHOTOGRAPHS 6 5/5 \* 5/4 . 80

(non-residential)      1e row    2-fam.    3-deck    tan    apt.  
industrial uses and warehouse space

NO. OF STORIES (1st to cornice) 7 plus 2 (brick penthouse  
along Lovejoy)  
ROOF flat cupola dormers

MATERIALS (Frame) clapboards shingles stucco asphalt asbestos alum/vinyl  
(Other) brick red stone concrete iron/steel/alum.

Commercial Style&amp;

**BRIEF DESCRIPTION** Large early 20th c. brick industrial building with Panel Brick features. 5 bays on No. Washington (principal facade) and approx. 20 irregularly-placed bays on Lovejoy Pl. Facades organized into multi-level arcades by wide brick piers which form arches above level 7, accented by brick keystones & corbelling. Brick corbel cornice, 1-story modern "penthouse" on No. Wash. & 2-story brick penthouse on side.

**EXTERIOR ALTERATION** minor moderate drastic Triangular pedimented wall gables sash alterations along No. Wash. along Lovejoy side

CONDITION good fair poor \_\_\_\_\_ LOT AREA 43.980 and 47.348 sq. feet

NOTEWORTHY SITE CHARACTERISTICS Freestanding building on site of over two acres (including parking area & loading dock to north.) with Charles River to the north and a similarly-style brick industrial building parallel across Lovejoy to the south, No. Wash. to east and expressway to west.  
Attached loading dock  
(see form for #170 No. Wash.)

Good example of turn-of-the-century brick industrial architecture which forms a pair with 216-246 Causeway.

The 1908 Atlas indicates that the present eastern and westernmost bays of the building were at that time <sup>two</sup> freestanding structures. The building facing No. Washington was used as the Schrafts Candy Factory and the other was the Quincy Market Cold Storage warehouse.

Moved; date if known \_\_\_\_\_

Themes (check as many as applicable)

Aboriginal	_____	Conservation	_____	Recreation	_____
Agricultural	_____	Education	_____	Religion	_____
Architectural	_____	Exploration/	_____	Science/	_____
The Arts	_____	settlement	_____	invention	_____
Commerce	_____	Industry	_____	Social/	_____
Communication	_____	Military	_____	humanitarian	_____
Community/	_____	Political	_____	Transportation	_____
development	_____				

Significance (include explanation of themes checked above)

By the time the next Atlas was published in 1912, a connecting center section had been erected, also for the Quincy Market Cold Storage Warehouse.

Owners Edm. Codman and Jos. R. Russell also owned 216-246 Causeway, a building nearly identical in date, scale, massing, materials and use. Because of the similarities, it would seem reasonable to attribute 160 Washington to the same firm, Stephen Codman and Constant Desire Despradelle (see form for 216-246 Causeway.)

1990 Survey Update: Concrete loading dock removed in late 1980s. Dock ran behind building along North Washington Street.

Preservation Consideration (accessibility, re-use possibilities, capacity for public use and enjoyment, protection, utilities, context)

DENIED DESIGNATION AS LANDMARK

Bibliography and/or references (such as local histories, deeds, assessor's records, early maps, etc.)

1. The date 1907 is written on the exterior of the Building Department jacket for 160 No. Washington. (The permit itself is missing.) The 1907 date agrees with Atlas records, which date the building between 1907 and 1908, and is one year after the permit date for 216-246 Causeway.

**CENTRAL ARTERY/THIRD HARBOR TUNNEL PROJECT**  
**Updated Survey of Historic Resources**

160

N. Washington St.

CBD

Hoffman Building

**LOCATION:**

Map Number: 27-12, 27-13

Subarea: North of Causeway St./Charlestown Area

Corridor: primary

**NATIONAL REGISTER STATUS****INDIVIDUAL STATUS:**☐ Individual NR-Listed☐ Individual DOE☐ Individual NR-Eligible**DISTRICT STATUS:**☐ In NR District☐ In DOE District☒ In NR-Eligible District

Name of District: Causeway/North Washington Streets District

*determined eligible  
by MHC 4/18/90*

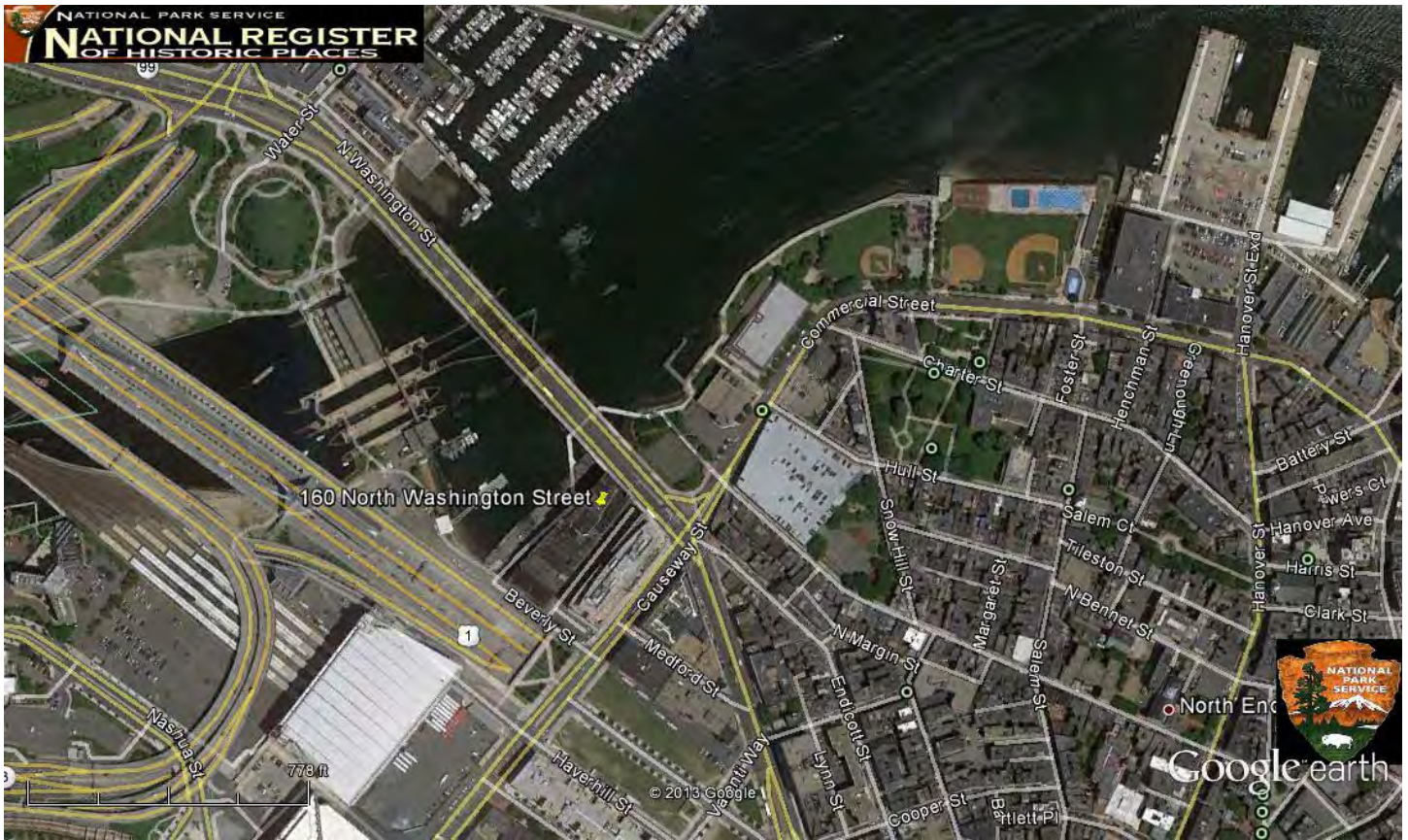
**BOSTON LANDMARKS COMMISSION STATUS:**

Landmark Status: None

Survey Category: 4

BLC District: None





Google earth

feet  
meters



## **APPENDIX E**

### **Endangered Species Act Documentation**

---

## MASSACHUSETTS AREAS OF CRITICAL ENVIRONMENTAL CONCERN

June 2009

---

### Total Approximate Acreage: 268,000 acres

Approximate acreage and designation date follow ACEC names below.

---

#### **Bourne Back River**

(1,850 acres, 1989) Bourne

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

#### **Cedar Swamp**

(1,650 acres, 1975) Hopkinton and Westborough

#### **Central Nashua River Valley**

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

#### **Cranberry Brook Watershed**

(1,050 acres, 1983) Braintree and Holbrook

#### **Ellisville Harbor**

(600 acres, 1980) Plymouth

#### **Fowl Meadow and Ponkapoag Bog**

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

#### **Golden Hills**

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

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

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

#### **Herring River Watershed**

(4,450 acres, 1991) Bourne and Plymouth

#### **Hinsdale Flats Watershed**

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

#### **Hockomock Swamp**

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

#### **Inner Cape Cod Bay**

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

#### **Kampoosa Bog Drainage Basin**

(1,350 acres, 1995) Lee and Stockbridge

#### **Karner Brook Watershed**

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

#### **Miscoe, Warren, and Whitehall Watersheds**

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

#### **Neponset River Estuary**

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

#### **Petapawag**

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

#### **Pleasant Bay**

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

#### **Pocasset River**

(160 acres, 1980) Bourne

#### **Rumney Marshes**

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

#### **Sandy Neck Barrier Beach System**

(9,130 acres, 1978) Barnstable and Sandwich

#### **Schenob Brook Drainage Basin**

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

#### **Squannassit**

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

#### **Three Mile River Watershed**

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

#### **Upper Housatonic River**

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

#### **Waquoit Bay**

(2,580 acres, 1979) Falmouth and Mashpee

#### **Weir River**

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

#### **Wellfleet Harbor**

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

#### **Weymouth Back River**

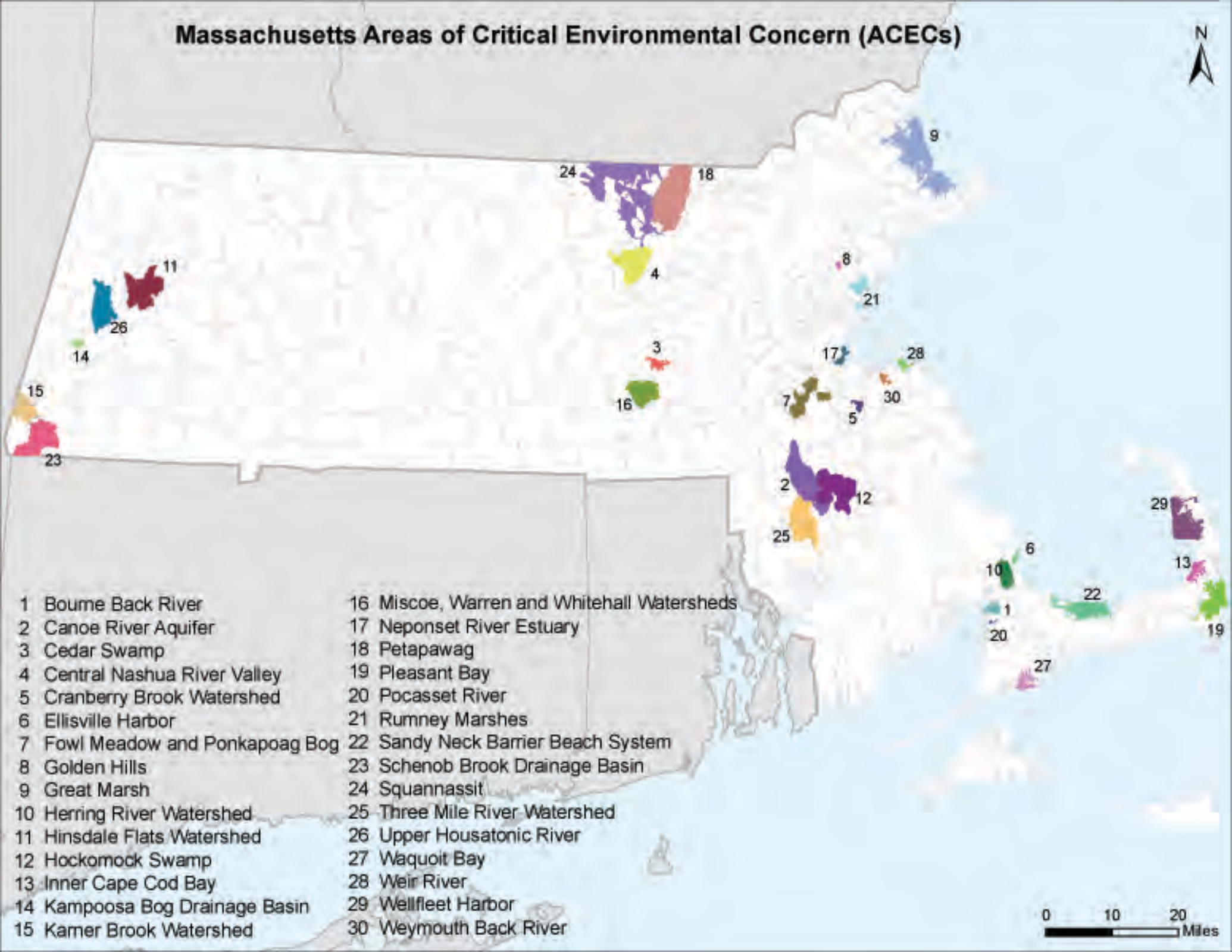
(800 acres, 1982) Hingham and Weymouth



**Towns with ACECs within their Boundaries****June 2009**

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

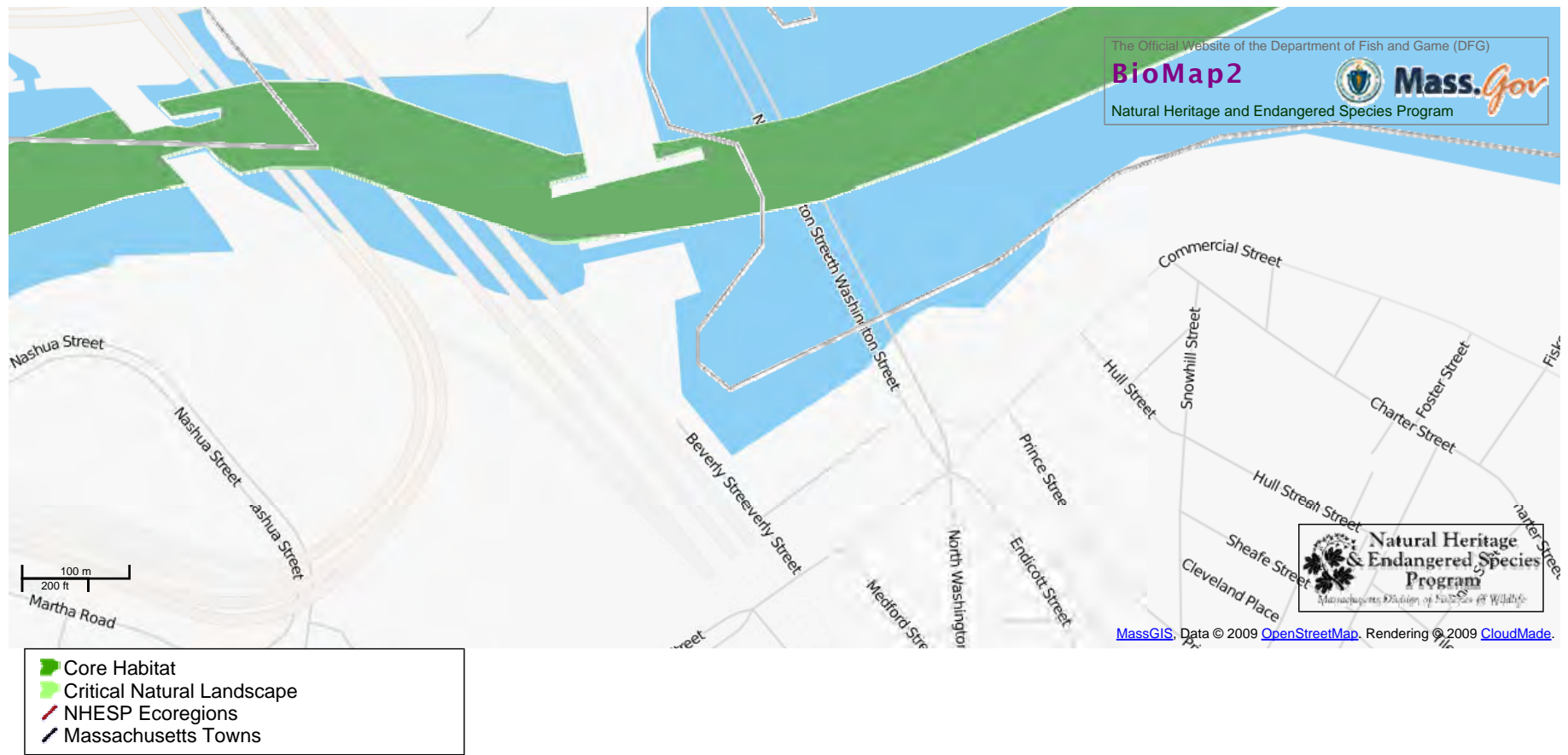
# Massachusetts Areas of Critical Environmental Concern (ACECs)



- 1 Bourns Back River
- 2 Canoe River Aquifer
- 3 Cedar Swamp
- 4 Central Nashua River Valley
- 5 Cranberry Brook Watershed
- 6 Ellisville Harbor
- 7 Fowl Meadow and Ponkapoag Bog
- 8 Golden Hills
- 9 Great Marsh
- 10 Herring River Watershed
- 11 Hinsdale Flats Watershed
- 12 Hockomock Swamp
- 13 Inner Cape Cod Bay
- 14 Kampoosa Bog Drainage Basin
- 15 Kame Brook Watershed

- 16 Miscoe, Warren and Whitehall Watersheds
- 17 Neponset River Estuary
- 18 Petapawag
- 19 Pleasant Bay
- 20 Pocasset River
- 21 Rumney Marshes
- 22 Sandy Neck Barrier Beach System
- 23 Schenob Brook Drainage Basin
- 24 Squannassit
- 25 Three Mile River Watershed
- 26 Upper Housatonic River
- 27 Waquoit Bay
- 28 Weir River
- 29 Wellfleet Harbor
- 30 Weymouth Back River

0 10 20 Miles





**FEDERALLY LISTED ENDANGERED AND THREATENED SPECIES  
IN MASSACHUSETTS**

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

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

7/31/2008

# MassDEP - Bureau of Waste Site Cleanup

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

160 NORTH WASHINGTON STREET BOSTON, MA  
3-000022351

NAD83 UTM Meters:  
4692620mN, 330432mE (Zone: 19)  
February 21, 2013

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



**MassDEP**  
Commonwealth of Massachusetts  
Department of Environmental Protection



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

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

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

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

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

PWS Protection Areas: Zone II, 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

## **APPENDIX F**

### **Laboratory Data Reports**





## ANALYTICAL REPORT

Lab Number:	L1302810
Client:	Haley & Aldrich, Inc. 465 Medford Street, Suite 2200 Charlestown, MA 02129-1400
ATTN:	Peter Zawadzkas
Phone:	(617) 886-7400
Project Name:	LOVEJOY NPDES
Project Number:	12622-045
Report Date:	02/22/13

The original project report/data package is held by Alpha Analytical. This report/data package is paginated and should be reproduced only in its entirety. Alpha Analytical holds no responsibility for results and/or data that are not consistent with the original.

Certifications & Approvals: MA (M-MA086), NY (11148), CT (PH-0574), NH (2003), NJ NELAP (MA935), RI (LAO00065), ME (MA00086), PA (68-03671), USDA (Permit #P-330-11-00240), NC (666), TX (T104704476), DOD (L2217), US Army Corps of Engineers.

---

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



**Project Name:** LOVEJOY NPDES  
**Project Number:** 12622-045

**Lab Number:** L1302810  
**Report Date:** 02/22/13

<b>Alpha Sample ID</b>	<b>Client ID</b>	<b>Sample Location</b>	<b>Collection Date/Time</b>
L1302810-01	HA-NPDES-B	BOSTON, MA	02/18/13 15:00
L1302810-02	HA-NPDES	BOSTON, MA	02/19/13 08:30
L1302810-03	TRIP BLANK	BOSTON, MA	02/19/13 00:00

**Project Name:** LOVEJOY NPDES  
**Project Number:** 12622-045

**Lab Number:** L1302810  
**Report Date:** 02/22/13

### Case Narrative

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

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

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

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

#### HOLD POLICY

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

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

**Project Name:** LOVEJOY NPDES  
**Project Number:** 12622-045

**Lab Number:** L1302810  
**Report Date:** 02/22/13

### Case Narrative (continued)

#### Semivolatile Organics

L1302810-02 has elevated detection limits due to the dilution required by the sample matrix.

#### Semivolatile Organics - SIM

L1302810-02 has elevated detection limits due to the dilution required by the sample matrix.

#### Metals


L1302810-01 and -02 have elevated detection limits for all analytes, with the exception of Iron and Mercury, due to the dilution required by matrix interferences encountered during the 6020A analysis.

The WG591010-4 MS recovery, performed on L1302810-02, is below the acceptance criteria for Selenium (48%). A post digestion spike was performed with an acceptable recovery of 85%.

The WG591011-4 MS recovery, performed on L1302810-02, is below the acceptance criteria for Iron (70%). A post digestion spike was performed with an acceptable recovery of 80%.

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:

 Michelle M. Morris

Title: Technical Director/Representative

Date: 02/22/13



# ORGANICS

# **VOLATILES**

**Project Name:** LOVEJOY NPDES**Lab Number:** L1302810**Project Number:** 12622-045**Report Date:** 02/22/13**SAMPLE RESULTS**

**Lab ID:** L1302810-01  
**Client ID:** HA-NPDES-B  
**Sample Location:** BOSTON, MA  
**Matrix:** Water  
**Analytical Method:** 1,8260C  
**Analytical Date:** 02/21/13 10:59  
**Analyst:** MM

**Date Collected:** 02/18/13 15:00  
**Date Received:** 02/19/13  
**Field Prep:** Not Specified

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

**Project Name:** LOVEJOY NPDES**Lab Number:** L1302810**Project Number:** 12622-045**Report Date:** 02/22/13**SAMPLE RESULTS**

Lab ID: L1302810-01

Date Collected: 02/18/13 15:00

Client ID: HA-NPDES-B

Date Received: 02/19/13

Sample Location: BOSTON, MA

Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
Methyl tert butyl ether	ND		ug/l	1.0	--	1
p/m-Xylene	ND		ug/l	1.0	--	1
o-Xylene	ND		ug/l	1.0	--	1
Xylenes, Total	ND		ug/l	1.0	--	1
cis-1,2-Dichloroethene	ND		ug/l	0.50	--	1
Dibromomethane	ND		ug/l	5.0	--	1
1,2,3-Trichloropropane	ND		ug/l	5.0	--	1
Styrene	ND		ug/l	1.0	--	1
Dichlorodifluoromethane	ND		ug/l	5.0	--	1
Acetone	ND		ug/l	5.0	--	1
Carbon disulfide	ND		ug/l	5.0	--	1
2-Butanone	ND		ug/l	5.0	--	1
Vinyl acetate	ND		ug/l	5.0	--	1
4-Methyl-2-pentanone	ND		ug/l	5.0	--	1
2-Hexanone	ND		ug/l	5.0	--	1
Ethyl methacrylate	ND		ug/l	5.0	--	1
Acrylonitrile	ND		ug/l	5.0	--	1
Bromochloromethane	ND		ug/l	2.5	--	1
Tetrahydrofuran	ND		ug/l	5.0	--	1
2,2-Dichloropropane	ND		ug/l	2.5	--	1
1,2-Dibromoethane	ND		ug/l	2.0	--	1
1,3-Dichloropropane	ND		ug/l	2.5	--	1
1,1,1,2-Tetrachloroethane	ND		ug/l	0.50	--	1
Bromobenzene	ND		ug/l	2.5	--	1
n-Butylbenzene	ND		ug/l	0.50	--	1
sec-Butylbenzene	ND		ug/l	0.50	--	1
tert-Butylbenzene	ND		ug/l	2.5	--	1
o-Chlorotoluene	ND		ug/l	2.5	--	1
p-Chlorotoluene	ND		ug/l	2.5	--	1
1,2-Dibromo-3-chloropropane	ND		ug/l	2.5	--	1
Hexachlorobutadiene	ND		ug/l	0.50	--	1
Isopropylbenzene	ND		ug/l	0.50	--	1
p-Isopropyltoluene	ND		ug/l	0.50	--	1
Naphthalene	ND		ug/l	2.5	--	1
n-Propylbenzene	ND		ug/l	0.50	--	1
1,2,3-Trichlorobenzene	ND		ug/l	2.5	--	1
1,2,4-Trichlorobenzene	ND		ug/l	2.5	--	1
1,3,5-Trimethylbenzene	ND		ug/l	2.5	--	1
1,2,4-Trimethylbenzene	ND		ug/l	2.5	--	1





**Project Name:** LOVEJOY NPDES**Lab Number:** L1302810**Project Number:** 12622-045**Report Date:** 02/22/13**SAMPLE RESULTS**

Lab ID: L1302810-01

Date Collected: 02/18/13 15:00

Client ID: HA-NPDES-B

Date Received: 02/19/13

Sample Location: BOSTON, MA

Field Prep: Not Specified

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

## Volatile Organics by GC/MS - Westborough Lab

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

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	98		70-130
Toluene-d8	96		70-130
4-Bromofluorobenzene	100		70-130
Dibromofluoromethane	101		70-130

**Project Name:** LOVEJOY NPDES**Lab Number:** L1302810**Project Number:** 12622-045**Report Date:** 02/22/13**SAMPLE RESULTS**

Lab ID: L1302810-01  
Client ID: HA-NPDES-B  
Sample Location: BOSTON, MA  
Matrix: Water  
Analytical Method: 1,8260C-SIM(M)  
Analytical Date: 02/21/13 10:59  
Analyst: MM

Date Collected: 02/18/13 15:00  
Date Received: 02/19/13  
Field Prep: Not Specified

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

**Project Name:** LOVEJOY NPDES**Lab Number:** L1302810**Project Number:** 12622-045**Report Date:** 02/22/13**SAMPLE RESULTS**

Lab ID: L1302810-01  
Client ID: HA-NPDES-B  
Sample Location: BOSTON, MA  
Matrix: Water  
Analytical Method: 14,504.1  
Analytical Date: 02/21/13 18:26  
Analyst: SH

Date Collected: 02/18/13 15:00  
Date Received: 02/19/13  
Field Prep: Not Specified  
Extraction Date: 02/21/13 14:00

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

**Project Name:** LOVEJOY NPDES**Lab Number:** L1302810**Project Number:** 12622-045**Report Date:** 02/22/13**SAMPLE RESULTS**

**Lab ID:** L1302810-02  
**Client ID:** HA-NPDES  
**Sample Location:** BOSTON, MA  
**Matrix:** Water  
**Analytical Method:** 1,8260C  
**Analytical Date:** 02/21/13 11:31  
**Analyst:** MM

**Date Collected:** 02/19/13 08:30  
**Date Received:** 02/19/13  
**Field Prep:** Not Specified

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



**Project Name:** LOVEJOY NPDES**Lab Number:** L1302810**Project Number:** 12622-045**Report Date:** 02/22/13**SAMPLE RESULTS**

Lab ID: L1302810-02

Date Collected: 02/19/13 08:30

Client ID: HA-NPDES

Date Received: 02/19/13

Sample Location: BOSTON, MA

Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
Methyl tert butyl ether	ND		ug/l	1.0	--	1
p/m-Xylene	ND		ug/l	1.0	--	1
o-Xylene	ND		ug/l	1.0	--	1
Xylenes, Total	ND		ug/l	1.0	--	1
cis-1,2-Dichloroethene	ND		ug/l	0.50	--	1
Dibromomethane	ND		ug/l	5.0	--	1
1,2,3-Trichloropropane	ND		ug/l	5.0	--	1
Styrene	ND		ug/l	1.0	--	1
Dichlorodifluoromethane	ND		ug/l	5.0	--	1
Acetone	ND		ug/l	5.0	--	1
Carbon disulfide	ND		ug/l	5.0	--	1
2-Butanone	ND		ug/l	5.0	--	1
Vinyl acetate	ND		ug/l	5.0	--	1
4-Methyl-2-pentanone	ND		ug/l	5.0	--	1
2-Hexanone	ND		ug/l	5.0	--	1
Ethyl methacrylate	ND		ug/l	5.0	--	1
Acrylonitrile	ND		ug/l	5.0	--	1
Bromochloromethane	ND		ug/l	2.5	--	1
Tetrahydrofuran	ND		ug/l	5.0	--	1
2,2-Dichloropropane	ND		ug/l	2.5	--	1
1,2-Dibromoethane	ND		ug/l	2.0	--	1
1,3-Dichloropropane	ND		ug/l	2.5	--	1
1,1,1,2-Tetrachloroethane	ND		ug/l	0.50	--	1
Bromobenzene	ND		ug/l	2.5	--	1
n-Butylbenzene	ND		ug/l	0.50	--	1
sec-Butylbenzene	ND		ug/l	0.50	--	1
tert-Butylbenzene	ND		ug/l	2.5	--	1
o-Chlorotoluene	ND		ug/l	2.5	--	1
p-Chlorotoluene	ND		ug/l	2.5	--	1
1,2-Dibromo-3-chloropropane	ND		ug/l	2.5	--	1
Hexachlorobutadiene	ND		ug/l	0.50	--	1
Isopropylbenzene	ND		ug/l	0.50	--	1
p-Isopropyltoluene	ND		ug/l	0.50	--	1
Naphthalene	ND		ug/l	2.5	--	1
n-Propylbenzene	ND		ug/l	0.50	--	1
1,2,3-Trichlorobenzene	ND		ug/l	2.5	--	1
1,2,4-Trichlorobenzene	ND		ug/l	2.5	--	1
1,3,5-Trimethylbenzene	ND		ug/l	2.5	--	1
1,2,4-Trimethylbenzene	ND		ug/l	2.5	--	1

**Project Name:** LOVEJOY NPDES**Lab Number:** L1302810**Project Number:** 12622-045**Report Date:** 02/22/13**SAMPLE RESULTS**

Lab ID: L1302810-02

Date Collected: 02/19/13 08:30

Client ID: HA-NPDES

Date Received: 02/19/13

Sample Location: BOSTON, MA

Field Prep: Not Specified

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

## Volatile Organics by GC/MS - Westborough Lab

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

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	101		70-130
Toluene-d8	97		70-130
4-Bromofluorobenzene	94		70-130
Dibromofluoromethane	101		70-130

**Project Name:** LOVEJOY NPDES**Lab Number:** L1302810**Project Number:** 12622-045**Report Date:** 02/22/13**SAMPLE RESULTS**

Lab ID: L1302810-02  
Client ID: HA-NPDES  
Sample Location: BOSTON, MA  
Matrix: Water  
Analytical Method: 1,8260C-SIM(M)  
Analytical Date: 02/21/13 11:31  
Analyst: MM

Date Collected: 02/19/13 08:30  
Date Received: 02/19/13  
Field Prep: Not Specified

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

**Project Name:** LOVEJOY NPDES**Lab Number:** L1302810**Project Number:** 12622-045**Report Date:** 02/22/13**SAMPLE RESULTS**

Lab ID: L1302810-02

Date Collected: 02/19/13 08:30

Client ID: HA-NPDES

Date Received: 02/19/13

Sample Location: BOSTON, MA

Field Prep: Not Specified

Matrix: Water

Analytical Method: 14,504.1

Extraction Date: 02/21/13 14:00

Analytical Date: 02/21/13 18:41

Analyst: SH

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



**Project Name:** LOVEJOY NPDES**Lab Number:** L1302810**Project Number:** 12622-045**Report Date:** 02/22/13**Method Blank Analysis**  
**Batch Quality Control**

Analytical Method: 14,504.1

Analytical Date: 02/21/13 17:40

Analyst: SH

Extraction Date: 02/21/13 14:00

Parameter	Result	Qualifier	Units	RL	MDL
Microextractables by GC - Westborough Lab for sample(s): 01-02 Batch: WG591194-1					
1,2-Dibromoethane	ND		ug/l	0.010	--
1,2-Dibromo-3-chloropropane	ND		ug/l	0.010	--

**Project Name:** LOVEJOY NPDES**Lab Number:** L1302810**Project Number:** 12622-045**Report Date:** 02/22/13**Method Blank Analysis**  
**Batch Quality Control**

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

Analytical Date: 02/21/13 10:26

Analyst: MM

Parameter	Result	Qualifier	Units	RL	MDL
Volatile Organics by GC/MS-SIM - Westborough Lab for sample(s): 01-02 Batch: WG591319-3					
1,4-Dioxane	ND		ug/l	3.0	--

Project Name: LOVEJOY NPDES

Lab Number: L1302810

Project Number: 12622-045

Report Date: 02/22/13

### Method Blank Analysis Batch Quality Control

Analytical Method: 1,8260C  
 Analytical Date: 02/21/13 10:26  
 Analyst: MM

Parameter	Result	Qualifier	Units	RL	MDL
Volatile Organics by GC/MS - Westborough Lab for sample(s): 01-02 Batch: WG591320-3					
Methylene chloride	ND		ug/l	3.0	--
1,1-Dichloroethane	ND		ug/l	0.75	--
Chloroform	ND		ug/l	0.75	--
Carbon tetrachloride	ND		ug/l	0.50	--
1,2-Dichloropropane	ND		ug/l	1.8	--
Dibromochloromethane	ND		ug/l	0.50	--
1,1,2-Trichloroethane	ND		ug/l	0.75	--
2-Chloroethylvinyl ether	ND		ug/l	10	--
Tetrachloroethene	ND		ug/l	0.50	--
Chlorobenzene	ND		ug/l	0.50	--
Trichlorofluoromethane	ND		ug/l	2.5	--
1,2-Dichloroethane	ND		ug/l	0.50	--
1,1,1-Trichloroethane	ND		ug/l	0.50	--
Bromodichloromethane	ND		ug/l	0.50	--
trans-1,3-Dichloropropene	ND		ug/l	0.50	--
cis-1,3-Dichloropropene	ND		ug/l	0.50	--
1,1-Dichloropropene	ND		ug/l	2.5	--
Bromoform	ND		ug/l	2.0	--
1,1,2,2-Tetrachloroethane	ND		ug/l	0.50	--
Benzene	ND		ug/l	0.50	--
Toluene	ND		ug/l	0.75	--
Ethylbenzene	ND		ug/l	0.50	--
Chloromethane	ND		ug/l	2.5	--
Bromomethane	ND		ug/l	1.0	--
Vinyl chloride	ND		ug/l	1.0	--
Chloroethane	ND		ug/l	1.0	--
1,1-Dichloroethene	ND		ug/l	0.50	--
trans-1,2-Dichloroethene	ND		ug/l	0.75	--
Trichloroethene	ND		ug/l	0.50	--
1,2-Dichlorobenzene	ND		ug/l	2.5	--
1,3-Dichlorobenzene	ND		ug/l	2.5	--



Project Name: LOVEJOY NPDES

Lab Number: L1302810

Project Number: 12622-045

Report Date: 02/22/13

### Method Blank Analysis Batch Quality Control

Analytical Method: 1,8260C

Analytical Date: 02/21/13 10:26

Analyst: MM

Parameter	Result	Qualifier	Units	RL	MDL
Volatile Organics by GC/MS - Westborough Lab for sample(s): 01-02 Batch: WG591320-3					
1,4-Dichlorobenzene	ND		ug/l	2.5	--
Methyl tert butyl ether	ND		ug/l	1.0	--
p/m-Xylene	ND		ug/l	1.0	--
o-Xylene	ND		ug/l	1.0	--
Xylenes, Total	ND		ug/l	1.0	--
cis-1,2-Dichloroethene	ND		ug/l	0.50	--
Dibromomethane	ND		ug/l	5.0	--
1,2,3-Trichloropropane	ND		ug/l	5.0	--
Styrene	ND		ug/l	1.0	--
Dichlorodifluoromethane	ND		ug/l	5.0	--
Acetone	ND		ug/l	5.0	--
Carbon disulfide	ND		ug/l	5.0	--
2-Butanone	ND		ug/l	5.0	--
Vinyl acetate	ND		ug/l	5.0	--
4-Methyl-2-pentanone	ND		ug/l	5.0	--
2-Hexanone	ND		ug/l	5.0	--
Ethyl methacrylate	ND		ug/l	5.0	--
Acrylonitrile	ND		ug/l	5.0	--
Bromochloromethane	ND		ug/l	2.5	--
Tetrahydrofuran	ND		ug/l	5.0	--
2,2-Dichloropropane	ND		ug/l	2.5	--
1,2-Dibromoethane	ND		ug/l	2.0	--
1,3-Dichloropropane	ND		ug/l	2.5	--
1,1,1,2-Tetrachloroethane	ND		ug/l	0.50	--
Bromobenzene	ND		ug/l	2.5	--
n-Butylbenzene	ND		ug/l	0.50	--
sec-Butylbenzene	ND		ug/l	0.50	--
tert-Butylbenzene	ND		ug/l	2.5	--
o-Chlorotoluene	ND		ug/l	2.5	--
p-Chlorotoluene	ND		ug/l	2.5	--
1,2-Dibromo-3-chloropropane	ND		ug/l	2.5	--





Project Name: LOVEJOY NPDES

Lab Number: L1302810

Project Number: 12622-045

Report Date: 02/22/13

### Method Blank Analysis Batch Quality Control

Analytical Method: 1,8260C  
 Analytical Date: 02/21/13 10:26  
 Analyst: MM

Parameter	Result	Qualifier	Units	RL	MDL
Volatile Organics by GC/MS - Westborough Lab for sample(s): 01-02 Batch: WG591320-3					
Hexachlorobutadiene	ND		ug/l	0.50	--
Isopropylbenzene	ND		ug/l	0.50	--
p-Isopropyltoluene	ND		ug/l	0.50	--
Naphthalene	ND		ug/l	2.5	--
n-Propylbenzene	ND		ug/l	0.50	--
1,2,3-Trichlorobenzene	ND		ug/l	2.5	--
1,2,4-Trichlorobenzene	ND		ug/l	2.5	--
1,3,5-Trimethylbenzene	ND		ug/l	2.5	--
1,3,5-Trichlorobenzene	ND		ug/l	2.0	--
1,2,4-Trimethylbenzene	ND		ug/l	2.5	--
trans-1,4-Dichloro-2-butene	ND		ug/l	2.5	--
Ethyl ether	ND		ug/l	2.5	--
Methyl Acetate	ND		ug/l	10	--
Ethyl Acetate	ND		ug/l	10	--
Isopropyl Ether	ND		ug/l	2.0	--
Cyclohexane	ND		ug/l	10	--
Tert-Butyl Alcohol	ND		ug/l	10	--
Ethyl-Tert-Butyl-Ether	ND		ug/l	2.0	--
Tertiary-Amyl Methyl Ether	ND		ug/l	2.0	--
1,1,2-Trichloro-1,2,2-Trifluoroethane	ND		ug/l	10	--
Methyl cyclohexane	ND		ug/l	10	--
p-Diethylbenzene	ND		ug/l	2.0	--
4-Ethyltoluene	ND		ug/l	2.0	--
1,2,4,5-Tetramethylbenzene	ND		ug/l	2.0	--

**Project Name:** LOVEJOY NPDES**Lab Number:** L1302810**Project Number:** 12622-045**Report Date:** 02/22/13**Method Blank Analysis**  
**Batch Quality Control**

Analytical Method: 1,8260C

Analytical Date: 02/21/13 10:26

Analyst: MM

Parameter	Result	Qualifier	Units	RL	MDL
-----------	--------	-----------	-------	----	-----

Volatile Organics by GC/MS - Westborough Lab for sample(s): 01-02 Batch: WG591320-3					
---	--	--	--	--	--

Surrogate	%Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	89		70-130
Toluene-d8	96		70-130
4-Bromofluorobenzene	96		70-130
Dibromofluoromethane	94		70-130

# **Lab Control Sample Analysis** Batch Quality Control

**Project Name:** LOVEJOY NPDES

**Project Number:** 12622-045

**Lab Number:** L1302810

**Report Date:** 02/22/13

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Microextractables by GC - Westborough Lab Associated sample(s): 01-02 Batch: WG591194-2								
1,2-Dibromoethane	109		-		70-130	-		20
1,2-Dibromo-3-chloropropane	97		-		70-130	-		20

Volatile Organics by GC/MS-SIM - Westborough Lab Associated sample(s): 01-02 Batch: WG591319-1 WG591319-2								
1,4-Dioxane	112		117		70-130	4		25

# Lab Control Sample Analysis

## Batch Quality Control

Project Name: LOVEJOY NPDES

Project Number: 12622-045

Lab Number: L1302810

Report Date: 02/22/13

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: WG591320-1 WG591320-2								
Methylene chloride	102		104		70-130	2		20
1,1-Dichloroethane	96		96		70-130	0		20
Chloroform	94		92		70-130	2		20
Carbon tetrachloride	84		90		63-132	7		20
1,2-Dichloropropane	95		98		70-130	3		20
Dibromochloromethane	79		83		63-130	5		20
1,1,2-Trichloroethane	93		93		70-130	0		20
2-Chloroethylvinyl ether	65	Q	66	Q	70-130	2		20
Tetrachloroethene	98		96		70-130	2		20
Chlorobenzene	97		98		75-130	1		25
Trichlorofluoromethane	99		99		62-150	0		20
1,2-Dichloroethane	92		91		70-130	1		20
1,1,1-Trichloroethane	89		93		67-130	4		20
Bromodichloromethane	82		81		67-130	1		20
trans-1,3-Dichloropropene	77		77		70-130	0		20
cis-1,3-Dichloropropene	84		84		70-130	0		20
1,1-Dichloropropene	94		95		70-130	1		20
Bromoform	76		82		54-136	8		20
1,1,2,2-Tetrachloroethane	94		99		67-130	5		20
Benzene	95		97		70-130	2		25
Toluene	93		94		70-130	1		25



# Lab Control Sample Analysis

## Batch Quality Control

Project Name: LOVEJOY NPDES

Project Number: 12622-045

Lab Number: L1302810

Report Date: 02/22/13

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: WG591320-1 WG591320-2								
Ethylbenzene	93		92		70-130	1		20
Chloromethane	97		94		64-130	3		20
Bromomethane	74		71		39-139	4		20
Vinyl chloride	86		85		55-140	1		20
Chloroethane	93		95		55-138	2		20
1,1-Dichloroethene	96		96		61-145	0		25
trans-1,2-Dichloroethene	96		94		70-130	2		20
Trichloroethene	95		97		70-130	2		25
1,2-Dichlorobenzene	99		103		70-130	4		20
1,3-Dichlorobenzene	100		105		70-130	5		20
1,4-Dichlorobenzene	98		105		70-130	7		20
Methyl tert butyl ether	90		91		63-130	1		20
p/m-Xylene	97		97		70-130	0		20
o-Xylene	96		94		70-130	2		20
cis-1,2-Dichloroethene	92		93		70-130	1		20
Dibromomethane	95		95		70-130	0		20
1,2,3-Trichloropropane	93		103		64-130	10		20
Styrene	97		94		70-130	3		20
Dichlorodifluoromethane	70		70		36-147	0		20
Acetone	100		112		58-148	11		20
Carbon disulfide	89		89		51-130	0		20

# Lab Control Sample Analysis

## Batch Quality Control

Project Name: LOVEJOY NPDES

Project Number: 12622-045

Lab Number: L1302810

Report Date: 02/22/13

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: WG591320-1 WG591320-2								
2-Butanone	125		126		63-138	1		20
Vinyl acetate	99		102		70-130	3		20
4-Methyl-2-pentanone	90		91		59-130	1		20
2-Hexanone	92		88		57-130	4		20
Ethyl methacrylate	82		85		70-130	4		20
Acrylonitrile	90		91		70-130	1		20
Bromochloromethane	95		94		70-130	1		20
Tetrahydrofuran	98		99		58-130	1		20
2,2-Dichloropropane	85		86		63-133	1		20
1,2-Dibromoethane	92		90		70-130	2		20
1,3-Dichloropropane	95		93		70-130	2		20
1,1,1,2-Tetrachloroethane	88		85		64-130	3		20
Bromobenzene	99		103		70-130	4		20
n-Butylbenzene	98		104		53-136	6		20
sec-Butylbenzene	100		106		70-130	6		20
tert-Butylbenzene	96		100		70-130	4		20
o-Chlorotoluene	98		99		70-130	1		20
p-Chlorotoluene	94		100		70-130	6		20
1,2-Dibromo-3-chloropropane	77		80		41-144	4		20
Hexachlorobutadiene	96		100		63-130	4		20
Isopropylbenzene	98		104		70-130	6		20

# Lab Control Sample Analysis

## Batch Quality Control

Project Name: LOVEJOY NPDES

Project Number: 12622-045

Lab Number: L1302810

Report Date: 02/22/13

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: WG591320-1 WG591320-2								
p-Isopropyltoluene	97		100		70-130	3		20
Naphthalene	87		94		70-130	8		20
n-Propylbenzene	95		101		69-130	6		20
1,2,3-Trichlorobenzene	93		100		70-130	7		20
1,2,4-Trichlorobenzene	96		98		70-130	2		20
1,3,5-Trimethylbenzene	93		101		64-130	8		20
1,3,5-Trichlorobenzene	103		107		70-130	4		20
1,2,4-Trimethylbenzene	98		99		70-130	1		20
trans-1,4-Dichloro-2-butene	82		88		70-130	7		20
Ethyl ether	90		89		59-134	1		20
Methyl Acetate	92		94		70-130	2		20
Ethyl Acetate	88		91		70-130	3		20
Isopropyl Ether	96		97		70-130	1		20
Cyclohexane	95		94		70-130	1		20
tert-Butyl Alcohol	81		85		70-130	5		20
Ethyl-Tert-Butyl-Ether	85		88		70-130	3		20
Tertiary-Amyl Methyl Ether	83		83		66-130	0		20
1,1,2-Trichloro-1,2,2-Trifluoroethane	100		101		70-130	1		20
Methyl cyclohexane	91		92		70-130	1		20
1,4-Diethylbenzene	92		94		70-130	2		20
4-Ethyltoluene	99		104		70-130	5		20

# Lab Control Sample Analysis

## Batch Quality Control

**Project Name:** LOVEJOY NPDES

**Project Number:** 12622-045

**Lab Number:** L1302810

**Report Date:** 02/22/13

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: WG591320-1 WG591320-2								
1,2,4,5-Tetramethylbenzene	93		96		70-130	3		20

Surrogate	LCS %Recovery	Qual	LCSD %Recovery	Qual	Acceptance Criteria
1,2-Dichloroethane-d4	94		91		70-130
Toluene-d8	98		97		70-130
4-Bromofluorobenzene	91		97		70-130
Dibromofluoromethane	98		103		70-130

# Matrix Spike Analysis

## Batch Quality Control

**Project Name:** LOVEJOY NPDES

**Project Number:** 12622-045

**Lab Number:** L1302810

**Report Date:** 02/22/13

Parameter	Native Sample	MS Added	MS Found	MS %Recovery	Qual	MSD Found	MSD %Recovery	Qual	Recovery Limits	RPD	Qual	RPD Limits
Microextractables by GC - Westborough Lab Associated sample(s): 01-02 QC Batch ID: WG591194-3 QC Sample: L1302810-01 Client ID: HA-NPDES-B												
1,2-Dibromoethane	ND	0.246	0.276	112		-	-		70-130	-		20
1,2-Dibromo-3-chloropropane	ND	0.246	0.250	102		-	-		70-130	-		20



# SEMIVOLATILES

**Project Name:** LOVEJOY NPDES**Lab Number:** L1302810**Project Number:** 12622-045**Report Date:** 02/22/13**SAMPLE RESULTS**

**Lab ID:** L1302810-01  
**Client ID:** HA-NPDES-B  
**Sample Location:** BOSTON, MA  
**Matrix:** Water  
**Analytical Method:** 1,8270D  
**Analytical Date:** 02/21/13 15:58  
**Analyst:** JB

**Date Collected:** 02/18/13 15:00  
**Date Received:** 02/19/13  
**Field Prep:** Not Specified  
**Extraction Method:** EPA 3510C  
**Extraction Date:** 02/19/13 14:25

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

**Project Name:** LOVEJOY NPDES**Lab Number:** L1302810**Project Number:** 12622-045**Report Date:** 02/22/13**SAMPLE RESULTS**

Lab ID: L1302810-01

Date Collected: 02/18/13 15:00

Client ID: HA-NPDES-B

Date Received: 02/19/13

Sample Location: BOSTON, MA

Field Prep: Not Specified

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

Surrogate	% Recovery	Qualifier	Acceptance Criteria
2-Fluorophenol	49		21-120
Phenol-d6	34		10-120
Nitrobenzene-d5	77		23-120
2-Fluorobiphenyl	70		15-120
2,4,6-Tribromophenol	78		10-120
4-Terphenyl-d14	79		41-149

**Project Name:** LOVEJOY NPDES**Lab Number:** L1302810**Project Number:** 12622-045**Report Date:** 02/22/13**SAMPLE RESULTS**

**Lab ID:** L1302810-01  
**Client ID:** HA-NPDES-B  
**Sample Location:** BOSTON, MA  
**Matrix:** Water  
**Analytical Method:** 1,8270D-SIM  
**Analytical Date:** 02/20/13 18:57  
**Analyst:** AS

**Date Collected:** 02/18/13 15:00  
**Date Received:** 02/19/13  
**Field Prep:** Not Specified  
**Extraction Method:** EPA 3510C  
**Extraction Date:** 02/19/13 14:26

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

Surrogate	% Recovery	Qualifier	Acceptance Criteria
2-Fluorophenol	53		21-120
Phenol-d6	40		10-120
Nitrobenzene-d5	85		23-120
2-Fluorobiphenyl	76		15-120
2,4,6-Tribromophenol	89		10-120
4-Terphenyl-d14	90		41-149



**Project Name:** LOVEJOY NPDES**Lab Number:** L1302810**Project Number:** 12622-045**Report Date:** 02/22/13**SAMPLE RESULTS**

Lab ID: L1302810-02 D  
 Client ID: HA-NPDES  
 Sample Location: BOSTON, MA  
 Matrix: Water  
 Analytical Method: 1,8270D  
 Analytical Date: 02/21/13 16:21  
 Analyst: JB

Date Collected: 02/19/13 08:30  
 Date Received: 02/19/13  
 Field Prep: Not Specified  
 Extraction Method: EPA 3510C  
 Extraction Date: 02/19/13 14:25

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Semivolatile Organics by GC/MS - Westborough Lab						
Benzidine	ND		ug/l	200	--	10
1,2,4-Trichlorobenzene	ND		ug/l	50	--	10
Bis(2-chloroethyl)ether	ND		ug/l	20	--	10
1,2-Dichlorobenzene	ND		ug/l	20	--	10
1,3-Dichlorobenzene	ND		ug/l	20	--	10
1,4-Dichlorobenzene	ND		ug/l	20	--	10
3,3'-Dichlorobenzidine	ND		ug/l	50	--	10
2,4-Dinitrotoluene	ND		ug/l	50	--	10
2,6-Dinitrotoluene	ND		ug/l	50	--	10
Azobenzene	ND		ug/l	20	--	10
4-Chlorophenyl phenyl ether	ND		ug/l	20	--	10
4-Bromophenyl phenyl ether	ND		ug/l	20	--	10
Bis(2-chloroisopropyl)ether	ND		ug/l	20	--	10
Bis(2-chloroethoxy)methane	ND		ug/l	50	--	10
Hexachlorocyclopentadiene	ND		ug/l	200	--	10
Isophorone	ND		ug/l	50	--	10
Nitrobenzene	ND		ug/l	20	--	10
NDPA/DPA	ND		ug/l	20	--	10
Bis(2-ethylhexyl)phthalate	ND		ug/l	30	--	10
Butyl benzyl phthalate	ND		ug/l	50	--	10
Di-n-butylphthalate	ND		ug/l	50	--	10
Di-n-octylphthalate	ND		ug/l	50	--	10
Diethyl phthalate	ND		ug/l	50	--	10
Dimethyl phthalate	ND		ug/l	50	--	10
Aniline	ND		ug/l	20	--	10
4-Chloroaniline	ND		ug/l	50	--	10
2-Nitroaniline	ND		ug/l	50	--	10
3-Nitroaniline	ND		ug/l	50	--	10
4-Nitroaniline	ND		ug/l	50	--	10
Dibenzofuran	ND		ug/l	20	--	10
n-Nitrosodimethylamine	ND		ug/l	20	--	10



**Project Name:** LOVEJOY NPDES**Lab Number:** L1302810**Project Number:** 12622-045**Report Date:** 02/22/13**SAMPLE RESULTS**

Lab ID: L1302810-02 D

Date Collected: 02/19/13 08:30

Client ID: HA-NPDES

Date Received: 02/19/13

Sample Location: BOSTON, MA

Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Semivolatile Organics by GC/MS - Westborough Lab						
2,4,6-Trichlorophenol	ND		ug/l	50	--	10
p-Chloro-m-cresol	ND		ug/l	20	--	10
2-Chlorophenol	ND		ug/l	20	--	10
2,4-Dichlorophenol	ND		ug/l	50	--	10
2,4-Dimethylphenol	ND		ug/l	50	--	10
2-Nitrophenol	ND		ug/l	100	--	10
4-Nitrophenol	ND		ug/l	100	--	10
2,4-Dinitrophenol	ND		ug/l	200	--	10
4,6-Dinitro-o-cresol	ND		ug/l	100	--	10
Phenol	ND		ug/l	50	--	10
2-Methylphenol	ND		ug/l	50	--	10
3-Methylphenol/4-Methylphenol	ND		ug/l	50	--	10
2,4,5-Trichlorophenol	ND		ug/l	50	--	10
Benzoic Acid	ND		ug/l	500	--	10
Benzyl Alcohol	ND		ug/l	20	--	10
Carbazole	ND		ug/l	20	--	10
Pyridine	ND		ug/l	50	--	10

Surrogate	% Recovery	Qualifier	Acceptance Criteria
2-Fluorophenol	57		21-120
Phenol-d6	43		10-120
Nitrobenzene-d5	104		23-120
2-Fluorobiphenyl	104		15-120
2,4,6-Tribromophenol	81		10-120
4-Terphenyl-d14	114		41-149

**Project Name:** LOVEJOY NPDES**Lab Number:** L1302810**Project Number:** 12622-045**Report Date:** 02/22/13**SAMPLE RESULTS**

Lab ID: L1302810-02 D  
 Client ID: HA-NPDES  
 Sample Location: BOSTON, MA  
 Matrix: Water  
 Analytical Method: 1,8270D-SIM  
 Analytical Date: 02/21/13 19:31  
 Analyst: AS

Date Collected: 02/19/13 08:30  
 Date Received: 02/19/13  
 Field Prep: Not Specified  
 Extraction Method: EPA 3510C  
 Extraction Date: 02/19/13 14:26

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Semivolatile Organics by GC/MS-SIM - Westborough Lab						
Acenaphthene	ND		ug/l	2.0	--	10
2-Chloronaphthalene	ND		ug/l	2.0	--	10
Fluoranthene	5.5		ug/l	2.0	--	10
Hexachlorobutadiene	ND		ug/l	5.0	--	10
Naphthalene	ND		ug/l	2.0	--	10
Benzo(a)anthracene	4.9		ug/l	2.0	--	10
Benzo(a)pyrene	6.3		ug/l	2.0	--	10
Benzo(b)fluoranthene	5.2		ug/l	2.0	--	10
Benzo(k)fluoranthene	3.8		ug/l	2.0	--	10
Chrysene	5.5		ug/l	2.0	--	10
Acenaphthylene	ND		ug/l	2.0	--	10
Anthracene	ND		ug/l	2.0	--	10
Benzo(ghi)perylene	5.2		ug/l	2.0	--	10
Fluorene	ND		ug/l	2.0	--	10
Phenanthrene	2.0		ug/l	2.0	--	10
Dibenzo(a,h)anthracene	ND		ug/l	2.0	--	10
Indeno(1,2,3-cd)Pyrene	3.7		ug/l	2.0	--	10
Pyrene	10		ug/l	2.0	--	10
1-Methylnaphthalene	ND		ug/l	2.0	--	10
2-Methylnaphthalene	ND		ug/l	2.0	--	10
Pentachlorophenol	ND		ug/l	8.0	--	10
Hexachlorobenzene	ND		ug/l	8.0	--	10
Hexachloroethane	ND		ug/l	8.0	--	10

Surrogate	% Recovery	Qualifier	Acceptance Criteria
2-Fluorophenol	50		21-120
Phenol-d6	38		10-120
Nitrobenzene-d5	94		23-120
2-Fluorobiphenyl	97		15-120
2,4,6-Tribromophenol	99		10-120
4-Terphenyl-d14	114		41-149



Project Name: LOVEJOY NPDES

Lab Number: L1302810

Project Number: 12622-045

Report Date: 02/22/13

### Method Blank Analysis Batch Quality Control

Analytical Method: 1,8270D  
 Analytical Date: 02/22/13 12:10  
 Analyst: JB

Extraction Method: EPA 3510C  
 Extraction Date: 02/19/13 14:25

Parameter	Result	Qualifier	Units	RL	MDL
Semivolatile Organics by GC/MS - Westborough Lab for sample(s): 01-02 Batch: WG590903-1					
Benzidine	ND		ug/l	20	--
1,2,4-Trichlorobenzene	ND		ug/l	5.0	--
Bis(2-chloroethyl)ether	ND		ug/l	2.0	--
1,2-Dichlorobenzene	ND		ug/l	2.0	--
1,3-Dichlorobenzene	ND		ug/l	2.0	--
1,4-Dichlorobenzene	ND		ug/l	2.0	--
3,3'-Dichlorobenzidine	ND		ug/l	5.0	--
2,4-Dinitrotoluene	ND		ug/l	5.0	--
2,6-Dinitrotoluene	ND		ug/l	5.0	--
Azobenzene	ND		ug/l	2.0	--
4-Chlorophenyl phenyl ether	ND		ug/l	2.0	--
4-Bromophenyl phenyl ether	ND		ug/l	2.0	--
Bis(2-chloroisopropyl)ether	ND		ug/l	2.0	--
Bis(2-chloroethoxy)methane	ND		ug/l	5.0	--
Hexachlorocyclopentadiene	ND		ug/l	20	--
Isophorone	ND		ug/l	5.0	--
Nitrobenzene	ND		ug/l	2.0	--
NDPA/DPA	ND		ug/l	2.0	--
Bis(2-ethylhexyl)phthalate	ND		ug/l	3.0	--
Butyl benzyl phthalate	ND		ug/l	5.0	--
Di-n-butylphthalate	ND		ug/l	5.0	--
Di-n-octylphthalate	ND		ug/l	5.0	--
Diethyl phthalate	ND		ug/l	5.0	--
Dimethyl phthalate	ND		ug/l	5.0	--
Aniline	ND		ug/l	2.0	--
4-Chloroaniline	ND		ug/l	5.0	--
2-Nitroaniline	ND		ug/l	5.0	--
3-Nitroaniline	ND		ug/l	5.0	--
4-Nitroaniline	ND		ug/l	5.0	--
Dibenzofuran	ND		ug/l	2.0	--
n-Nitrosodimethylamine	ND		ug/l	2.0	--



Project Name: LOVEJOY NPDES

Lab Number: L1302810

Project Number: 12622-045

Report Date: 02/22/13

### Method Blank Analysis Batch Quality Control

Analytical Method: 1,8270D  
 Analytical Date: 02/22/13 12:10  
 Analyst: JB

Extraction Method: EPA 3510C  
 Extraction Date: 02/19/13 14:25

Parameter	Result	Qualifier	Units	RL	MDL
Semivolatile Organics by GC/MS - Westborough Lab for sample(s): 01-02 Batch: WG590903-1					
2,4,6-Trichlorophenol	ND		ug/l	5.0	--
p-Chloro-m-cresol	ND		ug/l	2.0	--
2-Chlorophenol	ND		ug/l	2.0	--
2,4-Dichlorophenol	ND		ug/l	5.0	--
2,4-Dimethylphenol	ND		ug/l	5.0	--
2-Nitrophenol	ND		ug/l	10	--
4-Nitrophenol	ND		ug/l	10	--
2,4-Dinitrophenol	ND		ug/l	20	--
4,6-Dinitro-o-cresol	ND		ug/l	10	--
Phenol	ND		ug/l	5.0	--
2-Methylphenol	ND		ug/l	5.0	--
3-Methylphenol/4-Methylphenol	ND		ug/l	5.0	--
2,4,5-Trichlorophenol	ND		ug/l	5.0	--
Benzoic Acid	ND		ug/l	50	--
Benzyl Alcohol	ND		ug/l	2.0	--
Carbazole	ND		ug/l	2.0	--
Pyridine	ND		ug/l	5.0	--

Surrogate	%Recovery	Qualifier	Acceptance Criteria
2-Fluorophenol	51		21-120
Phenol-d6	34		10-120
Nitrobenzene-d5	83		23-120
2-Fluorobiphenyl	75		15-120
2,4,6-Tribromophenol	71		10-120
4-Terphenyl-d14	86		41-149

Project Name: LOVEJOY NPDES

Lab Number: L1302810

Project Number: 12622-045

Report Date: 02/22/13

### Method Blank Analysis Batch Quality Control

Analytical Method: 1,8270D-SIM

Extraction Method: EPA 3510C

Analytical Date: 02/20/13 17:31

Extraction Date: 02/19/13 14:26

Analyst: AS

Parameter	Result	Qualifier	Units	RL	MDL
Semivolatile Organics by GC/MS-SIM - Westborough Lab for sample(s): 01-02 Batch: WG590906-1					
Acenaphthene	ND		ug/l	0.20	--
2-Chloronaphthalene	ND		ug/l	0.20	--
Fluoranthene	ND		ug/l	0.20	--
Hexachlorobutadiene	ND		ug/l	0.50	--
Naphthalene	ND		ug/l	0.20	--
Benzo(a)anthracene	ND		ug/l	0.20	--
Benzo(a)pyrene	ND		ug/l	0.20	--
Benzo(b)fluoranthene	ND		ug/l	0.20	--
Benzo(k)fluoranthene	ND		ug/l	0.20	--
Chrysene	ND		ug/l	0.20	--
Acenaphthylene	ND		ug/l	0.20	--
Anthracene	ND		ug/l	0.20	--
Benzo(ghi)perylene	ND		ug/l	0.20	--
Fluorene	ND		ug/l	0.20	--
Phenanthrene	ND		ug/l	0.20	--
Dibenzo(a,h)anthracene	ND		ug/l	0.20	--
Indeno(1,2,3-cd)Pyrene	ND		ug/l	0.20	--
Pyrene	ND		ug/l	0.20	--
1-Methylnaphthalene	ND		ug/l	0.20	--
2-Methylnaphthalene	ND		ug/l	0.20	--
Pentachlorophenol	ND		ug/l	0.80	--
Hexachlorobenzene	ND		ug/l	0.80	--
Hexachloroethane	ND		ug/l	0.80	--



Project Name: LOVEJOY NPDES

Lab Number: L1302810

Project Number: 12622-045

Report Date: 02/22/13

### Method Blank Analysis Batch Quality Control

Analytical Method: 1,8270D-SIM

Extraction Method: EPA 3510C

Analytical Date: 02/20/13 17:31

Extraction Date: 02/19/13 14:26

Analyst: AS

Parameter	Result	Qualifier	Units	RL	MDL
Semivolatile Organics by GC/MS-SIM - Westborough Lab for sample(s): 01-02 Batch: WG590906-1					

Surrogate	%Recovery	Qualifier	Acceptance Criteria
2-Fluorophenol	53		21-120
Phenol-d6	37		10-120
Nitrobenzene-d5	87		23-120
2-Fluorobiphenyl	78		15-120
2,4,6-Tribromophenol	87		10-120
4-Terphenyl-d14	93		41-149

# Lab Control Sample Analysis

## Batch Quality Control

Project Name: LOVEJOY NPDES

Project Number: 12622-045

Lab Number: L1302810

Report Date: 02/22/13

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Semivolatile Organics by GC/MS - Westborough Lab Associated sample(s): 01-02 Batch: WG590903-2 WG590903-3								
Benzidine	16		18		10-75	12		30
1,2,4-Trichlorobenzene	72		65		39-98	10		30
Bis(2-chloroethyl)ether	85		85		40-140	0		30
1,2-Dichlorobenzene	72		66		40-140	9		30
1,3-Dichlorobenzene	70		65		40-140	7		30
1,4-Dichlorobenzene	70		66		36-97	6		30
3,3'-Dichlorobenzidine	51		55		40-140	8		30
2,4-Dinitrotoluene	95		95		24-96	0		30
2,6-Dinitrotoluene	97		96		40-140	1		30
Azobenzene	91		90		40-140	1		30
4-Chlorophenyl phenyl ether	86		83		40-140	4		30
4-Bromophenyl phenyl ether	90		89		40-140	1		30
Bis(2-chloroisopropyl)ether	90		87		40-140	3		30
Bis(2-chloroethoxy)methane	90		89		40-140	1		30
Hexachlorocyclopentadiene	49		42		40-140	15		30
Isophorone	97		96		40-140	1		30
Nitrobenzene	92		90		40-140	2		30
NitrosoDiPhenylAmine(NDPA)/DPA	90		89		40-140	1		30
Bis(2-Ethylhexyl)phthalate	94		92		40-140	2		30
Butyl benzyl phthalate	90		91		40-140	1		30
Di-n-butylphthalate	105		104		40-140	1		30

# **Lab Control Sample Analysis** Batch Quality Control

**Project Name:** LOVEJOY NPDES

**Project Number:** 12622-045

**Lab Number:** L1302810

**Report Date:** 02/22/13

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Semivolatile Organics by GC/MS - Westborough Lab Associated sample(s): 01-02 Batch: WG590903-2 WG590903-3								
Di-n-octylphthalate	94		92		40-140	2		30
Diethyl phthalate	95		94		40-140	1		30
Dimethyl phthalate	90		90		40-140	0		30
Aniline	37	Q	41		40-140	10		30
4-Chloroaniline	45		55		40-140	20		30
2-Nitroaniline	94		94		52-143	0		30
3-Nitroaniline	59		61		25-145	3		30
4-Nitroaniline	93		97		51-143	4		30
Dibenzofuran	83		81		40-140	2		30
n-Nitrosodimethylamine	52		51		22-74	2		30
2,4,6-Trichlorophenol	96		91		30-130	5		30
P-Chloro-M-Cresol	93		92		23-97	1		30
2-Chlorophenol	83		84		27-123	1		30
2,4-Dichlorophenol	89		88		30-130	1		30
2,4-Dimethylphenol	86		87		30-130	1		30
2-Nitrophenol	95		97		30-130	2		30
4-Nitrophenol	61		64		10-80	5		30
2,4-Dinitrophenol	79		85		20-130	7		30
4,6-Dinitro-o-cresol	83		87		20-164	5		30
Phenol	41		42		12-110	2		30
2-Methylphenol	78		78		30-130	0		30

## Lab Control Sample Analysis

### Batch Quality Control

Project Name: LOVEJOY NPDES

Project Number: 12622-045

Lab Number: L1302810

Report Date: 02/22/13

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Semivolatile Organics by GC/MS - Westborough Lab Associated sample(s): 01-02 Batch: WG590903-2 WG590903-3								
3-Methylphenol/4-Methylphenol	75		76		30-130	1		30
2,4,5-Trichlorophenol	92		94		30-130	2		30
Benzoic Acid	45		51		10-164	13		30
Benzyl Alcohol	81		82		26-116	1		30
Carbazole	90		92		55-144	2		30
Pyridine	38		36		10-66	5		30

Surrogate	LCS %Recovery	Qual	LCSD %Recovery	Qual	Acceptance Criteria
2-Fluorophenol	58		56		21-120
Phenol-d6	40		39		10-120
Nitrobenzene-d5	91		89		23-120
2-Fluorobiphenyl	85		79		15-120
2,4,6-Tribromophenol	92		90		10-120
4-Terphenyl-d14	90		90		41-149

# Lab Control Sample Analysis

## Batch Quality Control

Project Name: LOVEJOY NPDES

Project Number: 12622-045

Lab Number: L1302810

Report Date: 02/22/13

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: WG590906-2 WG590906-3								
Acenaphthene	76		84		37-111	10		40
2-Chloronaphthalene	72		77		40-140	7		40
Fluoranthene	91		88		40-140	3		40
Hexachlorobutadiene	49		59		40-140	19		40
Naphthalene	70		75		40-140	7		40
Benzo(a)anthracene	89		93		40-140	4		40
Benzo(a)pyrene	88		86		40-140	2		40
Benzo(b)fluoranthene	87		87		40-140	0		40
Benzo(k)fluoranthene	94		95		40-140	1		40
Chrysene	84		83		40-140	1		40
Acenaphthylene	80		82		40-140	2		40
Anthracene	92		95		40-140	3		40
Benzo(ghi)perylene	86		82		40-140	5		40
Fluorene	80		87		40-140	8		40
Phenanthrene	79		77		40-140	3		40
Dibenzo(a,h)anthracene	85		82		40-140	4		40
Indeno(1,2,3-cd)Pyrene	86		83		40-140	4		40
Pyrene	87		83		26-127	5		40
1-Methylnaphthalene	73		78		40-140	7		40
2-Methylnaphthalene	75		79		40-140	5		40
Pentachlorophenol	96		98		9-103	2		40



# Lab Control Sample Analysis

## Batch Quality Control

**Project Name:** LOVEJOY NPDES

**Lab Number:** L1302810

**Project Number:** 12622-045

**Report Date:** 02/22/13

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: WG590906-2 WG590906-3								
Hexachlorobenzene	72		72		40-140	0		40
Hexachloroethane	51		63		40-140	21		40

Surrogate	LCS %Recovery	Qual	LCSD %Recovery	Qual	Acceptance Criteria
2-Fluorophenol	55		55		21-120
Phenol-d6	40		41		10-120
Nitrobenzene-d5	95		98		23-120
2-Fluorobiphenyl	79		82		15-120
2,4,6-Tribromophenol	89		89		10-120
4-Terphenyl-d14	95		94		41-149

# PCBS

**Project Name:** LOVEJOY NPDES**Lab Number:** L1302810**Project Number:** 12622-045**Report Date:** 02/22/13**SAMPLE RESULTS**

**Lab ID:** L1302810-01  
**Client ID:** HA-NPDES-B  
**Sample Location:** BOSTON, MA  
**Matrix:** Water  
**Analytical Method:** 5,608  
**Analytical Date:** 02/20/13 10:59  
**Analyst:** JW

**Date Collected:** 02/18/13 15:00  
**Date Received:** 02/19/13  
**Field Prep:** Not Specified  
**Extraction Method:** EPA 608  
**Extraction Date:** 02/19/13 13:47  
**Cleanup Method1:** EPA 3665A  
**Cleanup Date1:** 02/20/13  
**Cleanup Method2:** EPA 3660B  
**Cleanup Date2:** 02/20/13

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

Surrogate	% Recovery	Qualifier	Acceptance Criteria
2,4,5,6-Tetrachloro-m-xylene	81		30-150
Decachlorobiphenyl	78		30-150

**Project Name:** LOVEJOY NPDES**Lab Number:** L1302810**Project Number:** 12622-045**Report Date:** 02/22/13**SAMPLE RESULTS**

**Lab ID:** L1302810-02  
**Client ID:** HA-NPDES  
**Sample Location:** BOSTON, MA  
**Matrix:** Water  
**Analytical Method:** 5,608  
**Analytical Date:** 02/20/13 11:13  
**Analyst:** JW

**Date Collected:** 02/19/13 08:30  
**Date Received:** 02/19/13  
**Field Prep:** Not Specified  
**Extraction Method:** EPA 608  
**Extraction Date:** 02/19/13 13:47  
**Cleanup Method1:** EPA 3665A  
**Cleanup Date1:** 02/20/13  
**Cleanup Method2:** EPA 3660B  
**Cleanup Date2:** 02/20/13

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

Surrogate	% Recovery	Qualifier	Acceptance Criteria
2,4,5,6-Tetrachloro-m-xylene	81		30-150
Decachlorobiphenyl	76		30-150

**Project Name:** LOVEJOY NPDES**Lab Number:** L1302810**Project Number:** 12622-045**Report Date:** 02/22/13

### Method Blank Analysis Batch Quality Control

Analytical Method: 5,608  
 Analytical Date: 02/20/13 10:05  
 Analyst: JW

Extraction Method: EPA 608  
 Extraction Date: 02/19/13 13:47  
 Cleanup Method1: EPA 3665A  
 Cleanup Date1: 02/20/13  
 Cleanup Method2: EPA 3660B  
 Cleanup Date2: 02/20/13

Parameter	Result	Qualifier	Units	RL	MDL
Polychlorinated Biphenyls by GC - Westborough Lab for sample(s): 01-02 Batch: WG590896-1					
Aroclor 1016	ND		ug/l	0.250	--
Aroclor 1221	ND		ug/l	0.250	--
Aroclor 1232	ND		ug/l	0.250	--
Aroclor 1242	ND		ug/l	0.250	--
Aroclor 1248	ND		ug/l	0.250	--
Aroclor 1254	ND		ug/l	0.250	--
Aroclor 1260	ND		ug/l	0.250	--

Surrogate	%Recovery	Qualifier	Acceptance Criteria
2,4,5,6-Tetrachloro-m-xylene	74		30-150
Decachlorobiphenyl	116		30-150



# Matrix Spike Analysis

## Batch Quality Control

Project Name: LOVEJOY NPDES

Project Number: 12622-045

Lab Number: L1302810

Report Date: 02/22/13

Parameter	Native Sample	MS Added	MS Found	MS %Recovery	Qual	MSD Found	MSD %Recovery	Qual	Recovery Limits	RPD	Qual	RPD Limits
-----------	---------------	----------	----------	--------------	------	-----------	---------------	------	-----------------	-----	------	------------

Polychlorinated Biphenyls by GC - Westborough Lab Associated sample(s): 01-02 QC Batch ID: WG590896-3 QC Sample: L1302810-01 Client ID: HA-NPDES-B

Aroclor 1016	ND	1	0.854	85		-	-		40-140	-		50
Aroclor 1260	ND	1	0.894	89		-	-		40-140	-		50

Surrogate	MS % Recovery	Qualifier	MSD % Recovery	Qualifier	Acceptance Criteria
2,4,5,6-Tetrachloro-m-xylene	87				30-150
Decachlorobiphenyl	118				30-150

**Lab Control Sample Analysis****Batch Quality Control****Project Name:** LOVEJOY NPDES**Lab Number:** L1302810**Project Number:** 12622-045**Report Date:** 02/22/13

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Polychlorinated Biphenyls by GC - Westborough Lab Associated sample(s): 01-02 Batch: WG590896-2								
Aroclor 1016	81		-		40-140	-		50
Aroclor 1260	82		-		40-140	-		50

Surrogate	LCS %Recovery	Qual	LCSD %Recovery	Qual	Acceptance Criteria
2,4,5,6-Tetrachloro-m-xylene	80				30-150
Decachlorobiphenyl	119				30-150

# **Lab Duplicate Analysis** Batch Quality Control

**Project Name:** LOVEJOY NPDES

**Project Number:** 12622-045

**Lab Number:** L1302810

**Report Date:** 02/22/13

Parameter	Native Sample	Duplicate Sample	Units	RPD	Qual	RPD Limits
Polychlorinated Biphenyls by GC - Westborough Lab Associated sample(s): 01-02 QC Batch ID: WG590896-4 QC Sample: L1302810-02 Client ID: HA-NPDES						
Aroclor 1016	ND	ND	ug/l	NC		50
Aroclor 1221	ND	ND	ug/l	NC		50
Aroclor 1232	ND	ND	ug/l	NC		50
Aroclor 1242	ND	ND	ug/l	NC		50
Aroclor 1248	ND	ND	ug/l	NC		50
Aroclor 1254	ND	ND	ug/l	NC		50

Surrogate	%Recovery	Qualifier	%Recovery	Qualifier	Acceptance Criteria
2,4,5,6-Tetrachloro-m-xylene	81		78		30-150
Decachlorobiphenyl	76		72		30-150

## METALS

Project Name: LOVEJOY NPDES

Lab Number: L1302810

Project Number: 12622-045

Report Date: 02/22/13

## SAMPLE RESULTS

Lab ID: L1302810-01

Date Collected: 02/18/13 15:00

Client ID: HA-NPDES-B

Date Received: 02/19/13

Sample Location: BOSTON, MA

Field Prep: Not Specified

Matrix: Water

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Prep Method	Analytical Method	Analyst
Total Metals - Westborough Lab											
Antimony, Total	ND		mg/l	0.0100	--	10	02/20/13 07:18	02/20/13 12:42	EPA 3005A	1,6020A	AK
Arsenic, Total	ND		mg/l	0.0050	--	10	02/20/13 07:18	02/20/13 12:42	EPA 3005A	1,6020A	AK
Cadmium, Total	ND		mg/l	0.0020	--	10	02/20/13 07:18	02/20/13 12:42	EPA 3005A	1,6020A	AK
Chromium, Total	ND		mg/l	0.0100	--	10	02/20/13 07:18	02/20/13 12:42	EPA 3005A	1,6020A	AK
Copper, Total	ND		mg/l	0.0100	--	10	02/20/13 07:18	02/20/13 12:42	EPA 3005A	1,6020A	AK
Iron, Total	0.10		mg/l	0.05	--	1	02/20/13 07:18	02/20/13 15:52	EPA 3005A	19,200.7	KL
Lead, Total	ND		mg/l	0.0050	--	10	02/20/13 07:18	02/20/13 12:42	EPA 3005A	1,6020A	AK
Mercury, Total	ND		mg/l	0.0002	--	1	02/20/13 20:43	02/21/13 18:02	EPA 245.1	3,245.1	JH
Nickel, Total	ND		mg/l	0.0050	--	10	02/20/13 07:18	02/20/13 12:42	EPA 3005A	1,6020A	AK
Selenium, Total	ND		mg/l	0.050	--	10	02/20/13 07:18	02/20/13 12:42	EPA 3005A	1,6020A	AK
Silver, Total	ND		mg/l	0.0040	--	10	02/20/13 07:18	02/20/13 12:42	EPA 3005A	1,6020A	AK
Zinc, Total	ND		mg/l	0.1000	--	10	02/20/13 07:18	02/20/13 12:42	EPA 3005A	1,6020A	AK



Project Name: LOVEJOY NPDES

Lab Number: L1302810

Project Number: 12622-045

Report Date: 02/22/13

## SAMPLE RESULTS

Lab ID: L1302810-02

Date Collected: 02/19/13 08:30

Client ID: HA-NPDES

Date Received: 02/19/13

Sample Location: BOSTON, MA

Field Prep: Not Specified

Matrix: Water

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Prep Method	Analytical Method	Analyst
Total Metals - Westborough Lab											
Antimony, Total	ND		mg/l	0.0100	--	10	02/20/13 07:18	02/20/13 11:53	EPA 3005A	1,6020A	AK
Arsenic, Total	0.0060		mg/l	0.0050	--	10	02/20/13 07:18	02/20/13 11:53	EPA 3005A	1,6020A	AK
Cadmium, Total	ND		mg/l	0.0020	--	10	02/20/13 07:18	02/20/13 11:53	EPA 3005A	1,6020A	AK
Chromium, Total	0.0136		mg/l	0.0100	--	10	02/20/13 07:18	02/20/13 11:53	EPA 3005A	1,6020A	AK
Copper, Total	0.0293		mg/l	0.0100	--	10	02/20/13 07:18	02/20/13 11:53	EPA 3005A	1,6020A	AK
Iron, Total	4.0		mg/l	0.05	--	1	02/20/13 07:18	02/20/13 15:44	EPA 3005A	19,200.7	KL
Lead, Total	0.0907		mg/l	0.0050	--	10	02/20/13 07:18	02/20/13 11:53	EPA 3005A	1,6020A	AK
Mercury, Total	0.0003		mg/l	0.0002	--	1	02/20/13 20:43	02/21/13 18:04	EPA 245.1	3,245.1	JH
Nickel, Total	ND		mg/l	0.0050	--	10	02/20/13 07:18	02/20/13 11:53	EPA 3005A	1,6020A	AK
Selenium, Total	ND		mg/l	0.050	--	10	02/20/13 07:18	02/20/13 11:53	EPA 3005A	1,6020A	AK
Silver, Total	ND		mg/l	0.0040	--	10	02/20/13 07:18	02/20/13 11:53	EPA 3005A	1,6020A	AK
Zinc, Total	0.3016		mg/l	0.1000	--	10	02/20/13 07:18	02/20/13 11:53	EPA 3005A	1,6020A	AK





Project Name: LOVEJOY NPDES

Lab Number: L1302810

Project Number: 12622-045

Report Date: 02/22/13

## Method Blank Analysis Batch Quality Control

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
Total Metals - Westborough Lab for sample(s): 01-02 Batch: WG591010-1										
Antimony, Total	ND		mg/l	0.0010	--	1	02/20/13 07:18	02/20/13 11:44	1,6020A	AK
Arsenic, Total	ND		mg/l	0.0005	--	1	02/20/13 07:18	02/20/13 11:44	1,6020A	AK
Cadmium, Total	ND		mg/l	0.0002	--	1	02/20/13 07:18	02/20/13 11:44	1,6020A	AK
Chromium, Total	ND		mg/l	0.0010	--	1	02/20/13 07:18	02/20/13 11:44	1,6020A	AK
Copper, Total	ND		mg/l	0.0010	--	1	02/20/13 07:18	02/20/13 11:44	1,6020A	AK
Lead, Total	ND		mg/l	0.0005	--	1	02/20/13 07:18	02/20/13 11:44	1,6020A	AK
Nickel, Total	ND		mg/l	0.0005	--	1	02/20/13 07:18	02/20/13 11:44	1,6020A	AK
Selenium, Total	ND		mg/l	0.005	--	1	02/20/13 07:18	02/20/13 11:44	1,6020A	AK
Silver, Total	ND		mg/l	0.0004	--	1	02/20/13 07:18	02/20/13 11:44	1,6020A	AK
Zinc, Total	ND		mg/l	0.0100	--	1	02/20/13 07:18	02/20/13 11:44	1,6020A	AK

### Prep Information

Digestion Method: EPA 3005A

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
Total Metals - Westborough Lab for sample(s): 01-02 Batch: WG591011-1										
Iron, Total	ND		mg/l	0.05	--	1	02/20/13 07:18	02/20/13 12:16	19,200.7	KL

### Prep Information

Digestion Method: EPA 3005A

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
Total Metals - Westborough Lab for sample(s): 01-02 Batch: WG591160-1										
Mercury, Total	ND		mg/l	0.0002	--	1	02/20/13 20:43	02/21/13 17:57	3,245.1	JH

### Prep Information

Digestion Method: EPA 245.1



# **Lab Control Sample Analysis** Batch Quality Control

**Project Name:** LOVEJOY NPDES

**Project Number:** 12622-045

**Lab Number:** L1302810

**Report Date:** 02/22/13

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Total Metals - Westborough Lab Associated sample(s): 01-02 Batch: WG591010-2								
Antimony, Total	90		-		80-120	-		
Arsenic, Total	101		-		80-120	-		
Cadmium, Total	110		-		80-120	-		
Chromium, Total	93		-		80-120	-		
Copper, Total	100		-		80-120	-		
Lead, Total	100		-		80-120	-		
Nickel, Total	100		-		80-120	-		
Selenium, Total	99		-		80-120	-		
Silver, Total	96		-		80-120	-		
Zinc, Total	107		-		80-120	-		
Total Metals - Westborough Lab Associated sample(s): 01-02 Batch: WG591011-2								
Iron, Total	110		-		85-115	-		
Total Metals - Westborough Lab Associated sample(s): 01-02 Batch: WG591160-2								
Mercury, Total	96		-		85-115	-		

# **Matrix Spike Analysis** **Batch Quality Control**

**Project Name:** LOVEJOY NPDES  
**Project Number:** 12622-045

**Lab Number:** L1302810  
**Report Date:** 02/22/13

Parameter	Native Sample	MS Added	MS Found	MS %Recovery	Qual	MSD Found	MSD %Recovery	Qual	Recovery Limits	RPD	Qual	RPD Limits
Total Metals - Westborough Lab Associated sample(s): 01-02 QC Batch ID: WG591010-4 QC Sample: L1302810-02 Client ID: HA-NPDES												
Antimony, Total	ND	0.5	0.4949	99		-	-		80-120	-		20
Arsenic, Total	0.0060	0.12	0.1314	104		-	-		80-120	-		20
Cadmium, Total	ND	0.051	0.0509	100		-	-		80-120	-		20
Chromium, Total	0.0136	0.2	0.2130	100		-	-		80-120	-		20
Copper, Total	0.0293	0.25	0.2782	100		-	-		80-120	-		20
Lead, Total	0.0907	0.51	0.6548	111		-	-		80-120	-		20
Nickel, Total	ND	0.5	0.4891	98		-	-		80-120	-		20
Selenium, Total	ND	0.12	0.058	48	Q	-	-		80-120	-		20
Silver, Total	ND	0.05	0.0479	96		-	-		80-120	-		20
Zinc, Total	0.3016	0.5	0.7203	84		-	-		80-120	-		20
Total Metals - Westborough Lab Associated sample(s): 01-02 QC Batch ID: WG591011-4 QC Sample: L1302810-02 Client ID: HA-NPDES												
Iron, Total	4.0	1	4.7	70	Q	-	-		75-125	-		20
Total Metals - Westborough Lab Associated sample(s): 01-02 QC Batch ID: WG591160-4 QC Sample: L1302877-05 Client ID: MS Sample												
Mercury, Total	ND	0.001	0.0012	124		-	-		70-130	-		20

# **Lab Duplicate Analysis** Batch Quality Control

**Project Name:** LOVEJOY NPDES

**Project Number:** 12622-045

**Lab Number:** L1302810

**Report Date:** 02/22/13

Parameter	Native Sample	Duplicate Sample	Units	RPD	Qual	RPD Limits
Total Metals - Westborough Lab Associated sample(s): 01-02 QC Batch ID: WG591010-3 QC Sample: L1302810-02 Client ID: HA-NPDES						
Antimony, Total	ND	ND	mg/l	NC		20
Arsenic, Total	0.0060	ND	mg/l	NC		20
Cadmium, Total	ND	ND	mg/l	NC		20
Chromium, Total	0.0136	0.0132	mg/l	3		20
Copper, Total	0.0293	0.0309	mg/l	5		20
Lead, Total	0.0907	0.0912	mg/l	1		20
Nickel, Total	ND	ND	mg/l	NC		20
Selenium, Total	ND	ND	mg/l	NC		20
Silver, Total	ND	ND	mg/l	NC		20
Zinc, Total	0.3016	0.3051	mg/l	1		20
Total Metals - Westborough Lab Associated sample(s): 01-02 QC Batch ID: WG591011-3 QC Sample: L1302810-02 Client ID: HA-NPDES						
Iron, Total	4.0	4.0	mg/l	0		20
Total Metals - Westborough Lab Associated sample(s): 01-02 QC Batch ID: WG591160-3 QC Sample: L1302877-05 Client ID: DUP Sample						
Mercury, Total	ND	ND	mg/l	NC		20

# **INORGANICS & MISCELLANEOUS**

**Project Name:** LOVEJOY NPDES  
**Project Number:** 12622-045

**Lab Number:** L1302810  
**Report Date:** 02/22/13

### SAMPLE RESULTS

**Lab ID:** L1302810-01  
**Client ID:** HA-NPDES-B  
**Sample Location:** BOSTON, MA  
**Matrix:** Water

**Date Collected:** 02/18/13 15:00  
**Date Received:** 02/19/13  
**Field Prep:** Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Westborough Lab										
Solids, Total Suspended	36		mg/l	5.0	NA	1	-	02/21/13 08:25	30,2540D	DW
Cyanide, Total	ND		mg/l	0.005	--	1	02/20/13 09:43	02/20/13 14:24	30,4500CN-CE	JO
Chlorine, Total Residual	ND		mg/l	0.02	--	1	-	02/19/13 12:50	30,4500CL-D	EL
TPH	ND		mg/l	4.00	--	1	02/21/13 07:30	02/22/13 14:15	74,1664A	JO
Phenolics, Total	0.06		mg/l	0.03	--	1	02/21/13 09:00	02/21/13 13:44	4,420.1	MP
Chromium, Hexavalent	ND		mg/l	0.010	--	1	02/19/13 12:45	02/19/13 13:23	30,3500CR-D	ML
Anions by Ion Chromatography - Westborough Lab										
Chloride	16000		mg/l	250	--	500	-	02/20/13 23:48	44,300.0	AU





**Project Name:** LOVEJOY NPDES  
**Project Number:** 12622-045

**Lab Number:** L1302810  
**Report Date:** 02/22/13

### SAMPLE RESULTS

**Lab ID:** L1302810-02  
**Client ID:** HA-NPDES  
**Sample Location:** BOSTON, MA  
**Matrix:** Water

**Date Collected:** 02/19/13 08:30  
**Date Received:** 02/19/13  
**Field Prep:** Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Westborough Lab										
Solids, Total Suspended	140		mg/l	25	NA	5	-	02/21/13 08:25	30,2540D	DW
Cyanide, Total	ND		mg/l	0.005	--	1	02/20/13 09:43	02/20/13 14:26	30,4500CN-CE	JO
Chlorine, Total Residual	ND		mg/l	0.02	--	1	-	02/19/13 12:50	30,4500CL-D	EL
TPH	10.0		mg/l	4.00	--	1	02/21/13 07:30	02/22/13 14:15	74,1664A	JO
Phenolics, Total	ND		mg/l	0.03	--	1	02/21/13 09:00	02/21/13 13:44	4,420.1	MP
Chromium, Hexavalent	ND		mg/l	0.010	--	1	02/19/13 12:45	02/19/13 13:24	30,3500CR-D	ML
Anions by Ion Chromatography - Westborough Lab										
Chloride	12300		mg/l	250	--	500	-	02/21/13 00:00	44,300.0	AU



Project Name: LOVEJOY NPDES

Lab Number: L1302810

Project Number: 12622-045

Report Date: 02/22/13

### Method Blank Analysis Batch Quality Control

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Westborough Lab for sample(s): 01-02 Batch: WG590886-1										
Chlorine, Total Residual	ND		mg/l	0.02	--	1	-	02/19/13 12:50	30,4500CL-D	EL
General Chemistry - Westborough Lab for sample(s): 01-02 Batch: WG590889-1										
Chromium, Hexavalent	ND		mg/l	0.010	--	1	02/19/13 12:45	02/19/13 13:21	30,3500CR-D	ML
General Chemistry - Westborough Lab for sample(s): 01-02 Batch: WG591044-1										
Cyanide, Total	ND		mg/l	0.005	--	1	02/20/13 09:43	02/20/13 14:20	30,4500CN-CE	JO
General Chemistry - Westborough Lab for sample(s): 01-02 Batch: WG591197-1										
Solids, Total Suspended	ND		mg/l	5.0	NA	1	-	02/21/13 08:25	30,2540D	DW
General Chemistry - Westborough Lab for sample(s): 01-02 Batch: WG591232-1										
Phenolics, Total	ND		mg/l	0.03	--	1	02/21/13 09:00	02/21/13 13:40	4,420.1	MP
General Chemistry - Westborough Lab for sample(s): 01-02 Batch: WG591279-1										
TPH	ND		mg/l	4.00	--	1	02/21/13 07:30	02/22/13 14:15	74,1664A	JO
Anions by Ion Chromatography - Westborough Lab for sample(s): 01-02 Batch: WG591369-1										
Chloride	ND		mg/l	0.500	--	1	-	02/20/13 17:00	44,300.0	AU



# **Lab Control Sample Analysis** Batch Quality Control

**Project Name:** LOVEJOY NPDES

**Project Number:** 12622-045

**Lab Number:** L1302810

**Report Date:** 02/22/13

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
General Chemistry - Westborough Lab Associated sample(s): 01-02 Batch: WG590886-2								
Chlorine, Total Residual	90		-		90-110	-		
General Chemistry - Westborough Lab Associated sample(s): 01-02 Batch: WG590889-2								
Chromium, Hexavalent	91		-		85-115	-		20
General Chemistry - Westborough Lab Associated sample(s): 01-02 Batch: WG591044-2								
Cyanide, Total	108		-		90-110	-		
General Chemistry - Westborough Lab Associated sample(s): 01-02 Batch: WG591232-2								
Phenolics, Total	94		-		82-111	-		12
General Chemistry - Westborough Lab Associated sample(s): 01-02 Batch: WG591279-2								
TPH	85		-		64-132	-		34
Anions by Ion Chromatography - Westborough Lab Associated sample(s): 01-02 Batch: WG591369-2								
Chloride	102		-		90-110	-		

# Matrix Spike Analysis

## Batch Quality Control

**Project Name:** LOVEJOY NPDES  
**Project Number:** 12622-045

**Lab Number:** L1302810  
**Report Date:** 02/22/13

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: WG590889-4 QC Sample: L1302810-01 Client ID: HA-NPDES-B												
Chromium, Hexavalent	ND	0.1	0.099	99		-	-		85-115	-		20
General Chemistry - Westborough Lab Associated sample(s): 01-02 QC Batch ID: WG591044-4 QC Sample: L1302811-04 Client ID: MS Sample												
Cyanide, Total	ND	0.2	0.209	104		-	-		90-110	-		30
General Chemistry - Westborough Lab Associated sample(s): 01-02 QC Batch ID: WG591232-4 QC Sample: L1302746-07 Client ID: MS Sample												
Phenolics, Total	ND	0.8	0.76	95		-	-		77-124	-		12
General Chemistry - Westborough Lab Associated sample(s): 01-02 QC Batch ID: WG591279-4 QC Sample: L1302824-02 Client ID: MS Sample												
TPH	ND	20.4	ND	0	Q	-	-		64-132	-		34
Anions by Ion Chromatography - Westborough Lab Associated sample(s): 01-02 QC Batch ID: WG591369-3 QC Sample: L1302746-05 Client ID: MS Sample												
Chloride	37.7	4	41.1	85		-	-		40-151	-		18

# **Lab Duplicate Analysis** Batch Quality Control

**Project Name:** LOVEJOY NPDES

**Project Number:** 12622-045

**Lab Number:** L1302810

**Report Date:** 02/22/13

Parameter	Native Sample	Duplicate Sample	Units	RPD	Qual	RPD Limits
General Chemistry - Westborough Lab Associated sample(s): 01-02 QC Batch ID: WG590886-3 QC Sample: L1302810-01 Client ID: HA-NPDES-B						
Chlorine, Total Residual	ND	ND	mg/l	NC		20
General Chemistry - Westborough Lab Associated sample(s): 01-02 QC Batch ID: WG590889-3 QC Sample: L1302810-01 Client ID: HA-NPDES-B						
Chromium, Hexavalent	ND	ND	mg/l	NC		20
General Chemistry - Westborough Lab Associated sample(s): 01-02 QC Batch ID: WG591044-3 QC Sample: L1302810-01 Client ID: HA-NPDES-B						
Cyanide, Total	ND	ND	mg/l	NC		30
General Chemistry - Westborough Lab Associated sample(s): 01-02 QC Batch ID: WG591197-2 QC Sample: L1302877-05 Client ID: DUP Sample						
Solids, Total Suspended	440	400	mg/l	10		20
General Chemistry - Westborough Lab Associated sample(s): 01-02 QC Batch ID: WG591232-3 QC Sample: L1302810-02 Client ID: HA-NPDES						
Phenolics, Total	ND	ND	mg/l	NC		12
General Chemistry - Westborough Lab Associated sample(s): 01-02 QC Batch ID: WG591279-3 QC Sample: L1302824-01 Client ID: DUP Sample						
TPH	ND	ND	mg/l	NC		34
Anions by Ion Chromatography - Westborough Lab Associated sample(s): 01-02 QC Batch ID: WG591369-4 QC Sample: L1302746-05 Client ID: DUP Sample						
Chloride	37.7	38.3	mg/l	3		18

Project Name: LOVEJOY NPDES

Project Number: 12622-045

Lab Number: L1302810

Report Date: 02/22/13

## Sample Receipt and Container Information

Were project specific reporting limits specified? YES

Reagent H2O Preserved Vials Frozen on: NA

## Cooler Information Custody Seal

## Cooler

A Absent

B Absent

## Container Information

Container ID	Container Type	Cooler	pH	Temp deg C	Pres	Seal	Analysis(*)
L1302810-01A	Vial HCl preserved	A	N/A	4	Y	Absent	8260(14)
L1302810-01B	Vial HCl preserved	A	N/A	4	Y	Absent	8260(14)
L1302810-01C	Vial HCl preserved	A	N/A	4	Y	Absent	8260(14)
L1302810-01D	Vial Na2S2O3 preserved	A	N/A	4	Y	Absent	504(14)
L1302810-01E	Vial Na2S2O3 preserved	A	N/A	4	Y	Absent	504(14)
L1302810-01F	Plastic 250ml NaOH preserved	A	>12	4	Y	Absent	TCN-4500(14)
L1302810-01G	Plastic 250ml HNO3 preserved	A	<2	4	Y	Absent	SE-6020T(180),CR-6020T(180),NI-6020T(180),CU-6020T(180),ZN-6020T(180),FE-UI(180),PB-6020T(180),HG-U(28),AS-6020T(180),SB-6020T(180),AG-6020T(180),CD-6020T(180)
L1302810-01H	Plastic 500ml unpreserved	A	7	4	Y	Absent	CL-300(28),TRC-4500(1)
L1302810-01I	Plastic 500ml unpreserved	A	7	4	Y	Absent	HEXCR-3500(1)
L1302810-01J	Amber 500ml H2SO4 preserved	A	<2	4	Y	Absent	TPHENOL-420(28)
L1302810-01K	Amber 1000ml HCl preserved	A	N/A	4	Y	Absent	TPH-1664(28)
L1302810-01L	Amber 1000ml HCl preserved	A	N/A	4	Y	Absent	TPH-1664(28)
L1302810-01M	Amber 1000ml Na2S2O3	A	7	4	Y	Absent	PCB-608(7)
L1302810-01N	Amber 1000ml Na2S2O3	A	7	4	Y	Absent	PCB-608(7)
L1302810-01O	Amber 1000ml unpreserved	A	7	4	Y	Absent	8270TCL(7)
L1302810-01P	Amber 1000ml unpreserved	A	7	4	Y	Absent	8270TCL(7)
L1302810-01Q	Amber 1000ml unpreserved	A	7	4	Y	Absent	8270TCL-SIM(7)
L1302810-01R	Amber 1000ml unpreserved	A	7	4	Y	Absent	8270TCL-SIM(7)
L1302810-01S	Plastic 1000ml unpreserved	A	7	4	Y	Absent	TSS-2540(7)
L1302810-01T	Amber 500ml H2SO4 preserved	A	<2	4	Y	Absent	TPHENOL-420(28)
L1302810-01X	Vial HCl preserved	B	N/A	3	Y	Absent	8260-SIM(14)
L1302810-01Y	Vial HCl preserved	B	N/A	3	Y	Absent	8260-SIM(14)

\*Values in parentheses indicate holding time in days





Project Name: LOVEJOY NPDES

Project Number: 12622-045

Lab Number: L1302810

Report Date: 02/22/13

## Container Information

Container ID	Container Type	Cooler	pH	Temp deg C	Pres	Seal	Analysis(*)
L1302810-01Z	Vial HCl preserved	B	N/A	3	Y	Absent	8260-SIM(14)
L1302810-02A	Vial HCl preserved	B	N/A	3	Y	Absent	8260(14)
L1302810-02B	Vial HCl preserved	B	N/A	3	Y	Absent	8260(14)
L1302810-02C	Vial HCl preserved	B	N/A	3	Y	Absent	8260(14)
L1302810-02D	Vial Na2S2O3 preserved	B	N/A	3	Y	Absent	504(14)
L1302810-02E	Vial Na2S2O3 preserved	B	N/A	3	Y	Absent	504(14)
L1302810-02F	Plastic 250ml NaOH preserved	B	>12	3	Y	Absent	TCN-4500(14)
L1302810-02G	Plastic 250ml HNO3 preserved	B	<2	3	Y	Absent	SE-6020T(180),CR-6020T(180),NI-6020T(180),CU-6020T(180),ZN-6020T(180),FE-UI(180),PB-6020T(180),HG-U(28),AS-6020T(180),SB-6020T(180),AG-6020T(180),CD-6020T(180)
L1302810-02H	Plastic 500ml unpreserved	B	7	3	Y	Absent	CL-300(28),TRC-4500(1)
L1302810-02I	Plastic 500ml unpreserved	B	7	3	Y	Absent	HEXCR-3500(1)
L1302810-02J	Amber 500ml H2SO4 preserved	B	<2	3	Y	Absent	TPHENOL-420(28)
L1302810-02K	Amber 1000ml HCl preserved	B	N/A	3	Y	Absent	TPH-1664(28)
L1302810-02L	Amber 1000ml HCl preserved	B	N/A	3	Y	Absent	TPH-1664(28)
L1302810-02M	Amber 1000ml Na2S2O3	B	7	3	Y	Absent	PCB-608(7)
L1302810-02N	Amber 1000ml Na2S2O3	B	7	3	Y	Absent	PCB-608(7)
L1302810-02O	Amber 1000ml unpreserved	B	7	3	Y	Absent	8270TCL(7)
L1302810-02P	Amber 1000ml unpreserved	B	7	3	Y	Absent	8270TCL(7)
L1302810-02Q	Amber 1000ml unpreserved	B	7	3	Y	Absent	8270TCL-SIM(7)
L1302810-02R	Amber 1000ml unpreserved	B	7	3	Y	Absent	8270TCL-SIM(7)
L1302810-02S	Plastic 1000ml unpreserved	B	7	3	Y	Absent	TSS-2540(7)
L1302810-02T	Amber 500ml H2SO4 preserved	B	<2	3	Y	Absent	TPHENOL-420(28)
L1302810-02X	Vial HCl preserved	B	N/A	3	Y	Absent	8260-SIM(14)
L1302810-02Y	Vial HCl preserved	B	N/A	3	Y	Absent	8260-SIM(14)
L1302810-02Z	Vial HCl preserved	B	N/A	3	Y	Absent	8260-SIM(14)
L1302810-03A	Vial HCl preserved	B	N/A	3	Y	Absent	HOLD(14)
L1302810-03B	Vial HCl preserved	B	N/A	3	Y	Absent	HOLD(14)
L1302810-03C	Vial Na2S2O3 preserved	B	N/A	3	Y	Absent	HOLD(14)

\*Values in parentheses indicate holding time in days



**Project Name:** LOVEJOY NPDES  
**Project Number:** 12622-045

**Lab Number:** L1302810  
**Report Date:** 02/22/13

## GLOSSARY

### Acronyms

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

### Footnotes

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

### Terms

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

### Data Qualifiers

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

**Report Format:** Data Usability Report



**Project Name:** LOVEJOY NPDES**Lab Number:** L1302810**Project Number:** 12622-045**Report Date:** 02/22/13**Data Qualifiers**

due to obvious interference.

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

**Project Name:** LOVEJOY NPDES  
**Project Number:** 12622-045

**Lab Number:** L1302810  
**Report Date:** 02/22/13

## REFERENCES

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

## LIMITATION OF LIABILITIES

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

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



## Certificate/Approval Program Summary

Last revised December 19, 2012 - Westboro Facility

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

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

*Drinking Water* (Inorganic Parameters: Color, pH, Turbidity, Conductivity, Alkalinity, Chloride, Free Residual Chlorine, Fluoride, Calcium Hardness, Sulfate, Nitrate, Nitrite, Aluminum, Antimony, Arsenic, Barium, Beryllium, Cadmium, Calcium, Chromium, Copper, Iron, Lead, Magnesium, Manganese, Mercury, Nickel, Selenium, Silver, Sodium, Thallium, Zinc, Total Dissolved Solids, Total Organic Carbon, Total Cyanide, Perchlorate. Organic Parameters: Volatile Organics 524.2, Total Trihalomethanes 524.2, 1,2-Dibromo-3-chloropropane (DBCP) 504.1, Ethylene Dibromide (EDB) 504.1, 1,4-Dioxane (Mod 8270). Microbiology Parameters: Total Coliform-MF mEndo (SM9222B), Total Coliform – Colilert (SM9223, Enumeration and P/A), E. Coli. – Colilert (SM9223, Enumeration and P/A), HPC – Pour Plate (SM9215B), Fecal Coliform – MF m-FC (SM9222D), Fecal Coliform-EC Medium (SM 9221E).

*Wastewater/Non-Potable Water* (Inorganic Parameters: Color, pH, Conductivity, Acidity, Alkalinity, Chloride, Total Residual Chlorine, Fluoride, Total Hardness, Silica, Sulfate, Sulfide, Ammonia, Kjeldahl Nitrogen, Nitrate, Nitrite, O-Phosphate, Total Phosphorus, Aluminum, Antimony, Arsenic, Barium, Beryllium, Boron, Cadmium, Calcium, Chromium, Hexavalent Chromium, Cobalt, Copper, Iron, Lead, Magnesium, Manganese, Mercury, Molybdenum, Nickel, Potassium, Selenium, Silver, Sodium, Strontium, Thallium, Tin, Titanium, Vanadium, Zinc, Total Residue (Solids), Total Dissolved Solids, Total Suspended Solids (non-filterable), BOD, CBOD, COD, TOC, Total Cyanide, Phenolics, Foaming Agents (MBAS), Bromide, Oil and Grease. Organic Parameters: PCBs, Organochlorine Pesticides, Technical Chlordane, Toxaphene, Acid Extractables (Phenols), Benzidines, Phthalate Esters, Nitrosamines, Nitroaromatics & Isophorone, Polynuclear Aromatic Hydrocarbons, Haloethers, Chlorinated Hydrocarbons, Volatile Organics, TPH (HEM/SGT), CT-Extractable Petroleum Hydrocarbons (ETPH), MA-EPH, MA-VPH. Microbiology Parameters: Total Coliform – MF mEndo (SM9222B), Total Coliform – MTF (SM9221B), E. Coli – Colilert (SM9223 Enumeration), HPC – Pour Plate (SM9215B), Fecal Coliform – MF m-FC (SM9222D), Fecal Coliform – A-1 Broth (SM9221E), Enterococcus - Enterolert.

*Solid Waste/Soil* (Inorganic Parameters: pH, Sulfide, Aluminum, Antimony, Arsenic, Barium, Beryllium, Boron, Cadmium, Calcium, Chromium, Hexavalent Chromium, Cobalt, Copper, Iron, Lead, Magnesium, Manganese, Mercury, Molybdenum, Nickel, Potassium, Selenium, Silver, Sodium, Thallium, Tin, Vanadium, Zinc, Total Cyanide, Ignitability, Phenolics, Corrosivity, TCLP Leach (1311), SPLP Leach (1312 metals only), Reactivity. Organic Parameters: PCBs, PCBs in Oil, Organochlorine Pesticides, Technical Chlordane, Toxaphene, CT-Extractable Petroleum Hydrocarbons (ETPH), MA-EPH, MA-VPH, Dicamba, 2,4-D, 2,4,5-T, 2,4,5-TP (Silvex), Dalapon, Volatile Organics (SW 8260), Acid Extractables (Phenols) (SW 8270), Benzidines (SW 8270), Phthalates (SW 8270), Nitrosamines (SW 8270), Nitroaromatics & Cyclic Ketones (SW 8270), PAHs (SW 8270), Haloethers (SW 8270), Chlorinated Hydrocarbons (SW 8270). )

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

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

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

*Solid Waste/Soil* (Inorganic Parameters: 9010B, 9012A, 9014, 9030B, 9040B, 9045C, 6010B, 6010C, 6020, 6020A, 7471A, 7471B, 7196A, 9050A, 1010, 1030, 9065, 1311, 1312, 3005A, 3050B. Organic Parameters: ME-DRO, ME-GRO, MA-EPH, MA-VPH, 8260B, 8270C, 8270D, 8330, 8151A, 8081A, 8081B, 8082, 8082A, 3540C, 3546, 3580A, 3630C, 5030B, 5035.)

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

*Drinking Water* (Inorganic Parameters: (EPA 200.8 for: Sb,As,Ba,Be,Cd,Cr,Cu,Pb,Ni,Se,Tl) (EPA 200.7 for: Ba,Be,Ca,Cd,Cr,Cu,Na,Ni) 245.1, (300.0 for: Nitrate-N, Fluoride, Sulfate); (EPA 353.2 for: Nitrate-N, Nitrite-N); (SM4500NO3-F for: Nitrate-N and Nitrite-N); 4500F-C, 4500CN-CE, EPA 180.1, SM2130B, SM4500CI-D, 2320B, SM2540C, SM4500H-B. Organic Parameters: (EPA 524.2 for: Trihalomethanes, Volatile Organics); (504.1 for: 1,2-Dibromoethane, 1,2-Dibromo-3-Chloropropane), EPA 332. Microbiology Parameters: SM9215B; ENZ. SUB. SM9223; Colilert/QT SM9223B; MF-SM9222D.)

*Non-Potable Water (Inorganic Parameters:*, (EPA 200.8 for: Al,Sb,As,Be,Cd,Cr,Cu,Pb,Mn,Ni,Se,Ag,Tl,Zn); (EPA 200.7 for: Al,Sb,As,Be,Cd,Ca,Cr,Co,Cu,Fe,Pb,Mg,Mn,Mo,Ni,K,Se,Ag,Na,Sr,Ti,Tl,V,Zn); 245.1, SM4500H,B, EPA 120.1, SM2510B, 2540C, 2340B, 2320B, 4500CL-E, 4500F-BC, 426C, SM4500NH3-BH, (EPA 350.1 for: Ammonia-N), LACHAT 10-107-06-1-B for Ammonia-N, SM4500NO3-F, 353.2 for Nitrate-N, SM4500NH3-BC-NES, EPA 351.1, SM4500P-E, 4500P-B,E, 5220D, EPA 410.4, SM 5210B, 5310C, 4500CL-D, EPA 1664, SM14 510AC, EPA 420.1, SM4500-CN-CE, SM2540D.

*Organic Parameters:* (EPA 624 for Volatile Halocarbons, Volatile Aromatics),(608 for: Chlordane, Toxaphene, Aldrin, alpha-BHC, beta-BHC, gamma-BHC, delta-BHC, Dieldrin, DDD, DDE, DDT,Endosulfan I, Endosulfan II, Endosulfan sulfate, Endrin, Endrin Aldehyde, Heptachlor, Heptachlor Epoxide, PCBs-Water), (EPA 625 for SVOC Acid Extractables and SVOC Base/Neutral Extractables), 600/4-81-045-PCB-Oil. *Microbiology Parameters:* (ColilertQT SM9223B; Enterolert-QT: SM9222D-MF.)

**New Hampshire Department of Environmental Services Certificate/Lab ID: 200307. *NELAP Accredited.***

*Drinking Water (Inorganic Parameters:* SM 9222B, 9223B, 9215B, EPA 200.7, 200.8, 300.0, SM4500CN-E, 4500H+B, 4500NO3-F, 2320B, 2510B, 2540C, 4500F-C, 5310C, 2120B, EPA 332.0. *Organic Parameters:* 504.1, 524.2.)

*Non-Potable Water (Inorganic Parameters:* SM9222D, 9221B, 9222B, 9221E-EC, EPA 3005A, 200.7, 200.8, 245.1, SW-846 6010C, 6020A, 7196A, 7470A, SM3500-CR-D, EPA 120.1, 300.0, 350.1, 350.2, 351.1, 353.2, 410.4, 420.1, 426C, 1664A, SW-846 9010B, 9010C, 9030, 9040B, 9040C, SM2120B, 2310B, 2320B, 2340B, 2540B, 2540D, 4500H+B, 4500CL-E, 4500CN-E, 4500NH3-H, 4500NO3-F, 4500NO2-B, 4500P-E, 4500-S2-D, 4500SO3-B, 5210B, 5220D, 2510B, 2540C, 4500F-C, 5310C, 5540C, LACHAT 10-204-00-1-A, LACHAT 10-107-06-2-D, 3060A. *Organic Parameters:* SW-846 3510C, 3630C, 5030B, 8260C, 8270D, 8330, EPA 624, 625, 608, SW-846 8082A, 8081B, 8015C, 8151A, 8330, 8270D-SIM.)

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

**New Jersey Department of Environmental Protection Certificate/Lab ID: MA935. *NELAP Accredited.***

*Drinking Water (Inorganic Parameters:* SM9222B, 9221E, 9223B, 9215B, 4500CN-CE, 4500NO3-F, 4500F-C, EPA 300.0, 200.7, 200.8, 245.1, 2540C, SM2120B, 2320B, 2510B, 5310C, SM4500H-B. *Organic Parameters:* EPA 332, 504.1, 524.2.)

*Non-Potable Water (Inorganic Parameters:* SM5210B, EPA 410.4, SM5220D, 4500CI-E, EPA 300.0, SM2120B, 2340B, SM4500F-BC, EPA 200.7, 200.8, 351.1, LACHAT 10-107-06-2-D, EPA 353.2, SM4500NO3-F, 4500NO2-B, EPA 1664A, SM5310B, C or D, 4500-PE, EPA 420.1, SM510ABC, SM4500P-B5+E, 2540B, 2540C, 2540D, EPA 120.1, SM2510B, SM2520B, SM15 426C, 9222D, 9221B, 9221C, 9221E, 9222B, 9215B, 2310B, 2320B, 4500NH3-H, 4500-S D, EPA 350.1, 350.2, SW-846 1312, 7470A, 5540C, SM4500H-B, 4500SO3-B, SM3500Cr-D, 4500CN-CE, EPA 245.1, SW-846 9040B, 9040C, 3005A, 3015, EPA 6010B, 6010C, 6020, 6020A, 7196A, 3060A, SW-846 9010C, 9030B. *Organic Parameters:* SW-846 8260B, 8260C, 8270C, 8270D, 8270C-SIM, 8270D-SIM, 3510C, EPA 608, 624, 625, SW-846 3630C, 5030B, 8011, 8015C, 8081A, 8081B, 8082, 8082A, 8151A, 8330, 1,4-Dioxane by NJ Modified 8270, 8015B, NJ EPH.)

*Solid & Chemical Materials (Inorganic Parameters:* SW-846, 6010B, 6010C, 6020, 6020A, 7196A, 3060A, 9030B, 1010, 1010A, 1030, 1311, 1312, 3005A, 3050B, 7471A, 7471B, 9010C, 9012B, 9014, 9038, 9040B, 9040C, 9045C, 9045D, 9050A, 9065, 9251. *Organic Parameters:* SW-846 8015B, 8015C, 8081A, 8081B, 8082, 8082A, 8151A, 8330, 8260B, 8260C, 8270C, 8270D, 8270C-SIM, 8270D-SIM, 3540C, 3546, 3580A, 3620C, 3630C, 5030B, 5035L, 5035H, NJ EPH.)

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

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

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

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



3546, 3580A, 5030B, 5035A-H, 5035A-L.)

**North Carolina Department of the Environment and Natural Resources** Certificate/Lab ID : 666. (Inorganic Parameters: SM2310B, 2320B, 4500Cl-E, 4500Cn-E, 9014, Lachat 10-204-00-1-X, 1010A, 1030, 4500NO<sub>3</sub>-F, 353.2, 4500P-E, 4500SO<sub>4</sub>-E, 300.0, 4500S-D, 5310B, 5310C, 6010C, 6020A, 200.7, 200.8, 3500Cr-B, 7196A, 245.1, 7470A, 7471B, 1311, 1312. Organic Parameters: 608, 8081B, 8082A, 624, 8260B, 625, 8270D, 8151A, 8015C, 504.1, MA-EPH, MA-VPH.)

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

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

*Drinking Water* (Inorganic Parameters: 200.7, 200.8, 300.0, 332.0, 2120B, 2320B, 2510B, 2540C, 4500-CN-CE, 4500F-C, 4500H+-B, 4500NO<sub>3</sub>-F, 5310C. Organic Parameters: EPA 524.2, 504.1)

*Non-Potable Water* (Inorganic Parameters: EPA 120.1, 1312, 3005A, 3015, 3060A, 200.7, 200.8, 410.4, 1664A, SM2540D, 5210B, 5220D, 4500-P, BE, 245.1, 300.0, 350.1, 350.2, 351.1, 353.2, 420.1, 6010C, 6020A, 7196A, 7470A, 9030B, 2120B, 2310B, 2320B, 2510B, 2540B, 2540C, 3500Cr-D, 426C, 4500CN-CE, 4500Cl-E, 4500F-B, 4500F-C, 4500H+-B, 4500NH<sub>3</sub>-H, 4500NO<sub>2</sub>-B, 4500NO<sub>3</sub>-F, 4500S-D, 4500SO<sub>3</sub>-B, 5310BCD, 5540C, 9010C, 9040C. Organic Parameters: EPA 3510C, 3630C, 5030B, 625, 624, 608, 8081B, 8082A, 8151A, 8260C, 8270D, 8270D-SIM, 8330, 8015C, NJ-EPH.)

*Solid & Hazardous Waste* (Inorganic Parameters: EPA 350.1, 1010, 1030, 1311, 1312, 3005A, 3050B, 3060A, 6010C, 6020A, 7196A, 7471B, 9010C, 9012B, 9014, 9040B, 9045D, 9050A, 9065, SM 4500NH<sub>3</sub>-BH, 9030B, 9038, 9251. Organic Parameters: 3540C, 3546, 3580A, 3620C, 3630C, 5035, 8015C, 8081B, 8082A, 8151A, 8260C, 8270D, 8270D-SIM, 8330, NJ-EPH.)

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

Refer to MA-DEP Certificate for Potable and Non-Potable Water.

Refer to NJ-DEP Certificate for Potable and Non-Potable Water.

**Texas Commission on Environmental Quality** Certificate/Lab ID: T104704476. **NELAP Accredited.**

*Non-Potable Water* (Inorganic Parameters: EPA 120.1, 1664, 200.7, 200.8, 245.1, 245.2, 300.0, 350.1, 351.1, 353.2, 410.4, 420.1, 6010, 6020, 7196, 7470, 9040, SM 2120B, 2310B, 2320B, 2510B, 2540B, 2540C, 2540D, 426C, 4500CL-E, 4500CN-E, 4500F-C, 4500H+B, 4500NH<sub>3</sub>-H, 4500NO<sub>2</sub>B, 4500P-E, 4500 S<sup>2-</sup> D, 510C, 5210B, 5220D, 5310C, 5540C. Organic Parameters: EPA 608, 624, 625, 8081, 8082, 8151, 8260, 8270, 8330.)

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

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

*Drinking Water* (Inorganic Parameters: EPA 200.7, 200.8, 300.0, 2510B, 2120B, 2540C, 4500CN-CE, 245.2, 2320B, 4500F-C, 4500NO<sub>3</sub>-F, 5310C. Organic Parameters: EPA 504.1, 524.2.)

*Non-Potable Water* (Inorganic Parameters: EPA 120.1, 1664A, 200.7, 200.8, 245.1, 300.0, 3005A, 3015, 1312, 6010B, 6010C, 3060A, 353.2, 420.1, 6020, 6020A, SM4500S-D, SM4500-CN-CE, Lachat 10-204-00-1-X, 7196A, 7470A, 9010B, 9040B, 2310B, 2320B, 2510B, 2540B, 2540C, 3500Cr-D, 426C, 4500Cl-E, 4500F-B, 4500F-C, 4500PE, 510AC, 5210B, 5310B 5310C, 5540C. Organic Parameters: EPA 3510C, 3630C, 5030B, 8260B, 608, 624, 625, 8081A, 8081B, 8082, 8082A, 8151A, 8270C, 8270D, 8270C-SIM, 8270D-SIM, 8330, )

*Solid & Hazardous Waste* (Inorganic Parameters: EPA 1010A, 1030, 3060A, 3050B, 1311, 1312, 6010B, 6010C, 6020, , 7196A, 7471A, 7471B, 6020A, 9030B, 9010B, 9012A, 9014 9040B, 9045C, 9050A, 9065. Organic Parameters: EPA 5030B, 5035, 3540C, 3546, 355B0, 3580A, 3630C, 6020A, 8260B, 8015B, 8015C, 8081A, 8081B, 8082, 8082A, 8151A, 8270C, 8270D, 8270C-SIM, 8270D-SIM, 8330.)

**Department of Defense, L-A-B** Certificate/Lab ID: L2217.

*Drinking Water* (Inorganic Parameters: SM 4500H-B. Organic Parameters: EPA 524.2, 504.1.)

*Non-Potable Water* (Inorganic Parameters: EPA 200.7, 200.8, 6010B, 6010C, 6020, 6020A, 245.1, 245.2, 7470A, 9040B, 9010B, 180.1. 300.0, 332.0, 6860, 353.2, 410.4, 9060, 1664A, SM 4500CN-E, 4500H-B, 4500NO<sub>3</sub>-F, 4500CL-D, 5220D, 5310C, 2130B, 2320B, 2540C, 3005A, 3015, 9010B, 9056, 7196A, 3500-Cr-D. Organic Parameters: EPA 8260B, 8260C, 8270C, 8270D, 8270C-SIM, 8270D-SIM, 8330A, 8082, 8082A, 8081A, 8081B, 3510C, 5030B, MassDEP EPH, MassDEP VPH.)

Page 74 of 76 *Solid & Hazardous Waste* (Inorganic Parameters: EPA 200.7, 6010B, 6010C, 7471A, 6860, 1311, 1312, 3050B, 7196A, 9010B, 9012A, 9040B, 9045C, 3500-CR-D, 4500CN-CE, 2540G, Organic Parameters: EPA 8260B, 8260C, 8270C,

8270D, 8270C-SIM, 8270D-SIM, 8330A/B-prep, 8082, 8082A, 8081A, 8081B, 3540C, 3546, 3580A, 5035A, MassDEP EPH, MassDEP VPH.)

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

**EPA 8260B:** Freon-113, 1,2,4,5-Tetramethylbenzene, 4-Ethyltoluene. **EPA 8330A:** PETN, Picric Acid, Nitroglycerine, 2,6-DANT, 2,4-DANT. **EPA 8270C:** Methyl naphthalene, Dimethyl naphthalene, Total Methyl naphthalenes, Total Dimethyl naphthalenes, 1,4-Diphenylhydrazine (Azobenzene). **EPA 625:** 4-Chloroaniline, 4-Methylphenol. Total Phosphorus in a soil matrix, Chloride in a soil matrix, TKN in a soil matrix, NO<sub>2</sub> in a soil matrix, NO<sub>3</sub> in a soil matrix. **EPA 9071:** Total Petroleum Hydrocarbons, Oil & Grease.

