



**UNITED STATES ENVIRONMENTAL PROTECTION AGENCY**

**Region 1**

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

**CERTIFIED MAIL - RETURN RECEIPT REQUESTED**

September 9, 2015

ARE-MA Region No. 45, LLC  
400 Technology Square, Suite 101  
Cambridge, MA 02139

Re: Authorization to discharge under the Remediation General Permit (RGP) – for the 100 Binney Street site located in Cambridge, Massachusetts; Authorization # MAG910698

To Whom It May Concern:

Based on the review of a Notice of Intent (NOI) that was submitted on your behalf by Haley & Aldrich, Inc. for the site referenced above, the U.S. Environmental Protection Agency (EPA) hereby authorizes AA Will Corporation as the named Operator, to discharge in accordance with the provisions of the RGP from this site via the City of Cambridge storm drain system<sup>1</sup> to the Charles River, a Class B waterbody. The authorization number is listed above. The effective date of coverage is the date of this authorization letter.

The table enclosed with this RGP authorization indicates the pollutants which are required for monitoring. Also indicated on the table are the effluent limits, test methods and minimum levels (MLs) for each pollutant. Please note that the table 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/rgp.html>.

Please note the enclosed table includes parameters that data submitted with the NOI indicated exceed Appendix III limits. The table also includes other parameters for which there was insufficient sensitivity to detect these parameters at the minimum levels (ML) established in Appendix VI of the RGP. Pursuant to Part I, Section C.7., of the RGP, dilution factors may be determined for discharges to fresh waters for use in calculating effluent limits for metals. Based on the information included with the NOI, a dilution factor of 161.9 was used to calculate the water quality-based limit for iron for this

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<sup>1</sup> The operator is responsible for meeting any requirements of the City prior to discharge to their system.

proposed discharge using the total recoverable limits in Appendix III. However, because the technology-based limits for iron in the dilution factor range >100 in Appendix IV of the RGP is more stringent than the calculated water quality-based limit, the technology-based limit applies.

This EPA general permit and authorization to discharge will expire on **September 9, 2015**. However, in accordance with the general permit, your permit coverage is administratively continued until issuance of a new RGP. You have reported this project will terminate on November 1, 2017. Please be aware you are required to reapply for coverage after the EPA expired permit has been reissued. The reapplication submittal date will be posted on the EPA web site at the time of reissuance. Regardless of your project termination date, you are required to submit a Notice of Termination (NOT) to the attention of the contact person indicated below within thirty (30) days of the termination of the discharge.

Thank you in advance for your cooperation in this matter. Please contact George Papadopoulos at (617) 918-1579 or [Papadopoulos.George@epa.gov](mailto:George.Papadopoulos@epa.gov), if you have any questions.

Sincerely,



Thelma Murphy, Chief  
Storm Water and Construction Permits Section

Enclosure

cc: Keith E. Johnson, Haley & Aldrich  
Mark Driscoll, AA Will Corporation  
Robert Kubit, MassDEP  
Jim Wilcox, City of Cambridge

**2010 Remediation General Permit  
Summary of Effluent Limitations**

**Note: All samples are to be collected as grab samples**

<b>NPDES Authorization Number:</b>	<b>MAG910698</b>
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<u>Parameter</u>	<u>Effluent Limit/Method/ML</u> Effluent limits are daily maximum limits, unless denoted by a **, which are monthly average limits
1. Total Suspended Solids (TSS)	30 milligrams/liter (mg/L) **, 160.2/ML 5 µg/L
3. Total Petroleum Hydrocarbons (TPH)	5.0 mg/L/1664A/ML 5 mg/L
4. Cyanide (CN) <sup>2,3</sup>	Freshwater = 5.2 µg/L **/335.4/ML 10µg/L
5. Benzene (B)	5µg/L /50.0 µg/L for hydrostatic testing only/ Me#8260C/ML 2 µg/L
6. Toluene (T)	(limited as µg/L total BTEX)/ 8260C/ ML 2 µg/L
7. Ethylbenzene (E)	(limited as µg/L total BTEX)/ 8260C/ ML 2 µg/L
8. (m,p,o) Xylenes (X)	(limited as µg/L total BTEX)/ 8260C/ ML 2 µg/L
9. Total Benzene, Toluene, Ethyl Benzene, and Xylenes (BTEX) <sup>4</sup>	100 µg/L/ Me#8260C/ ML 2 µg/L
38. Chloride	Monitor Only/300.0/ ML 100 µg/L
22. cis-1,2 Dichloroethene (DCE)	70 µg/L/8260C/ ML 5µg/L
30. 1,4 Dioxane	Monitor Only µg/L/ 624C/ML 50 µg/L
35. Total Group I Polycyclic Aromatic Hydrocarbons (PAH)	10.0 µg/L
a. Benzo(a) Anthracene <sup>7</sup>	0.0038 µg/L /SIM/ML 0.1 µg/L
b. Benzo(a) Pyrene <sup>7</sup>	0.0038 µg/L /SIM/ML 0.1 µg/L
c. Benzo(b)Fluoranthene <sup>7</sup>	0.0038 µg/L /SIM/ML 0.1 µg/L
d. Benzo(k)Fluoranthene <sup>7</sup>	0.0038 µg/L /SIM/ML 0.1 µg/L
e. Chrysene <sup>7</sup>	0.0038 µg/L /SIM/ML 0.1 µg/L
f. Dibenzo(a,h)anthracene <sup>7</sup>	0.0038 µg/L /SIM/ML 0.1 µg/L
g. Indeno(1,2,3-cd) Pyrene <sup>7</sup>	0.0038 µg/L /SIM/ML 0.1 µg/L
36. Total Group II Polycyclic Aromatic Hydrocarbons (PAH)	100 µg/L
h. Acenaphthene	limited as µg/L total Group II PAHs/8270D, 610 or 625/ML 5 µg/L
i. Acenaphthylene	limited as µg/L total Group II PAHs /8270D, 610 or 625/ML 5 µg/L
j. Anthracene	limited as µg/L total Group II PAHs /8270D, 610 or 625/ML 5 µg/L



<u>Parameter</u>	<u>Effluent Limit/Method/ML</u> Effluent limits are daily maximum limits, unless denoted by a **, which are monthly average limits	
k. Benzo(ghi) Perylene	limited as µg/L total Group II PAHs /8270D, 610 or 625/ML 5 µg/L	
l. Fluoranthene	limited as µg/L total Group II PAHs /8270D, 610 or 625/ML 5 µg/L	
m. Fluorene	limited as µg/L total Group II PAHs /8270D, 610 or 625/ML 5 µg/L	
n. Naphthalene <sup>5</sup>	20 µg/L /8270, 610 or 625/ML 5 µg/L	
o. Phenanthrene	limited as µg/L total Group II PAHs /8270D, 610 or 625/ML 5 µg/L	
p. Pyrene	limited as µg/L total Group II PAHs /8270D, 610 or 625/ML 5 µg/L	
<u>Metal Parameters</u>	<u>Total Recoverable Metal Limit</u> µg/l	<u>Minimum level=ML</u> <sup>11</sup>
	<u>Freshwater Limits</u>	
51. Iron	5,000	20
<u>Other Parameters</u>	<u>Limit</u>	
52. Instantaneous Flow	Site-specific cubic feet/second (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>12</sup>	

Footnotes:

<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 µg/L and 1.0 µg/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 µg/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>7</sup> Although the maximum value for the individual PAH compounds is 0.0038 µg/L, the compliance limits are equal to the minimum level (ML) of the test method used as listed in Appendix VI.

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

<sup>11</sup> The 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 MLs required by this permit are included in Appendix VI.

<sup>12</sup> pH sampling for compliance with permit limits may be performed using field methods as provided for in EPA test Method 150.1.



HALEY & ALDRICH, INC.  
465 Medford Street, Suite 2200  
Boston, MA 02129  
(617) 886.7400

4 September 2015  
File No. 34250-043

US Environmental Protection Agency  
5 Post Office Square, Suite 100  
Mail Code OEP06-4  
Boston, Massachusetts 02109-3912

Attention: Ms. Shelly Puleo

Subject: Notice of Intent (NOI)  
Temporary Construction Dewatering  
100 Binney Street  
Cambridge, Massachusetts

Dear Ms. Puleo:

On behalf of the project developer, Alexandria Real Estate Equities, Inc. (ARE), 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 the proposed site development which includes construction of a ten-story building with two to three levels of below-grade parking located at 100 Binney Street in Cambridge, Massachusetts. Also, an addition to the adjacent 41 Linskey Way building is planned as part of the site redevelopment. Refer to Figure 1 – Project Locus. We anticipate construction dewatering will be conducted, as necessary, during foundation construction and below-grade excavation.

The location of the site is shown on Figure 2 – Subsurface Exploration Location Plan and Proposed Dewatering Discharge Routes. Site grades range from approximately El. 21 to El. 23.5.<sup>1</sup> The site was formerly a paved parking lot bordered by Binney Street to the north, Second Street to the east, Linskey Way to the south and the existing building at 300 Third Street to the west. The site began construction in July 2015. Dewatering is anticipated to start in November 2015, and will continue through approximately mid-2017.

## SITE HISTORY

Information on site history is based on Sanborn Maps, available historical plans, and reports prepared by others, as well as Haley & Aldrich project files relating to property at and in the vicinity of the site. The information includes the property formerly addressed as 77 Linskey Way (west portion of the site) and a portion of property on which a building known as 41 Linskey Way is located (east portion of the site).

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<sup>1</sup> Elevations reported herein are in feet and reference the Cambridge City Base (CCB) datum, which is 10.84 ft below the National Geodetic Vertical Datum of 1929 (NGVD).

The site was formerly marshlands associated with the Charles River until about 1888. The 1900 Sanborn Map shows that the westerly portion of the site was occupied by a contractor's yard and two small buildings, indicating that the site had been filled and developed between 1888 and 1900. Previous reports for the westerly portion of the site indicate that during the 1910s and 1920s, the property was used for storage of metal goods and possibly metal goods production. The 1934 Sanborn Map also shows the property as being occupied by a contractor's yard and several small storage buildings. By 1950, the contractor's yard was converted to a parking lot. The 77 Linksey Way portion of the site is depicted similarly in the 1986 to 1992 Sanborn Maps. By 1995, the two existing buildings were demolished and the entire site, including the easterly portion of the site (formerly part of 41 Linskey Way), was converted to a parking lot. The use of the site has remained unchanged since 1995 until commencement of recent construction.

Development of the 41 Linskey Way parcel (a portion of which is now the easterly portion of the 100 Binney Street property) began in 1907 under the ownership of New England Maple Syrup Company. In 1917, the 41 Linskey Way property was purchased by Crew Levick Company, which used the property as an oil and grease store. The property was then purchased by Cities Service Refining Corporation in 1930. The 1934 Sanborn Map indicates that the property was occupied by Cities Service Refining Company to store and dispense oil and grease. Two buried oil tanks in the northern corner of the property and one tank located just east of the other two buried oil tanks are also shown on the 1934 Sanborn Map. The Cities Service Refining Company continued to occupy the property until 1955, when it was sold to Mezuries Corporation. Steven C. Kletjian, Trustee of USC Realty Trust, purchased the property in April of 1983. Three underground storage tanks (USTs) on the property were removed and disposed of off-site during renovations of the existing building for office use in 1983. The building at 41 Linskey Way is currently used for office space.

## **MASSACHUSETTS MCP REGULATORY BACKGROUND**

Several Massachusetts Department of Environmental Protection (MassDEP) Release Tracking Numbers (RTNs) are associated with the site, as described below. Management of soil and groundwater at the 100 Binney Street site are being conducted under Release Abatement Measure (RAM) Plans filed in May and June 2015. Management of soil and groundwater at the addition to the 41 Linskey Way building will be conducted under a forthcoming RAM Plan.

### **RTN 3-4570 (Off-site Release; MGP Residuals)**

RTN 3-4570 is associated with manufactured gas plant (MGP) residuals and dense non-aqueous phase liquid (DNAPL) in the subsurface that originated from a former MGP located at 363/364 Third Street (RTN 3-4570). A portion of this release is located within the limits of the site. A Class C-2 Response Action Outcome (RAO) was filed in May 2010 for this portion of the MGP release. The entity responsible for the MGP release, BMR-Kendall Development, LLC filed a Tier II Extension and Periodic Review for RTN 3-4570 on 4 June 2015.



**RTN 3-26303 (DPS RTN Associated with MGP Release, RTN 3-4570)**

RTN 3-26303 pertains to the discovery at the site of DNAPL coal tar in an on-site well resulting from migration of MGP residuals from the former MGP at 364 Third Street. A Downgradient Property Status (DPS) Opinion was filed in December 2006 by the Church of Latter Day Saints (LDS), a previous land owner. A Revised DPS prepared by Haley & Aldrich, Inc. (Haley & Aldrich) on behalf of ARE was submitted to MassDEP in August 2014. The Revised DPS includes new information gathered at the site by ARE during the period 2011 to June 2014 to further delineate the extent of the MGP contaminants and assesses the impacts of the MGP contaminants on the planned development of the Site.

**RTN 3-22547 (100 Binney Street ; Historic Fill)**

RTN 3-22547 was initially reported as a release of petroleum hydrocarbons in shallow fill (historical release) at the site. Subsequent investigations encountered Volatile Organic Compounds (VOCs) in soil and groundwater, Polycyclic Aromatic Hydrocarbons (PAHs) and metals (arsenic, lead, mercury, barium and cadmium), and/or Extractable and Total Petroleum Hydrocarbons (EPH and TPH) at levels above the applicable Massachusetts Contingency Plan (MCP) Reportable Concentrations (RCS-1) related to historic site usage and filling (urban fill constituents).

RTN 3-22547 achieved a Class C-2 RAO in February 2009. A Revised Class C-2 RAO and a Revised MCP Phase II/III were submitted in January 2013 based on information collected at the site, including data from the 41 Linskey Way property (See RTNs 3-32191 and 3-03646 below). A Tier II Extension was filed by ARE for RTN 3-22547 on 13 April 2015.

**RTN 3-2075 (300 Third Street; Xylenes Release)**

RTN 3-2075 pertains to a release of mineral spirits (xylenes) at the adjacent 300 Third Street property (to the west of the subject site). A Class C-2 RAO was submitted for RTN 3-2075 in October 2012. Class C Status Reports are being filed with MassDEP every 6 months. A Tier II Extension was also filed on 10 June 2015 by ARE-MA Region No. 28, LLC for RTN 3-2075 for conduct of response action within the portion of this release located within the 100 Binney Street property.

**RTN 3-32191 (41 Linskey Way, LNAPL Release)**

RTN 3-32191 is related to discovery of light non-aqueous phase liquid (LNAPL) greater than ½ inch in observation well ENV-19 in 2014. Haley & Aldrich provided verbal notification to MassDEP of this release as a 72-hour reporting condition under the MCP, 310 CMR 40.0314. ENV-19 (shown on Figure 2) was installed in 2010 at the location of former USTs that were removed from the 41 Linskey Way parking lot in 1983. Immediate Response Action (IRA) activities included assessment, LNAPL recovery and monitoring. IRA activities were completed in September 2014, and RTN 3-32191 was linked to the site RTN 3-22547. This RTN is now closed. The LNAPL condition is a reoccurrence of a historic release (RTN 3-3646), described below.

### **RTN 3-3646 (41 Linskey Way; Petroleum)**

RTN 3-3646 pertains to a release of oil, as documented by measurable thickness of LNAPL, dissolved petroleum constituents in groundwater and soil contamination encountered in 1991 (from the USTs removed in 1983 mentioned above) by the former property owner, USC Realty Trust. A Class A-2 RAO was achieved for RTN 3-3646 in 2001.

### **TEMPORARY CONSTRUCTION DEWATERING NOTICE OF INTENT**

A total of 38 groundwater samples have been collected at the site between March 2009 and April 2015. Samples were submitted to Alpha Analytical, Inc. (Alpha) of Westborough, Massachusetts for analysis for one or more of the following NPDES permit parameters: VOCs, Semi-Volatile Organic Compounds (SVOCs), EPH, Volatile Petroleum Hydrocarbons (VPH), total metals, dissolved metals, TPH, pesticides, polychlorinated biphenyls (PCBs), Total Suspended Solids (TSS), pH, chloride, total cyanide (free and amenable cyanide were also analyzed), total phenolics and total residual chlorine. The analytical results identified concentrations of total and dissolved iron, total and free cyanide, VOCs, PAHs and TSS above applicable NPDES RGP Effluent Limits. The results of water quality testing conducted at the site to date are summarized in Table I – Summary of Groundwater Quality Data. The locations of the observation wells are shown on Figure 2.

A concrete diaphragm wall (slurry wall) is planned to provide groundwater cut-off and temporary excavation support as well as serve as the permanent foundation wall. Dewatering will be conducted from sumps or wells located inside the slurry wall. Dewatering is necessary to control groundwater, seepage, precipitation, and surface water runoff and construction-generated water to enable below-grade construction activities in-the-dry. Construction activities are underway; dewatering is anticipated to begin around November 2015 and continue through mid-2017.

Prior to discharge, collected water will be routed through a sedimentation tank with an oil/water separator component (baffles) and bag filters, at a minimum, to remove suspended solids and undissolved chemical constituents. Supplemental pretreatment may be required to meet discharge criteria; refer to Figure 3 – Proposed Treatment System Schematic. Supplemental pretreatment may include oil/water separators and ion exchange and/or granular activated carbon (GAC) as required. Construction dewatering under this RGP NOI will include piping and discharge to storm drains located near the site. Depending on the discharge point used for dewatering, drains travel south and discharge at outfall D51 to the Broad Canal and then to the Charles River, or to the east to Binney Street trunkline which flows to the Charles River at outfall CAM 017. The proposed discharge locations and routes are shown on Figure 2.

### **DILUTION FACTOR APPLICATION FOR METALS**

A Dilution Factor (DF) was calculated for the detected levels of total metals greater than the applicable effluent limits. The DF is applicable to iron, and the calculated DF was used to find the appropriate Dilution Range concentrations for these metals. The DF was calculated using the following equation:

$$DF = (Q_d + Q_s)/Q_d$$

Where  $Q_d$  is the maximum discharge flow rate, assumed to be 50 gallons per minute (gpm) or approximately 0.11 cubic feet per second (cfs), and  $Q_c$  is the receiving water flow rate minimum for 7 consecutive days with a recurrence interval of 10 years (7Q10), assumed to be 17.7 cfs<sup>2</sup>. Using these assumed values, the DF is equal to 161.9. According to Appendix IV of the RGP, the ceiling limitation for the calculated dilution factor of 161.9 for iron is 5,000 ug/L. If testing of the dewatering effluent indicates that the iron concentrations are greater than 5,000 ug/L, pretreatment of the dewatering effluent will include an ion exchange unit and/or GAC as shown on Figure 3.

## APPENDICES

The completed "Suggested Notice of Intent" NOI form as provided in the RGP is enclosed in Appendix A. The site developer is ARE. ARE has hired John Moriarty & Associates (JMA) as the General Contractor. A subcontractor has been hired by JMA to conduct the site work, including dewatering activities. The excavation subcontractor will operate the dewatering system. Haley & Aldrich will monitor the Contractor's dewatering activities on behalf of ARE in accordance with the requirements for this NOI submission.

A Best Management Practices Plan (BMPP), which outlines the proposed discharge operations covered under the RGP, is included in Appendix B. Appendices C and D include the National Register of Historic Places and Endangered Species Act Documentation, respectively. Appendix E provides a copy of the City of Cambridge Dewatering Permit Application to be submitted separately to the City of Cambridge. A copy of the groundwater testing laboratory data reports are provided in Appendix F. Appendix G provides the Site Contractor's dewatering submittal which includes details of the proposed dewatering system along with Material Safety Data Sheets (MSDSs) and fact sheets for possible chemical additives or treatments to be used in the treatment system.

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<sup>2</sup> 17.7 cfs based on data collected by the United States Geological Survey (USGS) and published in the "Clean Charles 2005 Water Quality Report, 2003 Core Monitoring Report" prepared by the US EPA Office of Environmental Measurement and Evaluation dated November 2004.



**CLOSING**

Thank you very much for your consideration of this NOI. Please feel free to contact us should you wish to discuss the information contained herein or if you need additional information.

Sincerely yours,  
HALEY & ALDRICH, INC.



Rebecca B. Higgins, P.E.  
Senior Project Manager



Keith E. Johnson, P.E., L.S.P.  
Vice President

Attachments:

- Table I – Summary of Groundwater Quality Data
- Figure 1 – Project Locus
- Figure 2 – Subsurface Exploration Location Plan and Proposed Dewatering Discharge Routes
- Figure 3 – Proposed Treatment System Schematic
- Appendix A – Notice of Intent (NOI) for Remediation General Permit (RGP)
- Appendix B – Best Management Practices Plan (BMPP)
- Appendix C – National Register of Historic Places and Massachusetts Historical Commission Documentation
- Appendix D – Endangered Species Act Documentation
- Appendix E – City of Cambridge Dewatering Permit Application
- Appendix F – Laboratory Data Reports
- Appendix G – Construction Dewatering Submittal prepared by AA Will

- c: ARE-MA Region No. 45, LLC, Attn: Andy Reinach  
Northstar; Attn: Danielle Blake  
John Moriarty & Associates, Attn: Josh Snyder, Steve Leighton, Leo Grace  
City of Cambridge Department of Public Works; Attn: Owen O’Riordan  
Massachusetts Department of Environmental Protection; Attn: Division of Watershed Management



**TABLE I**  
SUMMARY OF GROUNDWATER QUALITY DATA  
100 BINNEY STREET  
CAMBRIDGE, MASSACHUSETTS  
FILE NO. 34250-040

SAMPLE LOCATION SAMPLING DATE	NPDES RGP EFFLUENT LIMITS	2014 RCGW-2 REPORTABLE CONCENTRATIONS	B-201							ENV-17-GW		ENV-19-GW		ENV-20-GW			
			3/24/2009	11/3/2010	12/14/2010	1/4/2011	4/21/2011	7/18/2011	12/21/2012	3/24/2009	11/3/2010	8/27/2013	11/3/2010	3/21/2014	11/3/2010	9/13/2013	3/24/2014
LAB SAMPLE ID(s)			L0903627-09	L1017449-06	L1020041-10	L1100110-01	L1105519-12	L1110813-10	L1223265-01	L0903627-10	L1017449-02	L1316679-02	L1017449-01	L1405989-01 L1407359-01	L1017449-05	L1318099-01	L1406117-01 L1407360-01
ELEVATION RANGE OF WELL SCREEN INTERVAL (FT, CCB)			16.5 TO 1.5	16.5 TO 1.5	16.5 TO 1.5	16.5 TO 1.5	16.5 TO 1.5	16.5 TO 1.5	16.5 TO 1.5	-	12 TO 2	12 TO 2	10.5 TO 0.3	10.5 TO 0.3	11.5 TO 1.5	11.5 TO 1.5	11.5 TO 1.5
<b>Total Metals (mg/L)</b>																	
Antimony	0.0056	NA	ND(0.025)	-	-	-	-	-	-	ND(0.025)	-	-	-	ND(0.01)	-	-	ND(0.001)
Arsenic	0.01	NA	ND(0.0025)	-	-	-	-	-	-	0.009	-	-	-	ND(0.0025)	-	-	0.0091
Barium	NA	NA	0.143	-	-	-	-	-	-	0.122	-	-	-	-	-	-	-
Beryllium	NA	NA	ND(0.0025)	-	-	-	-	-	-	ND(0.0025)	-	-	-	-	-	-	-
Cadmium	0.0002	NA	ND(0.002)	-	-	-	-	-	-	ND(0.002)	-	-	-	ND(0.001)	-	-	ND(0.0001)
Chromium	0.0488	NA	ND(0.005)	-	-	-	-	-	-	ND(0.005)	-	-	-	ND(0.005)	-	-	0.00182
Chromium, Hexavalent	0.0114	NA	-	-	-	-	-	-	-	-	-	-	-	ND(0.005)	-	-	ND(0.005)
Copper	0.0052	NA	-	-	-	-	-	-	-	-	-	-	-	ND(0.005)	-	-	ND(0.0005)
Iron	1	NA	-	-	-	-	-	-	-	-	-	-	-	14	-	-	0.34
Lead	0.0013	NA	ND(0.005)	-	-	-	-	-	-	ND(0.005)	-	-	-	ND(0.0025)	-	-	ND(0.00025)
Mercury	0.0009	NA	ND(0.0001)	-	-	-	-	-	-	ND(0.0001)	-	-	-	ND(0.0001)	-	-	ND(0.0001)
Nickel	0.029	NA	ND(0.0125)	-	-	-	-	-	-	ND(0.0125)	-	-	-	ND(0.0025)	-	-	ND(0.00025)
Selenium	0.005	NA	ND(0.005)	-	-	-	-	-	-	ND(0.005)	-	-	-	ND(0.025)	-	-	ND(0.0025)
Silver	0.0012	NA	ND(0.0035)	-	-	-	-	-	-	ND(0.0035)	-	-	-	ND(0.002)	-	-	ND(0.0002)
Thallium	NA	NA	ND(0.01)	-	-	-	-	-	-	ND(0.01)	-	-	-	-	-	-	-
Vanadium	NA	NA	ND(0.005)	-	-	-	-	-	-	ND(0.005)	-	-	-	-	-	-	-
Zinc	0.0666	NA	ND(0.025)	-	-	-	-	-	-	ND(0.025)	-	-	-	ND(0.05)	-	-	ND(0.005)
<b>Dissolved Metals (mg/L)<sup>8</sup></b>																	
Antimony, Dissolved	NA	8	-	-	-	-	-	-	-	-	ND(0.025)	-	-	-	ND(0.025)	-	-
Arsenic, Dissolved	NA	0.9	-	-	-	-	-	-	-	-	ND(0.0025)	-	-	-	ND(0.0025)	-	-
Barium, Dissolved	NA	50	-	-	-	-	-	-	-	-	0.061	-	-	-	-	-	-
Beryllium, Dissolved	NA	0.2	-	-	-	-	-	-	-	-	ND(0.002)	-	-	-	ND(0.002)	-	-
Cadmium, Dissolved	NA	0.004	-	-	-	-	-	-	-	-	ND(0.002)	-	-	-	ND(0.002)	-	-
Chromium, Dissolved	NA	0.3	-	-	-	-	-	-	-	-	ND(0.005)	-	-	-	ND(0.005)	-	-
Iron, Dissolved	NA	NA	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.18
Lead, Dissolved	NA	0.01	-	-	-	-	-	-	-	-	ND(0.005)	-	-	-	ND(0.005)	-	-
Mercury, Dissolved	NA	0.02	-	-	-	-	-	-	-	-	ND(0.0001)	-	-	-	ND(0.0001)	-	-
Nickel, Dissolved	NA	0.2	-	-	-	-	-	-	-	-	ND(0.0125)	-	-	-	ND(0.0125)	-	-
Selenium, Dissolved	NA	0.1	-	-	-	-	-	-	-	-	ND(0.005)	-	-	-	ND(0.005)	-	-
Silver, Dissolved	NA	0.007	-	-	-	-	-	-	-	-	ND(0.0035)	-	-	-	ND(0.0035)	-	-
Thallium, Dissolved	NA	3	-	-	-	-	-	-	-	-	ND(0.01)	-	-	-	ND(0.01)	-	-
Vanadium, Dissolved	NA	4	-	-	-	-	-	-	-	-	ND(0.005)	-	-	-	ND(0.005)	-	-
Zinc, Dissolved	NA	0.9	-	-	-	-	-	-	-	-	ND(0.025)	-	-	-	ND(0.025)	-	-
<b>PCBs (mg/L)</b>																	
Total PCBs	0.0005	NA	-	-	-	-	-	-	-	-	-	-	ND	-	-	-	ND
<b>Organochlorine Pesticides (mg/L)</b>																	
Total Organochlorine Pesticides	NA	NA	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
<b>General Chemistry</b>																	
pH (SU) <sup>9</sup>	6.5 to 8.3	NA	-	-	-	-	-	-	-	-	-	7	-	-	-	6.57	6.55
Solids, Total Suspended (mg/L)	30	NA	-	-	-	-	-	-	-	-	-	-	-	51	-	-	ND(2.5)
Cyanide, Total (mg/L)	0.0052	0.03	-	-	-	-	-	-	-	-	-	-	-	0.04	-	-	0.096
Cyanide, Free (mg/L)	0.0052	0.03	-	-	-	-	-	-	-	-	-	-	-	ND(0.005)	-	-	0.137
Cyanide, Amenable (mg/L)	NA	NA	-	-	-	-	-	-	-	-	-	-	-	0.029	-	-	0.066
Chloride (mg/L)	Monitor Only	NA	-	-	-	-	-	-	-	-	-	-	-	1730	-	-	740
Chlorine, Total Residual (mg/L)	0.2	NA	-	-	-	-	-	-	-	-	-	-	-	ND(0.01)	-	-	ND(0.01)
Phenolics, Total (mg/L)	0.3	NA	-	-	-	-	-	-	-	-	-	-	-	ND(0.015)	-	-	ND(0.015)
Oil & Grease, Total (mg/L)	NA	NA	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Conductivity (umhos/cm)	NA	NA	-	-	-	-	-	-	-	-	-	2.77	-	-	-	4.33	-
Dissolved Oxygen (mg/L)	NA	NA	-	-	-	-	-	-	-	-	-	0.23	-	-	-	0.13	-
Oxidation Reduction Potential (mV)	NA	NA	-	-	-	-	-	-	-	-	-	-275	-	-	-	-288.6	-
Turbidity (NTU)	NA	NA	-	-	-	-	-	-	-	-	-	3.9	-	-	-	2.76	-

**NOTES & ABBREVIATIONS:**

- "NA" : Not Applicable; "-": Not Analyzed
- ND (0.025) : Not detected; number in parentheses is one-half the laboratory reporting limit
- 1. This table includes only those compounds detected on the dates indicated.
- 3. **Red Bold** values indicate an exceedance of the NPDES RGP criteria.
- 4. **Red Bold ND** values indicate one-half the laboratory reporting limit exceeds the NPDES RGP criteria.
- 5. Total BTEX (Benzene, Toluene, Ethyl Benzene and Xylenes) limited to 0.1 mg/L.
- 6. Total Group II Polycyclic Aromatic Hydrocarbons (PAHs) limited to 0.1 mg/L.
- 7. Total Group I PAHs limited to 0.01 mg/L; individual compounds limited to 0.0000038 mg/L.
- 8. The samples for dissolved metals were field filtered on the dates indicated.
- 9. pH measured in the field on the dates indicated.





SAMPLE LOCATION SAMPLING DATE	NPDES RGP EFFLUENT LIMITS	2014 RCGW-2 REPORTABLE CONCENTRATIONS	ENV-23-GW		MW-57 9/17/2013 L1318330-02 L1318330-02 R1	MW-58			MW-59-GW			MW-60			HA-B2			
			11/3/2010	9/17/2013		1/4/2011	8/28/2013	3/24/2014	11/3/2010	8/28/2013	4/21/2015	12/14/2010	4/21/2011	8/27/2013	9/23/2010	12/14/2010	4/21/2011	8/27/2013
LAB SAMPLE ID(S)			L1017449-04	L1318330-01		L1100110-03	L1316784-01	L1406117-02 L1407360-02	L1017449-03	L1316784-02	L1508174-02 L1508174-02 R1	L1020041-08	L1105519-10	L1316679-03	L1014827-01 L1015553-01	L1020041-09	L1105519-11	L1316679-01
ELEVATION RANGE OF WELL SCREEN INTERVAL (FT, CCB)			-16.3 TO -26.3	-16.3 TO -26.3	12.5 TO 2.5 (EST.)	12.2 TO 2.2 (EST.)	12.2 TO 2.2 (EST.)	12.2 TO 2.2 (EST.)	13.0 TO 3.0 (EST.)	13.0 TO 3.0 (EST.)	13.0 TO 3.0 (EST.)	13.5 TO 3.5 (EST.)	13.5 TO 3.5 (EST.)	13.5 TO 3.5 (EST.)	11.2 TO 1.2	11.2 TO 1.2	11.2 TO 1.2	11.2 TO 1.2
<b>Total Metals (mg/L)</b>																		
Antimony	0.0056	NA	-	-	-	-	-	ND(0.001)	-	-	-	-	-	-	<b>ND(0.025)</b>	-	-	-
Arsenic	0.01	NA	-	-	-	-	-	0.0049	-	-	-	-	-	-	ND(0.0025)	-	-	-
Barium	NA	NA	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Beryllium	NA	NA	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Cadmium	0.0002	NA	-	-	-	-	-	ND(0.0001)	-	-	-	-	-	-	<b>ND(0.0025)</b>	-	-	-
Chromium	0.0488	NA	-	-	-	-	-	0.00592	-	-	-	-	-	-	ND(0.005)	-	-	-
Chromium, Hexavalent	0.0114	NA	-	-	-	-	-	ND(0.005)	-	-	-	-	-	-	-	-	-	-
Copper	0.0052	NA	-	-	-	-	-	ND(0.0005)	-	-	-	-	-	-	-	-	-	-
Iron	1	NA	-	-	-	-	-	<b>4.7</b>	-	-	-	-	-	-	-	-	-	-
Lead	0.0013	NA	-	-	-	-	-	ND(0.00125)	-	-	-	-	-	-	<b>ND(0.005)</b>	-	-	-
Mercury	0.0009	NA	-	-	-	-	-	ND(0.0001)	-	-	-	-	-	-	ND(0.0001)	-	-	-
Nickel	0.029	NA	-	-	-	-	-	0.00422	-	-	-	-	-	-	ND(0.0125)	-	-	-
Selenium	0.005	NA	-	-	-	-	-	ND(0.0025)	-	-	-	-	-	-	<b>ND(0.005)</b>	-	-	-
Silver	0.0012	NA	-	-	-	-	-	ND(0.0002)	-	-	-	-	-	-	<b>ND(0.0035)</b>	-	-	-
Thallium	NA	NA	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Vanadium	NA	NA	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Zinc	0.0666	NA	-	-	-	-	-	ND(0.005)	-	-	-	-	-	-	ND(0.025)	-	-	-
<b>Dissolved Metals (mg/L)<sup>8</sup></b>																		
Antimony, Dissolved	NA	8	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Arsenic, Dissolved	NA	0.9	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Barium, Dissolved	NA	50	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Beryllium, Dissolved	NA	0.2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Cadmium, Dissolved	NA	0.004	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Chromium, Dissolved	NA	0.3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Iron, Dissolved	NA	NA	-	-	-	-	-	4	-	-	-	-	-	-	-	-	-	-
Lead, Dissolved	NA	0.01	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Mercury, Dissolved	NA	0.02	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Nickel, Dissolved	NA	0.2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Selenium, Dissolved	NA	0.1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Silver, Dissolved	NA	0.007	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Thallium, Dissolved	NA	3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Vanadium, Dissolved	NA	4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Zinc, Dissolved	NA	0.9	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
<b>PCBs (mg/L)</b>																		
Total PCBs	0.0005	NA	-	-	-	-	-	ND	-	-	-	-	-	-	ND	-	-	-
<b>Organochlorine Pesticides (mg/L)</b>																		
Total Organochlorine Pesticides	NA	NA	-	-	-	-	-	-	-	-	-	-	-	-	ND	-	-	-
<b>General Chemistry</b>																		
pH (SU) <sup>9</sup>	6.5 to 8.3	NA	-	-	-	-	6.66	6.40	-	6.84	7.1	-	-	8.17	6.8	-	-	6.72
Solids, Total Suspended (mg/L)	30	NA	-	-	-	-	-	ND(2.5)	-	-	-	-	-	-	-	-	-	-
Cyanide, Total (mg/L)	0.0052	0.03	-	-	-	-	-	<b>0.133</b>	-	-	-	-	-	-	-	-	-	-
Cyanide, Free (mg/L)	0.0052	0.03	-	-	-	-	-	<b>0.115</b>	-	-	ND(0.001)	-	-	-	-	-	-	-
Cyanide, Amenable (mg/L)	NA	NA	-	-	-	-	-	ND(0.005)	-	-	0.013	-	-	-	-	-	-	-
Chloride (mg/L)	Monitor Only	NA	-	-	-	-	-	765	-	-	-	-	-	-	-	-	-	-
Chlorine, Total Residual (mg/L)	0.2	NA	-	-	-	-	-	ND(0.01)	-	-	-	-	-	-	-	-	-	-
Phenolics, Total (mg/L)	0.3	NA	-	-	-	-	-	ND(0.015)	-	-	-	-	-	-	-	-	-	-
Oil & Grease, Total (mg/L)	NA	NA	-	-	-	-	-	-	-	-	-	-	-	-	ND(2.2)	-	-	-
Conductivity (umhos/cm)	NA	NA	-	-	-	-	3.42	-	-	3.26	-	-	-	3.95	-	-	-	3.31
Dissolved Oxygen (mg/L)	NA	NA	-	-	-	-	1.02	-	-	0.29	-	-	-	0.71	-	-	-	0.3
Oxidation Reduction Potential (mV)	NA	NA	-	-	-	-	-292	-	-	-28.03	-	-	-	-247	-	-	-	-174
Turbidity (NTU)	NA	NA	-	-	-	-	4	-	-	5	-	-	-	4.66	-	-	-	4.85

**NOTES & ABBREVIATIONS:**

- "NA" : Not Applicable; "-": Not Analyzed
- ND (0.025) : Not detected; number in parentheses is one-half the laboratory reporting limit
- 1. This table includes only those compounds detected on the dates indicated.
- 3. **Red Bold** values indicate an exceedance of the NPDES RGP criteria.
- 4. **Red Bold ND** values indicate one-half the laboratory reporting limit exceeds the NPDES RGP criteria.
- 5. Total BTEX (Benzene, Toluene, Ethyl Benzene and Xylenes) limited to 0.1 mg/L.
- 6. Total Group II Polycyclic Aromatic Hydrocarbons (PAHs) limited to 0.1 mg/L.
- 7. Total Group I PAHs limited to 0.01 mg/L; individual compounds limited to 0.0000038 mg/L.
- 8. The samples for dissolved metals were field filtered on the dates indicated.
- 9. pH measured in the field on the dates indicated.

SAMPLE LOCATION SAMPLING DATE LAB SAMPLE ID(s) ELEVATION RANGE OF WELL SCREEN INTERVAL (FT, CCB)	NPDES RGP EFFLUENT LIMITS	2014 RCGW-2 REPORTABLE CONCENTRATIONS	HA-B10		HA-B15	HA-401 (OW)	HA-402 (OW)		HA-403 (OW)
			9/23/2010 L1014828-01 L1014828-01 R1 L1015554-01	3/20/2014 L1405831-02 L1405832-02	8/27/2013	12/6/2013	12/6/2013	4/21/2015	12/12/2013
			14.2 TO -0.8	14.2 TO -0.8	-60.1 TO -65.1	-26 TO -36	-27 TO -37	-27 TO -37	-34.5 TO -44.5
<b>VOCs (mg/L)</b>									
1,2,4-Trimethylbenzene	NA	100	-	ND(0.001)	ND(0.001)	ND(0.2)	ND(0.01)	ND(0.001)	ND(0.001)
1,3,5-Trimethylbenzene	NA	1	-	ND(0.001)	ND(0.001)	ND(0.2)	ND(0.01)	ND(0.001)	ND(0.001)
4-Methyl-2-pentanone	NA	50	ND(0.005)	ND(0.0025)	ND(0.0025)	ND(0.5)	ND(0.025)	ND(0.0025)	ND(0.0025)
Benzene	Note 5	1	0.0017	ND(0.00025)	ND(0.00025)	6.6	0.66	0.0072	0.001
Carbon disulfide	NA	10	ND(0.0025)	ND(0.001)	ND(0.001)	ND(0.2)	ND(0.01)	0.002	ND(0.001)
cis-1,2-Dichloroethene	0.07	0.02	ND(0.0005)	ND(0.0005)	ND(0.0005)	ND(0.1)	ND(0.005)	ND(0.0005)	ND(0.0005)
Ethylbenzene	Note 5	5	ND(0.0005)	ND(0.0005)	ND(0.0005)	0.58	0.017	ND(0.0005)	ND(0.0005)
Isopropylbenzene	NA	100	-	0.0035	ND(0.001)	ND(0.2)	ND(0.01)	0.0081	ND(0.001)
Methyl tert butyl ether	0.07	5	-	ND(0.001)	ND(0.001)	ND(0.2)	ND(0.01)	ND(0.001)	ND(0.001)
Naphthalene	0.02	0.7	ND(0.0025)	ND(0.001)	ND(0.001)	ND(0.2)	ND(0.01)	ND(0.001)	ND(0.001)
n-Propylbenzene	NA	10	-	ND(0.001)	ND(0.001)	ND(0.2)	ND(0.01)	ND(0.001)	ND(0.001)
sec-Butylbenzene	NA	NA	-	ND(0.001)	ND(0.001)	ND(0.2)	ND(0.01)	ND(0.001)	ND(0.001)
Styrene	NA	0.1	ND(0.0005)	ND(0.0005)	ND(0.0005)	ND(0.1)	ND(0.005)	ND(0.0005)	ND(0.0005)
Tetrahydrofuran	NA	50	-	ND(0.001)	ND(0.001)	ND(0.2)	ND(0.01)	ND(0.001)	ND(0.001)
Toluene	Note 5	40	ND(0.0005)	ND(0.0005)	ND(0.0005)	ND(0.1)	ND(0.005)	ND(0.0005)	ND(0.0005)
Trichloroethene	0.005	0.005	ND(0.0005)	ND(0.0005)	ND(0.0005)	ND(0.1)	ND(0.005)	ND(0.0005)	ND(0.0005)
o-Xylene	Note 5	NA	ND(0.0005)	ND(0.0005)	ND(0.0005)	ND(0.1)	ND(0.005)	ND(0.0005)	ND(0.0005)
p/m-Xylene	Note 5	NA	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.2)	ND(0.01)	ND(0.001)	ND(0.001)
Xylenes (total)	Note 5	3	ND(0.0015)	ND(0.0015)	ND(0.0015)	ND(0.3)	ND(0.015)	ND(0.0005)	ND(0.0015)
<b>Total VOCs</b>	NA	NA	0.0017	0.0035	ND	7.18	0.677	0.0173	0.001
<b>SVOCs by 8270 (mg/L)</b>									
1-Methylnaphthalene	NA	NA	ND(0.0025)	-	-	-	-	-	-
2,4-Dimethylphenol	NA	40	ND(0.005)	-	-	ND(0.0025)	ND(0.0025)	ND(0.0025)	ND(0.0025)
2-Methylnaphthalene	NA	2	ND(0.0025)	-	-	ND(0.0001)	ND(0.0001)	-	ND(0.0001)
2-Methylphenol	NA	50	ND(0.003)	-	-	ND(0.0025)	ND(0.0025)	ND(0.0025)	ND(0.0025)
3-Methylphenol/4-Methylphenol	NA	50	ND(0.003)	-	-	ND(0.0025)	ND(0.0025)	ND(0.0025)	ND(0.0025)
Acenaphthene	Note 6	6	0.0065	-	-	0.012	0.0015	-	ND(0.0001)
Acenaphthylene	Note 6	0.04	ND(0.0025)	-	-	0.0011	0.0048	-	ND(0.0001)
Acetophenone	NA	NA	-	-	-	ND(0.0025)	ND(0.0025)	ND(0.0025)	ND(0.0025)
Dibenzofuran	NA	10	ND(0.0025)	-	-	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)
Fluoranthene	Note 6	0.2	ND(0.0025)	-	-	ND(0.0001)	ND(0.0001)	-	ND(0.0001)
Fluorene	Note 6	0.04	ND(0.0025)	-	-	ND(0.0001)	ND(0.0001)	-	ND(0.0001)
Naphthalene	0.02	0.7	ND(0.0025)	-	-	0.0015	0.00034	-	0.00061
Phenanthrene	Note 6	10	ND(0.0025)	-	-	ND(0.0001)	ND(0.0001)	-	ND(0.0001)
Phenol	0.3	2	ND(0.0035)	-	-	ND(0.0025)	ND(0.0025)	ND(0.0025)	ND(0.0025)
Pyrene	Note 6	0.02	ND(0.0025)	-	-	ND(0.0001)	ND(0.0001)	-	ND(0.0001)
<b>Total SVOCs</b>	NA	NA	0.0065	-	-	0.0146	0.00664	ND	0.00061
<b>SVOCs by 8270-SIM (mg/L)</b>									
1-Methylnaphthalene	NA	NA	-	-	-	-	-	-	-
2-Methylnaphthalene	NA	2	-	-	-	-	-	ND(0.0001)	-
Acenaphthene	Note 6	6	-	-	-	-	-	0.002	-
Anthracene	Note 6	0.03	-	-	-	-	-	ND(0.0001)	-
Benzo(a)pyrene	0.0000038	0.5	-	-	-	-	-	ND(0.0001)	-
Benzo(b)fluoranthene	0.0000038	0.4	-	-	-	-	-	ND(0.0001)	-
Fluoranthene	Note 6	0.2	-	-	-	-	-	ND(0.0001)	-
Fluorene	Note 6	0.04	-	-	-	-	-	ND(0.0001)	-
Indeno(1,2,3-cd)Pyrene	0.0000038	0.1	-	-	-	-	-	ND(0.0001)	-
Naphthalene	0.02	0.7	-	-	-	-	-	0.00043	-
Phenanthrene	Note 6	10	-	-	-	-	-	ND(0.0001)	-
Pyrene	Note 6	0.02	-	-	-	-	-	ND(0.0001)	-
<b>Total SVOCs by 8270-SIM</b>	NA	NA	-	-	-	-	-	0.00573	-
<b>EPH (mg/L)</b>									
C9-C18 Aliphatics	NA	5	-	-	-	ND(0.05)	ND(0.05)	-	ND(0.05)
C19-C36 Aliphatics	NA	50	-	-	-	ND(0.05)	ND(0.05)	-	ND(0.05)
C11-C22 Aromatics	NA	5	-	-	-	0.153	ND(0.05)	-	ND(0.05)
Acenaphthene	Note 6	6	-	-	-	-	-	-	-
Fluorene	Note 6	0.04	-	-	-	-	-	-	-
Naphthalene	0.02	0.7	-	-	-	-	-	-	-
Phenanthrene	Note 6	10	-	-	-	-	-	-	-
<b>VPH (mg/L)</b>									
C9-C10 Aromatics	NA	4	-	-	-	ND(1.25)	ND(0.125)	-	ND(0.025)
C5-C8 Aliphatics	NA	3	-	-	-	4	0.295	-	ND(0.025)
C9-C12 Aliphatics	NA	5	-	-	-	ND(1.25)	ND(0.125)	-	ND(0.025)
Benzene	Note 5	1	-	-	-	-	-	-	-
Ethylbenzene	Note 5	5	-	-	-	-	-	-	-
Naphthalene	0.02	0.7	-	-	-	-	-	-	-
o-Xylene	Note 5	NA	-	-	-	-	-	-	-
p/m-Xylene	Note 5	NA	-	-	-	-	-	-	-
Toluene	Note 5	40	-	-	-	-	-	-	-
<b>TPH (mg/L)</b>	5	5	-	1.28	-	-	-	-	-



**TABLE I**  
SUMMARY OF GROUNDWATER QUALITY DATA  
100 BINNEY STREET  
CAMBRIDGE, MASSACHUSETTS  
FILE NO. 34250-040

SAMPLE LOCATION SAMPLING DATE	NPDES RGP EFFLUENT LIMITS	2014 RCGW-2 REPORTABLE CONCENTRATIONS	HA-B10		HA-B15	HA-401 (OW)	HA-402 (OW)		HA-403 (OW)
			9/23/2010	3/20/2014	8/27/2013	12/6/2013	12/6/2013	4/21/2015	12/12/2013
LAB SAMPLE ID(s)			L1014828-01 L1014828-01 R1 L1015554-01	L1405831-02 L1405832-02	L1316680-01	L1324863-01	L1324863-02	L1508174-03	L1325310-01
ELEVATION RANGE OF WELL SCREEN INTERVAL (FT. CCB)			14.2 TO -0.8	14.2 TO -0.8	-60.1 TO -65.1	-26 TO -36	-27 TO -37	-27 TO -37	-34.5 TO -44.5
<b>Total Metals (mg/L)</b>									
Antimony	0.0056	NA	ND(0.025)	-	-	-	-	-	-
Arsenic	0.01	NA	ND(0.0025)	-	-	-	-	-	-
Barium	NA	NA	-	-	-	-	-	-	-
Beryllium	NA	NA	-	-	-	-	-	-	-
Cadmium	0.0002	NA	ND(0.0025)	-	-	-	-	-	-
Chromium	0.0488	NA	ND(0.005)	-	-	-	-	-	-
Chromium, Hexavalent	0.0114	NA	-	-	-	-	-	-	-
Copper	0.0052	NA	-	-	-	-	-	-	-
Iron	1	NA	-	-	-	-	-	-	-
Lead	0.0013	NA	ND(0.005)	-	-	-	-	-	-
Mercury	0.0009	NA	ND(0.0001)	-	-	-	-	-	-
Nickel	0.029	NA	ND(0.0125)	-	-	-	-	-	-
Selenium	0.005	NA	ND(0.005)	-	-	-	-	-	-
Silver	0.0012	NA	ND(0.0035)	-	-	-	-	-	-
Thallium	NA	NA	-	-	-	-	-	-	-
Vanadium	NA	NA	-	-	-	-	-	-	-
Zinc	0.0666	NA	ND(0.025)	-	-	-	-	-	-
<b>Dissolved Metals (mg/L)<sup>8</sup></b>									
Antimony, Dissolved	NA	8	-	-	-	-	-	-	-
Arsenic, Dissolved	NA	0.9	-	-	-	-	-	-	-
Barium, Dissolved	NA	50	-	-	-	-	-	-	-
Beryllium, Dissolved	NA	0.2	-	-	-	-	-	-	-
Cadmium, Dissolved	NA	0.004	-	-	-	-	-	-	-
Chromium, Dissolved	NA	0.3	-	-	-	-	-	-	-
Iron, Dissolved	NA	NA	-	-	-	-	-	-	-
Lead, Dissolved	NA	0.01	-	-	-	-	-	-	-
Mercury, Dissolved	NA	0.02	-	-	-	-	-	-	-
Nickel, Dissolved	NA	0.2	-	-	-	-	-	-	-
Selenium, Dissolved	NA	0.1	-	-	-	-	-	-	-
Silver, Dissolved	NA	0.007	-	-	-	-	-	-	-
Thallium, Dissolved	NA	3	-	-	-	-	-	-	-
Vanadium, Dissolved	NA	4	-	-	-	-	-	-	-
Zinc, Dissolved	NA	0.9	-	-	-	-	-	-	-
<b>PCBs (mg/L)</b>									
Total PCBs	0.0005	NA	ND	-	-	-	-	-	-
<b>Organochlorine Pesticides (mg/L)</b>									
Total Organochlorine Pesticides	NA	NA	ND	-	-	-	-	-	-
<b>General Chemistry</b>									
pH (SU) <sup>9</sup>	6.5 to 8.3	NA	7	6.38	7.45	7.34	7.6	7.7	9.6
Solids, Total Suspended (mg/L)	30	NA	-	-	-	-	-	-	-
Cyanide, Total (mg/L)	0.0052	0.03	-	-	-	-	-	-	-
Cyanide, Free (mg/L)	0.0052	0.03	-	-	-	-	-	ND(0.001)	-
Cyanide, Amenable (mg/L)	NA	NA	-	-	-	-	-	0.011	-
Chloride (mg/L)	Monitor Only	NA	-	-	-	-	-	-	-
Chlorine, Total Residual (mg/L)	0.2	NA	-	-	-	-	-	-	-
Phenolics, Total (mg/L)	0.3	NA	-	-	-	-	-	-	-
Oil & Grease, Total (mg/L)	NA	NA	ND(2)	-	-	-	-	-	-
Conductivity (umhos/cm)	NA	NA	-	2.876	26.41	7.901	9.991	-	10.63
Dissolved Oxygen (mg/L)	NA	NA	-	-	0.41	0.33	0.31	-	0.4
Oxidation Reduction Potential (mV)	NA	NA	-	-80.8	-194	-132	-147	-	3.9
Turbidity (NTU)	NA	NA	-	1.41	4.1	42.3	20.5	-	81

**NOTES & ABBREVIATIONS:**

"NA" : Not Applicable; "-": Not Analyzed

ND (0.025) : Not detected; number in parentheses is one-half the laboratory reporting limit

1. This table includes only those compounds detected on the dates indicated.

3. **Red Bold** values indicate an exceedance of the NPDES RGP criteria.

4. **Red Bold ND** values indicate one-half the laboratory reporting limit exceeds the NPDES RGP criteria.

5. Total BTEX (Benzene, Toluene, Ethyl Benzene and Xylenes) limited to 0.1 mg/L.

6. Total Group II Polycyclic Aromatic Hydrocarbons (PAHs) limited to 0.1 mg/L.

7. Total Group I PAHs limited to 0.01 mg/L; individual compounds limited to 0.0000038 mg/L.

8. The samples for dissolved metals were field filtered on the dates indicated.

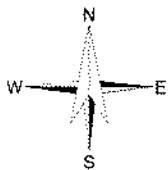
9. pH measured in the field on the dates indicated.





SITE COORDINATES: 42°21'57"N 71°4'52"W

**HALEY ALDRICH** 100 BINNEY STREET DEVELOPMENT  
CAMBRIDGE, MASSACHUSETTS



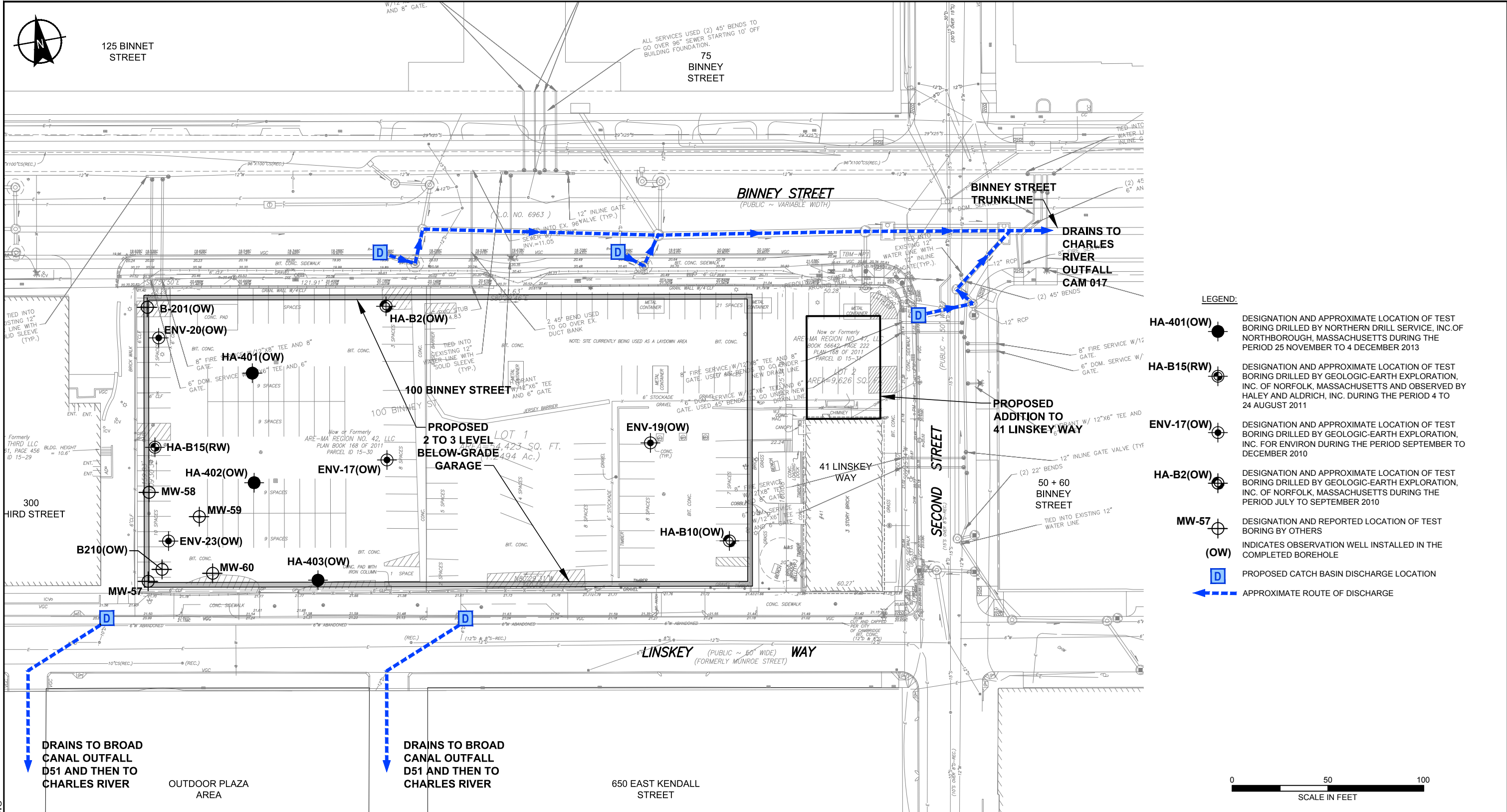
U.S.G.S. QUADRANGLE: BOSTON SOUTH, MA

PROJECT LOCUS

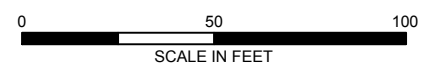
SCALE: 1:24,000  
SEPTEMBER 2015

FIGURE 1





- LEGEND:**
- HA-401(OW)** DESIGNATION AND APPROXIMATE LOCATION OF TEST BORING DRILLED BY NORTHERN DRILL SERVICE, INC. OF NORTHBOROUGH, MASSACHUSETTS DURING THE PERIOD 25 NOVEMBER TO 4 DECEMBER 2013
  - HA-B15(RW)** DESIGNATION AND APPROXIMATE LOCATION OF TEST BORING DRILLED BY GEOLOGIC-EARTH EXPLORATION, INC. OF NORFOLK, MASSACHUSETTS AND OBSERVED BY HALEY AND ALDRICH, INC. DURING THE PERIOD 4 TO 24 AUGUST 2011
  - ENV-17(OW)** DESIGNATION AND APPROXIMATE LOCATION OF TEST BORING DRILLED BY GEOLOGIC-EARTH EXPLORATION, INC. FOR ENVIRON DURING THE PERIOD SEPTEMBER TO DECEMBER 2010
  - HA-B2(OW)** DESIGNATION AND APPROXIMATE LOCATION OF TEST BORING DRILLED BY GEOLOGIC-EARTH EXPLORATION, INC. OF NORFOLK, MASSACHUSETTS DURING THE PERIOD JULY TO SEPTEMBER 2010
  - MW-57** DESIGNATION AND REPORTED LOCATION OF TEST BORING BY OTHERS
  - (OW)** INDICATES OBSERVATION WELL INSTALLED IN THE COMPLETED BOREHOLE
  - D** PROPOSED CATCH BASIN DISCHARGE LOCATION
  - APPROXIMATE ROUTE OF DISCHARGE



- NOTES:**
1. BASE PLAN TAKEN FROM AN ELECTRONIC PLAN TITLED "12517D-TOPO-SUBMIT-6-17-105.dwg", PROVIDED BY VANASSE HANGEN BRUSTLIN, INC. ON 1 JULY 2015.
  2. UTILITIES AND AS-BUILT FEATURES TAKEN FROM AN ELECTRONIC FILE TITLED "Binney Infrastructure\_ASBUILT DEC 2014.dwg", PROVIDED BY KLEINFELDER ON 8 JULY 2015.
  3. ELEVATIONS ARE IN FEET AND REFERENCE THE CAMBRIDGE CITY BASE (CCB) DATUM.
  4. TECHNICAL MONITORING OF THE TEST BORINGS SHOWN ON THIS PLAN WAS PERFORMED BY HALEY & ALDRICH, INC., EXCEPT FOR BORINGS PERFORMED BY OTHERS.
  5. LOCATIONS OF TEST BORINGS HA-B2 AND HA-B10 WERE FIELD SURVEYED BY HARRY R. FELDMAN, INC. LOCATIONS OF OTHER TEST BORINGS SHOWN ON THIS PLAN, EXCEPT FOR BORINGS PERFORMED BY OTHERS, OBTAINED BY HALEY & ALDRICH, INC. BY TAPING TO EXISTING SITE FEATURES.
  6. LOCATION OF PROPOSED SLURRY WALL OBTAINED FROM PLAN TITLED "A1B2 LEVEL B2 PLAN", DATED 6 OCTOBER 2014 AND PREPARED BY ELKUS MANFREDI ARCHITECTS.
  7. LIMITS OF THE PROPOSED ADDITION TO 41 LINSKEY WAY OBTAINED FROM DRAWING TITLED "SK-04 BASEMENT PLAN, ARE INNOVATORS CLUB", PREPARED BY BENTEL & BENTEL AND DATED 16 JUNE 2015.

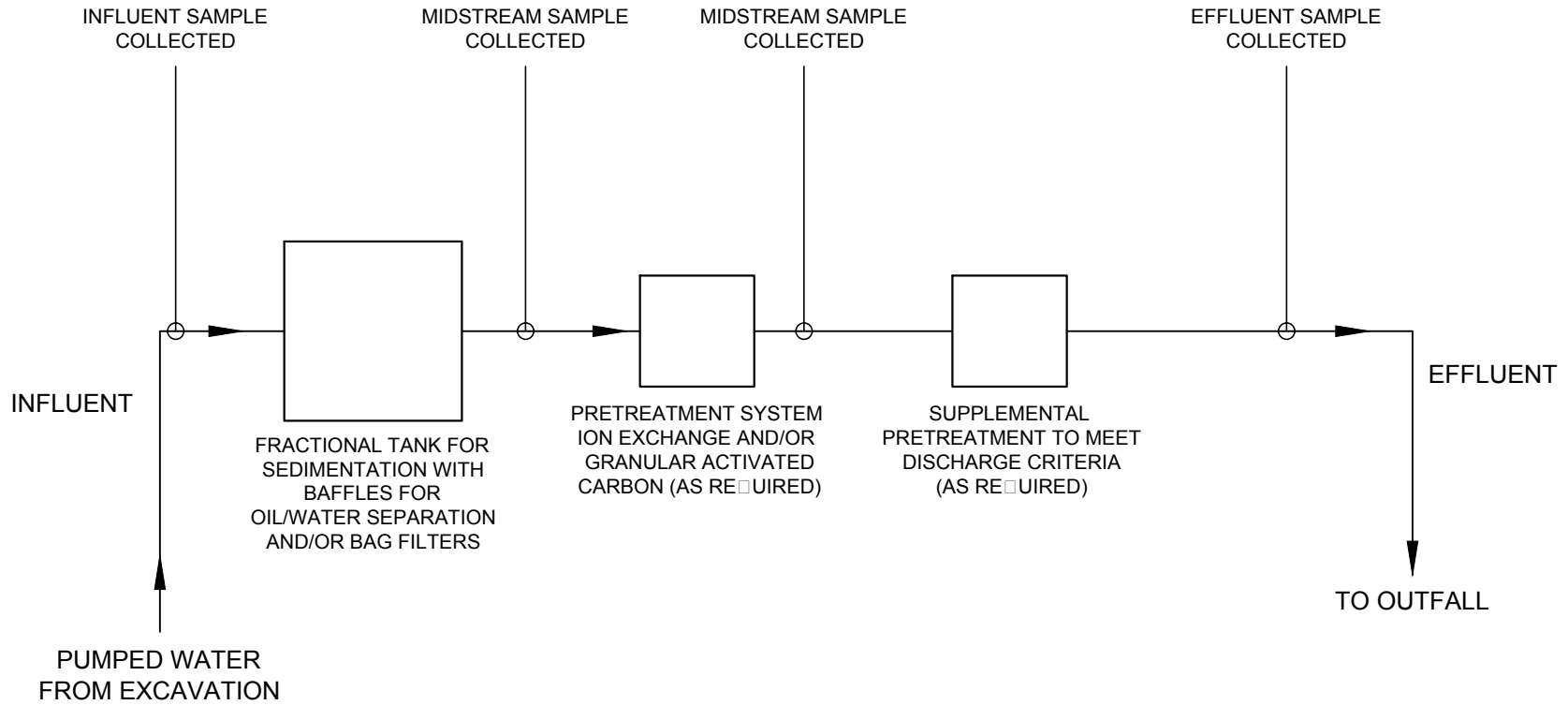
**HALEY ALDRICH** 100 BINNEY STREET DEVELOPMENT  
CAMBRIDGE, MASSACHUSETTS

**SUBSURFACE EXPLORATION  
LOCATION PLAN AND PROPOSED  
DEWATERING DISCHARGE ROUTES**

SCALE: AS SHOWN  
SEPTEMBER 2015

**FIGURE 2**

ERVIN, DAYNA  
 J:\GGRAPHICS\34250\34250-043-B482.DWG  
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 Layout: B482



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**

100 BINNEY STREET DEVELOPMENT  
CAMBRIDGE, MASSACHUSETTS

**PROPOSED TREATMENT SYSTEM  
SCHEMATIC**

SCALE: AS SHOWN  
SEPTEMBER 2015

**FIGURE 3**

**APPENDIX A**

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



**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 <b>facility/site</b> :		<b>Facility/site</b> mailing address:		
Location of <b>facility/site</b> : longitude: _____ latitude: _____	Facility SIC code(s):	Street:		
b) Name of <b>facility/site owner</b> : ARE-MA Region No. 45, LLC		Town:		
Email address of facility/site owner:		State:	Zip:	County:
Telephone no. of facility/site <b>owner</b> :				
Fax no. of facility/site <b>owner</b> :		<b>Owner</b> is (check one): 1. Federal____ 2. State/Tribal____ 3. Private____ 4. Other ____ if so, describe:		
Address of <b>owner</b> (if different from site):				
Street:				
Town:	State:	Zip:	County:	
c) Legal name of <b>operator</b> :		<b>Operator</b> telephone no:		
		<b>Operator</b> fax no.:	<b>Operator</b> email:	
<b>Operator</b> contact name and title:				
Address of <b>operator</b> (if different from owner):		Street:		
Town:	State:	Zip:	County:	

<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___ N___, if Y, number: _____</p> <p>2. Has a prior NPDES application (Form 1 &amp; 2C) ever been filed for the discharge? Y___ N___, if Y, date and tracking #: _____</p> <p>3. Is the discharge a “new discharge” as defined by 40 CFR 122.2? Y___ N___</p> <p>4. For sites in Massachusetts, is the discharge covered under the Massachusetts Contingency Plan (MCP) and exempt from state permitting? Y___ N___</p>	
<p>e) Is site/facility subject to any State permitting, license, or other action which is causing the generation of discharge? Y___ N___</p> <p>If Y, please list:</p> <p>1. site identification # assigned by the state of NH or MA: _____</p> <p>2. permit or license # assigned: _____</p> <p>3. state agency contact information: name, location, and telephone number: _____</p>	<p>f) Is the site/facility covered by any other EPA permit, including:</p> <p>1. Multi-Sector General Permit? Y___ N___, if Y, number: _____</p> <p>2. Final Dewatering General Permit? Y___ N___, if Y, number: _____</p> <p>3. EPA Construction General Permit? Y___ N___, if Y, number: _____</p> <p>4. Individual NPDES permit? Y___ N___, if Y, number: _____</p> <p>5. any other water quality related individual or general permit? Y___ N___, if Y, number: _____</p>
<p>g) Is the site/facility located within or does it discharge to an Area of Critical Environmental Concern (ACEC)? Y___ N___</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>	
<b><u>Activity Category</u></b>	<b><u>Activity Sub-Category</u></b>
I - Petroleum Related Site Remediation	<p>A. Gasoline Only Sites _____</p> <p>B. Fuel Oils and Other Oil Sites (including Residential Non-Business Remediation Discharges) _____</p> <p>C. Petroleum Sites with Additional Contamination _____</p>
II - Non Petroleum Site Remediation	<p>A. Volatile Organic Compound (VOC) Only Sites _____</p> <p>B. VOC Sites with Additional Contamination _____</p> <p>C. Primarily Heavy Metal Sites _____</p>
III - Contaminated Construction Dewatering	<p>A. General Urban Fill Sites _____ RTN 3-22547, RTN 3-2075, RTN 3-26303,</p> <p>B. Known Contaminated Sites _____ RTN 3-3646, RTN 3-32191</p>

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

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

a) Describe the discharge activities for which the owner/applicant is seeking coverage:	
b) Provide the following information about each discharge:	
1) Number of discharge points:	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 _____ Is maximum flow a <b>design value</b> ? Y___ N___ Average flow (include units) _____ Is average flow a design value or estimate? _____
3) Latitude and longitude of each discharge within 100 feet: pt.1: lat. _____ long. _____; pt.2: lat. _____ long. _____; pt.3: lat. _____ long. _____; pt.4: lat. _____ long. _____; pt.5: lat. _____ long. _____; pt.6: lat. _____ long. _____; pt.7: lat. _____ long. _____; pt.8: lat. _____ long. _____; etc.	
4) If hydrostatic testing, total volume of the discharge (gals): _____	5) Is the discharge intermittent ____ or seasonal ____? Is discharge ongoing? Y ___ N _____
c) Expected dates of discharge (mm/dd/yy): start _____ end _____	
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).	

**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.

<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>
1. Total Suspended Solids (TSS)											
2. Total Residual Chlorine (TRC)											
3. Total Petroleum Hydrocarbons (TPH)											
4. Cyanide (CN)	57125										
5. Benzene (B)	71432										
6. Toluene (T)	108883										
7. Ethylbenzene (E)	100414										
8. (m,p,o) Xylenes (X)	108883; 106423; 95476; 1330207										
9. Total BTEX <sup>2</sup>	n/a										
10. Ethylene Dibromide (EDB) (1,2-Dibromoethane) <sup>3</sup>	106934										
11. Methyl-tert-Butyl Ether (MtBE)	1634044										
12. tert-Butyl Alcohol (TBA) (Tertiary-Butanol)	75650										

\* 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										
14. Naphthalene	91203										
15. Carbon Tetrachloride	56235										
16. 1,2 Dichlorobenzene (o-DCB)	95501										
17. 1,3 Dichlorobenzene (m-DCB)	541731										
18. 1,4 Dichlorobenzene (p-DCB)	106467										
18a. Total dichlorobenzene											
19. 1,1 Dichloroethane (DCA)	75343										
20. 1,2 Dichloroethane (DCA)	107062										
21. 1,1 Dichloroethene (DCE)	75354										
22. cis-1,2 Dichloroethene (DCE)	156592										
23. Methylene Chloride	75092										
24. Tetrachloroethene (PCE)	127184										
25. 1,1,1 Trichloro-ethane (TCA)	71556										
26. 1,1,2 Trichloro-ethane (TCA)	79005										
27. Trichloroethene (TCE)	79016										



<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>
28. Vinyl Chloride (Chloroethene)	75014										
29. Acetone	67641										
30. 1,4 Dioxane	123911										
31. Total Phenols	108952										
32. Pentachlorophenol (PCP)	87865										
33. Total Phthalates (Phthalate esters) <sup>4</sup>											
34. Bis (2-Ethylhexyl) Phthalate [Di-(ethylhexyl) Phthalate]	117817										
35. Total Group I Polycyclic Aromatic Hydrocarbons (PAH)											
a. Benzo(a) Anthracene	56553										
b. Benzo(a) Pyrene	50328										
c. Benzo(b)Fluoranthene	205992										
d. Benzo(k)Fluoranthene	207089										
e. Chrysene	21801										
f. Dibenzo(a,h)anthracene	53703										
g. Indeno(1,2,3-cd) Pyrene	193395										
36. Total Group II Polycyclic Aromatic Hydrocarbons (PAH)											

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

<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>
h. Acenaphthene	83329										
i. Acenaphthylene	208968										
j. Anthracene	120127										
k. Benzo(ghi) Perylene	191242										
l. Fluoranthene	206440										
m. Fluorene	86737										
n. Naphthalene	91203										
o. Phenanthrene	85018										
p. Pyrene	129000										
37. Total Polychlorinated Biphenyls (PCBs)	85687; 84742; 117840; 84662; 131113; 117817.										
38. Chloride	16887006										
39. Antimony	7440360										
40. Arsenic	7440382										
41. Cadmium	7440439										
42. Chromium III (trivalent)	16065831										
43. Chromium VI (hexavalent)	18540299										
44. Copper	7440508										
45. Lead	7439921										
46. Mercury	7439976										
47. Nickel	7440020										
48. Selenium	7782492										
49. Silver	7440224										
50. Zinc	7440666										
51. Iron	7439896										
Other (describe): Styrene	100-42-5										

<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>

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

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

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

a) A description of the treatment system, including a schematic of the proposed or existing treatment system:						
b) Identify each applicable treatment unit (check all that apply):	Frac. tank	Air stripper	Oil/water separator	Equalization tanks	Bag filter	GAC filter
	Chlorination	De-chlorination	Other (please describe):			

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

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

a) Identify the discharge pathway:	Direct to receiving water _____	Within facility (sewer) _____	Storm drain _____	Wetlands _____	Other (describe): _____
b) Provide a narrative description of the discharge pathway, including the name(s) of the receiving waters:					
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)? _____ Is there a final TMDL? Y____ N____ If yes, for which pollutant(s)? _____					

**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.

<p>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 ____</p> <p>b) If you selected Criterion D or F, has consultation with the federal services been completed? Y ____ N ____ Underway ____</p> <p>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 ____</p> <p>d) Attach documentation of ESA eligibility as described in the NOI instructions and required by Appendix VII, Part I.C, Step 4.</p>
<p>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 ____</p> <p>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.</p>

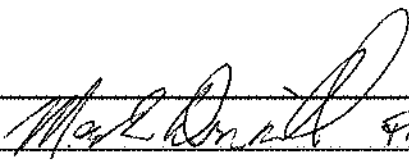
**7. Supplemental information.**

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



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

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

Facility/Site Name:	100 Binney Street
Operator signature:	
Printed Name & Title:	Mark Driscoll  Project Manager
Date:	9/1/15

**APPENDIX B**

**Best Management Practices Plan (BMPP)**

**NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM  
REMEDATION GENERAL PERMIT  
TEMPORARY CONSTRUCTION DEWATERING  
100 BINNEY STREET  
CAMBRIDGE, MASSACHUSETTS**

**Best Management Practices Plan**

A Notice of Intent (NOI) 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 site dewatering planned to occur during proposed construction of a 10-story building with two to three levels of below-grade parking at 100 Binney Street in Cambridge, 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 inside the excavation, inside relatively watertight slurry wall. The treatment system will be designed by the contractor (Refer to Contractor's submittal in Appendix G). Prior to discharge, collected water will likely be routed through a sedimentation tank with an oil/water separator component or bag filters, at a minimum, to remove suspended solids and undissolved chemical constituents. Supplemental pretreatment may be required to meet discharge criteria as shown in the Proposed Treatment System Schematic included in Figure 3. Supplemental pretreatment may include ion exchange and/or granular activated carbon (GAC). Construction dewatering under this RGP NOI will include piping and discharging to storm drains located near the site. Depending on the discharge point used for dewatering, drains travel south and discharge at outfall D51 to the Broad Canal and then to the Charles River, or to the east directly to the Charles River at outfall CAM 017.

**Discharge Monitoring and Compliance**

Regular sampling and testing will be conducted at 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.

**NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM  
REMEDIAION GENERAL PERMIT  
TEMPORARY CONSTRUCTION DEWATERING  
100 BINNEY STREET  
CAMBRIDGE, MASSACHUSETTS**

**System Maintenance**

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

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

**Miscellaneous Items**

Due to the nature of the excavation, erosion control and the nature of the site and surrounding infrastructure, it is not anticipated that there will be any run off into the site from other sources, as well as no run off from the site.

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

No adverse effects of designated water uses of surrounding surface water bodies is anticipated. The Charles River is the nearest surface water body to the site located approximately 0.2 miles from the construction activities on site. As mentioned earlier, the discharged effluent will be pumped directly to a storm drain located near the site and into existing below grade infrastructure.

**Management of Treatment System Materials**

No potential sources of pollutants are anticipated during construction dewatering activities. Dewatering effluent will be pumped directly to the treatment system from the excavation with use of hoses and sumps to minimize handling. The contractor will establish staging areas on the site for any equipment or materials storage which may be possible sources of pollution away from any dewatering activities.

Sediment from the fractionalization tank used in the treatment system will be characterized and disposed of as soil at an appropriate receiving facility in accordance with applicable laws and regulations. If used, ion exchange resin and/or granular activated carbon will be likely recycled and/or manifested to the appropriate receiving facility. Bag filters, if used, will be placed in drums and manifested for off-site disposal.

**APPENDIX C**

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



AC

**The Commonwealth of Massachusetts**  
 William Francis Galvin, Secretary of the Commonwealth  
 Massachusetts Historical Commission

July 9, 2010

Secretary Ian A. Bowles  
 EOEEA  
 MEPA Office  
 100 Cambridge Street, Suite 900  
 Boston, MA 02114

RECEIVED

JUL 9 2010

MEPA

ATTN: Anne Canaday

RE: Blinney Street Project, Alexandria Real Estate Equities, Binney, Rogers, First, Second, Third, Fifth & Sixth Streets, Cambridge, MA; MHC# 47676; EEA#14523

Dear Secretary Bowles:

Staff of the Massachusetts Historical Commission (MHC) have received the Draft Environmental Impact Report (DEIR) for the above referenced project. MHC is also in receipt of comments from the Cambridge Historical Commission (CHC). After a review of the information submitted, MHC staff have the following comments.

This project involves six large parcels that will be developed in eight phases over a period of up to twenty years. The project locations are within the vicinity of four properties that are listed in the State Register of Historic Places: the Bottle House Block (CAM.315), the American Net and Twine Company Factory (CAM.308), the Blake and Knowles Steam Pump Company (CAM.AV), and the Athenaeum Press Building (CAM.147). Several other properties may be considered historic.

This project is also within the vicinity of the Charles River Basin Historic District (CAM.AJ), a State and National Register Historic District.

MHC notes that while this project involves demolition of a number of structures, the project will also retain and rehabilitate four existing buildings. MHC understands from discussions with the Cambridge Historical Commission (CHC) that the project proponent has been working with the CHC on rehabilitation plans and design for the proposed new construction.

In order to make a determination of effect, MHC requests the proponent submit the plans for the rehabilitation work and the new construction to the MHC and the CHC for review and comment. The new construction should be sensitive in design and compatible with the historic architecture of the area.

MHC 1

Please also note that the demolition of any buildings over 50 years old will trigger the demolition permit review and landmark process through the Cambridge Historical Commission. I understand that the CHC has identified the following historic buildings: Aston Steam Valve Company (161-179 First Street), New England Maple Syrup Company (223 Second Street), Galena-Signal Oil

MHC 2

220 Morrissey Boulevard, Boston, Massachusetts 02125  
 (617) 727-8470 • Fax: (617) 727-5128  
 www.state.ma.us/sec/mhc

Company (219 Fifth Street/213 Binney Street), Alden Spear Company (146 Sixth Street), and National Atlantic Research Company (152 Sixth Street), which are included in Section 15 of the DEIR.

These comments are offered to assist in compliance with M.G.L. Chapter 9, Section 26-27C, (950 CMR 71.00) and MEPA. Please do not hesitate to contact Brandee Loughlin of my staff if you have any questions.

Sincerely,



Brona Simon  
State Historic Preservation Officer  
Executive Director  
Massachusetts Historical Commission

xc: Charles Sullivan, Cambridge Historical Commission  
Alexandria Real Estate Equities, Inc.  
Epsilon Associates  
Patrice Kish, DCR  
Marianne Connolly, MWRA  
Lionel Lucien, MADOT  
DEP-NERO



# Massachusetts Historical Commission

William Francis Galvin, Secretary of the Commonwealth

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## 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.](#)**



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# Massachusetts Cultural Resource Information System

## MACRIS

### MACRIS Search Results

Search Criteria: Town(s): Cambridge; Resource Type(s): Area, Object, Burial Ground, Structure, Building;

Inv. No.	Property Name	Street	Town	Year
CAM.A	Cambridge Common Historic District		Cambridge	
CAM.B	Lockhart, William L. and Company Coffin Factory		Cambridge	
CAM.C	Blake and Knowles Steam Pump Company		Cambridge	
CAM.D	Fort Washington Historic District		Cambridge	
CAM.E	East Cambridge Historic District		Cambridge	
CAM.F	Winter Street Historic District		Cambridge	
CAM.G	Cambridge Multiple Resource Area		Cambridge	
CAM.H	Lechmere Point Corporation Houses		Cambridge	
CAM.I	Sacred Heart Church, Rectory, School and Convent		Cambridge	
CAM.J	Upper Magazine Street Historic District		Cambridge	
CAM.K	Hastings Square Historic District		Cambridge	
CAM.L	Salem - Auburn Streets Historic District		Cambridge	
CAM.M	Inman Square Historic District		Cambridge	
CAM.N	Old Cambridgeport Historic District		Cambridge	
CAM.O	Norfolk Street Historic District		Cambridge	
CAM.P	Massachusetts Institute of Technology		Cambridge	
CAM.Q	Central Square Historic District		Cambridge	
CAM.R	Bigelow Street Historic District		Cambridge	
CAM.S	Garfield Street Historic District		Cambridge	
CAM.T	Harvard Street Historic District		Cambridge	
CAM.U	Kirkland Place Historic District		Cambridge	
CAM.V	Maple Avenue Historic District		Cambridge	
CAM.W	City Hall Historic District		Cambridge	
CAM.X	Shady Hill Historic District		Cambridge	
CAM.Y	Ash Street Historic District		Cambridge	
CAM.Z	Avon Hill Historic District		Cambridge	

Inv. No.	Property Name	Street	Town	Year
CAM.AA	Berkeley Street Historic District		Cambridge	
CAM.AB	Harvard Square Historic District		Cambridge	
CAM.AC	Harvard Houses Historic District		Cambridge	
CAM.AD	Harvard Yard Historic District		Cambridge	
CAM.AE	Old Cambridge Historic District		Cambridge	
CAM.AF	Gray Gardens East and West Historic District		Cambridge	
CAM.AG	Memorial Drive Apartments Historic District		Cambridge	
CAM.AH	Follen Street Historic District		Cambridge	
CAM.AI	Bennink - Douglas Cottages		Cambridge	
CAM.AJ	Charles River Basin Historic District		Cambridge	
CAM.AK	Boston Woven Hose and Rubber Complex		Cambridge	
CAM.AL	Fresh Pond		Cambridge	
CAM.AM	Old Cambridge Historic District		Cambridge	
CAM.AN	Harvard Riverfront		Cambridge	
CAM.AO	East Cambridge		Cambridge	
CAM.AP	Hubbard Park Historic District		Cambridge	
CAM.AQ	Davenport - Allen and Endicott Factory		Cambridge	
CAM.AR	Mount Auburn Cemetery		Cambridge	
CAM.AS	Metropolitan Park System of Greater Boston		Cambridge	
CAM.AT	Elmwood (James Russell Lowell House)		Cambridge	
CAM.AU	Christ Church		Cambridge	
CAM.AV	Blake and Knowles Steam Pump Company		Cambridge	
CAM.AW	Alewife Brook Parkway		Cambridge	
CAM.AX	Fresh Pond Parkway		Cambridge	
CAM.AY	Church of the Blessed Sacrament Catholic Church		Cambridge	
CAM.AZ	Immaculate Conception Roman Catholic Church		Cambridge	
CAM.BA	Immaculate Conception (Lithuanian) Catholic Church		Cambridge	
CAM.BB	Orchard Street Area		Cambridge	
CAM.BC	Central Square Historic District		Cambridge	
CAM.BD	Cambridge Common Historic District		Cambridge	
CAM.BE	Old Harvard Yard		Cambridge	
CAM.BF	Berkeley Street Historic District		Cambridge	
CAM.BG	Harvard Square Historic District		Cambridge	
CAM.BH	Volpe Center		Cambridge	
CAM.1	Wyeth, John House	56 Aberdeen Ave	Cambridge	1841
CAM.1009		24 Agassiz St	Cambridge	1889

Inv. No.	Property Name	Street	Town	Year
CAM.1010	Shaw, Edward L. House	30 Agassiz St	Cambridge	1890
CAM.1011	Sands, M. Winslow House	32 Agassiz St	Cambridge	1891
CAM.1012	Blackman, Horace House	33 Agassiz St	Cambridge	1890
CAM.1353	Standard Plate Glass Company Building	270 Albany St	Cambridge	1920
CAM.902	Alewife Brook Parkway Bridge over B & M Railroad	Alewife Brook Pkwy	Cambridge	1929
CAM.903	Alewife Brook Parkway Bridge over B & M Railroad	Alewife Brook Pkwy	Cambridge	1929
CAM.9012	Alewife Brook Parkway - Northern Segment	Alewife Brook Pkwy	Cambridge	1908
CAM.9013	Alewife Brook Parkway Tree Border	Alewife Brook Pkwy	Cambridge	r 1920
CAM.1372	Immaculate Conception Roman Catholic Church	45 Alewife Brook Pkwy	Cambridge	1929
CAM.1373	Immaculate Conception Catholic Church Rectory	45 Alewife Brook Pkwy	Cambridge	1935
CAM.359		6-24 Allston St	Cambridge	1946
CAM.2	Fay, Isaac House	125 Antrim St	Cambridge	1843
CAM.3	Withey, S. B. House	10 Appian Way	Cambridge	1855
CAM.4	Howe, Lois Lilly House	6 Appleton St	Cambridge	1887
CAM.5	Cook, William House	71 Appleton St	Cambridge	1876
CAM.1016		8-10 Arlington St	Cambridge	1864
CAM.1027	Aldrich, Frank A. House	11 Arlington St	Cambridge	1899
CAM.1017		12-14 Arlington St	Cambridge	1864
CAM.1028	Graustein, Adolph H. House	19 Arlington St	Cambridge	1902
CAM.1018		22 Arlington St	Cambridge	1862
CAM.1019	Fillmore, Wellington House	24 Arlington St	Cambridge	1869
CAM.1347		25 Arlington St	Cambridge	
CAM.1020	Moor, Rev. Clark House	26 Arlington St	Cambridge	1869
CAM.1021	Blackman, Horace P. House	28 Arlington St	Cambridge	1876
CAM.1022		30 Arlington St	Cambridge	1876
CAM.1023	Jameson, Edwin A. L. House	32 Arlington St	Cambridge	1872
CAM.1029	Davis, John House	33 Arlington St	Cambridge	1869
CAM.1024		36 Arlington St	Cambridge	1872
CAM.1030	Kelsey, Albert House	37 Arlington St	Cambridge	1875
CAM.1025	Moor, Rev. Clark Double House	38-40 Arlington St	Cambridge	1874
CAM.1026	Boardman, Charles House	42 Arlington St	Cambridge	1871
CAM.1061	Harvard Catholic Student Center	20 Arrow St	Cambridge	c 1890
CAM.1062	Saint Paul's Church	24 Arrow St	Cambridge	r 1920
CAM.784	Brooks, John House	5 Ash St	Cambridge	1887
CAM.6	Johnson, Philip House	9 Ash St	Cambridge	1942
CAM.785	Ela, Lucia House	13 Ash St	Cambridge	1869

Inv. No.	Property Name	Street	Town	Year
CAM.787	Eliot, T. S. House	16 Ash St	Cambridge	1855
CAM.786	Nowell, Henry House	19 Ash St	Cambridge	1825
CAM.788	Hunnewell, James A. House	6 Ash Street Pl	Cambridge	1848
CAM.522		107 Auburn St	Cambridge	1803
CAM.523		108-110 Auburn St	Cambridge	1803
CAM.524		114 Auburn St	Cambridge	c 1844
CAM.525		119 Auburn St	Cambridge	c 1829
CAM.526		122 Auburn St	Cambridge	c 1840
CAM.527		131 Auburn St	Cambridge	c 1830
CAM.528		134 Auburn St	Cambridge	c 1845
CAM.7	Ellis, Asa House	158 Auburn St	Cambridge	1805
CAM.564	Hotel Eliot	66 Austin St	Cambridge	c 1885
CAM.565	Hotel Austin	70 Austin St	Cambridge	c 1885
CAM.8	Brabrook, Ezra H. House	42-44 Avon St	Cambridge	1849
CAM.352	Blake and Knowles Main Foundry	180 Bent St	Cambridge	c 1895
CAM.1035		1 Berkeley Pl	Cambridge	1892
CAM.1036		2 Berkeley Pl	Cambridge	1892
CAM.1037		3 Berkeley Pl	Cambridge	1892
CAM.1038		4 Berkeley Pl	Cambridge	1910
CAM.1039		5 Berkeley Pl	Cambridge	1900
CAM.1040		6 Berkeley Pl	Cambridge	1914
CAM.1041		7 Berkeley Pl	Cambridge	1913
CAM.1042		8 Berkeley Pl	Cambridge	1931
CAM.1043	Pryor - Brown House	1 Berkeley St	Cambridge	1852
CAM.10	Thayer, Prof. Studio	2 1/2 Berkeley St	Cambridge	1894
CAM.1044	Pryor - Howells House	3 Berkeley St	Cambridge	1856
CAM.1045	Dana, Richard H. House	4 Berkeley St	Cambridge	1851
CAM.1046	Wyeth - Allen House	5-7R Berkeley St	Cambridge	1852
CAM.1047		6 Berkeley St	Cambridge	1853
CAM.1048	Ware, Henry House	8 Berkeley St	Cambridge	1859
CAM.1049	Allyn, John House	11 Berkeley St	Cambridge	1886
CAM.1050		12 Berkeley St	Cambridge	1881
CAM.1051		13 Berkeley St	Cambridge	1898
CAM.1052	Williston, Lyman House	15 Berkeley St	Cambridge	1863
CAM.1053		16 Berkeley St	Cambridge	1905
CAM.1054		17 Berkeley St	Cambridge	1863
CAM.1055		19 Berkeley St	Cambridge	1854
CAM.1056	Newell, William House	20 Berkeley St	Cambridge	1856

Inv. No.	Property Name	Street	Town	Year
CAM.1057		21 Berkeley St	Cambridge	1854
CAM.1058	Fiske, John House	22 Berkeley St	Cambridge	1877
CAM.1059		23 Berkeley St	Cambridge	1854
CAM.1060		24 Berkeley St	Cambridge	1936
CAM.1355	Craft, William House	5 Bigelow St	Cambridge	1869
CAM.1356	Sharry, William J. House	5A Bigelow St	Cambridge	1940
CAM.663	Montague, Charles House	6 Bigelow St	Cambridge	1873
CAM.655	Snow, Simeon House	7 Bigelow St	Cambridge	1869
CAM.1360	Rhodes, Silas Jr. House	8 Bigelow St	Cambridge	1871
CAM.656	Pollard, John Double House	9-11 Bigelow St	Cambridge	1874
CAM.664	Hurd, Theodore House	10-12 Bigelow St	Cambridge	1884
CAM.657	Bird, Henry House	13 Bigelow St	Cambridge	1874
CAM.1361	Pike, Walter House	14 Bigelow St	Cambridge	1888
CAM.658	Davis, Curtis House	15 Bigelow St	Cambridge	1873
CAM.1362	Brazier, Abbie House	16 Bigelow St	Cambridge	1874
CAM.659	Whitely, Hiram House	17 Bigelow St	Cambridge	1873
CAM.1363	Sawyer - Dole House	18 Bigelow St	Cambridge	1876
CAM.1357	Oxford, Charles House	19 Bigelow St	Cambridge	1871
CAM.660	Snow - Twitchell Double House	21-23 Bigelow St	Cambridge	1873
CAM.665	Hyde, Edward House	22 Bigelow St	Cambridge	1870
CAM.1348	Robbins Block	24-46 Bigelow St	Cambridge	1871
CAM.661	Jessop, Joseph House	25 Bigelow St	Cambridge	1872
CAM.1358	Jessop Tenement House	29 Bigelow St	Cambridge	1891
CAM.1359	Whitcomb, Peter Double House	31-33 Bigelow St	Cambridge	1872
CAM.662	Davis, John W. House	35 Bigelow St	Cambridge	1870
CAM.1406	Volpe Center - Shipping and Receiving	182 Binney St	Cambridge	1965
CAM.357	Blake and Knowles Machine Shop #2	195 Binney St	Cambridge	1917
CAM.358	Blake and Knowles Machine Shop #3	199 Binney St	Cambridge	1918
CAM.356	Blake and Knowles Erecting and Assembling Building	201 Binney St	Cambridge	1903
CAM.1388		39 Bishop Allen Dr	Cambridge	
CAM.1397	Hotel Greyburn	77 Bishop Allen Dr	Cambridge	1891
CAM.577	Young Women's Christian Association Building	146 Bishop Allen Dr	Cambridge	c 1954
CAM.1386	Squirrel Brand Company Building	8 Boardman St	Cambridge	1915
CAM.11	Slowey, Patrick House	73 Bolton St	Cambridge	1852
CAM.1063	Bicycle Exchange Building	3-7 Bow St	Cambridge	1901
CAM.1064		9 Bow St	Cambridge	1884
CAM.1065	Farwell - Russell, Thomas Store	12 Bow St	Cambridge	c 1830



Inv. No.	Property Name	Street	Town	Year
CAM.1066	Westmorly Court - Harvard University	15-29 Bow St	Cambridge	c 1898
CAM.12	Harvard Lampoon Building	44 Bow St	Cambridge	1909
CAM.1067	Randolph Hall - Harvard University	47-57 Bow St	Cambridge	1897
CAM.13	Frost, Elizabeth Tenant House	35 Bowdoin St	Cambridge	1812
CAM.926	Anderson, Larz Bridge	Boylston St	Cambridge	1915
CAM.14	Hicks, John House	64 Boylston St	Cambridge	c 1761
CAM.294	Radcliffe College Graduate Center	Brattle St	Cambridge	1955
CAM.918	Longfellow Park	Brattle St	Cambridge	1887
CAM.987	Lowell Park	Brattle St	Cambridge	
CAM.1068	Brattle Building	4 Brattle St	Cambridge	1913
CAM.1069	Atrium Building	9-11 Brattle St	Cambridge	1979
CAM.1071		12-16 Brattle St	Cambridge	1887
CAM.1070	Estes Block	13-15 Brattle St	Cambridge	1875
CAM.1072	Dow Block	17-35 Brattle St	Cambridge	c 1936
CAM.1073		18 Brattle St	Cambridge	1922
CAM.1074		26 Brattle St	Cambridge	1909
CAM.1075	Hadley Building	28-36 Brattle St	Cambridge	1974
CAM.1076	Cambridge Federal Savings Bank	38A Brattle St	Cambridge	1937
CAM.1077		39-41 Brattle St	Cambridge	1925
CAM.15	Brattle Hall	40 Brattle St	Cambridge	1889
CAM.1078		40A Brattle St	Cambridge	c 1925
CAM.16	Brattle, William House	42 Brattle St	Cambridge	c 1727
CAM.1079	Sage Building	43-45 Brattle St	Cambridge	1926
CAM.1080		44 Brattle St	Cambridge	1970
CAM.1081		46R Brattle St	Cambridge	1966
CAM.1082		47-49 Brattle St	Cambridge	c 1926
CAM.1083	Design Research Building	48 Brattle St	Cambridge	1969
CAM.1084	Washington Court	51 Brattle St	Cambridge	1905
CAM.17	Pratt, Dexter House	54 Brattle St	Cambridge	1808
CAM.1229	Warland, John House	69 Brattle St	Cambridge	1838
CAM.1230	Greenleaf, James House	76 Brattle St	Cambridge	1859
CAM.1228	Chamberlin, John House	77 Brattle St	Cambridge	1821
CAM.18	Radcliffe College Alumnae House	79 Brattle St	Cambridge	1836
CAM.19	Wadsworth Chambers	81-83 Brattle St	Cambridge	1908
CAM.20	Burleigh House	85 Brattle St	Cambridge	1847
CAM.21	Stoughton, Mary Fisk House	90 Brattle St	Cambridge	1882
CAM.22		92 Brattle St	Cambridge	1882
CAM.23	Vassall, Henry House	94 Brattle St	Cambridge	1635

Inv. No.	Property Name	Street	Town	Year
CAM.24	Episcopal Divinity School - Washburn Hall	99 Brattle St	Cambridge	1960
CAM.25	Saint John's Chapel	99 Brattle St	Cambridge	1868
CAM.26	Episcopal Divinity School Library - Sherrill Hall	99 Brattle St	Cambridge	1965
CAM.27	Episcopal Divinity School - Wright Hall	99 Brattle St	Cambridge	1911
CAM.28	Episcopal Divinity School - Reed Hall	99 Brattle St	Cambridge	1873
CAM.29	Episcopal Divinity School - Lawrence Hall	99 Brattle St	Cambridge	1873
CAM.30	Episcopal Divinity School - Burnham Hall	99 Brattle St	Cambridge	1879
CAM.31	Hastings, Oliver House	101 Brattle St	Cambridge	1844
CAM.32	Longfellow National Historic Site	105 Brattle St	Cambridge	c 1759
CAM.33	Dana, Edith Longfellow House	113 Brattle St	Cambridge	1887
CAM.34		114 Brattle St	Cambridge	1903
CAM.35	Thorp, Annie Longfellow House	115 Brattle St	Cambridge	1887
CAM.36	Worcester, Joseph House	121 Brattle St	Cambridge	1843
CAM.37		121A Brattle St	Cambridge	1941
CAM.38		123 Brattle St	Cambridge	
CAM.39		124 Brattle St	Cambridge	1915
CAM.40		125 Brattle St	Cambridge	1939
CAM.41		126 Brattle St	Cambridge	1890
CAM.1235		127 Brattle St	Cambridge	1970
CAM.42		128 Brattle St	Cambridge	1892
CAM.43		130-130R Brattle St	Cambridge	1886
CAM.44		132 Brattle St	Cambridge	1886
CAM.45	Falxa, Dr. Martin House	133 Brattle St	Cambridge	1970
CAM.46		134-136 Brattle St	Cambridge	1857
CAM.47		138 Brattle St	Cambridge	1930
CAM.48		140 Brattle St	Cambridge	1930
CAM.49		142 Brattle St	Cambridge	1915
CAM.50	Cambridge Armenian Church	143 Brattle St	Cambridge	1959
CAM.51		144 Brattle St	Cambridge	1915
CAM.52	Brewster, William House	145 Brattle St	Cambridge	1887
CAM.53		146 Brattle St	Cambridge	1939
CAM.54		147 Brattle St	Cambridge	1887
CAM.55		148 Brattle St	Cambridge	1914
CAM.56	Lechmere, Richard House	149 Brattle St	Cambridge	c 1762
CAM.57		150 Brattle St	Cambridge	1908
CAM.58		152 Brattle St	Cambridge	1887
CAM.59	Lee, Thomas House	153 Brattle St	Cambridge	1803
CAM.60		154 Brattle St	Cambridge	r 1865



Inv. No.	Property Name	Street	Town	Year
CAM.1236		155 Brattle St	Cambridge	1889
CAM.61		156 Brattle St	Cambridge	1867
CAM.62		158 Brattle St	Cambridge	1884
CAM.63	Hooper - Lee - Nichols House	159 Brattle St	Cambridge	c 1685
CAM.64		160 Brattle St	Cambridge	1884
CAM.65		164 Brattle St	Cambridge	1868
CAM.1237	Bartlett, John House	165 Brattle St	Cambridge	1873
CAM.66	Van Brunt, Henry House	167 Brattle St	Cambridge	1883
CAM.67		168 Brattle St	Cambridge	1888
CAM.68	Wells, Judge Daniel House	170 Brattle St	Cambridge	1852
CAM.69		174 Brattle St	Cambridge	1885
CAM.70	Marrett - Ruggles - Fayerweather House	175 Brattle St	Cambridge	r 1765
CAM.1238	Fayerweather House Squash Court and Garage	177 Brattle St	Cambridge	1915
CAM.71		180 Brattle St	Cambridge	1888
CAM.72	Richards, R. A. House	182 Brattle St	Cambridge	1895
CAM.73		190 Brattle St	Cambridge	1898
CAM.74	Frankfurter, Justice Felix House	192 Brattle St	Cambridge	1907
CAM.75		193 Brattle St	Cambridge	1893
CAM.76		194 Brattle St	Cambridge	1917
CAM.77		195 Brattle St	Cambridge	1896
CAM.78		198 Brattle St	Cambridge	1912
CAM.79	Stubbins, Hugh House	199 Brattle St	Cambridge	1966
CAM.80		200 Brattle St	Cambridge	1901
CAM.81		202 Brattle St	Cambridge	1903
CAM.82		205 Brattle St	Cambridge	r 1925
CAM.83		209 Brattle St	Cambridge	r 1925
CAM.84		213-215 Brattle St	Cambridge	1896
CAM.85	Frost, Robert House	29-35 Brewster St	Cambridge	1884
CAM.1402	Volpe Center - Auditorium	33 Broadway	Cambridge	c 1965
CAM.86	Cambridge Public Library	449 Broadway	Cambridge	1888
CAM.515		301 Brookline Ave	Cambridge	1869
CAM.516		302 Brookline Ave	Cambridge	1887
CAM.517		308 Brookline Ave	Cambridge	1870
CAM.623	Southwick Block	11-19 Brookline St	Cambridge	1911
CAM.88	Brown, Daniel House	7 Brown St	Cambridge	1845
CAM.89	Hill, Aaron House	17 Brown St	Cambridge	c 1754
CAM.708		1 Bryant St	Cambridge	1911
CAM.709		5 Bryant St	Cambridge	1916

Inv. No.	Property Name	Street	Town	Year
CAM.710		7 Bryant St	Cambridge	1915
CAM.711		20-24 Bryant St	Cambridge	1916
CAM.712		21 Bryant St	Cambridge	1932
CAM.90	Bridgman, Percy House	10 Buckingham Pl	Cambridge	c 1920
CAM.91	Koch, Carl House	4 Buckingham St	Cambridge	1939
CAM.92	Higginson, Col. Thomas Wentworth House	29 Buckingham St	Cambridge	1880
CAM.941	Bridge, John Statue	Cambridge Common	Cambridge	1882
CAM.942	Memorial Gateway	Cambridge Common	Cambridge	1906
CAM.943	Revolutionary War Cannons	Cambridge Common	Cambridge	c 1770
CAM.944	Soldiers Monument	Cambridge Common	Cambridge	1869
CAM.906	Cambridge Parkway Bridge over Broad Canal	Cambridge Pkwy	Cambridge	1957
CAM.931	Cambridge Parkway	Cambridge Pkwy	Cambridge	1900
CAM.97	Memorial Hall	Cambridge St	Cambridge	r 1875
CAM.379	Middlesex County Registry of Deeds Building	Cambridge St	Cambridge	1896
CAM.380	Middlesex County Clerk of Courts Building	Cambridge St	Cambridge	1889
CAM.912	Longfellow Bridge - West Boston Bridge	Cambridge St	Cambridge	c 1907
CAM.914	Lechmere Square Streetcar Station	Cambridge St	Cambridge	1922
CAM.372		82-84 Cambridge St	Cambridge	1937
CAM.373	Davenport, A. H. - Irving and Casson Company	88-134 Cambridge St	Cambridge	1866
CAM.378		160 Cambridge St	Cambridge	1965
CAM.93	East Cambridge Savings Bank	292 Cambridge St	Cambridge	1931
CAM.94	Union Railway Car Barn	613-621 Cambridge St	Cambridge	1869
CAM.535		1353-1369 Cambridge St	Cambridge	1894
CAM.532	Waite Building	1368 Cambridge St	Cambridge	1855
CAM.533	Middlesex Bank Building	1374-1385 Cambridge St	Cambridge	1874
CAM.95		1707-1709 Cambridge St	Cambridge	1845
CAM.96		1715-1717 Cambridge St	Cambridge	1845
CAM.635	Holmes Block II - Green Block	2-14 Central Sq	Cambridge	1798
CAM.636	Home Realty Building	14 Central Sq	Cambridge	1970
CAM.639	Southwick Building I	15-16 Central Sq	Cambridge	1896
CAM.640	Southwick Building II	17-24 Central Sq	Cambridge	c 1860
CAM.641	White Tower Restaurant	25 Central Sq	Cambridge	1932
CAM.98	Melvin, Isaac House	19 Centre St	Cambridge	1842
CAM.99	Boston and Maine Railroad Signal Tower A	Charles River	Cambridge	1931
CAM.911	Charles River Railroad Draw Bridge #1	Charles River	Cambridge	1931
CAM.920	Charles River Dam	Charles River	Cambridge	r 1905
CAM.925	Weeks, John Wingate Foot Bridge	Charles River	Cambridge	1927
CAM.928	Lechmere Canal	Charles River	Cambridge	1909

Inv. No.	Property Name	Street	Town	Year
CAM.929	Broad Canal	Charles River	Cambridge	1805
CAM.932	Charles River Basin Granite Seawall and Iron Fence	Charles River	Cambridge	
CAM.935	Metropolitan District Commission Swimming Pool	Charles River	Cambridge	
CAM.1320	Metropolitan District Commission Chlorination Plant	Charles River	Cambridge	
CAM.1325	M. I. T. - Pierce, Harold Whitworth Boat House	Charles River	Cambridge	1965
CAM.1326	M. I. T. - Wood, Walter C. Sailing Pavillion	Charles River	Cambridge	1976
CAM.1328	Riverside Boat Club	Charles River	Cambridge	r 1910
CAM.543	Boardman, James Double House	Cherry St	Cambridge	1843
CAM.100	Fuller, Margaret House	71 Cherry St	Cambridge	1806
CAM.546		87 Cherry St	Cambridge	c 1845
CAM.545		116-120 Cherry St	Cambridge	c 1845
CAM.544	Eaton, Jacob House	128 Cherry St	Cambridge	c 1844
CAM.542		137-139 Cherry St	Cambridge	c 1840
CAM.537		149-151 Cherry St	Cambridge	c 1830
CAM.538		159-161 Cherry St	Cambridge	c 1830
CAM.547		167 Cherry St	Cambridge	1850
CAM.548		169 Cherry St	Cambridge	1850
CAM.101	Kingsley, Chester House	10 Chester St	Cambridge	1866
CAM.518		105 Chestnut St	Cambridge	1875
CAM.519		111 Chestnut St	Cambridge	1875
CAM.102	First Parish Church, Unitarian	1-3 Church St	Cambridge	1833
CAM.103		23-25 Church St	Cambridge	1936
CAM.1085		26-28 Church St	Cambridge	1857
CAM.104		27-29 Church St	Cambridge	1922
CAM.105	Cambridge Police Station	31-33 Church St	Cambridge	1864
CAM.1086	Oxford Grill	32-42 Church St	Cambridge	1931
CAM.1087	Hancock - Torrey House	53 Church St	Cambridge	1827
CAM.1088		54-56 Church St	Cambridge	1925
CAM.1089		59-63 Church St	Cambridge	1949
CAM.1377	Cambridge Almshouse Caretaker's House	36 Churchill Ave	Cambridge	c 1886
CAM.106	Gale, George House	14-16 Clinton St	Cambridge	c 1853
CAM.1387		41-43 Columbia St	Cambridge	
CAM.107	Beth Israel Synagogue	238 Columbia St	Cambridge	1901
CAM.908	Commercial Avenue Bridge over Lechmere Canal	Commercial Ave	Cambridge	1907
CAM.1318	Metropolitan District Commission Stables	Commercial Ave	Cambridge	
CAM.336		3 Concord Ave	Cambridge	1915

Inv. No.	Property Name	Street	Town	Year
CAM.337		5 Concord Ave	Cambridge	c 1917
CAM.108	Howells, William Dean House	37 Concord Ave	Cambridge	1873
CAM.1365	Cambridge Home for the Aged and Infirm	650 Concord Ave	Cambridge	1928
CAM.109	Orne, Sarah House	10 Coolidge Hill Rd	Cambridge	1807
CAM.110	Coolidge, Josiah House	24 Coolidge Hill Rd	Cambridge	c 1822
CAM.111	Holmes, Joseph House	144 Coolidge Hill St	Cambridge	1801
CAM.600	Coolidge, Flavel House	2 Coolidge Pl	Cambridge	1834
CAM.1369	Blessed Sacrament Roman Catholic Parish School	12 Corporal McTernan St	Cambridge	1924
CAM.112	Valentine Soap Workers' Cottage	5-7 Cottage St	Cambridge	1835
CAM.1212	Mather House - Harvard University	Cowperthwaite St	Cambridge	1967
CAM.113	Birkhoff, George D. House	22 Craigie St	Cambridge	r 1870
CAM.114	Ross, Denman House	24-26 Craigie St	Cambridge	1869
CAM.115		25 Craigie St	Cambridge	1856
CAM.116	Horsford, Eben House	27 Craigie St	Cambridge	1854
CAM.333	Day, Anna House	139 Cushing St	Cambridge	1856
CAM.117	Colburn, Sara Foster House	7 Dana St	Cambridge	1841
CAM.118	University Museum	11-25 Divinity Ave	Cambridge	1859
CAM.119	Divinity Hall	12 Divinity Ave	Cambridge	1825
CAM.120	Biological Laboratory	16 Divinity Ave	Cambridge	1930
CAM.121	Second Cambridge Savings Bank Building	11-21 Dunster St	Cambridge	1897
CAM.1090	Union Railway Car barn	25-33 Dunster St	Cambridge	1860
CAM.1091	Second D. U. Club	45 Dunster St	Cambridge	1930
CAM.1092	Metcalf, Eliab Wight House	46 Dunster St	Cambridge	1820
CAM.1093	Edwards, Abraham - Moore, Mary House	53 Dunster St	Cambridge	1841
CAM.1094	Alpha Sigma Phi Club	54 Dunster St	Cambridge	1900
CAM.122	Wyeth, Augustus House	69 Dunster St	Cambridge	1829
CAM.1095		71-77 Dunster St	Cambridge	1894
CAM.123		42 Edward J. Lopez Ave	Cambridge	c 1830
CAM.1096	Hotel Packard	10-14 Eliot St	Cambridge	1869
CAM.1097		14A Eliot St	Cambridge	1900
CAM.1098		16-18 Eliot St	Cambridge	1898
CAM.124	Sands, Ivory House	145 Elm St	Cambridge	1839
CAM.125	Foster, Dr. House	8 Elmwood Ave	Cambridge	1893
CAM.126	Greenough, J. J. House	9 Elmwood Ave	Cambridge	1903
CAM.127	Smyth, Herbert House	11-15 Elmwood Ave	Cambridge	1903
CAM.128	Kempton, John House	14 Elmwood Ave	Cambridge	1895
CAM.129		20 Elmwood Ave	Cambridge	1892

Inv. No.	Property Name	Street	Town	Year
CAM.130	Benson, Ruth House	26 Elmwood Ave	Cambridge	1899
CAM.131	Watson House	30 Elmwood Ave	Cambridge	c 1750
CAM.132	Elmwood - Lowell, James Russell House	33 Elmwood Ave	Cambridge	c 1767
CAM.133	Reardon, Edmund House	195 Erie St	Cambridge	1884
CAM.1371	Blessed Sacrament Roman Catholic Church Convent	203 Erie St	Cambridge	1954
CAM.134	Harvard Graduate Center	10-26 Everett St	Cambridge	1949
CAM.135	Jarvis, The	27 Everett St	Cambridge	1890
CAM.136	Newman, Andrew House	23 Fairmont St	Cambridge	1823
CAM.713		2-4 Farrar St	Cambridge	1927
CAM.714		9 Farrar St	Cambridge	1890
CAM.715		15 Farrar St	Cambridge	1898
CAM.716		16 Farrar St	Cambridge	1931
CAM.717		17 Farrar St	Cambridge	1897
CAM.718		18-20 Farrar St	Cambridge	1923
CAM.719		22 Farrar St	Cambridge	1928
CAM.720		26 Farrar St	Cambridge	1928
CAM.137		10-12 Farwell Pl	Cambridge	r 1870
CAM.138	Nichols House	11 Farwell Pl	Cambridge	1827
CAM.139		14-16 Farwell Pl	Cambridge	c 1855
CAM.140	Read, James House	15 Farwell Pl	Cambridge	c 1772
CAM.141	Child, N. K. House	17 Farwell Pl	Cambridge	1835
CAM.142		18-20 Farwell Pl	Cambridge	c 1855
CAM.143	Christ Church Parish House	19 Farwell Pl	Cambridge	1948
CAM.144	Toppan House	22-24 Farwell Pl	Cambridge	c 1900
CAM.145	Deane, Ezra - Williams, George House	21-23 Fayette St	Cambridge	1848
CAM.146		26-28 Fayette St	Cambridge	1857
CAM.430	Cambridge Public Library - O'Connell Branch	Fifth St	Cambridge	1938
CAM.441		69-71 Fifth St	Cambridge	
CAM.452	Hall, Jesse House	75 Fifth St	Cambridge	1837
CAM.428		82 Fifth St	Cambridge	
CAM.429		83 Fifth St	Cambridge	
CAM.1405	Volpe Center - Center Service Building	259 Fifth St	Cambridge	c 1965
CAM.907	First Street Bridge over Broad Canal	First St	Cambridge	1924
CAM.147	Athenaeum Press Building	215 First St	Cambridge	1895
CAM.910	Fitchburg Railroad Signal Bridge	Fitchburg Railroad	Cambridge	c 1930
CAM.148	Abbot, Edwin House	1 Follen St	Cambridge	1889
CAM.1271		5 Follen St	Cambridge	1853

Inv. No.	Property Name	Street	Town	Year
CAM.1273		6 Follen St	Cambridge	1868
CAM.1338		8 Follen St	Cambridge	1871
CAM.149	Second Waterhouse House	9 Follen St	Cambridge	1844
CAM.150		10 Follen St	Cambridge	1875
CAM.1274		13 Follen St	Cambridge	1900
CAM.151	Richards, Theodore W. House	15 Follen St	Cambridge	1900
CAM.1275		19 Follen St	Cambridge	1844
CAM.1276		20 Follen St	Cambridge	1949
CAM.1277		21 Follen St	Cambridge	1841
CAM.1278		22 Follen St	Cambridge	1951
CAM.1279		25 Follen St	Cambridge	1889
CAM.152	Clover Den - Mann, Mary House	29 Follen St	Cambridge	1837
CAM.1280		34 Follen St	Cambridge	1946
CAM.1281		36 Follen St	Cambridge	1847
CAM.1282		44 Follen St	Cambridge	1862
CAM.338	Puritan Arms	46-50 Follen St	Cambridge	1940
CAM.1331	Homer - Lovell House	11 Forest St	Cambridge	1867
CAM.153	Francis, Ebenezer House	1 Francis Ave	Cambridge	1836
CAM.721		6 Francis Ave	Cambridge	1940
CAM.722		7 Francis Ave	Cambridge	1894
CAM.723		8 Francis Ave	Cambridge	1940
CAM.724		9 Francis Ave	Cambridge	c 1875
CAM.725		10 Francis Ave	Cambridge	1894
CAM.726		11 Francis Ave	Cambridge	1894
CAM.1337		12-14 Francis Ave	Cambridge	1895
CAM.727		16 Francis Ave	Cambridge	1906
CAM.154	Davis, William Morris House	17 Francis Ave	Cambridge	r 1895
CAM.728		18 Francis Ave	Cambridge	1911
CAM.155	Hyatt, Prof. Alpheus - Durant, Prof. Will B. House	19 Francis Ave	Cambridge	1889
CAM.729		21 Francis Ave	Cambridge	1925
CAM.730		22 Francis Ave	Cambridge	1912
CAM.731		23 Francis Ave	Cambridge	1902
CAM.732		24 Francis Ave	Cambridge	1906
CAM.733		30 Francis Ave	Cambridge	1905
CAM.734		32 Francis Ave	Cambridge	1903
CAM.735	Center for the Study of World Religions	42 Francis Ave	Cambridge	1959
CAM.736		44 Francis Ave	Cambridge	1913
CAM.737		53 Francis Ave	Cambridge	1913



Inv. No.	Property Name	Street	Town	Year
CAM.738		56 Francis Ave	Cambridge	1914
CAM.739		57 Francis Ave	Cambridge	1913
CAM.740		59 Francis Ave	Cambridge	1916
CAM.741		60 Francis Ave	Cambridge	1961
CAM.742		63 Francis Ave	Cambridge	1913
CAM.743	Sert, Jose Luis House	64 Francis Ave	Cambridge	1957
CAM.744		65 Francis Ave	Cambridge	1916
CAM.745		67 Francis Ave	Cambridge	1926
CAM.746		68 Francis Ave	Cambridge	1921
CAM.747		70 Francis Ave	Cambridge	1879
CAM.748		73 Francis Ave	Cambridge	1926
CAM.749		75-77 Francis Ave	Cambridge	1925
CAM.1329	Kennedy, F. A. Steam Bakery	129 Franklin St	Cambridge	1875
CAM.919	Fresh Pond Lane over B & M Railroad	Fresh Pond Ln	Cambridge	1926
CAM.9014	Fresh Pond Parkway	Fresh Pond Pkwy	Cambridge	1899
CAM.9015	Fresh Pond Parkway - Concord Avenue Rotary Islands	Fresh Pond Pkwy	Cambridge	1928
CAM.9016	Fresh Pond Parkway - New Street Rotary	Fresh Pond Pkwy	Cambridge	1928
CAM.9017	Fresh Pond Parkway Tree Canopy	Fresh Pond Pkwy	Cambridge	r 1920
CAM.9018	Fresh Pond Parkway Median System	Fresh Pond Pkwy	Cambridge	c 1958
CAM.156	Wyeth - Eliot, Charles House	17 Fresh Pond Pkwy	Cambridge	1838
CAM.157	Frost, Walter House	10 Frost St	Cambridge	1807
CAM.800	Old Burying Ground	Garden St	Cambridge	r 1750
CAM.940	Milestone, 1767	Garden St	Cambridge	1734
CAM.158	Christ Church	0 Garden St	Cambridge	1760
CAM.159	Saunders, William House	1 Garden St	Cambridge	1821
CAM.339		2 Garden St	Cambridge	1835
CAM.340	Howe, Sarah House	3 Garden St	Cambridge	1851
CAM.160	First Church in Cambridge Congregational	11 Garden St	Cambridge	1870
CAM.341		17-19 Garden St	Cambridge	1926
CAM.161	Sears Tower - Harvard Observatory	60 Garden St	Cambridge	1843
CAM.162	Warner House	63 Garden St	Cambridge	1855
CAM.163	Gray, Asa House	88 Garden St	Cambridge	1810
CAM.1240		91 Garden St	Cambridge	1922
CAM.164	Taylor Square Firehouse	113 Garden St	Cambridge	1904
CAM.165	Warren, H. Langford House	6 Garden Terr	Cambridge	1904
CAM.671	Rollins, John House	16 Garfield St	Cambridge	1891
CAM.672	Wood, Edward House	18 Garfield St	Cambridge	1886

Inv. No.	Property Name	Street	Town	Year
CAM.1336	Shepherd, Herbert House	31-33 Garfield St	Cambridge	1886
CAM.673	Farquhar, Robert House	34 Garfield St	Cambridge	1890
CAM.674	Coon, Sarah House	36 Garfield St	Cambridge	1887
CAM.666	Shepherd, Edward House	39 Garfield St	Cambridge	1885
CAM.675	Thayer, Bertha House	44 Garfield St	Cambridge	1888
CAM.667	Estabrook, J. W. House	45 Garfield St	Cambridge	1886
CAM.668	Bartlett, A. S. House	49 Garfield St	Cambridge	1888
CAM.676	Green, Roscoe House	54 Garfield St	Cambridge	1890
CAM.669	Dewey House	55 Garfield St	Cambridge	1889
CAM.677	Worcester, George House	58 Garfield St	Cambridge	1890
CAM.678	Allen, Frank House	64 Garfield St	Cambridge	1891
CAM.670	Sullivan, Cornelius House	67 Garfield St	Cambridge	1889
CAM.679	Farnsworth, Charles House	74 Garfield St	Cambridge	1897
CAM.680	Ball, Elijah House	80 Garfield St	Cambridge	1887
CAM.502	Lechmere Point Corporation Row House	47 Gore St	Cambridge	c 1821
CAM.503	Lechmere Point Corporation Row House	49 Gore St	Cambridge	c 1821
CAM.504	Lechmere Point Corporation Row House	51 Gore St	Cambridge	c 1821
CAM.1407	Carr, M. W. and Company Factory - Building #4	63 Gorham St	Cambridge	r 1920
CAM.1241		1 Gray Gardens East	Cambridge	1925
CAM.1242		2 Gray Gardens East	Cambridge	1930
CAM.1243		3 Gray Gardens East	Cambridge	1923
CAM.1244		8 Gray Gardens East	Cambridge	1923
CAM.1245		9 Gray Gardens East	Cambridge	1922
CAM.1246		11 Gray Gardens East	Cambridge	1924
CAM.1247		12 Gray Gardens East	Cambridge	1922
CAM.1248		13 Gray Gardens East	Cambridge	1925
CAM.1249		16 Gray Gardens East	Cambridge	1922
CAM.1250		17 Gray Gardens East	Cambridge	1958
CAM.1251		19 Gray Gardens East	Cambridge	1927
CAM.1252		22 Gray Gardens East	Cambridge	1962
CAM.1253		25 Gray Gardens East	Cambridge	1926
CAM.1254		26 Gray Gardens East	Cambridge	1922
CAM.1255		27 Gray Gardens East	Cambridge	1923
CAM.1256		30 Gray Gardens East	Cambridge	1928
CAM.1257		31 Gray Gardens East	Cambridge	1924
CAM.1258		37 Gray Gardens East	Cambridge	1923
CAM.1259		3 Gray Gardens West	Cambridge	1923
CAM.1260		4 Gray Gardens West	Cambridge	1922



Inv. No.	Property Name	Street	Town	Year
CAM.1261		11 Gray Gardens West	Cambridge	1923
CAM.1262		14 Gray Gardens West	Cambridge	1924
CAM.1263		15 Gray Gardens West	Cambridge	1929
CAM.1264		16 Gray Gardens West	Cambridge	1925
CAM.167	Hall Tavern	20 Gray Gardens West	Cambridge	r 1800
CAM.1265		24 Gray Gardens West	Cambridge	1928
CAM.166	Frost, David House	26 Gray St	Cambridge	1815
CAM.618		133 Green St	Cambridge	c 1894
CAM.624	Raymond, T. H. Warehouse	175 Green St	Cambridge	1908
CAM.1389		205-207 Green St	Cambridge	
CAM.534	Inman Square Fire Station	Hampshire St	Cambridge	1912
CAM.168	Lamson, Rufus House	72-74 Hampshire St	Cambridge	1854
CAM.1367	Massachusetts Avenue Baptist Church	146 Hampshire St	Cambridge	1902
CAM.169	Opposition House	2-4 Hancock Pl	Cambridge	1807
CAM.170		104-106 Hancock St	Cambridge	1839
CAM.171	Atwood, Ephraim House	110 Hancock St	Cambridge	1839
CAM.536	Fay, Samuel P. P. House	172 Harvard St	Cambridge	1805
CAM.549	Allen Block	177-183 Harvard St	Cambridge	r 1875
CAM.1354	Courtney, Benjamin House	273 Harvard St	Cambridge	1867
CAM.172	Jones, William R. House	307 Harvard St	Cambridge	1865
CAM.173	Vinal, Albert House	325 Harvard St	Cambridge	1853
CAM.681	Melledge, James P. House	335 Harvard St	Cambridge	1850
CAM.684	Warner, Caleb House	336 Harvard St	Cambridge	1858
CAM.682		337 Harvard St	Cambridge	1887
CAM.685	Frothingham, Amos House	338 Harvard St	Cambridge	1859
CAM.686	Goepper, William House	340 Harvard St	Cambridge	1897
CAM.683		341-343 Harvard St	Cambridge	1855
CAM.687	Rindge, Samuel Baker House	342-344 Harvard St	Cambridge	1857
CAM.174	Bradbury, William F. House	369 Harvard St	Cambridge	1877
CAM.175	Hapgood, Richard House	382-392 Harvard St	Cambridge	1889
CAM.176	Ware Hall	383 Harvard St	Cambridge	1893
CAM.1099	Delta Upsilon Club	396 Harvard St	Cambridge	1914
CAM.177	Old Cambridge Baptist Church	398 Harvard St	Cambridge	1867
CAM.193	Austin Hall	Harvard University	Cambridge	1881
CAM.178	Holden Chapel - Harvard University	Harvard Yard	Cambridge	1764
CAM.179	Sever Hall	Harvard Yard	Cambridge	1880
CAM.180	University Hall	Harvard Yard	Cambridge	1812
CAM.181	Harvard Hall - Harvard University	Harvard Yard	Cambridge	1764

Inv. No.	Property Name	Street	Town	Year
CAM.182	Hollis Hall - Harvard University	Harvard Yard	Cambridge	1762
CAM.183	Massachusetts Hall	Harvard Yard	Cambridge	1718
CAM.184	Weld Hall - Harvard University	Harvard Yard	Cambridge	1870
CAM.185	Boylston Hall - Harvard University	Harvard Yard	Cambridge	1857
CAM.186	Holworthy Hall - Harvard University	Harvard Yard	Cambridge	1811
CAM.187	Grays Hall - Harvard University	Harvard Yard	Cambridge	1862
CAM.188	Lehman Hall - Harvard University	Harvard Yard	Cambridge	1924
CAM.189	Matthews House - Harvard University	Harvard Yard	Cambridge	1871
CAM.190	Straus Hall - Harvard University	Harvard Yard	Cambridge	1926
CAM.191	Thayer Hall - Harvard University	Harvard Yard	Cambridge	1869
CAM.192	Wigglesworth Hall - Harvard University	Harvard Yard	Cambridge	1930
CAM.953	Harvard University - 1857 Gate	Harvard Yard	Cambridge	1901
CAM.954	Harvard University - 1870 Gate	Harvard Yard	Cambridge	1901
CAM.955	Harvard University - 1873 Tablet	Harvard Yard	Cambridge	1901
CAM.956	Harvard University - 1874 Gate	Harvard Yard	Cambridge	1901
CAM.957	Harvard University - 1875 Gate	Harvard Yard	Cambridge	1901
CAM.958	Harvard University - 1881 Gate	Harvard Yard	Cambridge	1906
CAM.959	Harvard University - 1885 Gate	Harvard Yard	Cambridge	1904
CAM.960	Harvard University - 1886 Gate	Harvard Yard	Cambridge	1901
CAM.961	Harvard University - 1887 Gate	Harvard Yard	Cambridge	1906
CAM.962	Harvard University - 1888 Gate	Harvard Yard	Cambridge	1906
CAM.963	Harvard University - 1889 Gate	Harvard Yard	Cambridge	1901
CAM.964	Harvard University - 1890 Gate	Harvard Yard	Cambridge	1901
CAM.965	Harvard University - 1880 Gate	Harvard Yard	Cambridge	1902
CAM.966	Harvard University - Bradley Fountain	Harvard Yard	Cambridge	1910
CAM.967	Harvard University - Chinese Steel	Harvard Yard	Cambridge	r 1810
CAM.968	Harvard University - Delivery Gate	Harvard Yard	Cambridge	1948
CAM.969	Harvard University - Driveway Gate	Harvard Yard	Cambridge	1948
CAM.970	Harvard University - 1908 Gate	Harvard Yard	Cambridge	1936
CAM.971	Harvard University - Emerson Gate	Harvard Yard	Cambridge	1936
CAM.972	Harvard University - Fire Station Gate	Harvard Yard	Cambridge	1970
CAM.973	Harvard University - Hollis Pump	Harvard Yard	Cambridge	1936
CAM.974	Harvard University - 1876 Gate	Harvard Yard	Cambridge	1901
CAM.975	Harvard University - Harvard, John Statue	Harvard Yard	Cambridge	1884
CAM.976	Harvard University - Johnston Gate	Harvard Yard	Cambridge	1889
CAM.977	Harvard University - Lamont Gate	Harvard Yard	Cambridge	1948
CAM.978	Harvard University - Gatehouse	Harvard Yard	Cambridge	1983
CAM.979	Harvard University - 1879 Gate	Harvard Yard	Cambridge	1891

Inv. No.	Property Name	Street	Town	Year
CAM.980	Harvard University - Onion	Harvard Yard	Cambridge	1965
CAM.981	Harvard University - Porcellian Gate	Harvard Yard	Cambridge	1901
CAM.982	Harvard University - Reclining Figure	Harvard Yard	Cambridge	1972
CAM.983	Harvard University - Robinson Gate	Harvard Yard	Cambridge	1936
CAM.984	Harvard University - 1870 Sundial	Harvard Yard	Cambridge	1901
CAM.985	Harvard University - 1877 Gate	Harvard Yard	Cambridge	1901
CAM.1214	Harvard University - Canaday Hall	Harvard Yard	Cambridge	1973
CAM.1215	Harvard University - Emerson Hall	Harvard Yard	Cambridge	1904
CAM.1216	Harvard University - Houghton Library	Harvard Yard	Cambridge	1941
CAM.1217	Harvard University - Lamont Library	Harvard Yard	Cambridge	1947
CAM.1218	Harvard University - Lionel Hall	Harvard Yard	Cambridge	1924
CAM.1219	Harvard University - Memorial Church	Harvard Yard	Cambridge	1931
CAM.1220	Harvard University - Mower Hall	Harvard Yard	Cambridge	1924
CAM.1221	Brooks, Phillips House - Harvard University	Harvard Yard	Cambridge	1898
CAM.1222	Harvard University - Pusey Library	Harvard Yard	Cambridge	1973
CAM.1223	Harvard University - Robinson Hall	Harvard Yard	Cambridge	1900
CAM.1224	Harvard University - Stoughton Hall	Harvard Yard	Cambridge	1804
CAM.1227	Harvard University - Widener Library	Harvard Yard	Cambridge	1913
CAM.520		6 Hastings Sq	Cambridge	1884
CAM.1231	Bates, Jacob H. House	11 Hawthorn St	Cambridge	1813
CAM.194	Daly, Reginald A. House	23 Hawthorn St	Cambridge	c 1885
CAM.195	Wadsworth House	31 Hawthorn St	Cambridge	r 1935
CAM.196		35 Hawthorn St	Cambridge	r 1935
CAM.197	Glaser, Dorothy Merriless House	37 Hawthorn St	Cambridge	1937
CAM.198		41 Hawthorn St	Cambridge	1911
CAM.199	Maynardier, G. B. House	43 Hawthorn St	Cambridge	1900
CAM.1232		49 Hawthorn St	Cambridge	1900
CAM.521		75 Henry St	Cambridge	1892
CAM.1343		82-84 Henry St	Cambridge	
CAM.200	Noyes, J. A. House	1 Highland St	Cambridge	1894
CAM.796	Usher, Samuel House	11 Hillside Ave	Cambridge	1887
CAM.750		11 Holden St	Cambridge	1928
CAM.751		41 Holden St	Cambridge	1840
CAM.752		45 Holden St	Cambridge	1928
CAM.1383	Chadwick, Samuel E. House	10 Hollis St	Cambridge	1853
CAM.1100	Fly Club	2 Holyoke Pl	Cambridge	c 1899
CAM.1101		9 Holyoke Pl	Cambridge	c 1930
CAM.1197	Lowell House - Harvard University	10 Holyoke Pl	Cambridge	1929

Inv. No.	Property Name	Street	Town	Year
CAM.1198	Indoor Athletic Building - Harvard University	35-41 Holyoke Pl	Cambridge	1929
CAM.1102		8-10 Holyoke St	Cambridge	1927
CAM.201	Hasty Pudding Club	12 Holyoke St	Cambridge	1887
CAM.1103	Apley Court	16 Holyoke St	Cambridge	1897
CAM.1104	Sawyer, Samuel F. House	20 Holyoke St	Cambridge	1818
CAM.1105		22 Holyoke St	Cambridge	1956
CAM.1106		24 Holyoke St	Cambridge	1963
CAM.1107	Owl Club	30 Holyoke St	Cambridge	1905
CAM.1302		2 Hubbard Pk	Cambridge	1909
CAM.1293		3 Hubbard Pk	Cambridge	1887
CAM.1306	Warren, John L. House	5 Hubbard Pk	Cambridge	1922
CAM.1305	Paine, George House	6 Hubbard Pk	Cambridge	c 1918
CAM.1295		8 Hubbard Pk	Cambridge	1888
CAM.1301	Nutting, Lillian House	12 Hubbard Pk	Cambridge	1908
CAM.1297		14 Hubbard Pk	Cambridge	1892
CAM.1304		15 Hubbard Pk	Cambridge	1914
CAM.1303	Beach, Revel W. House	19 Hubbard Pk	Cambridge	1913
CAM.1298		20 Hubbard Pk	Cambridge	1892
CAM.1299		26 Hubbard Pk	Cambridge	1894
CAM.1296		32 Hubbard Pk	Cambridge	1890
CAM.1346		15 Humboldt St	Cambridge	
CAM.904	Huron Avenue Bridge over B & M Railroad	Huron Ave	Cambridge	1892
CAM.202	Syrian Orthodox Catholic Church of Saint Mary	8 Inman St	Cambridge	1822
CAM.576	Matthews Apartments	12 Inman St	Cambridge	1966
CAM.1364	Bennett, James House	17 Inman St	Cambridge	1871
CAM.1349	Luke Rowhouse	19 Inman St	Cambridge	1877
CAM.1350	Luke Rowhouse	21 Inman St	Cambridge	1877
CAM.1351	Luke Rowhouse	21 1/2 Inman St	Cambridge	1877
CAM.203		102-104 Inman St	Cambridge	1845
CAM.204		106-108 Inman St	Cambridge	1845
CAM.205		110-112 Inman St	Cambridge	1845
CAM.753		80-82 Irving St	Cambridge	1927
CAM.754		81 Irving St	Cambridge	1916
CAM.755		84-86 Irving St	Cambridge	1927
CAM.756		89 Irving St	Cambridge	1916
CAM.206	James, William House	95 Irving St	Cambridge	1889
CAM.757		99 Irving St	Cambridge	1889
CAM.758		103-103A Irving St	Cambridge	1889

Inv. No.	Property Name	Street	Town	Year
CAM.207	cummings, e. e. House	104 Irving St	Cambridge	1893
CAM.759	Van Dael - DeSola Pool House	105 Irving St	Cambridge	1890
CAM.760		107 Irving St	Cambridge	1891
CAM.761		109 Irving St	Cambridge	1893
CAM.762	Davis, Robert House	110 Irving St	Cambridge	1889
CAM.763		114 Irving St	Cambridge	1911
CAM.764		133 Irving St	Cambridge	1963
CAM.765	American Academy of Arts and Sciences	136 Irving St	Cambridge	1980
CAM.766		138 Irving St	Cambridge	1912
CAM.297	Radcliffe College - Schlesinger Library	James St	Cambridge	1907
CAM.950	Winthrop Square Park	Kennedy St	Cambridge	1631
CAM.1108	Abbott Building	5 Kennedy St	Cambridge	1908
CAM.1109		9-25 Kennedy St	Cambridge	1887
CAM.1110	Farwell, Levi Tenant House	10-14 Kennedy St	Cambridge	c 1820
CAM.1111	Read Block	18-28 Kennedy St	Cambridge	1885
CAM.1112		29-41 Kennedy St	Cambridge	1971
CAM.1113		30 Kennedy St	Cambridge	1936
CAM.1114	Garage, The	34-42 Kennedy St	Cambridge	1924
CAM.1115	Fox Club	44 Kennedy St	Cambridge	1906
CAM.1116	Drayton Hall	48 Kennedy St	Cambridge	1901
CAM.1117		50 Kennedy St	Cambridge	1892
CAM.1118		52-54 Kennedy St	Cambridge	1884
CAM.1119	Galeria	55-57 Kennedy St	Cambridge	1974
CAM.1120		56 Kennedy St	Cambridge	1903
CAM.1121	S. A. E. Club	60 Kennedy St	Cambridge	1929
CAM.1122		63-65 Kennedy St	Cambridge	1984
CAM.1200	Hicks, John House - Harvard University	64 Kennedy St	Cambridge	1762
CAM.1199	Smith Hall - Harvard University	70-78 Kennedy St	Cambridge	1913
CAM.208	Loring, Judge Edward - Peirce, Benjamin House	4 Kirkland Pl	Cambridge	1856
CAM.688	Merrill, John House	9 Kirkland Pl	Cambridge	1855
CAM.689	Shaw, Southworth House	10 Kirkland Pl	Cambridge	1856
CAM.690	Green, Louise House	11 Kirkland Pl	Cambridge	1921
CAM.691	Cutler, Isaac House	12 Kirkland Pl	Cambridge	1857
CAM.692	Cutler, George House	13 Kirkland Pl	Cambridge	1857
CAM.693	Ware House	14 Kirkland Pl	Cambridge	1839
CAM.209	Treadwell - Sparks House	21 Kirkland St	Cambridge	1838
CAM.210	Brooks, Luther House	34 Kirkland St	Cambridge	1840
CAM.211	Lovering, Joseph House	38 Kirkland St	Cambridge	1839

Inv. No.	Property Name	Street	Town	Year
CAM.767		49 Kirkland St	Cambridge	1886
CAM.768		55 Kirkland St	Cambridge	1927
CAM.769		57-59 Kirkland St	Cambridge	1927
CAM.212	Eliot, Charles W. House	61 Kirkland St	Cambridge	1858
CAM.213	Child, Francis J. House	67 Kirkland St	Cambridge	1861
CAM.9019	Brown-Rhone, Jill Park	Lafayette Sq	Cambridge	2007
CAM.214	Fresh Pond Hotel	234 Lakeview Ave	Cambridge	1796
CAM.1013		13 Lancaster St	Cambridge	c 1880
CAM.1005		16 Lancaster St	Cambridge	1892
CAM.1006		18 Lancaster St	Cambridge	1885
CAM.1007		24 Lancaster St	Cambridge	1883
CAM.1014	Sawyer, Chester House	27 Lancaster St	Cambridge	1886
CAM.1015	Hovey, William B. House	29 Lancaster St	Cambridge	1887
CAM.1008		36 Lancaster St	Cambridge	1886
CAM.215	Yerxa House and Carriage House	37 Lancaster St	Cambridge	1887
CAM.216	Larches, The	22 Larch Rd	Cambridge	c 1808
CAM.1317	Metropolitan District Commission Boat House	Lechmere Canal	Cambridge	1910
CAM.217		15-17 Lee St	Cambridge	1856
CAM.218	Lowell, The	33 Lexington Ave	Cambridge	1900
CAM.1123		5-7 Linden St	Cambridge	c 1867
CAM.1124	Harvard Square Squash Court	8-10 Linden St	Cambridge	1908
CAM.1125	Delphic Club	9 Linden St	Cambridge	1902
CAM.219	Apthorp, Rev. East House	10 Linden St	Cambridge	c 1760
CAM.220	Cooper - Frost - Austin House	21 Linnaean St	Cambridge	1681
CAM.221	Peabody Court Apartments	41-43 Linnaean St	Cambridge	1922
CAM.1234	Cambridge Friends Meetinghouse and Center	5 Longfellow Pk	Cambridge	1914
CAM.1233		6 Longfellow Pk	Cambridge	1901
CAM.222	Lowell School	25 Lowell St	Cambridge	1883
CAM.1319	Magazine Beach Bath House	Magazine Beach	Cambridge	1899
CAM.223	First Baptist Church, Cambridge	5 Magazine St	Cambridge	1881
CAM.637	Church Corners Apartments	8-12 Magazine St	Cambridge	1985
CAM.510	Pilgrim Congregational Church	35 Magazine St	Cambridge	1871
CAM.511	Hinman, Joseph House	48 Magazine St	Cambridge	1875
CAM.512	Brewer, Isaac D. - Pulsifer, William Double House	50-52 Magazine St	Cambridge	1852
CAM.513	Grace Methodist Church	56 Magazine St	Cambridge	1886
CAM.224	Flentje, Ernst House	129 Magazine St	Cambridge	1866
CAM.991	Shell Sign	187 Magazine St	Cambridge	1933



Inv. No.	Property Name	Street	Town	Year
CAM.87	Kendall Square Subway Station	Main St	Cambridge	1912
CAM.225	Kendall Square Substation	Main St	Cambridge	1911
CAM.1308	Davenport - Allen and Endicott Factory Headhouse	Main St	Cambridge	1882
CAM.1309	Davenport - Allen and Endicott Factory East Wing	Main St	Cambridge	1848
CAM.1335	Luke Building	135-145 Main St	Cambridge	1874
CAM.1384	Engine House No. 7	350 Main St	Cambridge	c 1895
CAM.328	Union #2 Engine House	787-789 Main St	Cambridge	1852
CAM.609	Bright Building	853 Main St	Cambridge	1898
CAM.608	Wentworth Building	859-863 Main St	Cambridge	1897
CAM.610	Union Baptist Church	872 Main St	Cambridge	1882
CAM.607	Mellen Building	875 Main St	Cambridge	1897
CAM.606	Andelman, Ezra Building	877-881 Main St	Cambridge	1941
CAM.611	Sawyer, Charles Tenement	882-884 Main St	Cambridge	c 1873
CAM.605	Whitney, Lucretia and Henry Building	893-907 Main St	Cambridge	1870
CAM.703		6 Maple Ave	Cambridge	
CAM.694	Stevens, Charles B. House	8 Maple Ave	Cambridge	1873
CAM.704		12 Maple Ave	Cambridge	
CAM.705		14-16 Maple Ave	Cambridge	
CAM.702		15 Maple Ave	Cambridge	
CAM.701		19 Maple Ave	Cambridge	
CAM.697	Webster, Francis B. House	20 Maple Ave	Cambridge	1861
CAM.695	Hall, Lewis House	23 Maple Ave	Cambridge	1867
CAM.706		24 Maple Ave	Cambridge	
CAM.700		25 Maple Ave	Cambridge	r 1920
CAM.707		26 Maple Ave	Cambridge	
CAM.699		27 Maple Ave	Cambridge	
CAM.698		29 Maple Ave	Cambridge	
CAM.696	Munroe, Philip House	31 Maple Ave	Cambridge	1887
CAM.226	Mason, Josiah Jr. House	11 Market St	Cambridge	1831
CAM.295	Radcliffe College Gymnasium	Mason St	Cambridge	1898
CAM.296	Radcliffe College - Agassiz House	Mason St	Cambridge	1904
CAM.227	Norton House Ell	4 Mason St	Cambridge	1847
CAM.228		6-12 Mason St	Cambridge	
CAM.260	M. I. T. Alumni Swimming Pool Building	Massachusetts Ave	Cambridge	1940
CAM.261	Kresge Auditorium	Massachusetts Ave	Cambridge	1953
CAM.262	M. I. T. Chapel	Massachusetts Ave	Cambridge	1954

Inv. No.	Property Name	Street	Town	Year
CAM.901	Harvard Square Subway Kiosk	Massachusetts Ave	Cambridge	1928
CAM.905	Massachusetts Avenue Bridge over Conrail	Massachusetts Ave	Cambridge	1900
CAM.916	Central Square Subway Station	Massachusetts Ave	Cambridge	1912
CAM.921	Harvard Bridge	Massachusetts Ave	Cambridge	r 1890
CAM.938	Cambridge Common	Massachusetts Ave	Cambridge	1631
CAM.939	Cambridge Common South Traffic Island	Massachusetts Ave	Cambridge	1976
CAM.945	Burying Ground Fence	Massachusetts Ave	Cambridge	1891
CAM.946	Flagstaff Park	Massachusetts Ave	Cambridge	1913
CAM.947	North Little Common	Massachusetts Ave	Cambridge	c 1858
CAM.949	Central Square Street Pattern	Massachusetts Ave	Cambridge	c 1630
CAM.334	Cambridge Armory	120 Massachusetts Ave	Cambridge	1902
CAM.332	Metropolitan Storage Warehouse	134 Massachusetts Ave	Cambridge	1895
CAM.1366	New England Confectionery Company Factory	250 Massachusetts Ave	Cambridge	1927
CAM.612	Lamson, The	351-355 Massachusetts Ave	Cambridge	1907
CAM.614	Lafayette Square Fire Station	378 Massachusetts Ave	Cambridge	1893
CAM.613	Shell Gas Station	385 Massachusetts Ave	Cambridge	1948
CAM.615	Salvation Army - Cambridge Citadel	400-402 Massachusetts Ave	Cambridge	1968
CAM.604		401-409 Massachusetts Ave	Cambridge	1966
CAM.603	Taylor, William A. House and Shop	411-413 Massachusetts Ave	Cambridge	1887
CAM.602	Barkin and Gorfinkle Building	415-429 Massachusetts Ave	Cambridge	1925
CAM.616	Kennedy, Frank A. Store	424 Massachusetts Ave	Cambridge	1896
CAM.617	Kutz, Issac Store	428 Massachusetts Ave	Cambridge	c 1910
CAM.229	Kennedy, The	430-442 Massachusetts Ave	Cambridge	1890
CAM.601	Robbins Building	433-447 Massachusetts Ave	Cambridge	1923
CAM.619	Blanchard Building	448-450 Massachusetts Ave	Cambridge	c 1886
CAM.324	South Row	452-458 Massachusetts Ave	Cambridge	1807
CAM.1393	Dana Row - South Row	452-458 Massachusetts Ave	Cambridge	2003
CAM.599	Rogers, F. W. and G. M. Building	453-457 Massachusetts Ave	Cambridge	1885
CAM.620	Freedman Building	460-464 Massachusetts Ave	Cambridge	1933
CAM.598	McDonald's Restaurant	463-467 Massachusetts Ave	Cambridge	1974
CAM.621	Central Square Realty Trust Building	468-480 Massachusetts Ave	Cambridge	1929
CAM.597	Moller's Furniture Store	485 Massachusetts Ave	Cambridge	1926
CAM.622	Longfellow, The	492-498 Massachusetts Ave	Cambridge	1893
CAM.596	Kane's Furniture Store	493-507 Massachusetts Ave	Cambridge	1916
CAM.625	Burger King Restaraunt	506 Massachusetts Ave	Cambridge	1970
CAM.1394	Hovey, Phineas Building	512-514 Massachusetts Ave	Cambridge	1842
CAM.595	Central Trust Building	515-527 Massachusetts Ave	Cambridge	1927
CAM.627	Miller Store	520 Massachusetts Ave	Cambridge	1924



Inv. No.	Property Name	Street	Town	Year
CAM.628	Rosenwald Realty Corporation Building	522-526 Massachusetts Ave	Cambridge	1928
CAM.230	Odd Fellows Hall	536 Massachusetts Ave	Cambridge	1884
CAM.629	Clark - Lamb Building	546-550 Massachusetts Ave	Cambridge	c 1873
CAM.630	Albani Building	552-566 Massachusetts Ave	Cambridge	1925
CAM.592	Bullock, Charles Building	567-569 Massachusetts Ave	Cambridge	1859
CAM.591	Central Square Theater	571-577 Massachusetts Ave	Cambridge	1917
CAM.631	Ginsberg Building - Harvard Bazar	572-590 Massachusetts Ave	Cambridge	1913
CAM.590	Morse, Asa P. Building	579-587 Massachusetts Ave	Cambridge	1893
CAM.589	Cambridgeport National Bank Building	593-597 Massachusetts Ave	Cambridge	1869
CAM.632	Manhattan Market - Purity Supreme Super Market	596-610 Massachusetts Ave	Cambridge	1899
CAM.588	Morse, Asa Second Building	599-601 Massachusetts Ave	Cambridge	1905
CAM.587	Fisk and Coleman Building	603-605 Massachusetts Ave	Cambridge	1892
CAM.633	Prospect House	614-620 Massachusetts Ave	Cambridge	1869
CAM.586	Corcoran, John H. Building	615-627 Massachusetts Ave	Cambridge	1927
CAM.634	Holmes Block I	624-638 Massachusetts Ave	Cambridge	1915
CAM.1395	New Holmes Block	624-638 Massachusetts Ave	Cambridge	1998
CAM.585	Woolworth, F. W. Building	633-641 Massachusetts Ave	Cambridge	1950
CAM.584	Watriss Building	643-649 Massachusetts Ave	Cambridge	1880
CAM.583	Dowse, Thomas House	653-655 Massachusetts Ave	Cambridge	1814
CAM.581	New England Gas and Electric Association II Bldg	671-675 Massachusetts Ave	Cambridge	1966
CAM.642	Central Square Building	674 Massachusetts Ave	Cambridge	1926
CAM.643	Chamberlain - Hyde Building	684-688 Massachusetts Ave	Cambridge	1869
CAM.580	Cambridgeport Savings Bank	689 Massachusetts Ave	Cambridge	1904
CAM.644	Dana Building	692-698 Massachusetts Ave	Cambridge	1872
CAM.645	Southwick Building	700-706 Massachusetts Ave	Cambridge	1908
CAM.646	Norris Building	710-720 Massachusetts Ave	Cambridge	1916
CAM.579	Cambridge Electric Light Building	719 Massachusetts Ave	Cambridge	1912
CAM.647	Thayer Building I	722-724 Massachusetts Ave	Cambridge	1863
CAM.648	Thayer Building II	728-730 Massachusetts Ave	Cambridge	1868
CAM.578	Southwick Building	731-751 Massachusetts Ave	Cambridge	1896
CAM.649	Dobbins and Draper Store	736-750 Massachusetts Ave	Cambridge	1922
CAM.650	Dobbins and Draper Store	736-750 Massachusetts Ave	Cambridge	1922
CAM.231	Cambridge Mutual Fire Insurance Company Building	763 Massachusetts Ave	Cambridge	1888
CAM.232	Central Square Post Office	770 Massachusetts Ave	Cambridge	1933
CAM.233	Cambridge City Hall	795 Massachusetts Ave	Cambridge	1889
CAM.651	Cambridge Senior Center	800-806 Massachusetts Ave	Cambridge	1925

Inv. No.	Property Name	Street	Town	Year
CAM.652	Young Men's Christian Association Building	820-830 Massachusetts Ave	Cambridge	1896
CAM.1396	Brusch Medical Center	825-831 Massachusetts Ave	Cambridge	1951
CAM.653	Saint Peter's Episcopal Church	834 Massachusetts Ave	Cambridge	1867
CAM.654	Modern Manor Apartments	842-864 Massachusetts Ave	Cambridge	1925
CAM.900	Houghton Beech Tree	1000 Massachusetts Ave	Cambridge	
CAM.1127	Brentford Hall	1137 Massachusetts Ave	Cambridge	1899
CAM.1128	Dunham, Israel Houses	1156-1166 Massachusetts Ave	Cambridge	1858
CAM.1129		1168 Massachusetts Ave	Cambridge	c 1892
CAM.1130		1170-1174 Massachusetts Ave	Cambridge	c 1849
CAM.1131	Longfellow Court	1200 Massachusetts Ave	Cambridge	1916
CAM.1132	Gulf Gas Station	1201 Massachusetts Ave	Cambridge	1940
CAM.1133		1206 Massachusetts Ave	Cambridge	1965
CAM.1134		1208-1210 Massachusetts Ave	Cambridge	1842
CAM.1135	Quincy Hall	1218 Massachusetts Ave	Cambridge	1891
CAM.1136		1230 Massachusetts Ave	Cambridge	1907
CAM.1137		1234-1238 Massachusetts Ave	Cambridge	c 1894
CAM.1138	Hamden Hall	1246-1260 Massachusetts Ave	Cambridge	1902
CAM.1139	A. D. Club	1268-1270 Massachusetts Ave	Cambridge	1899
CAM.1140	Niles Building	1280 Massachusetts Ave	Cambridge	1984
CAM.234	Fairfax, The	1300-1306 Massachusetts Ave	Cambridge	1869
CAM.1141	Fairfax - Hilton Block	1310-1312 Massachusetts Ave	Cambridge	1883
CAM.1142	Fairfax - Hilton Block	1316 Massachusetts Ave	Cambridge	1885
CAM.235	Porcellian Club	1320-1324 Massachusetts Ave	Cambridge	1890
CAM.1143	Manter Hall	1325 Massachusetts Ave	Cambridge	1885
CAM.236	Wadsworth House	1341 Massachusetts Ave	Cambridge	1726
CAM.237	Holyoke Center	1350 Massachusetts Ave	Cambridge	1961
CAM.1144	Cambridge Savings Bank	1372-1376 Massachusetts Ave	Cambridge	1923
CAM.1145	Read, Joseph Stacey House	1380-1382 Massachusetts Ave	Cambridge	c 1783
CAM.1146	Bartlett, Joseph House	1384-1392 Massachusetts Ave	Cambridge	c 1800
CAM.1147	Harvard Coop Society	1400 Massachusetts Ave	Cambridge	1924
CAM.1148	Harvard Coop Society	1408-1410 Massachusetts Ave	Cambridge	1956
CAM.1149	Harvard Trust Company	1414 Massachusetts Ave	Cambridge	1923
CAM.1150	College House	1420-1442 Massachusetts Ave	Cambridge	1832
CAM.342	Gannett House	1511 Massachusetts Ave	Cambridge	1838
CAM.343	Hemenway Gymnasium	1517 Massachusetts Ave	Cambridge	1938
CAM.344	Hastings Hall	1519 Massachusetts Ave	Cambridge	1888
CAM.345	Harvard Epworth Methodist Church	1555 Massachusetts Ave	Cambridge	1891
CAM.1334	Francis - Allyn House	1564 Massachusetts Ave	Cambridge	1831

Inv. No.	Property Name	Street	Town	Year
CAM.1333	Sawin - Cobb - Wilson House	1626 Massachusetts Ave	Cambridge	1868
CAM.238	Saunders, Charles Hicks House	1627 Massachusetts Ave	Cambridge	1862
CAM.239	Montrose, The	1648 Massachusetts Ave	Cambridge	1898
CAM.240	Dunvegan, The	1654 Massachusetts Ave	Cambridge	1898
CAM.241	Worcester, Frederick House	1734 Massachusetts Ave	Cambridge	1886
CAM.242	North Avenue Congregational Church	1803 Massachusetts Ave	Cambridge	1845
CAM.243	Lovell Block	1853 Massachusetts Ave	Cambridge	1882
CAM.1385	Cambridge Masonic Temple	1950 Massachusetts Ave	Cambridge	1910
CAM.244	Saint James Episcopal Church	1991 Massachusetts Ave	Cambridge	1888
CAM.245	Henderson Carriage Repository	2067-2089 Massachusetts Ave	Cambridge	1892
CAM.246	Cornerstone Baptist Church	2114 Massachusetts Ave	Cambridge	1854
CAM.247	Mead, Alpheus House	2200 Massachusetts Ave	Cambridge	1867
CAM.248	Snow, Daniel House	2210 Massachusetts Ave	Cambridge	1868
CAM.249	McLean, Isaac House	2218 Massachusetts Ave	Cambridge	1894
CAM.250	Farwell, R. H. Double House	2222-2224 Massachusetts Ave	Cambridge	1891
CAM.251	Saint John's Roman Catholic Church	2270 Massachusetts Ave	Cambridge	1904
CAM.1390		2557 Massachusetts Ave	Cambridge	
CAM.1376	Matignon Central Catholic High School	1 Matignon Rd	Cambridge	1946
CAM.1375	Immaculate Conception Catholic Church Convent	33 Matignon Rd	Cambridge	1954
CAM.252	Cambridge Almshouse	45 Matignon Rd	Cambridge	1850
CAM.1374	Cambridge Almshouse Dormitory	45 Matignon Rd	Cambridge	c 1887
CAM.566	M. I. T. - Pierce, Henry L. Engineering Laboratory	Memorial Dr	Cambridge	1913
CAM.567	M. I. T. - Buildings #2 and #8	Memorial Dr	Cambridge	1913
CAM.568	M. I. T. - Pratt School of Naval Architecture	Memorial Dr	Cambridge	1919
CAM.569	M. I. T. - Homburg Infirmary	Memorial Dr	Cambridge	1927
CAM.570	M. I. T. - Eastman, George Research Laboratories	Memorial Dr	Cambridge	1931
CAM.571	M. I. T. - Rogers, William Barton Building	Memorial Dr	Cambridge	1937
CAM.572	M. I. T. - Walker Memorial	Memorial Dr	Cambridge	1913
CAM.573	M. I. T. - President's House	Memorial Dr	Cambridge	1913
CAM.574	M. I. T. - Senior House	Memorial Dr	Cambridge	1913
CAM.575	M. I. T. - Hayden Library	Memorial Dr	Cambridge	1949
CAM.930	Memorial Drive	Memorial Dr	Cambridge	1896
CAM.933	M. I. T. Memorial Underpass	Memorial Dr	Cambridge	1931
CAM.934	Reid, William J. Overpass	Memorial Dr	Cambridge	1939
CAM.1332	Little, Arthur D. Inc. Building	Memorial Dr	Cambridge	1917
CAM.1398	Lever Brothers Company Administration Building	50 Memorial Dr	Cambridge	1938

Inv. No.	Property Name	Street	Town	Year
CAM.253		100 Memorial Dr	Cambridge	1950
CAM.254	M. I. T. Main Courtyard	182-226 Memorial Dr	Cambridge	1913
CAM.255	Riverbank Court Hotel	305 Memorial Dr	Cambridge	1900
cam.256	Baker House	362 Memorial Dr	Cambridge	1947
CAM.1327	Boston University Boat House	619 Memorial Dr	Cambridge	1913
CAM.257	B & B Chemical Company	780 Memorial Dr	Cambridge	1937
CAM.258	Peabody Terrace	900 Memorial Dr	Cambridge	1958
CAM.1201	Dunster House - Harvard University	945 Memorial Dr	Cambridge	1929
CAM.1202	Gore Hall - Harvard University	960 Memorial Dr	Cambridge	1913
CAM.1203	Standish Hall - Harvard University	966 Memorial Dr	Cambridge	1913
CAM.1204	Eliot House - Harvard University	967 Memorial Dr	Cambridge	1930
CAM.1324	Harvard University - Weld Boat House	971 Memorial Dr	Cambridge	1906
CAM.259	Conventual Church of Saint Mary and Saint John	980 Memorial Dr	Cambridge	1936
CAM.1267	Radnor Hall	983-984 Memorial Dr	Cambridge	1916
CAM.1268	Hampstead Hall	985-986 Memorial Dr	Cambridge	1916
CAM.1269	Barrington Court	987-989 Memorial Dr	Cambridge	1924
CAM.1270	Strathcona-on-the-Charles	992-993 Memorial Dr	Cambridge	1914
CAM.1300		2 Mercer Cir	Cambridge	1894
CAM.1287		3 Mercer Cir	Cambridge	1885
CAM.1288		4 Mercer Cir	Cambridge	1885
CAM.1294		5 Mercer Cir	Cambridge	1887
CAM.1291		6 Mercer Cir	Cambridge	1886
CAM.1307	Harris, William F. House	7 Mercer Cir	Cambridge	1922
CAM.1289		8 Mercer Cir	Cambridge	1885
CAM.1292		9 Mercer Cir	Cambridge	1886
CAM.1151		11-15 Mifflin Pl	Cambridge	1901
CAM.1152		12-14 Mifflin Pl	Cambridge	1913
CAM.1153		17-19 Mifflin Pl	Cambridge	1972
CAM.1205	McKinlock Hall - Harvard University	8 Mill St	Cambridge	1926
CAM.1206	Leverett House Library and Towers - Harvard Univ.	14-18 Mill St	Cambridge	1958
CAM.263	Cambridge Neighborhood House	79 Moore St	Cambridge	c 1821
CAM.264	Reversible Collar Company Building	25-27 Mount Auburn St	Cambridge	1860
CAM.1154	Saint Paul's Rectory	32-36 Mount Auburn St	Cambridge	1924
CAM.1155	Speakers Club	43-45 Mount Auburn St	Cambridge	1845
CAM.1156		45 1/2 Mount Auburn St	Cambridge	1971
CAM.1157		47-49 Mount Auburn St	Cambridge	1926
CAM.1158	Claverly Hall	63 Mount Auburn St	Cambridge	1892

Inv. No.	Property Name	Street	Town	Year
CAM.1159		65R Mount Auburn St	Cambridge	1957
CAM.1160	Ridgely Hall	65 Mount Auburn St	Cambridge	1904
CAM.1161	Manter Hall School	71-77 Mount Auburn St	Cambridge	1927
CAM.1162	Phoenix - S. K. Club	72 Mount Auburn St	Cambridge	1915
CAM.1163	Iroquois Club	74 Mount Auburn St	Cambridge	1916
CAM.1164	Spee Club	76 Mount Auburn St	Cambridge	1931
CAM.1165	Willard, Lucy House	78 Mount Auburn St	Cambridge	1839
CAM.1166		90 Mount Auburn St	Cambridge	1971
CAM.1167		92-96 Mount Auburn St	Cambridge	1895
CAM.1168		95-97 Mount Auburn St	Cambridge	1920
CAM.1169		99 Mount Auburn St	Cambridge	c 1919
CAM.1170	Cantabrigia Club	100 Mount Auburn St	Cambridge	c 1919
CAM.1171		102 Mount Auburn St	Cambridge	1869
CAM.1172		104 Mount Auburn St	Cambridge	1983
CAM.1173		110 Mount Auburn St	Cambridge	1959
CAM.9	Boston Elevated Railway Division 7 Headquarters	112 Mount Auburn St	Cambridge	c 1911
CAM.1175	Trinity Hall	114-120 Mount Auburn St	Cambridge	1892
CAM.1177	Waverly Hall	115 Mount Auburn St	Cambridge	1902
CAM.1178		119-123 Mount Auburn St	Cambridge	1988
CAM.1176		120R Mount Auburn St	Cambridge	1982
CAM.1126	U. S. Post Office - Cambridge Branch	125 Mount Auburn St	Cambridge	1953
CAM.791		151 Mount Auburn St	Cambridge	1853
CAM.792		153 Mount Auburn St	Cambridge	1874
CAM.789		154 Mount Auburn St	Cambridge	1852
CAM.790		156-158 Mount Auburn St	Cambridge	1856
CAM.265		173 Mount Auburn St	Cambridge	r 1905
CAM.266		175 Mount Auburn St	Cambridge	r 1895
CAM.267		259 Mount Auburn St	Cambridge	c 1850
CAM.268	Mount Auburn Hospital - Surgical Building	330 Mount Auburn St	Cambridge	1897
CAM.269	Mount Auburn Hospital - Main Building	330 Mount Auburn St	Cambridge	1886
CAM.801	Mount Auburn Cemetery	580 Mount Auburn St	Cambridge	1831
CAM.936	Mount Auburn Cemetery Fence and Gates	580 Mount Auburn St	Cambridge	1843
CAM.992	Mount Auburn Cemetery - Copenhagen, Maria Angel	580 Mount Auburn St	Cambridge	1872
CAM.270	Mount Auburn Cemetery Reception House	583 Mount Auburn St	Cambridge	1870
CAM.1330	DeRosay - McNamee House	50 Mount Vernon St	Cambridge	1896
CAM.557		1-2 Norfolk Pl	Cambridge	1844

Inv. No.	Property Name	Street	Town	Year
CAM.558		3 Norfolk Pl	Cambridge	1846
CAM.593	Powers, Hannah - Ginsberg, Harris Building	7-15 Norfolk St	Cambridge	c 1894
CAM.562	Hotel Norfolk	30 Norfolk St	Cambridge	1886
CAM.560		51 Norfolk St	Cambridge	c 1885
CAM.561		59 Norfolk St	Cambridge	1886
CAM.554		65-67 Norfolk St	Cambridge	1844
CAM.559	Pollard, John House	68-72 Norfolk St	Cambridge	1859
CAM.552		69 Norfolk St	Cambridge	1843
CAM.555		71-73 Norfolk St	Cambridge	1844
CAM.556		75-77 Norfolk St	Cambridge	1844
CAM.551	Fuller, Robert House	79 Norfolk St	Cambridge	1843
CAM.553		87 Norfolk St	Cambridge	1843
CAM.563	Hotel Franklin	90 Norfolk St	Cambridge	1886
CAM.1392	Saint Mary of the Annunciation Catholic Church	134 Norfolk St	Cambridge	r 1865
CAM.550		1-2 Norfolk Terr	Cambridge	1839
CAM.913	East Cambridge Viaduct - Lechmere Viaduct	O'Brien Hwy	Cambridge	1910
CAM.9020	Boston and Lowell Railroad Retaining Wall	O'Brien Hwy	Cambridge	c 1857
CAM.349	Lockhart, William L. Coffin Factory Warehouse	195-199 O'Brien Hwy	Cambridge	1873
CAM.271	Barnes, James B. House	200 O'Brien Hwy	Cambridge	1824
CAM.348	Lockhart, William L. Coffin Factory Main Building	201 O'Brien Hwy	Cambridge	r 1870
CAM.272	Lockart, William L. Company Building	209 O'Brien Hwy	Cambridge	c 1859
CAM.1400	Morrell, John and Company Branch House	221 O'Brien Hwy	Cambridge	1929
CAM.1399	Whitehead Metal Products Company	225 O'Brien Hwy	Cambridge	1929
CAM.273	Aborn, John House	41 Orchard St	Cambridge	1846
CAM.274	Billings, Frederick House	45 Orchard St	Cambridge	1846
CAM.1310	Davenport - Allen and Endicott Factory West Wing	Osborn St	Cambridge	1848
CAM.1311	Davenport - Allen Factory West Wing Extension	Osborn St	Cambridge	1848
CAM.1312	Allen and Endicott Factory Extension	Osborn St	Cambridge	1896
CAM.1313	Allen and Endicott Factory Extension	Osborn St	Cambridge	1896
CAM.461	Putnam School	Otis St	Cambridge	1889
CAM.465	Saint Hedwig's Parish Church	Otis St	Cambridge	1939
CAM.468	Otis Hospital	Otis St	Cambridge	
CAM.371	Woodbury, James A. - Geldowsky, Ferdinand Building	2-28 Otis St	Cambridge	1869
CAM.374		31 Otis St	Cambridge	1900
CAM.473	Hall, Lewis and William A. Rowhouse	55 Otis St	Cambridge	1851
CAM.474	Hall, Lewis and William A. Rowhouse	57 Otis St	Cambridge	1851



Inv. No.	Property Name	Street	Town	Year
CAM.475	Hall, Lewis and William A. Rowhouse	59 Otis St	Cambridge	1851
CAM.485	Hazard, Samuel L. House	60 Otis St	Cambridge	1871
CAM.476	Hall, Lewis and William A. Rowhouse	61 Otis St	Cambridge	1851
CAM.484		62 Otis St	Cambridge	
CAM.472	Sortwell, Daniel R. Double House	63-65 Otis St	Cambridge	1871
CAM.483		64 Otis St	Cambridge	
CAM.471		65 1/2 Otis St	Cambridge	
CAM.482	Jones, Andrew - Hall, William A. Double House	66-68 Otis St	Cambridge	1846
CAM.470	Goss, Abiel Double House	67-69 Otis St	Cambridge	1839
CAM.481		70 Otis St	Cambridge	
CAM.469		73-75 Otis St	Cambridge	
CAM.480		74 Otis St	Cambridge	
CAM.479		78 Otis St	Cambridge	
CAM.477	Clark, Josias - Cummings, Daniel P. Rowhouse	80 Otis St	Cambridge	1861
CAM.478	Clark, Josias - Cummings, Daniel P. Rowhouse	82 Otis St	Cambridge	1861
CAM.467	Deshon, Royal P. House	93 Otis St	Cambridge	1842
CAM.460		94 Otis St	Cambridge	
CAM.466		95-97 Otis St	Cambridge	
CAM.459		96 Otis St	Cambridge	
CAM.458		98 Otis St	Cambridge	
CAM.457	Taylor, Oliver House	100 Otis St	Cambridge	1848
CAM.455	Adams, Jabez F. - Atwood, Samuel S. Rowhouse	102 Otis St	Cambridge	1848
CAM.464	Bridgeman, John L. Double House	103-105 Otis St	Cambridge	1843
CAM.456	Adams, Jabez F. - Atwood, Samuel S. Rowhouse	104 Otis St	Cambridge	1848
CAM.454		106-108 Otis St	Cambridge	
CAM.463		107-109 Otis St	Cambridge	
CAM.453		110 Otis St	Cambridge	
CAM.462		113 Otis St	Cambridge	
CAM.439		117 1/2 Otis St	Cambridge	
CAM.440		117-119 Otis St	Cambridge	
CAM.451		118 Otis St	Cambridge	
CAM.450		120 Otis St	Cambridge	
CAM.448	Dennison, James Double House	122-124 Otis St	Cambridge	1870
CAM.449		122 1/2-124 1/2 Otis St	Cambridge	
CAM.438		123 Otis St	Cambridge	
CAM.437		125-127 Otis St	Cambridge	



Inv. No.	Property Name	Street	Town	Year
CAM.447		126-128 Otis St	Cambridge	
CAM.436		129-131 Otis St	Cambridge	
CAM.446		130 Otis St	Cambridge	
CAM.445		132 Otis St	Cambridge	
CAM.435		133-135 Otis St	Cambridge	
CAM.275	Hoyt, Benjamin House	134 Otis St	Cambridge	1868
CAM.443		136-138 Otis St	Cambridge	
CAM.434	Warren, Moses - Smith, Benjamin G. Rowhouse	137 Otis St	Cambridge	1852
CAM.1339	Warren, Moses - Smith, Benjamin G. Rowhouse	139 Otis St	Cambridge	1852
CAM.442		140 Otis St	Cambridge	1895
CAM.1340	Warren, Moses - Smith, Benjamin G. Rowhouse	141 Otis St	Cambridge	1852
CAM.1341	Warren, Moses - Smith, Benjamin G. Rowhouse	143 Otis St	Cambridge	1852
CAM.1342	Warren, Moses - Smith, Benjamin G. Rowhouse	145 Otis St	Cambridge	1852
CAM.433	Fraser, John B. Double House	147-149 Otis St	Cambridge	1846
CAM.432		151 Otis St	Cambridge	
CAM.1179	Coop Annex	18 Palmer St	Cambridge	1964
CAM.276	Urban Rowhouse	30-38 Pearl St	Cambridge	1874
CAM.277	Urban Rowhouse	40-50 Pearl St	Cambridge	1875
CAM.278	Valentine Soap Workers' Cottage	101 Pearl St	Cambridge	1835
CAM.1368	Blessed Sacrament Roman Catholic Church	175 Pearl St	Cambridge	1907
CAM.1370	Blessed Sacrament Roman Catholic Church Rectory	189 Pearl St	Cambridge	1868
CAM.279		3 Phillips Pl	Cambridge	
CAM.280		5 Phillips Pl	Cambridge	c 1845
CAM.281		7 Phillips Pl	Cambridge	1898
CAM.282		9 Phillips Pl	Cambridge	r 1870
CAM.1180	Harvard Crimson Newspaper Office	14-18 Plympton St	Cambridge	1915
CAM.1181	Crimson Building Annex	22 Plympton St	Cambridge	1961
CAM.1182	Adams House Dining Hall	28 Plympton St	Cambridge	1930
CAM.1183	Russell Hall	28 Plympton St	Cambridge	1931
CAM.1184	Russell Hall	30-30A Plympton St	Cambridge	1887
CAM.1207	Quincy House - Harvard University	58 Plympton St	Cambridge	1958
CAM.1208	Mather Hall - Harvard University	68-88 Plympton St	Cambridge	1930
CAM.1209		101-103 Plympton St	Cambridge	1870
CAM.1382	Brooks Apartments - Winthrop, John Chambers	78-80 Porter Rd	Cambridge	1915
CAM.283	Willis, Stillman House	1 Potter Pk	Cambridge	1839
CAM.1401	Volpe Center - High Rise Laboratory	2 Potter St	Cambridge	c 1965
CAM.1403	Volpe Center - Space Guidance Building	2 Potter St	Cambridge	c 1965

Inv. No.	Property Name	Street	Town	Year
CAM.1404	Volpe Center - Space Optics Building	2 Potter St	Cambridge	c 1965
CAM.284	Saunders, William House	6 Prentiss St	Cambridge	1843
CAM.1352	Beck - Warren House	1 Prescott St	Cambridge	1833
CAM.285		16 Prescott St	Cambridge	1873
CAM.291	Carpenter Center for the Visual Arts	19 Prescott St	Cambridge	1963
CAM.582	New England Gas and Electric Association I Bldg	45 Prospect St	Cambridge	1960
CAM.286	Prospect Congregational Church	99 Prospect St	Cambridge	1851
CAM.287	Baldwin, Maria House	196 Prospect St	Cambridge	r 1845
CAM.288	Sands, Hiram House	22 Putnam Ave	Cambridge	1848
CAM.293	Harvard Union	Quincy St	Cambridge	1900
CAM.986	Harvard University - Hallowell Gate	10 Quincy St	Cambridge	1928
CAM.289	Dana, Richard Henry - Palmer, George Herbert House	12-16 Quincy St	Cambridge	1822
CAM.952	Harvard University - Quincy Street Gate	17 Quincy St	Cambridge	1936
CAM.1213	Harvard University - President's House	17 Quincy St	Cambridge	1911
CAM.290	Fogg Art Museum	26-32 Quincy St	Cambridge	1925
CAM.292	Church of the New Jerusalem	50 Quincy St	Cambridge	1903
CAM.1266		60 Raymond St	Cambridge	1927
CAM.298	Mason, W. A. House	87 Raymond St	Cambridge	1846
CAM.299	Stickney, N. U. - Shepard, S. P. Double House	11-13 Remington St	Cambridge	1846
CAM.300	Hooper, Edward W. - Eliot, Rev. Samuel A. House	25-27 Reservoir Rd	Cambridge	1872
CAM.301		59 Rice St	Cambridge	1847
CAM.327	Hews Pottery Company Carriage House	202 Richdale Ave	Cambridge	1897
CAM.302	Kidder - Sargent - McCrehan House	146 Rindge Ave	Cambridge	1792
CAM.303	Wyeth Brickyard Superintendent's House	336 Rindge Ave	Cambridge	c 1848
CAM.923	River Street Bridge	River St	Cambridge	1926
CAM.304	Urban Rowhouse	26-32 River St	Cambridge	1860
CAM.330	Ricker, George and Jerediah House	109-113 River St	Cambridge	1844
CAM.305	River Street Firehouse	176 River St	Cambridge	1890
CAM.1211		11 Riverview Ave	Cambridge	1899
CAM.922	Boston University Bridge	Rt 2	Cambridge	1928
CAM.306	Soule, Lawrence Porter House	11 Russell St	Cambridge	1879
CAM.307	Wood, James A. House	3 Sacramento St	Cambridge	1888
CAM.1239	Winthrop Hall - Episcopal Theological School	Saint John's Rd	Cambridge	1892
CAM.529		6-8 Salem St	Cambridge	c 1829
CAM.530		10 Salem St	Cambridge	c 1840
CAM.531		15 Salem St	Cambridge	c 1841

Inv. No.	Property Name	Street	Town	Year
CAM.415	Hastings, Deborah House	72 Sciarappa St	Cambridge	1823
CAM.416		74 Sciarappa St	Cambridge	
CAM.401	Pendexter, Charles House	80-82 Sciarappa St	Cambridge	1847
CAM.1321	Boston Museum of Science	Science Park	Cambridge	1951
CAM.1322	Hayden Planetarium	Science Park	Cambridge	1958
CAM.770		2 Scott St	Cambridge	1889
CAM.771	Thaxter, Roland House	7 Scott St	Cambridge	1891
CAM.772		8 Scott St	Cambridge	1889
CAM.773		11 Scott St	Cambridge	1893
CAM.774		12 Scott St	Cambridge	1894
CAM.775		14 Scott St	Cambridge	1927
CAM.776		18 Scott St	Cambridge	1928
CAM.375	Roby, Ebenezer Rowhouse	30 Second St	Cambridge	1836
CAM.376	Roby, Ebenezer Rowhouse	32 Second St	Cambridge	1836
CAM.377	Roby, Ebenezer Rowhouse	34 Second St	Cambridge	1836
CAM.364	Hall, Jesse Rowhouse	36 Second St	Cambridge	1842
CAM.365	Hall, Jesse Rowhouse	38 Second St	Cambridge	1842
CAM.366	Hall, Jesse Rowhouse	40 Second St	Cambridge	1842
CAM.367	Hall, Jesse Rowhouse	42 Second St	Cambridge	1842
CAM.368	Hall, Jesse Rowhouse	44 Second St	Cambridge	1842
CAM.369	Hall, Jesse Rowhouse	46 Second St	Cambridge	1842
CAM.370		50 Second St	Cambridge	
CAM.308	American Net and Twine Company Factory	155R Second St	Cambridge	1875
CAM.777		1 Shady Hill Sq	Cambridge	1915
CAM.778		2-3 Shady Hill Sq	Cambridge	1915
CAM.779		4-5 Shady Hill Sq	Cambridge	1915
CAM.780		6-7 Shady Hill Sq	Cambridge	1915
CAM.781		8-9 Shady Hill Sq	Cambridge	1915
CAM.782		10-11 Shady Hill Sq	Cambridge	1915
CAM.783		12 Shady Hill Sq	Cambridge	1915
CAM.309	Eliot Hall	51 Shepard St	Cambridge	1907
CAM.310	Bertram Hall	53 Shepard St	Cambridge	1901
CAM.311	Watson, Abraham Jr. House	181-183 Sherman St	Cambridge	c 1750
CAM.506	Sacred Heart Roman Catholic Church	39 Sixth St	Cambridge	1874
CAM.431		40 Sixth St	Cambridge	
CAM.508	Sacred Heart Roman Catholic Church Rectory	49 Sixth St	Cambridge	1885
CAM.927	Eliot Bridge	Soldier's Field Rd	Cambridge	1950
CAM.1210	Bryan Hall - Harvard University	14-24 South St	Cambridge	1930

Inv. No.	Property Name	Street	Town	Year
CAM.312	Stedman, Samuel House	17 South St	Cambridge	1826
CAM.1185	Harvard Advocate Building	21 South St	Cambridge	1956
CAM.313	Dodge, Edward House	70 Sparks St	Cambridge	1878
CAM.325	Harugari Hall	154 Spring St	Cambridge	1873
CAM.1186		4-6 Story St	Cambridge	1966
CAM.1187		8-12 Story St	Cambridge	1969
CAM.1188		14-16 Story St	Cambridge	1970
CAM.353	Blake and Knowles Core Shop #1	Third St	Cambridge	c 1889
CAM.354	Blake and Knowles Core Shop #2	Third St	Cambridge	c 1890
CAM.505	Lechmere Point Corporation Row House	25 Third St	Cambridge	c 1821
CAM.381	Rollins, John W. Rowhouse	83 Third St	Cambridge	1860
CAM.382	Rollins, John W. Rowhouse	85 Third St	Cambridge	1860
CAM.383	Rollins, John W. Rowhouse	87 Third St	Cambridge	1860
CAM.384	Rollins, John W. Rowhouse	89 Third St	Cambridge	1860
CAM.331	Old Middlesex County Superior Courthouse	90 Third St	Cambridge	1814
CAM.385	Rollins, John W. Rowhouse	91 Third St	Cambridge	1860
CAM.386	Rollins, John W. Rowhouse	93 Third St	Cambridge	1860
CAM.387	Rollins, John W. Rowhouse	95 Third St	Cambridge	1860
CAM.314	Holy Cross Polish National Catholic Church	99 Third St	Cambridge	1827
CAM.315	Bottle House Block	204-214 Third St	Cambridge	1826
CAM.350	Blake and Knowles Machine Shop #1	265 Third St	Cambridge	1889
CAM.351	Blake and Knowles Office Headhouse	265 Third St	Cambridge	1892
CAM.355	Blake and Knowles Smith Shop and Brass Foundry	275 Third St	Cambridge	c 1890
CAM.326	Cambridge Gas Light Company Purifying Plant	354 Third St	Cambridge	1908
CAM.388	Stevens, Atherton H. Rowhouse	59 Thorndike St	Cambridge	1827
CAM.395	Smallidge, Samuel House	66 Thorndike St	Cambridge	1827
CAM.389	Bates, Moses Jr. House	69 Thorndike St	Cambridge	1844
CAM.396	Buck, Silas B. House	70 Thorndike St	Cambridge	1845
CAM.390	Tufts, Sophia Kimball Double House	71-73 Thorndike St	Cambridge	1857
CAM.397	Wellington, Peter House	74 Thorndike St	Cambridge	1843
CAM.391		75 Thorndike St	Cambridge	
CAM.398		76 Thorndike St	Cambridge	
CAM.392		77 Thorndike St	Cambridge	
CAM.399		78 Thorndike St	Cambridge	
CAM.393		79-81 Thorndike St	Cambridge	
CAM.400		80 Thorndike St	Cambridge	
CAM.394		83 Thorndike St	Cambridge	

Inv. No.	Property Name	Street	Town	Year
CAM.402	Stickney, Francis H. - Davies, Benjamin Rowhouse	84 Thorndike St	Cambridge	1867
CAM.417	Clark, Cornelius - Kneeland, W. W. House	85 Thorndike St	Cambridge	1822
CAM.403	Stickney, Francis H. - Davies, Benjamin Rowhouse	86 Thorndike St	Cambridge	1867
CAM.404	Stickney, Francis H. - Davies, Benjamin Rowhouse	88 Thorndike St	Cambridge	1867
CAM.418		89-91 Thorndike St	Cambridge	
CAM.405	Stickney, Francis H. - Davies, Benjamin Rowhouse	90 Thorndike St	Cambridge	1867
CAM.406	Stickney, Francis H. - Davies, Benjamin Rowhouse	92 Thorndike St	Cambridge	1867
CAM.419	Whitacre, Celeste I. Rowhouse	93 Thorndike St	Cambridge	1885
CAM.407	Stickney, Francis H. - Davies, Benjamin Rowhouse	94 Thorndike St	Cambridge	1867
CAM.420	Whitacre, Celeste I. Rowhouse	95 Thorndike St	Cambridge	1885
CAM.408	Train, Isaac House	96 Thorndike St	Cambridge	1826
CAM.421	Whitacre, Celeste I. Rowhouse	97 Thorndike St	Cambridge	1885
CAM.422	Davies, Daniel House	97 1/2 Thorndike St	Cambridge	1843
CAM.409		98 Thorndike St	Cambridge	
CAM.423		99 Thorndike St	Cambridge	
CAM.424	Daniels, Granville W. House	101 Thorndike St	Cambridge	1868
CAM.410		102 Thorndike St	Cambridge	
CAM.411	Spare, Elijah Jr. Double House	104-106 Thorndike St	Cambridge	1846
CAM.425	Eaton, Charles House	109 Thorndike St	Cambridge	1857
CAM.412	Quimby, Amos House	110 Thorndike St	Cambridge	1857
CAM.426		111-113 Thorndike St	Cambridge	
CAM.413	Stickney, Francis H. Double House	112-114 Thorndike St	Cambridge	1863
CAM.427		113 1/2 Thorndike St	Cambridge	
CAM.414	Bacon, Henry A. House	116 Thorndike St	Cambridge	1865
CAM.507	Sacred Heart Roman Catholic School and Convent	163 Thorndike St	Cambridge	1902
CAM.316	Craigie Arms	2-6 University Rd	Cambridge	1897
CAM.317	Wyeth, Jacob - Smith, Ebenezer House	152 Vassal Ln	Cambridge	1820
CAM.360	Metropolitan Supply Company Warehouse	269 Vassar St	Cambridge	1948
CAM.361	Hovey, F. A. and Company Warehouse	271-275 Vassar St	Cambridge	c 1940
CAM.362	Metropolitan Supply Company Warehouse	277-287 Vassar St	Cambridge	1939
CAM.363	Metropolitan Supply Company Warehouse	289-293 Vassar St	Cambridge	1939
CAM.989	Walden Street Cattle Pass	Walden St	Cambridge	1857
CAM.1283	Bennink - Douglas Double Cottage	35-37 Walker St	Cambridge	1874

Inv. No.	Property Name	Street	Town	Year
CAM.1284	Bennink - Douglas Double Cottage	39-41 Walker St	Cambridge	1874
CAM.1285	Bennink - Douglas Double Cottage	43-45 Walker St	Cambridge	1874
CAM.1286	Bennink - Douglas Double Cottage	49-51 Walker St	Cambridge	1874
CAM.1034	Sands, Orrin E. House	2 Walnut Ave	Cambridge	1911
CAM.1032		4 Walnut Ave	Cambridge	1878
CAM.1033	Niles, Jacob Harris House	6 Walnut Ave	Cambridge	1884
CAM.1031	Niles, Eugene M. House	9 Walnut Ave	Cambridge	1887
CAM.318	Stanstead, The	19 Ware St	Cambridge	1887
CAM.799	Ritchie, David House	26 Washington Ave	Cambridge	1889
CAM.793	Brown, Laura House	27 Washington Ave	Cambridge	1908
CAM.794	Mellen, James House	33 Washington Ave	Cambridge	1887
CAM.795	Kelley, Stillman F. House	49 Washington Ave	Cambridge	1887
CAM.1000	Boardman, Charles House	58 Washington Ave	Cambridge	1880
CAM.797	Mansfield, Gardiner House	63 Washington Ave	Cambridge	1873
CAM.798	Green, Charles G. House	71 Washington Ave	Cambridge	1877
CAM.1001	Boynton, Morris House	78 Washington Ave	Cambridge	c 1874
CAM.319	Melendy, Henry J. House	81 Washington Ave	Cambridge	1871
CAM.1002		86-88 Washington Ave	Cambridge	1870
CAM.1003		92 Washington Ave	Cambridge	1876
CAM.1004	Hutchins, Elizabeth House	108 Washington Ave	Cambridge	1924
CAM.541	Whittemore, Rev. Thomas Double House	271-273 Washington St	Cambridge	1837
CAM.540	Whittemore, Rev. Thomas Double House	288 Washington St	Cambridge	1837
CAM.539	Paige, Rev. Lucius R. House	296 Washington St	Cambridge	1837
CAM.346		1 Waterhouse St	Cambridge	1916
CAM.320	Vassall - Waterhouse - Ware House	7 Waterhouse St	Cambridge	c 1753
CAM.347		9 Waterhouse St	Cambridge	1887
CAM.335	Christian Science Church	13 Waterhouse St	Cambridge	1923
CAM.988	Fort Washington	95 Waverly St	Cambridge	
CAM.924	Western Avenue Bridge	Western Ave	Cambridge	1924
CAM.638	Cambridge Police Headquarters	5 Western Ave	Cambridge	1933
CAM.948	Central Square Park	22 Western Ave	Cambridge	1987
CAM.321	Read, Cheney House	135 Western Ave	Cambridge	1846
CAM.323	Hasey, Abraham - Wheat, Dr. Samuel House	8 Willard St	Cambridge	c 1730
CAM.514	Hixon, Edward House	3 William St	Cambridge	1857
CAM.1378	Immaculate Conception (Lithuanian) Catholic Church	432 Windsor St	Cambridge	1910
CAM.1379	Immaculate Conception (Lithuanian) Church Rectory	432 Windsor St	Cambridge	1972



Inv. No.	Property Name	Street	Town	Year
CAM.1380	Immaculate Conception Church Rectory Metal Garage	432 Windsor St	Cambridge	1941
CAM.1381	Immaculate Conception Church Rectory Wood Garage	432 Windsor St	Cambridge	1948
CAM.500		19 Winter St	Cambridge	r 1855
CAM.492		21 Winter St	Cambridge	c 1854
CAM.486	Leighton, Thomas H. House	22 Winter St	Cambridge	1833
CAM.491		24 Winter St	Cambridge	c 1854
CAM.493		25 Winter St	Cambridge	c 1854
CAM.494		27 Winter St	Cambridge	c 1854
CAM.496		28-30 Winter St	Cambridge	c 1854
CAM.495		29 Winter St	Cambridge	c 1854
CAM.497		31-33 Winter St	Cambridge	c 1854
CAM.501		34-42 Winter St	Cambridge	r 1875
CAM.498		61 Winter St	Cambridge	c 1854
CAM.499		65 Winter St	Cambridge	c 1854
CAM.489	Stevens, Atherton Haugh House	67 Winter St	Cambridge	1843
CAM.490	Stevens, Atherton Haugh House	71 Winter St	Cambridge	1843
CAM.487	Stevens, Atherton Haugh House	74 Winter St	Cambridge	1838
CAM.1344		75 Winter St	Cambridge	
CAM.1345	Stevens, Atherton Haugh House	77 Winter St	Cambridge	1838
CAM.488	Stevens, Atherton Haugh House	79 Winter St	Cambridge	1838
CAM.1189	Metcalf, Lydia House	41 Winthrop St	Cambridge	1845
CAM.1190		65-67 Winthrop St	Cambridge	1887
CAM.1191	University Lutheran Church	66 Winthrop St	Cambridge	1950
CAM.1192		69 Winthrop St	Cambridge	r 1835
CAM.1193	Pi Eta Club	89 Winthrop St	Cambridge	r 1908
CAM.1194	Pi Eta Hall	95 Winthrop St	Cambridge	r 1896
CAM.1195	Hyde, Isaac - Taylor House	96 Winthrop St	Cambridge	1845
CAM.329	Cox - Hicks House	98 Winthrop St	Cambridge	c 1806
CAM.951	Winthrop Street Retaining Wall	98 Winthrop St	Cambridge	c 1725
CAM.1196	Dame School	106 Winthrop St	Cambridge	c 1800
CAM.909	Yerxa Street Pedestrian Subway	Yerxa St	Cambridge	1904
CAM.1391	Saint Patrick's Roman Catholic Church	40-50 York St	Cambridge	



# Massachusetts Cultural Resource Information System

## MACRIS



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**Inventory No:** CAM.357  
**Historic Name:** Blake and Knowles Machine Shop #2  
**Common Name:** United Carr Fasteners Company  
**Address:** 195 Binney St

**City/Town:** Cambridge  
**Village/Neighborhood:** East Cambridge  
**Local No:** C  
**Year Constructed:** 1917  
**Architect(s):**  
**Architectural Style(s):** No style  
**Use(s):** Business Office; Machine Shop  
**Significance:** Architecture; Industry

**Area(s):**  [CAM.C: Blake and Knowles Steam Pump Company](#)  
 [CAM.AV: Blake and Knowles Steam Pump Company](#)

**Designation(s):** Nat'l Register District (6/13/1997)  
**Building Material(s):** Wall: Concrete, Reinforced; Brick; Steel



There is no form for this resource. Information can be found on the [CAM.C](#) form and/or the appropriate area forms listed below.

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# Massachusetts Cultural Resource Information System

## MACRIS



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**Inventory No:** CAM.358  
**Historic Name:** Blake and Knowles Machine Shop #3  
**Common Name:** United Carr Fasteners Company  
**Address:** 199 Binney St

**City/Town:** Cambridge  
**Village/Neighborhood:** East Cambridge  
**Local No:** C  
**Year Constructed:** 1918  
**Architect(s):**  
**Architectural Style(s):** No style  
**Use(s):** Business Office; Machine Shop  
**Significance:** Architecture; Industry

**Area(s):**  [CAM.C: Blake and Knowles Steam Pump Company](#)  
 [CAM.AV: Blake and Knowles Steam Pump Company](#)

**Designation(s):** Nat'l Register District (6/13/1997)  
**Building Material(s):** Roof: Tar, Built-up; Synthetic Other  
 Wall: Concrete, Reinforced; Brick; Steel; Sheet Metal



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**Inventory No:** CAM.358  
**Historic Name:** Blake and Knowles Machine Shop #3  
**Common Name:** United Carr Fasteners Company  
**Address:** 199 Binney St

**City/Town:** Cambridge  
**Village/Neighborhood:** East Cambridge  
**Local No:** C  
**Year Constructed:** 1918  
**Architect(s):**  
**Architectural Style(s):** No style  
**Use(s):** Business Office; Machine Shop  
**Significance:** Architecture; Industry

**Area(s):**  [CAM.C: Blake and Knowles Steam Pump Company](#)  
 [CAM.AV: Blake and Knowles Steam Pump Company](#)

**Designation(s):** Nat'l Register District (6/13/1997)  
**Building Material(s):** Roof: Tar, Built-up; Synthetic Other  
 Wall: Concrete, Reinforced; Brick; Steel; Sheet Metal



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## MACRIS

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**Inventory No:** CAM.356  
**Historic Name:** Blake and Knowles Erecting and Assembling Building  
**Common Name:**  
**Address:** 201 Binney St  
 Binney and Fifth Sts  
**City/Town:** Cambridge  
**Village/Neighborhood:** East Cambridge  
**Local No:** C  
**Year Constructed:** 1903  
**Architect(s):**  
**Architectural Style(s):** Panel Brick  
**Use(s):** Other Industrial; Other Manufacturing  
**Significance:** Architecture; Industry  
**Area(s):**  [CAM.C: Blake and Knowles Steam Pump Company](#)  
 [CAM.AV: Blake and Knowles Steam Pump Company](#)  
**Designation(s):** Nat'l Register District (6/13/1997)  
**Building Material(s):** Wall: Brick; Granite; Stone, Cut



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## National Register of Historic Places

## National Register Documentation on Listed Properties

Note: Not all National Register properties have been digitized yet

Reference	State	County	City	Resource	Address	Listed	Text	Photo
79000354	MASSACHUSETTS	Middlesex	Cambridge	Abbot, Edwin, House	1 Follen St.	19790510	<a href="#">Text</a>	<a href="#">Photo</a>
82001965	MASSACHUSETTS	Middlesex	Cambridge	Noyes, J.A., House	1 Highland St.	19820413	<a href="#">Text</a>	<a href="#">Photo</a>
82001985	MASSACHUSETTS	Middlesex	Cambridge	Willis, Stillman, House	1 Potter Park	19820413	<a href="#">Text</a>	<a href="#">Photo</a>
96000520	MASSACHUSETTS	Middlesex	Cambridge	Beck--Warren House	1 Prescott St.	19960520	<a href="#">Text</a>	<a href="#">Photo</a>
86001318	MASSACHUSETTS	Middlesex	Cambridge	Withey, S. B., House	10 Appian Way	19860519	<a href="#">Text</a>	<a href="#">Photo</a>
75000298	MASSACHUSETTS	Middlesex	Cambridge	Bridgman, Percy, House	10 Buckingham Pl.	19750515	<a href="#">Text</a>	<a href="#">Photo</a>
82001954	MASSACHUSETTS	Middlesex	Cambridge	Kingsley, Chester, House	10 Chester St.	19820413	<a href="#">Text</a>	<a href="#">Photo</a>
83000822	MASSACHUSETTS	Middlesex	Cambridge	Orne, Sarah, House	10 Coolidge Hill Rd.	19830630	<a href="#">Text</a>	<a href="#">Photo</a>
82001926	MASSACHUSETTS	Middlesex	Cambridge	Building at 10 Follen Street	10 Follen St.	19820413	<a href="#">Text</a>	<a href="#">Photo</a>
82001942	MASSACHUSETTS	Middlesex	Cambridge	Frost, Walter, House	10 Frost St.	19820413	<a href="#">Text</a>	<a href="#">Photo</a>
70000681	MASSACHUSETTS	Middlesex	Cambridge	Hastings, Oliver, House	101 Brattle St.	19701230	<a href="#">Text</a>	<a href="#">Photo</a>
83000833	MASSACHUSETTS	Middlesex	Cambridge	Valentine Soap Workers Cottage	101 Pearl St.	19830630	<a href="#">Text</a>	<a href="#">Photo</a>
83000790	MASSACHUSETTS	Middlesex	Cambridge	Building at 102-104 Inman Street	102-104 Inman St.	19830630	<a href="#">Text</a>	<a href="#">Photo</a>
83000796	MASSACHUSETTS	Middlesex	Cambridge	cummings, e.e., House	104 Irving St.	19830630	<a href="#">Text</a>	<a href="#">Photo</a>
83000789	MASSACHUSETTS	Middlesex	Cambridge	Building at 104-106 Hancock Street	104-106 Hancock St.	19830630	<a href="#">Text</a>	<a href="#">Photo</a>
66000049	MASSACHUSETTS	Middlesex	Cambridge	Longfellow National Historic Site	105 Brattle St.	19661015	<a href="#">Text</a>	<a href="#">Photo</a>
82001927	MASSACHUSETTS	Middlesex	Cambridge	Building at 106-108 Inman St	106-108 Inman St.	19820413	<a href="#">Text</a>	<a href="#">Photo</a>
83004030	MASSACHUSETTS	Middlesex	Cambridge	Homer-Lovell House	11 Forest St.	19831222	<a href="#">Text</a>	<a href="#">Photo</a>
82001959	MASSACHUSETTS	Middlesex	Cambridge	Mason, Josiah, Jr., House	11 Market St.	19820413	<a href="#">Text</a>	<a href="#">Photo</a>
82001978	MASSACHUSETTS	Middlesex	Cambridge	Soule, Lawrence, House	11 Russell St.	19820413	<a href="#">Text</a>	<a href="#">Photo</a>
83000781	MASSACHUSETTS	Middlesex	Cambridge	Atwood, Ephraim, House	110 Hancock St.	19830630	<a href="#">Text</a>	<a href="#">Photo</a>
82001929	MASSACHUSETTS	Middlesex	Cambridge	Buildings at 110-112 Inman St.	110-112 Inman St.	19820413	<a href="#">Text</a>	<a href="#">Photo</a>
86001315	MASSACHUSETTS	Middlesex	Cambridge	Stickney--Shepard House	11--13 Remington St.	19860519	<a href="#">Text</a>	<a href="#">Photo</a>
83000826	MASSACHUSETTS	Middlesex	Cambridge	Second Cambridge Savings Bank Building	11-21 Dunster St.	19830630	<a href="#">Text</a>	<a href="#">Photo</a>
86002081	MASSACHUSETTS	Middlesex	Cambridge	University Museum	11--25 Divinity Ave.	19860912	<a href="#">Text</a>	<a href="#">Photo</a>
82001979	MASSACHUSETTS	Middlesex	Cambridge	Taylor Square Firehouse	113 Garden St.	19820413	<a href="#">Text</a>	<a href="#">Photo</a>
86002071	MASSACHUSETTS	Middlesex	Cambridge	Divinity Hall	12 Divinity Ave.	19860912	<a href="#">Text</a>	<a href="#">Photo</a>
78000442	MASSACHUSETTS	Middlesex	Cambridge	Hasty Pudding Club	12 Holyoke St.	19780109	<a href="#">Text</a>	<a href="#">Photo</a>
86001682	MASSACHUSETTS	Middlesex	Cambridge	Dana--Palmer House	12--16 Quincy St.	19860519	<a href="#">Text</a>	<a href="#">Photo</a>
83000799	MASSACHUSETTS	Middlesex	Cambridge	Fay, Issac, House	123 Antrim St.	19830630	<a href="#">Text</a>	<a href="#">Photo</a>
89002285	MASSACHUSETTS	Middlesex	Cambridge	Kennedy, F. A., Steam Bakery	129 Franklin St.	19900104	<a href="#">Text</a>	<a href="#">Photo</a>
83000800	MASSACHUSETTS	Middlesex	Cambridge	Flentje, Ernst, House	129 Magazine St.	19830630	<a href="#">Text</a>	<a href="#">Photo</a>
83000824	MASSACHUSETTS	Middlesex	Cambridge	Porcellian Club	1320-24 Massachusetts Ave.	19830630	<a href="#">Text</a>	<a href="#">Photo</a>
82001953	MASSACHUSETTS	Middlesex	Cambridge	Hoyt, Benjamin, House	134 Otis St.	19820413	<a href="#">Text</a>	<a href="#">Photo</a>
82001971	MASSACHUSETTS	Middlesex	Cambridge	Read, Cheney, House	135 Western Ave.	19820413	<a href="#">Text</a>	<a href="#">Photo</a>
86001283	MASSACHUSETTS	Middlesex	Cambridge	Gray Gardens East and West Historic District	1--37 Gray Gardens E, 3--24 Gray	19860519	<a href="#">Text</a>	<a href="#">Photo</a>
82001935	MASSACHUSETTS	Middlesex	Cambridge	Day, Anna, House	139 Cushing St.	19820413	<a href="#">Text</a>	<a href="#">Photo</a>
87002543	MASSACHUSETTS	Middlesex	Cambridge	Gale, George, House	14--16 Clinton St.	19880210	<a href="#">Text</a>	<a href="#">Photo</a>
86001681	MASSACHUSETTS	Middlesex	Cambridge	Follen Street Historic District	1--44 and 5--29 Follen St.	19860519	<a href="#">Text</a>	<a href="#">Photo</a>
83000808	MASSACHUSETTS	Middlesex	Cambridge	Holmes, Joseph, House	144 Coolidge Hill St.	19830630	<a href="#">Text</a>	<a href="#">Photo</a>
82001976	MASSACHUSETTS	Middlesex	Cambridge	Sands, Ivory, House	145 Elm St.	19820413	<a href="#">Text</a>	<a href="#">Photo</a>
82001952	MASSACHUSETTS	Middlesex	Cambridge	Kidder-Sargent-McCrehan House	146 Rindge Ave.	19820413	<a href="#">Text</a>	<a href="#">Photo</a>
76001999	MASSACHUSETTS	Middlesex	Cambridge	Richards, Theodore W., House	15 Follen St.	19760107	<a href="#">Text</a>	<a href="#">Photo</a>
82001930	MASSACHUSETTS	Middlesex	Cambridge	Buildings at 15-17 Lee St.	15-17 Lee St.	19820413	<a href="#">Text</a>	<a href="#">Photo</a>
82001989	MASSACHUSETTS	Middlesex	Cambridge	Wyeth-Smith House	152 Vassal Lane	19820413	<a href="#">Text</a>	<a href="#">Photo</a>
82001906	MASSACHUSETTS	Middlesex	Cambridge	American Net and Twine Company Factory	155 2nd St.	19820401	<a href="#">Text</a>	<a href="#">Photo</a>
83000798	MASSACHUSETTS	Middlesex	Cambridge	Ellis, Asa, House	158 Auburn St.	19830630	<a href="#">Text</a>	<a href="#">Photo</a>
79000355	MASSACHUSETTS	Middlesex	Cambridge	Hooper-Lee Nichols House	159 Brattle St.	19790615	<a href="#">Text</a>	<a href="#">Photo</a>
86002070	MASSACHUSETTS	Middlesex	Cambridge	Littlefield--Roberts House	16 Prescott St.	19860912	<a href="#">Text</a>	<a href="#">Photo</a>
86001311	MASSACHUSETTS	Middlesex	Cambridge	Montrose, The	1648 Massachusetts Ave.	19860519	<a href="#">Text</a>	<a href="#">Photo</a>
86001279	MASSACHUSETTS	Middlesex	Cambridge	Dunvegan, The	1654 Massachusetts Ave.	19860519	<a href="#">Text</a>	<a href="#">Photo</a>
83000807	MASSACHUSETTS	Middlesex	Cambridge	Hill, Aaron, House	17 Brown St.	19830630	<a href="#">Text</a>	<a href="#">Photo</a>
76000306	MASSACHUSETTS	Middlesex	Cambridge	Davis, William Morris, House	17 Francis St.	19760107	<a href="#">Text</a>	<a href="#">Photo</a>
83000787	MASSACHUSETTS	Middlesex	Cambridge	Building at 1707-1709 Cambridge Street	1707-1709 Cambridge St.	19830630	<a href="#">Text</a>	<a href="#">Photo</a>
83000788	MASSACHUSETTS	Middlesex	Cambridge	Building at 1715-1717 Cambridge Street	1715-1717 Cambridge St.	19830630	<a href="#">Text</a>	<a href="#">Photo</a>
82001973	MASSACHUSETTS	Middlesex	Cambridge	River Street Firehouse	176 River St.	19820413	<a href="#">Text</a>	<a href="#">Photo</a>
86001265	MASSACHUSETTS	Middlesex	Cambridge	Berkeley Street Historic District (Boundary I)	1--8 Berkeley Pl.	19860519	<a href="#">Text</a>	<a href="#">Photo</a>
82001984	MASSACHUSETTS	Middlesex	Cambridge	Watson, Abraham, House	181-183 Sherman St.	19820413	<a href="#">Text</a>	<a href="#">Photo</a>
83000819	MASSACHUSETTS	Middlesex	Cambridge	North Avenue Congregational Church	183 Massachusetts Ave.	19830630	<a href="#">Text</a>	<a href="#">Photo</a>
83000814	MASSACHUSETTS	Middlesex	Cambridge	Lovell Block	1853 Massachusetts Ave.	19830630	<a href="#">Text</a>	<a href="#">Photo</a>
94000546	MASSACHUSETTS	Middlesex	Cambridge	Shell Oil Company "Spectacular" Sign	187 Magazine St.	19940603	<a href="#">Text</a>	<a href="#">Photo</a>
82001962	MASSACHUSETTS	Middlesex	Cambridge	Melvin, Isaac, House	19 Centre St.	19820413	<a href="#">Text</a>	<a href="#">Photo</a>
78000435	MASSACHUSETTS	Middlesex	Cambridge	Carpenter Center for the Visual Arts	19 Prescott St.	19780420	<a href="#">Text</a>	<a href="#">Photo</a>
86001313	MASSACHUSETTS	Middlesex	Cambridge	Stanstead, The	19 Ware St.	19860519	<a href="#">Text</a>	<a href="#">Photo</a>
82001972	MASSACHUSETTS	Middlesex	Cambridge	Reardon, Edmund, House	195 Erie St.	19820413	<a href="#">Text</a>	<a href="#">Photo</a>
76000272	MASSACHUSETTS	Middlesex	Cambridge	Baldwin, Maria, House	196 Prospect St.	19760511	<a href="#">Text</a>	<a href="#">Photo</a>
83000828	MASSACHUSETTS	Middlesex	Cambridge	St. James Episcopal Church	1991 Massachusetts Ave.	19830630	<a href="#">Text</a>	<a href="#">Photo</a>
83000806	MASSACHUSETTS	Middlesex	Cambridge	Hall Tavern	20 Gray Gardens West St.	19830630	<a href="#">Text</a>	<a href="#">Photo</a>
82001919	MASSACHUSETTS	Middlesex	Cambridge	Barnes, James B., House	200 Monsignor O'Brien Hwy.	19820413	<a href="#">Text</a>	<a href="#">Photo</a>
82001924	MASSACHUSETTS	Middlesex	Cambridge	Bottle House Block	204-214 3rd St.	19820413	<a href="#">Text</a>	<a href="#">Photo</a>
82001947	MASSACHUSETTS	Middlesex	Cambridge	Henderson Carriage Repository	2067-2089 Massachusetts Ave.	19820413	<a href="#">Text</a>	<a href="#">Photo</a>
86002078	MASSACHUSETTS	Middlesex	Cambridge	Treadwell--Sparks House	21 Kirkland St.	19860912	<a href="#">Text</a>	<a href="#">Photo</a>
72000124	MASSACHUSETTS	Middlesex	Cambridge	Cooper-Frost-Austin House	21 Linnaean St.	19720922	<a href="#">Text</a>	<a href="#">Photo</a>



82001936	MASSACHUSETTS Middlesex	Cambridge Deane-Williams House	21-23 Fayette St.	19820413	<a href="#">Text</a>	<a href="#">Photo</a>
82001917	MASSACHUSETTS Middlesex	Cambridge Athenaeum Press	215 1st St.	19820413	<a href="#">Text</a>	<a href="#">Photo</a>
75000295	MASSACHUSETTS Middlesex	Cambridge Birkhoff, George D., House	22 Craigie	19750515	<a href="#">Text</a>	<a href="#">Photo</a>
82001956	MASSACHUSETTS Middlesex	Cambridge Larches, The	22 Larch Rd.	19820413	<a href="#">Text</a>	<a href="#">Photo</a>
76000238	MASSACHUSETTS Middlesex	Cambridge Sands, Hiram, House	22 Putnam Ave.	19760430	<a href="#">Text</a>	<a href="#">Photo</a>
82001961	MASSACHUSETTS Middlesex	Cambridge Mead, Alpheus, House	2200 Massachusetts Ave.	19820413	<a href="#">Text</a>	<a href="#">Photo</a>
82001960	MASSACHUSETTS Middlesex	Cambridge McLean, Isaac, House	2218 Massachusetts Ave.	19820413	<a href="#">Text</a>	<a href="#">Photo</a>
82001939	MASSACHUSETTS Middlesex	Cambridge Farwell, R.H., House	2222-2224 Massachusetts Ave.	19820413	<a href="#">Text</a>	<a href="#">Photo</a>
83000829	MASSACHUSETTS Middlesex	Cambridge St. John's Roman Catholic Church	2270 Massachusetts Ave.	19830630	<a href="#">Text</a>	<a href="#">Photo</a>
82001963	MASSACHUSETTS Middlesex	Cambridge Newman, Andrew, House	23 Fairmont St.	19820413	<a href="#">Text</a>	<a href="#">Photo</a>
76000305	MASSACHUSETTS Middlesex	Cambridge Daly, Reginald A., House	23 Hawthorn St.	19760107	<a href="#">Text</a>	<a href="#">Photo</a>
82001940	MASSACHUSETTS Middlesex	Cambridge Fresh Pond Hotel	234 Lakeview Ave.	19820413	<a href="#">Text</a>	<a href="#">Photo</a>
82001921	MASSACHUSETTS Middlesex	Cambridge Beth Israel Synagogue	238 Columbia St.	19820413	<a href="#">Text</a>	<a href="#">Photo</a>
83000795	MASSACHUSETTS Middlesex	Cambridge Coolidge, Josiah, House	24 Coolidge Hill Rd.	19830630	<a href="#">Text</a>	<a href="#">Photo</a>
82001969	MASSACHUSETTS Middlesex	Cambridge Opposition House	2-4 Hancock Pl.	19820413	<a href="#">Text</a>	<a href="#">Photo</a>
82001958	MASSACHUSETTS Middlesex	Cambridge Lowell School	25 Lowell St.	19820413	<a href="#">Text</a>	<a href="#">Photo</a>
83000809	MASSACHUSETTS Middlesex	Cambridge Hooper-Eliot House	25 Reservoir Rd.	19830630	<a href="#">Text</a>	<a href="#">Photo</a>
05001209	MASSACHUSETTS Middlesex	Cambridge New England Confectionery Company Factory	250 Massachusetts Ave.	20051109	<a href="#">Text</a>	<a href="#">Photo</a>
85002663	MASSACHUSETTS Middlesex	Cambridge Reversible Collar Company Building	25--27 Mt. Auburn & 10--12 Arroyo	19850927	<a href="#">Text</a>	<a href="#">Photo</a>
83000786	MASSACHUSETTS Middlesex	Cambridge Building at 259 Mount Auburn Street	259 Mt. Auburn St.	19830630	<a href="#">Text</a>	<a href="#">Photo</a>
83000801	MASSACHUSETTS Middlesex	Cambridge Frost, David, House	26 Gray St.	19830630	<a href="#">Text</a>	<a href="#">Photo</a>
86001575	MASSACHUSETTS Middlesex	Cambridge Craigie Arms	2--6 University Rd., 122 Mt. Auburn	19860710	<a href="#">Text</a>	<a href="#">Photo</a>
86001282	MASSACHUSETTS Middlesex	Cambridge Fogg Art Museum	26--32 Quincy St.	19860519	<a href="#">Text</a>	<a href="#">Photo</a>
83000831	MASSACHUSETTS Middlesex	Cambridge Urban Rowhouse	26-32 River St.	19830630	<a href="#">Text</a>	<a href="#">Photo</a>
86001308	MASSACHUSETTS Middlesex	Cambridge Jarvis, The	27 Everett St.	19860519	<a href="#">Text</a>	<a href="#">Photo</a>
82001948	MASSACHUSETTS Middlesex	Cambridge Higginson, Col. Thomas Wentworth, House	29 Buckingham St.	19820413	<a href="#">Text</a>	<a href="#">Photo</a>
83000793	MASSACHUSETTS Middlesex	Cambridge Cloverden	29 Fallen St.	19830630	<a href="#">Text</a>	<a href="#">Photo</a>
82001938	MASSACHUSETTS Middlesex	Cambridge East Cambridge Savings Bank	292 Cambridge St.	19820413	<a href="#">Text</a>	<a href="#">Photo</a>
82001941	MASSACHUSETTS Middlesex	Cambridge Frost, Robert, House	29-35 Brewster St.	19820413	<a href="#">Text</a>	<a href="#">Photo</a>
86001319	MASSACHUSETTS Middlesex	Cambridge Wood, J. A., House	3 Sacramento St.	19860519	<a href="#">Text</a>	<a href="#">Photo</a>
82001983	MASSACHUSETTS Middlesex	Cambridge Urban Rowhouse	30-38 Pearl St.	19820413	<a href="#">Text</a>	<a href="#">Photo</a>
83000813	MASSACHUSETTS Middlesex	Cambridge Jones, William R., House	307 Harvard St.	19830630	<a href="#">Text</a>	<a href="#">Photo</a>
83000834	MASSACHUSETTS Middlesex	Cambridge Vinal, Albert, House	325 Harvard St.	19830630	<a href="#">Text</a>	<a href="#">Photo</a>
66000364	MASSACHUSETTS Middlesex	Cambridge Elmwood	33 Elmwood Ave.	19661015	<a href="#">Text</a>	<a href="#">Photo</a>
83000815	MASSACHUSETTS Middlesex	Cambridge Lowell, The	33 Lexington Ave.	19830630	<a href="#">Text</a>	<a href="#">Photo</a>
82001987	MASSACHUSETTS Middlesex	Cambridge Wyeth Brickyard Superintendent's House	336 Rindge Ave.	19820413	<a href="#">Text</a>	<a href="#">Photo</a>
86002068	MASSACHUSETTS Middlesex	Cambridge Brooks, Luther, House	34 Kirkland St.	19860912	<a href="#">Text</a>	<a href="#">Photo</a>
83000802	MASSACHUSETTS Middlesex	Cambridge Frost, Elizabeth, Tenanthouse	35 Bowdoin St.	19830630	<a href="#">Text</a>	<a href="#">Photo</a>
86001272	MASSACHUSETTS Middlesex	Cambridge Bennink--Douglas Cottages	35--51 Walker St.	19860519	<a href="#">Text</a>	<a href="#">Photo</a>
83000784	MASSACHUSETTS Middlesex	Cambridge Bradbury, William F., House	369 Harvard St.	19830630	<a href="#">Text</a>	<a href="#">Photo</a>
82001949	MASSACHUSETTS Middlesex	Cambridge Howells, William Dean, House	37 Concord Ave.	19820413	<a href="#">Text</a>	<a href="#">Photo</a>
86002076	MASSACHUSETTS Middlesex	Cambridge Lovering, Joseph, House	38 Kirkland St.	19860912	<a href="#">Text</a>	<a href="#">Photo</a>
86001284	MASSACHUSETTS Middlesex	Cambridge Hapgood, Richard, House	382--392 Harvard St.	19860519	<a href="#">Text</a>	<a href="#">Photo</a>
83000835	MASSACHUSETTS Middlesex	Cambridge Ware Hall	383 Harvard St.	19830630	<a href="#">Text</a>	<a href="#">Photo</a>
82001968	MASSACHUSETTS Middlesex	Cambridge Old Cambridge Baptist Church	398 Harvard St.	19820413	<a href="#">Text</a>	<a href="#">Photo</a>
82001925	MASSACHUSETTS Middlesex	Cambridge Brattle Hall	40 Brattle St.	19820413	<a href="#">Text</a>	<a href="#">Photo</a>
82001982	MASSACHUSETTS Middlesex	Cambridge Urban Rowhouse	40-48 Pearl St.	19820413	<a href="#">Text</a>	<a href="#">Photo</a>
82001883	MASSACHUSETTS Middlesex	Cambridge Aborn, John, House	41 Orchard St.	19820413	<a href="#">Text</a>	<a href="#">Photo</a>
82001908	MASSACHUSETTS Middlesex	Cambridge Almshouse	41 Orchard St.	19820413	<a href="#">Text</a>	<a href="#">Photo</a>
86001312	MASSACHUSETTS Middlesex	Cambridge Peabody Court Apartments	41--43 Linnaean St.	19860519	<a href="#">Text</a>	<a href="#">Photo</a>
73000286	MASSACHUSETTS Middlesex	Cambridge Brattle, William, House	42 Brattle St.	19730508	<a href="#">Text</a>	<a href="#">Photo</a>
82001928	MASSACHUSETTS Middlesex	Cambridge Building at 42 Edward J. Lopez Avenue	42 Edward J. Lopez Ave.	19820413	<a href="#">Text</a>	<a href="#">Photo</a>
86001276	MASSACHUSETTS Middlesex	Cambridge Brabrook, E. H., House	42--44 Avon St.	19860519	<a href="#">Text</a>	<a href="#">Photo</a>
78000440	MASSACHUSETTS Middlesex	Cambridge Harvard Lampoon Building	44 Bow St.	19780330	<a href="#">Text</a>	<a href="#">Photo</a>
82001931	MASSACHUSETTS Middlesex	Cambridge Cambridge Public Library	449 Broadway St.	19820413	<a href="#">Text</a>	<a href="#">Photo</a>
82001923	MASSACHUSETTS Middlesex	Cambridge Billings, Frederick, House	45 Orchard St.	19820413	<a href="#">Text</a>	<a href="#">Photo</a>
82001957	MASSACHUSETTS Middlesex	Cambridge Lechmere Point Corporation Houses	45-51 Gore St. and 25 3rd St.	19820413	<a href="#">Text</a>	<a href="#">Photo</a>
90000142	MASSACHUSETTS Middlesex	Cambridge DeRosay--McNamee House	50 Mt. Vernon St.	19900302	<a href="#">Text</a>	<a href="#">Photo</a>
83000792	MASSACHUSETTS Middlesex	Cambridge Church of the New Jerusalem	50 Quincy St.	19830630	<a href="#">Text</a>	<a href="#">Photo</a>
86001280	MASSACHUSETTS Middlesex	Cambridge Eliot Hall at Radcliffe College	51 Shepard St.	19860519	<a href="#">Text</a>	<a href="#">Photo</a>
86001270	MASSACHUSETTS Middlesex	Cambridge Bertram Hall at Radcliffe College	53 Shepard St.	19860519	<a href="#">Text</a>	<a href="#">Photo</a>
82001967	MASSACHUSETTS Middlesex	Cambridge Odd Fellows Hall	536 Massachusetts Ave.	19820413	<a href="#">Text</a>	<a href="#">Photo</a>
73000288	MASSACHUSETTS Middlesex	Cambridge Pratt, Dexter, House	54 Brattle St.	19730508	<a href="#">Text</a>	<a href="#">Photo</a>
82001988	MASSACHUSETTS Middlesex	Cambridge Wyeth, John, House	56 Aberdeen Ave.	19820413	<a href="#">Text</a>	<a href="#">Photo</a>
83000832	MASSACHUSETTS Middlesex	Cambridge Valentine Soap Workers Cottage	5-7 Cottage St.	19830630	<a href="#">Text</a>	<a href="#">Photo</a>
75000254	MASSACHUSETTS Middlesex	Cambridge Mount Auburn Cemetery	580 Mount Auburn St.	19750421	<a href="#">Text</a>	<a href="#">Photo</a>
83000818	MASSACHUSETTS Middlesex	Cambridge Mount Auburn Cemetery Reception House	583 Mt. Auburn St.	19830630	<a href="#">Text</a>	<a href="#">Photo</a>
82001943	MASSACHUSETTS Middlesex	Cambridge Greek Revival Cottage	59 Rice St.	19820413	<a href="#">Text</a>	<a href="#">Photo</a>
83000811	MASSACHUSETTS Middlesex	Cambridge Howe House	6 Appleton St.	19830630	<a href="#">Text</a>	<a href="#">Photo</a>
86001317	MASSACHUSETTS Middlesex	Cambridge Warren, Langford H., House	6 Garden Terr.	19860519	<a href="#">Text</a>	<a href="#">Photo</a>
83000825	MASSACHUSETTS Middlesex	Cambridge Saunders, William, House	6 Prentiss St.	19830630	<a href="#">Text</a>	<a href="#">Photo</a>
86002075	MASSACHUSETTS Middlesex	Cambridge Sears Tower--Harvard Observatory	60 Garden St.	19870226	<a href="#">Text</a>	<a href="#">Photo</a>
82001980	MASSACHUSETTS Middlesex	Cambridge Union Railway Car Barn	613-621 Cambridge St.	19820413	<a href="#">Text</a>	<a href="#">Photo</a>
02001189	MASSACHUSETTS Middlesex	Cambridge Cambridge Home for the Aged and Infirm	650 Concord Ave.	20021022	<a href="#">Text</a>	<a href="#">Photo</a>
83000791	MASSACHUSETTS Middlesex	Cambridge Child, Francis J., House	67 Kirkland St.	19830630	<a href="#">Text</a>	<a href="#">Photo</a>
82001974	MASSACHUSETTS Middlesex	Cambridge Sacred Heart Church, Rectory, School and C	6th and Thorndike Sts.	19820413	<a href="#">Text</a>	<a href="#">Photo</a>
82004968	MASSACHUSETTS Middlesex	Cambridge Colburn, Sarah Foster, House	7 Dana St.	19820413	<a href="#">Text</a>	<a href="#">Photo</a>
82001937	MASSACHUSETTS Middlesex	Cambridge Dodge, Edward, House	70 Sparks St.	19820413	<a href="#">Text</a>	<a href="#">Photo</a>

82001934	MASSACHUSETTS	Middlesex	Cambridge	Cook, William, House	71 Appleton St.	19820413	<a href="#">Text</a>	<a href="#">Photo</a>
71000686	MASSACHUSETTS	Middlesex	Cambridge	Fuller, Margaret, House	71 Cherry St.	19710702	<a href="#">Text</a>	<a href="#">Photo</a>
82001955	MASSACHUSETTS	Middlesex	Cambridge	Lamson, Rufus, House	72-74 Hampshire St.	19820413	<a href="#">Text</a>	<a href="#">Photo</a>
82001977	MASSACHUSETTS	Middlesex	Cambridge	Slowey, Patrick, House	73 Bolton St.	19820413	<a href="#">Text</a>	<a href="#">Photo</a>
86001343	MASSACHUSETTS	Middlesex	Cambridge	US Post Office--Central Square	770 Massachusetts Ave.	19860618	<a href="#">Text</a>	<a href="#">Photo</a>
82001918	MASSACHUSETTS	Middlesex	Cambridge	B and B Chemical Company	780 Memorial Dr.	19820413	<a href="#">Text</a>	<a href="#">Photo</a>
83000817	MASSACHUSETTS	Middlesex	Cambridge	Mason, W. A., House	87 Raymond St.	19830630	<a href="#">Text</a>	<a href="#">Photo</a>
66000655	MASSACHUSETTS	Middlesex	Cambridge	Gray, Asa, House	88 Garden St.	19661015	<a href="#">Text</a>	<a href="#">Photo</a>
83000827	MASSACHUSETTS	Middlesex	Cambridge	Second Waterhouse House	9 Follen St.	19830630	<a href="#">Text</a>	<a href="#">Photo</a>
89001246	MASSACHUSETTS	Middlesex	Cambridge	Stoughton, Mary Fisk, House	90 Brattle St.	19890629	<a href="#">Text</a>	<a href="#">Photo</a>
73000284	MASSACHUSETTS	Middlesex	Cambridge	Fort Washington	95 Waverly St.	19730403	<a href="#">Text</a>	<a href="#">Photo</a>
82001933	MASSACHUSETTS	Middlesex	Cambridge	Conventual Church of St. Mary and St. John	980 Memorial Dr.	19820413	<a href="#">Text</a>	<a href="#">Photo</a>
86001310	MASSACHUSETTS	Middlesex	Cambridge	Memorial Drive Apartments Historic District	983--984, 985--986, 987--989, and	19860519	<a href="#">Text</a>	<a href="#">Photo</a>
82001970	MASSACHUSETTS	Middlesex	Cambridge	Prospect Congregational Church	99 Prospect St.	19820413	<a href="#">Text</a>	<a href="#">Photo</a>
94000554	MASSACHUSETTS	Middlesex	Cambridge	Walden Street Cattle Pass	Adjacent to MBTA right-of-way at	19940603	<a href="#">Text</a>	<a href="#">Photo</a>
04000249	MASSACHUSETTS	Middlesex	Cambridge	Alewife Brook Parkway	Alewife Brook Parkway	20040318	<a href="#">Text</a>	<a href="#">Photo</a>
82001916	MASSACHUSETTS	Middlesex	Cambridge	Ash Street Historic District	Ash St. and Ash St. Place between	19820413	<a href="#">Text</a>	<a href="#">Photo</a>
82001920	MASSACHUSETTS	Middlesex	Cambridge	Berkeley Street Historic District	Berkeley St.	19820413	<a href="#">Text</a>	<a href="#">Photo</a>
82001922	MASSACHUSETTS	Middlesex	Cambridge	Bigelow Street Historic District	Bigelow St.	19820413	<a href="#">Text</a>	<a href="#">Photo</a>
78000436	MASSACHUSETTS	Middlesex	Cambridge	Charles River Basin Historic District	Both banks of Charles River from	19781222	<a href="#">Text</a>	<a href="#">Photo</a>
97000561	MASSACHUSETTS	Middlesex	Cambridge	Blake and Knowles Steam Pump Company	Bounded by Third, Binney, Fifth, and	19970613	<a href="#">Text</a>	<a href="#">Photo</a>
70000685	MASSACHUSETTS	Middlesex	Cambridge	Memorial Hall, Harvard University	Cambridge and Quincy Sts., Harvard	19701230	<a href="#">Text</a>	<a href="#">Photo</a>
83000820	MASSACHUSETTS	Middlesex	Cambridge	Old Cambridgeport Historic District	Cherry, Harvard and Washington	19830630	<a href="#">Text</a>	<a href="#">Photo</a>
82001981	MASSACHUSETTS	Middlesex	Cambridge	Upper Magazine Street Historic District	Cottage, Magazine, William and F	19820413	<a href="#">Text</a>	<a href="#">Photo</a>
04001429	MASSACHUSETTS	Middlesex	Cambridge	Fresh Pond Parkway--Metropolitan Park System	Fresh Pond Parkway	20050105	<a href="#">Text</a>	<a href="#">Photo</a>
66000140	MASSACHUSETTS	Middlesex	Cambridge	Christ Church	Garden St.	19661015	<a href="#">Text</a>	<a href="#">Photo</a>
73000281	MASSACHUSETTS	Middlesex	Cambridge	Cambridge Common Historic District	Garden, Waterhouse, Cambridge	19730413	<a href="#">Text</a>	<a href="#">Photo</a>
83000803	MASSACHUSETTS	Middlesex	Cambridge	Garfield Street Historic District	Garfield St. between Massachusetts	19830630	<a href="#">Text</a>	<a href="#">Photo</a>
82001951	MASSACHUSETTS	Middlesex	Cambridge	Inman Square Historic District	Hampshire, Cambridge, and Inman	19820413	<a href="#">Text</a>	<a href="#">Photo</a>
82001945	MASSACHUSETTS	Middlesex	Cambridge	Harvard Street Historic District	Harvard St. Between Ellery and H	19820413	<a href="#">Text</a>	<a href="#">Photo</a>
72000128	MASSACHUSETTS	Middlesex	Cambridge	Austin Hall	Harvard University campus	19720419	<a href="#">Text</a>	<a href="#">Photo</a>
66000769	MASSACHUSETTS	Middlesex	Cambridge	Massachusetts Hall, Harvard University	Harvard University Yard	19661015	<a href="#">Text</a>	<a href="#">Photo</a>
70000732	MASSACHUSETTS	Middlesex	Cambridge	Sever Hall, Harvard University	Harvard Yard	19701230	<a href="#">Text</a>	<a href="#">Photo</a>
70000736	MASSACHUSETTS	Middlesex	Cambridge	University Hall, Harvard University	Harvard Yard	19701230	<a href="#">Text</a>	<a href="#">Photo</a>
82001950	MASSACHUSETTS	Middlesex	Cambridge	Hubbard Park Historic District	Hubbard Park, Mercer Circle and	19820413	<a href="#">Text</a>	<a href="#">Photo</a>
83000821	MASSACHUSETTS	Middlesex	Cambridge	Old Cambridge Historic District	Irregular pattern along Brattle St.	19830630	<a href="#">Text</a>	<a href="#">Photo</a>
86001683	MASSACHUSETTS	Middlesex	Cambridge	Kirkland Place Historic District	Kirkland Pl.	19860519	<a href="#">Text</a>	<a href="#">Photo</a>
75000249	MASSACHUSETTS	Middlesex	Cambridge	First Baptist Church	Magazine and River Sts.	19750414	<a href="#">Text</a>	<a href="#">Photo</a>
83000816	MASSACHUSETTS	Middlesex	Cambridge	Maple Avenue Historic District	Maple Ave. between Marie Ave. and	19830630	<a href="#">Text</a>	<a href="#">Photo</a>
78000441	MASSACHUSETTS	Middlesex	Cambridge	Harvard Square Subway Kiosk	Massachusetts Ave. and Boylston	19780130	<a href="#">Text</a>	<a href="#">Photo</a>
73000287	MASSACHUSETTS	Middlesex	Cambridge	Old Harvard Yard	Massachusetts Ave. and Cambridge	19730206	<a href="#">Text</a>	<a href="#">Photo</a>
83004293	MASSACHUSETTS	Middlesex	Cambridge	Cambridge Common Historic District Amendment	Massachusetts Ave. and Garden,	19830630	<a href="#">Text</a>	<a href="#">Photo</a>
82001932	MASSACHUSETTS	Middlesex	Cambridge	City Hall Historic District	Massachusetts Ave., Bigelow and	19820413	<a href="#">Text</a>	<a href="#">Photo</a>
82001944	MASSACHUSETTS	Middlesex	Cambridge	Harvard Square Historic District	Massachusetts Ave., Boylston and	19820413	<a href="#">Text</a>	<a href="#">Photo</a>
76001970	MASSACHUSETTS	Middlesex	Cambridge	Little, Arthur D., Inc., Building	Memorial Dr.	19761208	<a href="#">Text</a>	<a href="#">Photo</a>
82001964	MASSACHUSETTS	Middlesex	Cambridge	Norfolk Street Historic District	Norfolk St. between Suffolk and	19820413	<a href="#">Text</a>	<a href="#">Photo</a>
87000500	MASSACHUSETTS	Middlesex	Cambridge	Harvard Union	Quincy and Harvard Sts.	19870126	<a href="#">Text</a>	<a href="#">Photo</a>
83000797	MASSACHUSETTS	Middlesex	Cambridge	East Cambridge Historic District	Roughly bounded by Cambridge,	19830630	<a href="#">Text</a>	<a href="#">Photo</a>
86003654	MASSACHUSETTS	Middlesex	Cambridge	Harvard Square Historic District (Boundary I)	Roughly bounded by Harvard & N	19880728	<a href="#">Text</a>	<a href="#">Photo</a>
86002073	MASSACHUSETTS	Middlesex	Cambridge	Harvard Houses Historic District	Roughly bounded by Mt. Auburn	19860912	<a href="#">Text</a>	<a href="#">Photo</a>
86001680	MASSACHUSETTS	Middlesex	Cambridge	Shady Hill Historic District	Roughly bounded by Museum, Br	19860519	<a href="#">Text</a>	<a href="#">Photo</a>
82001946	MASSACHUSETTS	Middlesex	Cambridge	Hastings Square Historic District	Roughly bounded by Rockingham	19820413	<a href="#">Text</a>	<a href="#">Photo</a>
87002137	MASSACHUSETTS	Middlesex	Cambridge	Harvard Yard Historic District	Roughly bounded by underpass,	19871214	<a href="#">Text</a>	<a href="#">Photo</a>
90000128	MASSACHUSETTS	Middlesex	Cambridge	Central Square Historic District	Roughly Massachusetts Ave. from	19900302	<a href="#">Text</a>	<a href="#">Photo</a>
87000499	MASSACHUSETTS	Middlesex	Cambridge	Cambridge Common Historic District (Boundary I)	Roughly NW of Waterhouse St. o	19870126	<a href="#">Text</a>	<a href="#">Photo</a>
82001975	MASSACHUSETTS	Middlesex	Cambridge	Salem-Auburn Streets Historic District	Salem and Auburn Sts.	19820413	<a href="#">Text</a>	<a href="#">Photo</a>
83000782	MASSACHUSETTS	Middlesex	Cambridge	Avon Hill Historic District	Washington and Walnut Aves. an	19830630	<a href="#">Text</a>	<a href="#">Photo</a>
82001986	MASSACHUSETTS	Middlesex	Cambridge	Winter Street Historic District	Winter St.	19820413	<a href="#">Text</a>	<a href="#">Photo</a>



**APPENDIX D**

**Endangered Species Act Documentation**

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# MASSACHUSETTS AREAS OF CRITICAL ENVIRONMENTAL CONCERN

November 2010

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**Total Approximate Acreage: 268,000 acres**

Approximate acreage and designation date follow ACEC names below.

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**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****November 2010**

<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		

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

<b>COUNTY</b>	<b>SPECIES</b>	<b>FEDERAL STATUS</b>	<b>GENERAL LOCATION/HABITAT</b>	<b>TOWNS</b>
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)
	Red Knot <sup>1</sup>	Threatened	Coastal Beaches and Rocky Shores, sand and mud flats	Coastal Towns
	Northern Long-eared Bat	Proposed Endangered	Winter- mines and caves, Summer – wide variety of forested habitats	Statewide
Berkshire	Bog Turtle	Threatened	Wetlands	Egremont and Sheffield
	Northern Long-eared Bat	Proposed Endangered	Winter- mines and caves, Summer – wide variety of forested habitats	Statewide
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	Taunton
	Red Knot <sup>1</sup>	Threatened	Coastal Beaches and Rocky Shores, sand and mud flats	Coastal Towns
	Northern Long-eared Bat	Proposed Endangered	Winter- mines and caves, Summer – wide variety of forested habitats	Statewide
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
	Red Knot <sup>1</sup>	Threatened	Coastal Beaches and Rocky Shores, sand and mud flats	Coastal Towns
	Northern Long-eared Bat	Proposed Endangered	Winter- mines and caves, Summer – wide variety of forested habitats	Statewide

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

COUNTY	SPECIES	FEDERAL STATUS	GENERAL LOCATION/HABITAT	TOWNS
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
	Red Knot <sup>1</sup>	Threatened	Coastal Beaches and Rocky Shores, sand and mud flats	Coastal Towns
	Northern Long-eared Bat	Proposed Endangered	Winter- mines and caves, Summer – wide variety of forested habitats	Statewide
Franklin	Northeastern bulrush	Endangered	Wetlands	Montague, Warwick
	Dwarf wedgemussel	Endangered	Mill River	Whately
	Northern Long-eared Bat	Proposed Endangered	Winter- mines and caves, Summer – wide variety of forested habitats	Statewide
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.	Hatfield, Amherst and Northampton
	Northern Long-eared Bat	Proposed Endangered	Winter- mines and caves, Summer – wide variety of forested habitats	Statewide
Hampden	Small whorled Pogonia	Threatened	Forests with somewhat poorly drained soils and/or a seasonally high water table	Southwick
	Northern Long-eared Bat	Proposed Endangered	Winter- mines and caves, Summer – wide variety of forested habitats	Statewide
Middlesex	Small whorled Pogonia	Threatened	Forests with somewhat poorly drained soils and/or a seasonally high water table	Groton
	Northern Long-eared Bat	Proposed Endangered	Winter- mines and caves, Summer – wide variety of forested habitats	Statewide
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
	Red Knot <sup>1</sup>	Threatened	Coastal Beaches and Rocky Shores, sand and mud flats	Coastal Towns
	Northern Long-eared Bat	Proposed Endangered	Winter- mines and caves, Summer – wide variety of forested habitats	Statewide

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

COUNTY	SPECIES	FEDERAL STATUS	GENERAL LOCATION/HABITAT	TOWNS
Plymouth	Piping Plover	Threatened	Coastal Beaches	Scituate, Marshfield, Duxbury, Plymouth, Wareham and Mattapoissett
	Northern Red-bellied Cooter	Endangered	Inland Ponds and Rivers	Kingston, Middleborough, Carver, Plymouth, Bourne, Wareham, Halifax, and Pembroke
	Roseate Tern	Endangered	Coastal beaches and the Atlantic Ocean	Plymouth, Marion, Wareham, and Mattapoissett.
	Red Knot <sup>1</sup>	Threatened	Coastal Beaches and Rocky Shores, sand and mud flats	Coastal Towns
	Northern Long-eared Bat	Proposed Endangered	Winter- mines and caves, Summer – wide variety of forested habitats	Statewide
Suffolk	Piping Plover	Threatened	Coastal Beaches	Revere, Winthrop
	Red Knot <sup>1</sup>	Threatened	Coastal Beaches and Rocky Shores, sand and mud flats	Coastal Towns
	Northern Long-eared Bat	Proposed Endangered	Winter- mines and caves, Summer – wide variety of forested habitats	Statewide
Worcester	Small whorled Pogonia	Threatened	Forests with somewhat poorly drained soils and/or a seasonally high water table	Leominster
	Northern Long-eared Bat	Proposed Endangered	Winter- mines and caves, Summer – wide variety of forested habitats	Statewide

<sup>1</sup>Migratory only, scattered along the coast in small numbers

-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.

**Natural Heritage & Endangered Species Program - Massachusetts Endangered Species Act (MESA) List (list accessed 12 August 2015)**

Town	Taxonomic Group	ScientificName	CommonName	Status	Status	Recent
CAMBRIDGE	Amphibian	Ambystoma laterale	Blue-spotted Salamander	SC		1917
CAMBRIDGE	Bird	Ammodramus henslowii	Henslow's Sparrow	E		1871
CAMBRIDGE	Bird	Botaurus lentiginosus	American Bittern	E		1906
CAMBRIDGE	Vascular Plant	Carex gracilescens	Slender Woodland Sedge	E		1891
CAMBRIDGE	Beetle	Cicindela duodecimguttata	Twelve-spotted Tiger Beetle	SC		1932
CAMBRIDGE	Bird	Cistothorus platensis	Sedge Wren	E		1840
CAMBRIDGE	Vascular Plant	Cyperus engelmannii	Engelmann's Umbrella-sedge	T		2008
CAMBRIDGE	Butterfly/Moth	Eacles imperialis	Imperial Moth	T		Historic
CAMBRIDGE	Bird	Falco peregrinus	Peregrine Falcon	E		2014
CAMBRIDGE	Bird	Gallinula chloropus	Common Moorhen	SC		1890
CAMBRIDGE	Vascular Plant	Gentiana andrewsii	Andrews' Bottle Gentian	E		2013
CAMBRIDGE	Reptile	Glyptemys insculpta	Wood Turtle	SC		Historic
CAMBRIDGE	Vascular Plant	Isoetes lacustris	Lake Quillwort	E		Historic
CAMBRIDGE	Bird	Ixobrychus exilis	Least Bittern	E		1890
CAMBRIDGE	Mussel	Ligumia nasuta	Eastern Pondmussel	SC		1941
CAMBRIDGE	Segmented Worm	Macrobdella sestertia	New England Medicinal Leech	SC		1800s
CAMBRIDGE	Fish	Notropis bifrenatus	Bridle Shiner	SC		1928
CAMBRIDGE	Vascular Plant	Platanthera flava var. herbiola	Pale Green Orchis	T		Historic
CAMBRIDGE	Vascular Plant	Potamogeton friesii	Fries' Pondweed	E		1880
CAMBRIDGE	Amphibian	Scaphiopus holbrookii	Eastern Spadefoot	T		1892
CAMBRIDGE	Vascular Plant	Scirpus longii	Long's Bulrush	T		1913
CAMBRIDGE	Vascular Plant	Suaeda calceoliformis	American Sea-blite	SC		1912
CAMBRIDGE	Reptile	Terrapene carolina	Eastern Box Turtle	SC		1892
CAMBRIDGE	Bird	Tyto alba	Barn Owl	SC		Historic
CAMBRIDGE	Vascular Plant	Viola brittoniana	Britton's Violet	T		1843

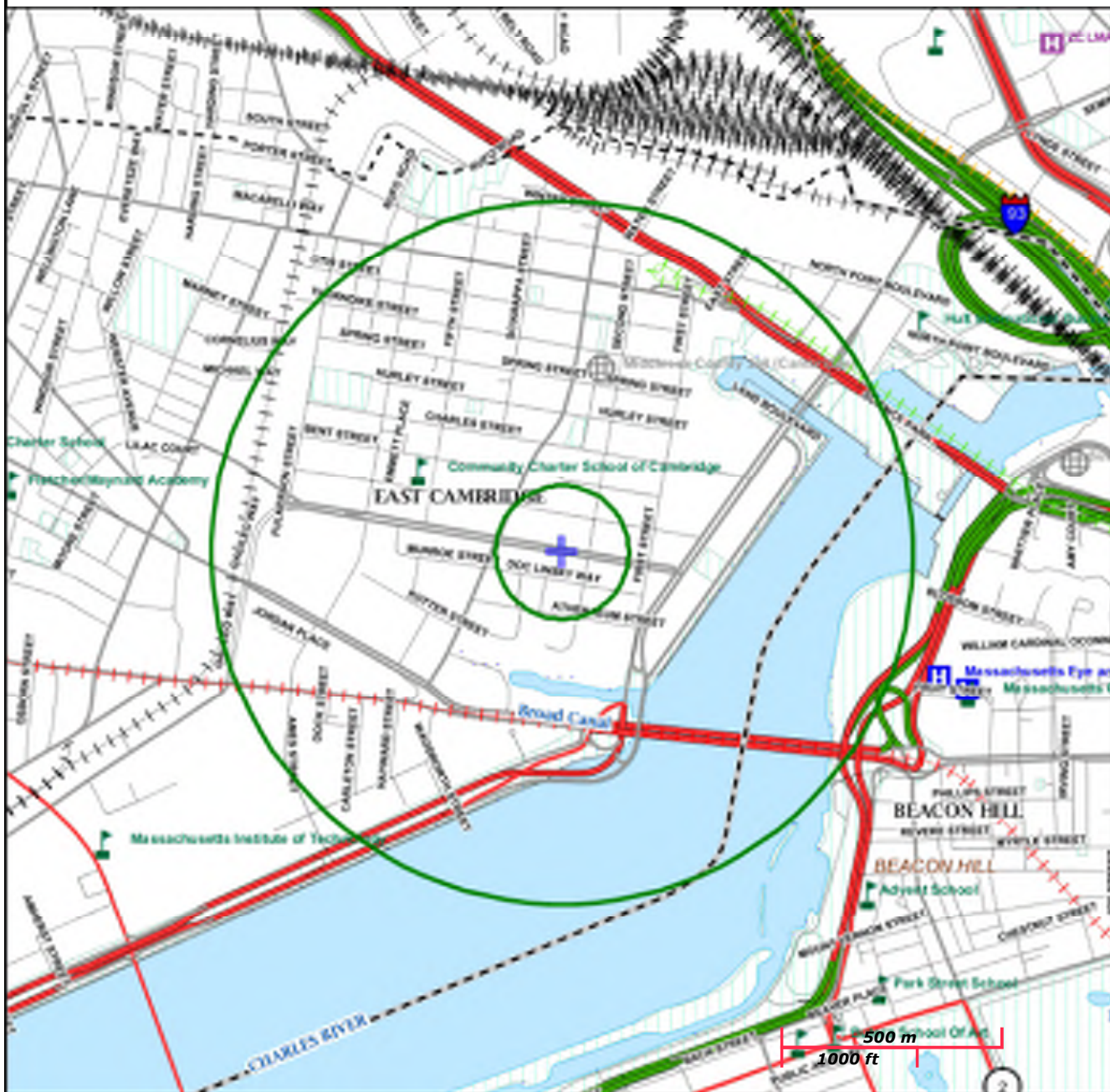


# MassDEP - Bureau of Waste Site Cleanup

**Site Information:**  
 100 BINNEY STREET CAMBRIDGE, MA  
 3-000022547  
**NAD83 UTM Meters:**  
 4692448mN , 328675mE (Zone: 19)  
 June 26, 2015

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

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/>



Roads: Limited Access, Divided, Other Hwy, Major Road, Minor Road, Track, Trail	PWS Protection Areas: Zone II, IWPA, Zone A
Boundaries: Town, County, DEP Region; Train; Powerline; Pipeline; Aqueduct	Hydrography: Open Water, PWS Reservoir, Tidal Flat
Basins: Major, PWS; Streams: Perennial, Intermittent, Man Made Shore, Dam	Wetlands: Freshwater, Saltwater, Cranberry Bog
Aquifers: Medium Yield, High Yield, EPA Sole Source	FEMA 100yr Floodplain; Protected Open Space; ACEC
Non Potential Drinking Water Source Area: Medium, High (Yield)	Est. Rare Wetland Wildlife Hab; Vernal Pool: Cert., Potential
	Solid Waste Landfill; PWS: Com.GW,SW, Emerg., Non-Com.



# United States Department of the Interior



## FISH AND WILDLIFE SERVICE

New England Field Office  
70 Commercial Street, Suite 300  
Concord, NH 03301-5087  
<http://www.fws.gov/newengland>

January 7, 2015

To Whom It May Concern:

This project was reviewed for the presence of federally listed or proposed, threatened or endangered species or critical habitat per instructions provided on the U.S. Fish and Wildlife Service's New England Field Office website:

<http://www.fws.gov/newengland/EndangeredSpec-Consultation.htm> (accessed January 2015)

Based on information currently available to us, no federally listed or proposed, threatened or endangered species or critical habitat under the jurisdiction of the U.S. Fish and Wildlife Service are known to occur in the project area(s). Preparation of a Biological Assessment or further consultation with us under section 7 of the Endangered Species Act is not required. No further Endangered Species Act coordination is necessary for a period of one year from the date of this letter, unless additional information on listed or proposed species becomes available.

Thank you for your cooperation. Please contact Maria Tur of this office at 603-223-2541 if we can be of further assistance.

Sincerely yours,

Thomas R. Chapman  
Supervisor  
New England Field Office

**APPENDIX E**

**City of Cambridge Dewatering Permit Application**

# Permit Application

## Discharge and Dewatering Permit

- *New Sewer and Storm Drain Connections*
- *Fats, Oils and Grease Discharge*
- *Dewatering of Utility Manholes*
- *Construction and Permanent Dewatering*
- *Change in Property Use*

## City of Cambridge

Department of Public Works  
147 Hampshire Street  
Cambridge, MA 02139  
Phone: (617) 349-4800

### Fact Sheet

#### 1. What is the purpose of this permit?

The Discharge and Dewatering Permit establishes an approval process for the City of Cambridge to review projects that involve discharges to the municipal stormwater or wastewater system from dewatering or pumping activities, changes in discharges from existing connections, and the discharge of fats, oils and grease. As the operator of a Phase II regulated small municipal separate storm sewer system (MS4), the City of Cambridge is required to include as part of its storm water management program a means to review such activities. This review process has been put in place to meet the conditions of the City of Cambridge's National Pollutant Discharge Elimination System (NPDES) permit.

#### 2. What types of activities require this permit?

- a) Installation of a new sanitary or storm drain connection is planned
- b) Discharging fats, oils and grease (FOG)
- c) Dewatering utility manholes
- d) Dewatering from construction activity or permanent dewatering. Note: If applying for construction dewatering call the Department of Public Works to confirm if an EPA or DEP Dewatering Permit is also required
- e) Changing the existing use of the property, even if the existing stormwater and wastewater connections are being used
- f) Other discharges allowed by the City's Wastewater and Stormwater Use Regulations

#### 3. What other requirements might be needed with this permit application?

Additional permits from the Cambridge Department of Public Works, DEP, EPA and MWRA may be required depending on the type of discharge and dewatering activities that will be taking place. **Please review the submission requirements on page two of the Discharge and Dewatering Permit application.**

#### 4. Where can I get additional information about the City of Cambridge's Stormwater Management Program:

[www.cambridgema.gov/theworks/ourservices/stormwatermanagement.aspx](http://www.cambridgema.gov/theworks/ourservices/stormwatermanagement.aspx)

#### Reference Documents:

City of Cambridge's Wastewater and Stormwater Use Regulations -

[www.cambridgema.gov/theworks/ourservices/stormwatermanagement/ordinanceandregulations.aspx](http://www.cambridgema.gov/theworks/ourservices/stormwatermanagement/ordinanceandregulations.aspx)



# Permit Application

## Discharge and Dewatering Permit

- New Sewer and Storm Drain Connections
- Fats, Oils and Grease Discharge
- Dewatering of Utility Manholes
- Construction and Permanent Dewatering
- Change in Property Use

**City of Cambridge**  
Department of Public Works  
147 Hampshire Street  
Cambridge, MA 02139  
Phone: (617) 349-4800

Permit Fee: \$100.00  
Permit #: \_\_\_\_\_

Location of Discharge: <u>100 Binney Street</u> <u>Cambridge, MA</u>	Name/Facility/Contractor: <u>Site Contractor: AA Will Corporation</u>
Nearest Intersection: <u>Binney St. and Linskey Way</u>	Property Owner: <u>ARE-MA Region No. 45, LLC</u>
Requested Start Date: <u>November 1, 2015</u>	Address: <u>100 Binney Street</u> <u>Cambridge, Massachusetts 02139</u>
Requested End Date: <u>November 1, 2017</u>	Phone: <u>617-551-8538/ 781-341-4800</u>
Permanent Discharge: <input type="checkbox"/>	Contact Person: <u>Andrew Reinach (ARE)/Mark Driscoll (AAW)</u>
Temporary Discharge: <input checked="" type="checkbox"/>	Emergency Phone (24 Hour Access): <u>781-424-5603</u>

**System:** Sanitary Sewer  Combined Sewer

Change in Property Use: Yes  No  If Yes From: Industrial  Commercial  Residential   
To: Industrial  Commercial  Residential

Connection: Existing  New

Dewatering: Yes  No  If Yes: Permanent  Temporary

Source of Discharge: Commercial  Industrial  Residential

Discharging Fats, Oils, Grease: Yes  No

DEP Sewer Extension Permit: \_\_\_\_\_

MWRA Sewer Use Discharge Permit: \_\_\_\_\_

Description: \_\_\_\_\_

**System:** Storm Drain

Connection: Existing  New  Source of New Discharge: Storm Water  Ground Water

Dewatering: Yes  No  If Yes: Permanent  Temporary  Other: \_\_\_\_\_

EPA Dewatering Permit #: RGP Application has been submitted for EPA review

Description: Temporary construction dewatering will be performed within limits of excavation for proposed below-grade space and utilities to allow for construction in-the-dry. Effluent will be discharged to City of Cambridge Storm Drain.

**Please read submission requirements and sign permit application on second page.**  
**Note: New connections require an Excavation Permit in addition to this permit.**

# Permit Application

## Discharge and Dewatering Permit

- *New Sewer and Storm Drain Connections*
- *Fats, Oils and Grease Discharge*
- *Dewatering of Utility Manholes*
- *Construction and Permanent Dewatering*
- *Change in Property Use*

## City of Cambridge

Department of Public Works  
147 Hampshire Street  
Cambridge, MA 02139  
Phone: (617) 349-4800

### Submission Requirements:

1. If new sanitary discharge is to a sanitary or combined sewer, a copy of the MWRA Sewer Use and/or DEP Sewer Extension Permits may be required to accompany this application. The MWRA permit application can be found at: <http://www.mwra.state.ma.us/O3sewer/html/tracpermits.htm>
2. If dewatering to a storm drain, a copy of the EPA/DEP Dewatering Permit must accompany this application. The EPA/DEP Construction Site Dewatering permit application can be found at: <http://www.mass.gov/dep/water/approvals/surffms.htm#npdes2>
3. If dewatering to a combined sewer, a copy of the MWRA Construction Site Dewatering Discharge Permit may be required to accompany this application. The MWRA permit application can be found at: <http://www.mwra.state.ma.us/O3sewer/html/tracpermits.htm>
4. A site plan showing the location of the discharge must accompany this application.
5. This permit will be denied if the necessary permits from the MWRA, DEP and EPA have not been applied for or accompany this permit application.
6. FOG Discharge Permit requires that plumbing plans and grease interceptor calculations also be submitted.
7. For new connections a \$5000.00 surety bond is required.

### Applicant Signatures:

Property Manager: Corporate Entity President, General Partner or Trustee with Instrument of Authority:

\_\_\_\_\_ Date:\_\_\_\_\_

Contractor: \_\_\_\_\_ Date:\_\_\_\_\_

### Department of Public Works Approval:

\_\_\_\_\_ Date:\_\_\_\_\_

**APPENDIX F**

**Laboratory Data Reports**





## ANALYTICAL REPORT

Lab Number:	L0903627
Client:	Environ 8 Hollis Street Groton, MA 01450
ATTN:	Jim Young
Project Name:	300 3RD
Project Number:	04-7590GD2
Report Date:	03/31/09

Certifications & Approvals: MA (M-MA086), NY NELAC (11148), CT (PH-0574), NH (2003), NJ (MA935), RI (LAO00065), ME (MA0086), PA (Registration #68-03671), USDA (Permit #S-72578), US Army Corps of Engineers, Naval FESC.

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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:** 300 3RD  
**Project Number:** 04-7590GD2

**Lab Number:** L0903627  
**Report Date:** 03/31/09

<b>Alpha Sample ID</b>	<b>Client ID</b>	<b>Sample Location</b>	<b>Collection Date/Time</b>
L0903627-01	ENV-1-032309	CAMBRIDGE, MA	03/23/09 10:40
L0903627-02	DUP-A-032309	CAMBRIDGE, MA	03/23/09 00:00
L0903627-03	ENV-2-032309	CAMBRIDGE, MA	03/23/09 11:30
L0903627-04	ENV-3-032309	CAMBRIDGE, MA	03/23/09 13:35
L0903627-05	ENV-4-032309	CAMBRIDGE, MA	03/23/09 16:00
L0903627-06	ENV-7-032409	CAMBRIDGE, MA	03/24/09 09:30
L0903627-07	ENV-8-032409	CAMBRIDGE, MA	03/24/09 10:35
L0903627-08	ENV-9-032409	CAMBRIDGE, MA	03/24/09 12:00
L0903627-09	B-201-032409	CAMBRIDGE, MA	03/24/09 13:35
L0903627-10	B-210-032409	CAMBRIDGE, MA	03/24/09 14:00
L0903627-11	TRIPS-VOC,VPH	CAMBRIDGE, MA	03/23/09 00:00

**Project Name:** 300 3RD  
**Project Number:** 04-7590GD2

**Lab Number:** L0903627  
**Report Date:** 03/31/09

### MADEP MCP Response Action Analytical Report Certification

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

<b>An affirmative response to questions A, B, C &amp; D is required for "Presumptive Certainty" status</b>		
A	Were all samples received by the laboratory in a condition consistent with those described on their Chain-of-Custody documentation for the data set?	YES
B	Were all QA/QC procedures required for the specified analytical methods(s) included in this report followed, including the requirement to note and discuss in a narrative QC data that did not meet appropriate performance standards or guidelines?	YES
C	Does the analytical data included in this report meet all the requirements for "Presumptive Certainty", as described in section 2.0 of the MADEP document CAM VII A, "Quality Assurance and Quality Control Guidelines for the Acquisition and Reporting of Analytical Data"?	YES
D	VPH and EPH methods only: Was the VPH or EPH method run without significant modifications, as specified in Section 11.3?	YES
<b>A response to questions E and F is required for "Presumptive Certainty" status</b>		
E	Were all QC performance standards and recommendations for the specified method(s) achieved?	NO
F	Were results for all analyte-list compounds/elements for the specified method(s) reported?	NO
<b>For any questions answered "No", please refer to the case narrative section on the following page(s).</b>		

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



**Project Name:** 300 3RD  
**Project Number:** 04-7590GD2

**Lab Number:** L0903627  
**Report Date:** 03/31/09

### 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.

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

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

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#### MCP Related Narratives

##### Sample Receipt

The Semivolatile Organics analysis for sample "B-210-032409" was cancelled at the clients' request.

##### Volatile Organics

L0903627-01 through -04 were processed against a calibration curve that utilized a quadratic fit for 1,2,4-Trichlorobenzene, Hexachlorobutadiene, and Naphthalene.

L0903627-03R, -05, -05R, -06 through -10 were processed against a calibration curve that utilized a

**Project Name:** 300 3RD  
**Project Number:** 04-7590GD2

**Lab Number:** L0903627  
**Report Date:** 03/31/09

### Case Narrative (continued)

quadratic fit for Bromoethane, Acteone, and Bromoform.

L0903627-01, -02, -05, -06, -08, -09 and -10 have elevated detection limits due to the dilutions required by the elevated concentrations of target compounds in the samples.

L0903627-03 and -05 were re-analyzed on dilutions in order to quantitate the samples within the calibration range. The result should be considered estimated, and are qualified with an E flag, for any compound that exceeded the calibration on the initial analysis. The re-analyses were performed only for the compounds that exceeded the calibration range.

In reference to question E:

The WG356996-2 LCSD recoveries associated with L0903627-11 were above the acceptance criteria for 1,1,2,2-Tetrachloroethane (137%) and 1,2,3-Trichloropropane (139%); however, the associated sample was non-detect for these target compounds. The results of the original analysis are reported.

The WG356996-2 LCSD recovery associated with L0903627-11 is above the acceptance criteria for Acetone (145%); however, it has been identified as a "difficult" analyte. The results of the associated sample are reported; however, all positive detects are considered to have a potentially high bias for this compound.

The WG357138-4/-5 LCS/LCSD recoveries associated with L0903627-05, -08, and -09 were above the acceptance criteria for Acetone (154%/145%) and 1,4-Dioxane (152%/148%); however, they have been identified as "difficult" analytes. The results of the associated samples are reported; however, all positive detects are considered to have a potentially high bias for these compounds.

The WG357152-4/-5 LCS/LCSD recoveries associated with L0903627-03 are above the acceptance criteria for Acetone (154%/145%) and 1,4-Dioxane (152%/148%); however, they have been identified as "difficult" analytes. The results of the associated sample are reported; however, all positive detects are considered to have a potentially high bias for these compounds.

#### Semivolatile Organics

L0903627-06 has elevated detection limits due to the dilution required by the sample matrix.

In reference to question F:

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

**Project Name:** 300 3RD  
**Project Number:** 04-7590GD2

**Lab Number:** L0903627  
**Report Date:** 03/31/09

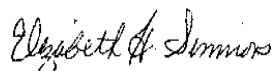
**Case Narrative (continued)**

VPH

L0903627-01, -06, and -08 through -10 have elevated detection limits due to the dilutions required by the elevated concentrations of target compounds in the samples.

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:



Title: Technical Director/Representative

Date: 03/31/09

# ORGANICS



# VOLATILES

**Project Name:** 300 3RD  
**Project Number:** 04-7590GD2

**Lab Number:** L0903627  
**Report Date:** 03/31/09

### SAMPLE RESULTS

**Lab ID:** L0903627-06  
**Client ID:** ENV-7-032409  
**Sample Location:** CAMBRIDGE, MA  
**Matrix:** Water  
**Analytical Method:** 60,8260B  
**Analytical Date:** 03/27/09 17:43  
**Analyst:** MM

**Date Collected:** 03/24/09 09:30  
**Date Received:** 03/25/09  
**Field Prep:** Not Specified

Parameter	Result	Qualifier	Units	RDL	Dilution Factor
<b>MCP Volatile Organics - Westborough Lab</b>					
Methylene chloride	ND		ug/l	200	40
1,1-Dichloroethane	ND		ug/l	30	40
Chloroform	ND		ug/l	30	40
Carbon tetrachloride	ND		ug/l	20	40
1,2-Dichloropropane	ND		ug/l	70	40
Dibromochloromethane	ND		ug/l	20	40
1,1,2-Trichloroethane	ND		ug/l	30	40
Tetrachloroethene	ND		ug/l	20	40
Chlorobenzene	ND		ug/l	20	40
Trichlorofluoromethane	ND		ug/l	100	40
1,2-Dichloroethane	ND		ug/l	20	40
1,1,1-Trichloroethane	ND		ug/l	20	40
Bromodichloromethane	ND		ug/l	20	40
trans-1,3-Dichloropropene	ND		ug/l	20	40
cis-1,3-Dichloropropene	ND		ug/l	20	40
1,1-Dichloropropene	ND		ug/l	100	40
Bromoform	ND		ug/l	80	40
1,1,2,2-Tetrachloroethane	ND		ug/l	20	40
Benzene	2800		ug/l	20	40
Toluene	ND		ug/l	30	40
Ethylbenzene	360		ug/l	20	40
Chloromethane	ND		ug/l	100	40
Bromomethane	ND		ug/l	40	40
Vinyl chloride	ND		ug/l	40	40
Chloroethane	ND		ug/l	40	40
1,1-Dichloroethene	ND		ug/l	20	40
trans-1,2-Dichloroethene	ND		ug/l	30	40
Trichloroethene	ND		ug/l	20	40
1,2-Dichlorobenzene	ND		ug/l	100	40
1,3-Dichlorobenzene	ND		ug/l	100	40

**Project Name:** 300 3RD  
**Project Number:** 04-7590GD2

**Lab Number:** L0903627  
**Report Date:** 03/31/09

### SAMPLE RESULTS

**Lab ID:** L0903627-06  
**Client ID:** ENV-7-032409  
**Sample Location:** CAMBRIDGE, MA

**Date Collected:** 03/24/09 09:30  
**Date Received:** 03/25/09  
**Field Prep:** Not Specified

Parameter	Result	Qualifier	Units	RDL	Dilution Factor
<b>MCP Volatile Organics - Westborough Lab</b>					
1,4-Dichlorobenzene	ND		ug/l	100	40
Methyl tert butyl ether	ND		ug/l	40	40
p/m-Xylene	ND		ug/l	40	40
o-Xylene	ND		ug/l	40	40
cis-1,2-Dichloroethene	ND		ug/l	20	40
Dibromomethane	ND		ug/l	200	40
1,2,3-Trichloropropane	ND		ug/l	200	40
Styrene	ND		ug/l	40	40
Dichlorodifluoromethane	ND		ug/l	200	40
Acetone	ND		ug/l	200	40
Carbon disulfide	ND		ug/l	200	40
2-Butanone	ND		ug/l	200	40
4-Methyl-2-pentanone	ND		ug/l	200	40
2-Hexanone	ND		ug/l	200	40
Bromochloromethane	ND		ug/l	100	40
Tetrahydrofuran	ND		ug/l	400	40
2,2-Dichloropropane	ND		ug/l	100	40
1,2-Dibromoethane	ND		ug/l	80	40
1,3-Dichloropropane	ND		ug/l	100	40
1,1,1,2-Tetrachloroethane	ND		ug/l	20	40
Bromobenzene	ND		ug/l	100	40
n-Butylbenzene	ND		ug/l	20	40
sec-Butylbenzene	ND		ug/l	20	40
tert-Butylbenzene	ND		ug/l	100	40
o-Chlorotoluene	ND		ug/l	100	40
p-Chlorotoluene	ND		ug/l	100	40
1,2-Dibromo-3-chloropropane	ND		ug/l	100	40
Hexachlorobutadiene	ND		ug/l	24	40
Isopropylbenzene	ND		ug/l	20	40
p-Isopropyltoluene	ND		ug/l	20	40
Naphthalene	ND		ug/l	100	40
n-Propylbenzene	ND		ug/l	20	40
1,2,3-Trichlorobenzene	ND		ug/l	100	40
1,2,4-Trichlorobenzene	ND		ug/l	100	40
1,3,5-Trimethylbenzene	ND		ug/l	100	40
1,2,4-Trimethylbenzene	ND		ug/l	100	40
Ethyl ether	ND		ug/l	100	40

**Project Name:** 300 3RD  
**Project Number:** 04-7590GD2

**Lab Number:** L0903627  
**Report Date:** 03/31/09

### SAMPLE RESULTS

**Lab ID:** L0903627-06  
**Client ID:** ENV-7-032409  
**Sample Location:** CAMBRIDGE, MA

**Date Collected:** 03/24/09 09:30  
**Date Received:** 03/25/09  
**Field Prep:** Not Specified

Parameter	Result	Qualifier	Units	RDL	Dilution Factor
<b>MCP Volatile Organics - Westborough Lab</b>					
Isopropyl Ether	ND		ug/l	80	40
Ethyl-Tert-Butyl-Ether	ND		ug/l	80	40
Tertiary-Amyl Methyl Ether	ND		ug/l	80	40
1,4-Dioxane	ND		ug/l	10000	40

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	100		70-130
Toluene-d8	96		70-130
4-Bromofluorobenzene	101		70-130
Dibromofluoromethane	103		70-130

**Project Name:** 300 3RD  
**Project Number:** 04-7590GD2

**Lab Number:** L0903627  
**Report Date:** 03/31/09

### SAMPLE RESULTS

**Lab ID:** L0903627-07  
**Client ID:** ENV-8-032409  
**Sample Location:** CAMBRIDGE, MA  
**Matrix:** Water  
**Analytical Method:** 60,8260B  
**Analytical Date:** 03/27/09 18:22  
**Analyst:** MM

**Date Collected:** 03/24/09 10:35  
**Date Received:** 03/25/09  
**Field Prep:** Not Specified

Parameter	Result	Qualifier	Units	RDL	Dilution Factor
<b>MCP Volatile Organics - Westborough Lab</b>					
Methylene chloride	ND		ug/l	5.0	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

**Project Name:** 300 3RD  
**Project Number:** 04-7590GD2

**Lab Number:** L0903627  
**Report Date:** 03/31/09

### SAMPLE RESULTS

**Lab ID:** L0903627-07  
**Client ID:** ENV-8-032409  
**Sample Location:** CAMBRIDGE, MA

**Date Collected:** 03/24/09 10:35  
**Date Received:** 03/25/09  
**Field Prep:** Not Specified

Parameter	Result	Qualifier	Units	RDL	Dilution Factor
<b>MCP Volatile Organics - Westborough Lab</b>					
1,4-Dichlorobenzene	ND		ug/l	2.5	1
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
cis-1,2-Dichloroethene	0.86		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
4-Methyl-2-pentanone	ND		ug/l	5.0	1
2-Hexanone	ND		ug/l	5.0	1
Bromochloromethane	ND		ug/l	2.5	1
Tetrahydrofuran	ND		ug/l	10	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	0.60	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
Ethyl ether	ND		ug/l	2.5	1

**Project Name:** 300 3RD  
**Project Number:** 04-7590GD2

**Lab Number:** L0903627  
**Report Date:** 03/31/09

### SAMPLE RESULTS

**Lab ID:** L0903627-07  
**Client ID:** ENV-8-032409  
**Sample Location:** CAMBRIDGE, MA

**Date Collected:** 03/24/09 10:35  
**Date Received:** 03/25/09  
**Field Prep:** Not Specified

Parameter	Result	Qualifier	Units	RDL	Dilution Factor
<b>MCP Volatile Organics - Westborough Lab</b>					
Isopropyl Ether	ND		ug/l	2.0	1
Ethyl-Tert-Butyl-Ether	ND		ug/l	2.0	1
Tertiary-Amyl Methyl Ether	ND		ug/l	2.0	1
1,4-Dioxane	ND		ug/l	250	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	110		70-130
Toluene-d8	96		70-130
4-Bromofluorobenzene	100		70-130
Dibromofluoromethane	114		70-130



**Project Name:** 300 3RD  
**Project Number:** 04-7590GD2

**Lab Number:** L0903627  
**Report Date:** 03/31/09

### SAMPLE RESULTS

**Lab ID:** L0903627-08  
**Client ID:** ENV-9-032409  
**Sample Location:** CAMBRIDGE, MA  
**Matrix:** Water  
**Analytical Method:** 60,8260B  
**Analytical Date:** 03/30/09 12:39  
**Analyst:** MM

**Date Collected:** 03/24/09 12:00  
**Date Received:** 03/25/09  
**Field Prep:** Not Specified

Parameter	Result	Qualifier	Units	RDL	Dilution Factor
<b>MCP Volatile Organics - Westborough Lab</b>					
Methylene chloride	ND		ug/l	2500	500
1,1-Dichloroethane	ND		ug/l	380	500
Chloroform	ND		ug/l	380	500
Carbon tetrachloride	ND		ug/l	250	500
1,2-Dichloropropane	ND		ug/l	880	500
Dibromochloromethane	ND		ug/l	250	500
1,1,2-Trichloroethane	ND		ug/l	380	500
Tetrachloroethene	ND		ug/l	250	500
Chlorobenzene	ND		ug/l	250	500
Trichlorofluoromethane	ND		ug/l	1200	500
1,2-Dichloroethane	ND		ug/l	250	500
1,1,1-Trichloroethane	ND		ug/l	250	500
Bromodichloromethane	ND		ug/l	250	500
trans-1,3-Dichloropropene	ND		ug/l	250	500
cis-1,3-Dichloropropene	ND		ug/l	250	500
1,1-Dichloropropene	ND		ug/l	1200	500
Bromoform	ND		ug/l	1000	500
1,1,2,2-Tetrachloroethane	ND		ug/l	250	500
Benzene	950		ug/l	250	500
Toluene	18000		ug/l	380	500
Ethylbenzene	18000		ug/l	250	500
Chloromethane	ND		ug/l	1200	500
Bromomethane	ND		ug/l	500	500
Vinyl chloride	ND		ug/l	500	500
Chloroethane	ND		ug/l	500	500
1,1-Dichloroethene	ND		ug/l	250	500
trans-1,2-Dichloroethene	ND		ug/l	380	500
Trichloroethene	ND		ug/l	250	500
1,2-Dichlorobenzene	ND		ug/l	1200	500
1,3-Dichlorobenzene	ND		ug/l	1200	500

**Project Name:** 300 3RD  
**Project Number:** 04-7590GD2

**Lab Number:** L0903627  
**Report Date:** 03/31/09

### SAMPLE RESULTS

**Lab ID:** L0903627-08  
**Client ID:** ENV-9-032409  
**Sample Location:** CAMBRIDGE, MA

**Date Collected:** 03/24/09 12:00  
**Date Received:** 03/25/09  
**Field Prep:** Not Specified

Parameter	Result	Qualifier	Units	RDL	Dilution Factor
<b>MCP Volatile Organics - Westborough Lab</b>					
1,4-Dichlorobenzene	ND		ug/l	1200	500
Methyl tert butyl ether	ND		ug/l	500	500
p/m-Xylene	78000		ug/l	500	500
o-Xylene	23000		ug/l	500	500
cis-1,2-Dichloroethene	ND		ug/l	250	500
Dibromomethane	ND		ug/l	2500	500
1,2,3-Trichloropropane	ND		ug/l	2500	500
Styrene	ND		ug/l	500	500
Dichlorodifluoromethane	ND		ug/l	2500	500
Acetone	ND		ug/l	2500	500
Carbon disulfide	ND		ug/l	2500	500
2-Butanone	ND		ug/l	2500	500
4-Methyl-2-pentanone	ND		ug/l	2500	500
2-Hexanone	ND		ug/l	2500	500
Bromochloromethane	ND		ug/l	1200	500
Tetrahydrofuran	ND		ug/l	5000	500
2,2-Dichloropropane	ND		ug/l	1200	500
1,2-Dibromoethane	ND		ug/l	1000	500
1,3-Dichloropropane	ND		ug/l	1200	500
1,1,1,2-Tetrachloroethane	ND		ug/l	250	500
Bromobenzene	ND		ug/l	1200	500
n-Butylbenzene	ND		ug/l	250	500
sec-Butylbenzene	ND		ug/l	250	500
tert-Butylbenzene	ND		ug/l	1200	500
o-Chlorotoluene	ND		ug/l	1200	500
p-Chlorotoluene	ND		ug/l	1200	500
1,2-Dibromo-3-chloropropane	ND		ug/l	1200	500
Hexachlorobutadiene	ND		ug/l	300	500
Isopropylbenzene	ND		ug/l	250	500
p-Isopropyltoluene	ND		ug/l	250	500
Naphthalene	ND		ug/l	1200	500
n-Propylbenzene	ND		ug/l	250	500
1,2,3-Trichlorobenzene	ND		ug/l	1200	500
1,2,4-Trichlorobenzene	ND		ug/l	1200	500
1,3,5-Trimethylbenzene	ND		ug/l	1200	500
1,2,4-Trimethylbenzene	1400		ug/l	1200	500
Ethyl ether	ND		ug/l	1200	500

**Project Name:** 300 3RD  
**Project Number:** 04-7590GD2

**Lab Number:** L0903627  
**Report Date:** 03/31/09

### SAMPLE RESULTS

**Lab ID:** L0903627-08  
**Client ID:** ENV-9-032409  
**Sample Location:** CAMBRIDGE, MA

**Date Collected:** 03/24/09 12:00  
**Date Received:** 03/25/09  
**Field Prep:** Not Specified

Parameter	Result	Qualifier	Units	RDL	Dilution Factor
<b>MCP Volatile Organics - Westborough Lab</b>					
Isopropyl Ether	ND		ug/l	1000	500
Ethyl-Tert-Butyl-Ether	ND		ug/l	1000	500
Tertiary-Amyl Methyl Ether	ND		ug/l	1000	500
1,4-Dioxane	ND		ug/l	120000	500

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	107		70-130
Toluene-d8	94		70-130
4-Bromofluorobenzene	103		70-130
Dibromofluoromethane	117		70-130

**Project Name:** 300 3RD  
**Project Number:** 04-7590GD2

**Lab Number:** L0903627  
**Report Date:** 03/31/09

### SAMPLE RESULTS

**Lab ID:** L0903627-09  
**Client ID:** B-201-032409  
**Sample Location:** CAMBRIDGE, MA  
**Matrix:** Water  
**Analytical Method:** 60,8260B  
**Analytical Date:** 03/30/09 13:17  
**Analyst:** MM

**Date Collected:** 03/24/09 13:35  
**Date Received:** 03/25/09  
**Field Prep:** Not Specified

Parameter	Result	Qualifier	Units	RDL	Dilution Factor
<b>MCP Volatile Organics - Westborough Lab</b>					
Methylene chloride	ND		ug/l	100	20
1,1-Dichloroethane	ND		ug/l	15	20
Chloroform	ND		ug/l	15	20
Carbon tetrachloride	ND		ug/l	10	20
1,2-Dichloropropane	ND		ug/l	35	20
Dibromochloromethane	ND		ug/l	10	20
1,1,2-Trichloroethane	ND		ug/l	15	20
Tetrachloroethene	ND		ug/l	10	20
Chlorobenzene	ND		ug/l	10	20
Trichlorofluoromethane	ND		ug/l	50	20
1,2-Dichloroethane	ND		ug/l	10	20
1,1,1-Trichloroethane	ND		ug/l	10	20
Bromodichloromethane	ND		ug/l	10	20
trans-1,3-Dichloropropene	ND		ug/l	10	20
cis-1,3-Dichloropropene	ND		ug/l	10	20
1,1-Dichloropropene	ND		ug/l	50	20
Bromoform	ND		ug/l	40	20
1,1,2,2-Tetrachloroethane	ND		ug/l	10	20
Benzene	1500		ug/l	10	20
Toluene	130		ug/l	15	20
Ethylbenzene	840		ug/l	10	20
Chloromethane	ND		ug/l	50	20
Bromomethane	ND		ug/l	20	20
Vinyl chloride	ND		ug/l	20	20
Chloroethane	ND		ug/l	20	20
1,1-Dichloroethene	ND		ug/l	10	20
trans-1,2-Dichloroethene	ND		ug/l	15	20
Trichloroethene	ND		ug/l	10	20
1,2-Dichlorobenzene	ND		ug/l	50	20
1,3-Dichlorobenzene	ND		ug/l	50	20

**Project Name:** 300 3RD  
**Project Number:** 04-7590GD2

**Lab Number:** L0903627  
**Report Date:** 03/31/09

### SAMPLE RESULTS

**Lab ID:** L0903627-09  
**Client ID:** B-201-032409  
**Sample Location:** CAMBRIDGE, MA

**Date Collected:** 03/24/09 13:35  
**Date Received:** 03/25/09  
**Field Prep:** Not Specified

Parameter	Result	Qualifier	Units	RDL	Dilution Factor
<b>MCP Volatile Organics - Westborough Lab</b>					
1,4-Dichlorobenzene	ND		ug/l	50	20
Methyl tert butyl ether	ND		ug/l	20	20
p/m-Xylene	3100		ug/l	20	20
o-Xylene	1000		ug/l	20	20
cis-1,2-Dichloroethene	35		ug/l	10	20
Dibromomethane	ND		ug/l	100	20
1,2,3-Trichloropropane	ND		ug/l	100	20
Styrene	ND		ug/l	20	20
Dichlorodifluoromethane	ND		ug/l	100	20
Acetone	ND		ug/l	100	20
Carbon disulfide	ND		ug/l	100	20
2-Butanone	ND		ug/l	100	20
4-Methyl-2-pentanone	ND		ug/l	100	20
2-Hexanone	ND		ug/l	100	20
Bromochloromethane	ND		ug/l	50	20
Tetrahydrofuran	ND		ug/l	200	20
2,2-Dichloropropane	ND		ug/l	50	20
1,2-Dibromoethane	ND		ug/l	40	20
1,3-Dichloropropane	ND		ug/l	50	20
1,1,1,2-Tetrachloroethane	ND		ug/l	10	20
Bromobenzene	ND		ug/l	50	20
n-Butylbenzene	ND		ug/l	10	20
sec-Butylbenzene	ND		ug/l	10	20
tert-Butylbenzene	ND		ug/l	50	20
o-Chlorotoluene	ND		ug/l	50	20
p-Chlorotoluene	ND		ug/l	50	20
1,2-Dibromo-3-chloropropane	ND		ug/l	50	20
Hexachlorobutadiene	ND		ug/l	12	20
Isopropylbenzene	20		ug/l	10	20
p-Isopropyltoluene	ND		ug/l	10	20
Naphthalene	ND		ug/l	50	20
n-Propylbenzene	18		ug/l	10	20
1,2,3-Trichlorobenzene	ND		ug/l	50	20
1,2,4-Trichlorobenzene	ND		ug/l	50	20
1,3,5-Trimethylbenzene	ND		ug/l	50	20
1,2,4-Trimethylbenzene	110		ug/l	50	20
Ethyl ether	ND		ug/l	50	20

**Project Name:** 300 3RD  
**Project Number:** 04-7590GD2

**Lab Number:** L0903627  
**Report Date:** 03/31/09

### SAMPLE RESULTS

**Lab ID:** L0903627-09  
**Client ID:** B-201-032409  
**Sample Location:** CAMBRIDGE, MA

**Date Collected:** 03/24/09 13:35  
**Date Received:** 03/25/09  
**Field Prep:** Not Specified

Parameter	Result	Qualifier	Units	RDL	Dilution Factor
<b>MCP Volatile Organics - Westborough Lab</b>					
Isopropyl Ether	ND		ug/l	40	20
Ethyl-Tert-Butyl-Ether	ND		ug/l	40	20
Tertiary-Amyl Methyl Ether	ND		ug/l	40	20
1,4-Dioxane	ND		ug/l	5000	20

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	106		70-130
Toluene-d8	95		70-130
4-Bromofluorobenzene	104		70-130
Dibromofluoromethane	108		70-130

**Project Name:** 300 3RD  
**Project Number:** 04-7590GD2

**Lab Number:** L0903627  
**Report Date:** 03/31/09

### SAMPLE RESULTS

**Lab ID:** L0903627-10  
**Client ID:** B-210-032409  
**Sample Location:** CAMBRIDGE, MA  
**Matrix:** Water  
**Analytical Method:** 60,8260B  
**Analytical Date:** 03/27/09 20:16  
**Analyst:** MM

**Date Collected:** 03/24/09 14:00  
**Date Received:** 03/25/09  
**Field Prep:** Not Specified

Parameter	Result	Qualifier	Units	RDL	Dilution Factor
<b>MCP Volatile Organics - Westborough Lab</b>					
Methylene chloride	ND		ug/l	2500	500
1,1-Dichloroethane	ND		ug/l	380	500
Chloroform	ND		ug/l	380	500
Carbon tetrachloride	ND		ug/l	250	500
1,2-Dichloropropane	ND		ug/l	880	500
Dibromochloromethane	ND		ug/l	250	500
1,1,2-Trichloroethane	ND		ug/l	380	500
Tetrachloroethene	ND		ug/l	250	500
Chlorobenzene	ND		ug/l	250	500
Trichlorofluoromethane	ND		ug/l	1200	500
1,2-Dichloroethane	ND		ug/l	250	500
1,1,1-Trichloroethane	ND		ug/l	250	500
Bromodichloromethane	ND		ug/l	250	500
trans-1,3-Dichloropropene	ND		ug/l	250	500
cis-1,3-Dichloropropene	ND		ug/l	250	500
1,1-Dichloropropene	ND		ug/l	1200	500
Bromoform	ND		ug/l	1000	500
1,1,2,2-Tetrachloroethane	ND		ug/l	250	500
Benzene	16000		ug/l	250	500
Toluene	9300		ug/l	380	500
Ethylbenzene	3300		ug/l	250	500
Chloromethane	ND		ug/l	1200	500
Bromomethane	ND		ug/l	500	500
Vinyl chloride	ND		ug/l	500	500
Chloroethane	ND		ug/l	500	500
1,1-Dichloroethene	ND		ug/l	250	500
trans-1,2-Dichloroethene	ND		ug/l	380	500
Trichloroethene	ND		ug/l	250	500
1,2-Dichlorobenzene	ND		ug/l	1200	500
1,3-Dichlorobenzene	ND		ug/l	1200	500



**Project Name:** 300 3RD  
**Project Number:** 04-7590GD2

**Lab Number:** L0903627  
**Report Date:** 03/31/09

### SAMPLE RESULTS

**Lab ID:** L0903627-10  
**Client ID:** B-210-032409  
**Sample Location:** CAMBRIDGE, MA

**Date Collected:** 03/24/09 14:00  
**Date Received:** 03/25/09  
**Field Prep:** Not Specified

Parameter	Result	Qualifier	Units	RDL	Dilution Factor
<b>MCP Volatile Organics - Westborough Lab</b>					
1,4-Dichlorobenzene	ND		ug/l	1200	500
Methyl tert butyl ether	ND		ug/l	500	500
p/m-Xylene	2800		ug/l	500	500
o-Xylene	1200		ug/l	500	500
cis-1,2-Dichloroethene	ND		ug/l	250	500
Dibromomethane	ND		ug/l	2500	500
1,2,3-Trichloropropane	ND		ug/l	2500	500
Styrene	ND		ug/l	500	500
Dichlorodifluoromethane	ND		ug/l	2500	500
Acetone	ND		ug/l	2500	500
Carbon disulfide	ND		ug/l	2500	500
2-Butanone	ND		ug/l	2500	500
4-Methyl-2-pentanone	ND		ug/l	2500	500
2-Hexanone	ND		ug/l	2500	500
Bromochloromethane	ND		ug/l	1200	500
Tetrahydrofuran	ND		ug/l	5000	500
2,2-Dichloropropane	ND		ug/l	1200	500
1,2-Dibromoethane	ND		ug/l	1000	500
1,3-Dichloropropane	ND		ug/l	1200	500
1,1,1,2-Tetrachloroethane	ND		ug/l	250	500
Bromobenzene	ND		ug/l	1200	500
n-Butylbenzene	ND		ug/l	250	500
sec-Butylbenzene	ND		ug/l	250	500
tert-Butylbenzene	ND		ug/l	1200	500
o-Chlorotoluene	ND		ug/l	1200	500
p-Chlorotoluene	ND		ug/l	1200	500
1,2-Dibromo-3-chloropropane	ND		ug/l	1200	500
Hexachlorobutadiene	ND		ug/l	300	500
Isopropylbenzene	ND		ug/l	250	500
p-Isopropyltoluene	ND		ug/l	250	500
Naphthalene	9300		ug/l	1200	500
n-Propylbenzene	ND		ug/l	250	500
1,2,3-Trichlorobenzene	ND		ug/l	1200	500
1,2,4-Trichlorobenzene	ND		ug/l	1200	500
1,3,5-Trimethylbenzene	ND		ug/l	1200	500
1,2,4-Trimethylbenzene	ND		ug/l	1200	500
Ethyl ether	ND		ug/l	1200	500

**Project Name:** 300 3RD  
**Project Number:** 04-7590GD2

**Lab Number:** L0903627  
**Report Date:** 03/31/09

### SAMPLE RESULTS

**Lab ID:** L0903627-10  
**Client ID:** B-210-032409  
**Sample Location:** CAMBRIDGE, MA

**Date Collected:** 03/24/09 14:00  
**Date Received:** 03/25/09  
**Field Prep:** Not Specified

Parameter	Result	Qualifier	Units	RDL	Dilution Factor
<b>MCP Volatile Organics - Westborough Lab</b>					
Isopropyl Ether	ND		ug/l	1000	500
Ethyl-Tert-Butyl-Ether	ND		ug/l	1000	500
Tertiary-Amyl Methyl Ether	ND		ug/l	1000	500
1,4-Dioxane	ND		ug/l	120000	500

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	99		70-130
Toluene-d8	98		70-130
4-Bromofluorobenzene	100		70-130
Dibromofluoromethane	101		70-130

**Project Name:** 300 3RD  
**Project Number:** 04-7590GD2

**Lab Number:** L0903627  
**Report Date:** 03/31/09

### SAMPLE RESULTS

**Lab ID:** L0903627-11  
**Client ID:** TRIPS-VOC,VPH  
**Sample Location:** CAMBRIDGE, MA  
**Matrix:** Water  
**Analytical Method:** 60,8260B  
**Analytical Date:** 03/27/09 15:49  
**Analyst:** GK

**Date Collected:** 03/23/09 00:00  
**Date Received:** 03/25/09  
**Field Prep:** Not Specified

Parameter	Result	Qualifier	Units	RDL	Dilution Factor
<b>MCP Volatile Organics - Westborough Lab</b>					
Methylene chloride	ND		ug/l	5.0	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

**Project Name:** 300 3RD  
**Project Number:** 04-7590GD2

**Lab Number:** L0903627  
**Report Date:** 03/31/09

### SAMPLE RESULTS

**Lab ID:** L0903627-11  
**Client ID:** TRIPS-VOC,VPH  
**Sample Location:** CAMBRIDGE, MA

**Date Collected:** 03/23/09 00:00  
**Date Received:** 03/25/09  
**Field Prep:** Not Specified

Parameter	Result	Qualifier	Units	RDL	Dilution Factor
<b>MCP Volatile Organics - Westborough Lab</b>					
1,4-Dichlorobenzene	ND		ug/l	2.5	1
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
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
4-Methyl-2-pentanone	ND		ug/l	5.0	1
2-Hexanone	ND		ug/l	5.0	1
Bromochloromethane	ND		ug/l	2.5	1
Tetrahydrofuran	ND		ug/l	10	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	0.60	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
Ethyl ether	ND		ug/l	2.5	1

**Project Name:** 300 3RD  
**Project Number:** 04-7590GD2

**Lab Number:** L0903627  
**Report Date:** 03/31/09

### SAMPLE RESULTS

**Lab ID:** L0903627-11  
**Client ID:** TRIPS-VOC,VPH  
**Sample Location:** CAMBRIDGE, MA

**Date Collected:** 03/23/09 00:00  
**Date Received:** 03/25/09  
**Field Prep:** Not Specified

Parameter	Result	Qualifier	Units	RDL	Dilution Factor
<b>MCP Volatile Organics - Westborough Lab</b>					
Isopropyl Ether	ND		ug/l	2.0	1
Ethyl-Tert-Butyl-Ether	ND		ug/l	2.0	1
Tertiary-Amyl Methyl Ether	ND		ug/l	2.0	1
1,4-Dioxane	ND		ug/l	250	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	110		70-130
Toluene-d8	110		70-130
4-Bromofluorobenzene	116		70-130
Dibromofluoromethane	110		70-130

**Project Name:** 300 3RD  
**Project Number:** 04-7590GD2

**Lab Number:** L0903627  
**Report Date:** 03/31/09

**Method Blank Analysis**  
**Batch Quality Control**

Analytical Method: 60,8260B  
Analytical Date: 03/27/09 11:30  
Analyst: GK

Parameter	Result	Qualifier	Units	RDL
MCP Volatile Organics - Westborough Lab for sample(s): 11 Batch: WG356996-3				
Methylene chloride	ND		ug/l	5.0
1,1-Dichloroethane	ND		ug/l	0.75
Chloroform	ND		ug/l	0.75
Carbon tetrachloride	ND		ug/l	0.50
1,2-Dichloropropane	ND		ug/l	1.8
Dibromochloromethane	ND		ug/l	0.50
1,1,2-Trichloroethane	ND		ug/l	0.75
Tetrachloroethene	ND		ug/l	0.50
Chlorobenzene	ND		ug/l	0.50
Trichlorofluoromethane	ND		ug/l	2.5
1,2-Dichloroethane	ND		ug/l	0.50
1,1,1-Trichloroethane	ND		ug/l	0.50
Bromodichloromethane	ND		ug/l	0.50
trans-1,3-Dichloropropene	ND		ug/l	0.50
cis-1,3-Dichloropropene	ND		ug/l	0.50
1,1-Dichloropropene	ND		ug/l	2.5
Bromoform	ND		ug/l	2.0
1,1,2,2-Tetrachloroethane	ND		ug/l	0.50
Benzene	ND		ug/l	0.50
Toluene	ND		ug/l	0.75
Ethylbenzene	ND		ug/l	0.50
Chloromethane	ND		ug/l	2.5
Bromomethane	ND		ug/l	1.0
Vinyl chloride	ND		ug/l	1.0
Chloroethane	ND		ug/l	1.0
1,1-Dichloroethene	ND		ug/l	0.50
trans-1,2-Dichloroethene	ND		ug/l	0.75
Trichloroethene	ND		ug/l	0.50
1,2-Dichlorobenzene	ND		ug/l	2.5
1,3-Dichlorobenzene	ND		ug/l	2.5
1,4-Dichlorobenzene	ND		ug/l	2.5



**Project Name:** 300 3RD  
**Project Number:** 04-7590GD2

**Lab Number:** L0903627  
**Report Date:** 03/31/09

**Method Blank Analysis**  
**Batch Quality Control**

Analytical Method: 60,8260B  
Analytical Date: 03/27/09 11:30  
Analyst: GK

Parameter	Result	Qualifier	Units	RDL
MCP Volatile Organics - Westborough Lab for sample(s): 11 Batch: WG356996-3				
Methyl tert butyl ether	ND		ug/l	1.0
p/m-Xylene	ND		ug/l	1.0
o-Xylene	ND		ug/l	1.0
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
4-Methyl-2-pentanone	ND		ug/l	5.0
2-Hexanone	ND		ug/l	5.0
Bromochloromethane	ND		ug/l	2.5
Tetrahydrofuran	ND		ug/l	10
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
Hexachlorobutadiene	ND		ug/l	0.60
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



**Project Name:** 300 3RD  
**Project Number:** 04-7590GD2

**Lab Number:** L0903627  
**Report Date:** 03/31/09

**Method Blank Analysis  
Batch Quality Control**

Analytical Method: 60,8260B  
Analytical Date: 03/27/09 11:30  
Analyst: GK

Parameter	Result	Qualifier	Units	RDL
MCP Volatile Organics - Westborough Lab for sample(s): 11 Batch: WG356996-3				
1,2,3-Trichlorobenzene	ND		ug/l	2.5
1,2,4-Trichlorobenzene	ND		ug/l	2.5
1,3,5-Trimethylbenzene	ND		ug/l	2.5
1,2,4-Trimethylbenzene	ND		ug/l	2.5
Ethyl ether	ND		ug/l	2.5
Isopropyl Ether	ND		ug/l	2.0
Ethyl-Tert-Butyl-Ether	ND		ug/l	2.0
Tertiary-Amyl Methyl Ether	ND		ug/l	2.0
1,4-Dioxane	ND		ug/l	250

Surrogate	%Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	114		70-130
Toluene-d8	110		70-130
4-Bromofluorobenzene	118		70-130
Dibromofluoromethane	106		70-130

**Project Name:** 300 3RD  
**Project Number:** 04-7590GD2

**Lab Number:** L0903627  
**Report Date:** 03/31/09

**Method Blank Analysis**  
**Batch Quality Control**

Analytical Method: 60,8260B  
Analytical Date: 03/27/09 16:27  
Analyst: MM

Parameter	Result	Qualifier	Units	RDL
MCP Volatile Organics - Westborough Lab for sample(s): 05-07,10 Batch: WG357138-3				
Methylene chloride	ND		ug/l	5.0
1,1-Dichloroethane	ND		ug/l	0.75
Chloroform	ND		ug/l	0.75
Carbon tetrachloride	ND		ug/l	0.50
1,2-Dichloropropane	ND		ug/l	1.8
Dibromochloromethane	ND		ug/l	0.50
1,1,2-Trichloroethane	ND		ug/l	0.75
Tetrachloroethene	ND		ug/l	0.50
Chlorobenzene	ND		ug/l	0.50
Trichlorofluoromethane	ND		ug/l	2.5
1,2-Dichloroethane	ND		ug/l	0.50
1,1,1-Trichloroethane	ND		ug/l	0.50
Bromodichloromethane	ND		ug/l	0.50
trans-1,3-Dichloropropene	ND		ug/l	0.50
cis-1,3-Dichloropropene	ND		ug/l	0.50
1,1-Dichloropropene	ND		ug/l	2.5
Bromoform	ND		ug/l	2.0
1,1,2,2-Tetrachloroethane	ND		ug/l	0.50
Benzene	ND		ug/l	0.50
Toluene	ND		ug/l	0.75
Ethylbenzene	ND		ug/l	0.50
Chloromethane	ND		ug/l	2.5
Bromomethane	ND		ug/l	1.0
Vinyl chloride	ND		ug/l	1.0
Chloroethane	ND		ug/l	1.0
1,1-Dichloroethene	ND		ug/l	0.50
trans-1,2-Dichloroethene	ND		ug/l	0.75
Trichloroethene	ND		ug/l	0.50
1,2-Dichlorobenzene	ND		ug/l	2.5
1,3-Dichlorobenzene	ND		ug/l	2.5
1,4-Dichlorobenzene	ND		ug/l	2.5



**Project Name:** 300 3RD  
**Project Number:** 04-7590GD2

**Lab Number:** L0903627  
**Report Date:** 03/31/09

**Method Blank Analysis**  
**Batch Quality Control**

Analytical Method: 60,8260B  
Analytical Date: 03/27/09 16:27  
Analyst: MM

Parameter	Result	Qualifier	Units	RDL
MCP Volatile Organics - Westborough Lab for sample(s): 05-07,10 Batch: WG357138-3				
Methyl tert butyl ether	ND		ug/l	1.0
p/m-Xylene	ND		ug/l	1.0
o-Xylene	ND		ug/l	1.0
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
4-Methyl-2-pentanone	ND		ug/l	5.0
2-Hexanone	ND		ug/l	5.0
Bromochloromethane	ND		ug/l	2.5
Tetrahydrofuran	ND		ug/l	10
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
Hexachlorobutadiene	ND		ug/l	0.60
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



**Project Name:** 300 3RD  
**Project Number:** 04-7590GD2

**Lab Number:** L0903627  
**Report Date:** 03/31/09

**Method Blank Analysis**  
**Batch Quality Control**

Analytical Method: 60,8260B  
 Analytical Date: 03/27/09 16:27  
 Analyst: MM

Parameter	Result	Qualifier	Units	RDL
MCP Volatile Organics - Westborough Lab for sample(s): 05-07,10 Batch: WG357138-3				
1,2,3-Trichlorobenzene	ND		ug/l	2.5
1,2,4-Trichlorobenzene	ND		ug/l	2.5
1,3,5-Trimethylbenzene	ND		ug/l	2.5
1,2,4-Trimethylbenzene	ND		ug/l	2.5
Ethyl ether	ND		ug/l	2.5
Isopropyl Ether	ND		ug/l	2.0
Ethyl-Tert-Butyl-Ether	ND		ug/l	2.0
Tertiary-Amyl Methyl Ether	ND		ug/l	2.0
1,4-Dioxane	ND		ug/l	250

Surrogate	%Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	107		70-130
Toluene-d8	97		70-130
4-Bromofluorobenzene	101		70-130
Dibromofluoromethane	114		70-130

**Project Name:** 300 3RD  
**Project Number:** 04-7590GD2

**Lab Number:** L0903627  
**Report Date:** 03/31/09

**Method Blank Analysis**  
**Batch Quality Control**

Analytical Method: 60,8260B  
Analytical Date: 03/30/09 10:45  
Analyst: MM

Parameter	Result	Qualifier	Units	RDL
MCP Volatile Organics - Westborough Lab for sample(s): 05,08-09 Batch: WG357138-6				
Methylene chloride	ND		ug/l	5.0
1,1-Dichloroethane	ND		ug/l	0.75
Chloroform	ND		ug/l	0.75
Carbon tetrachloride	ND		ug/l	0.50
1,2-Dichloropropane	ND		ug/l	1.8
Dibromochloromethane	ND		ug/l	0.50
1,1,2-Trichloroethane	ND		ug/l	0.75
Tetrachloroethene	ND		ug/l	0.50
Chlorobenzene	ND		ug/l	0.50
Trichlorofluoromethane	ND		ug/l	2.5
1,2-Dichloroethane	ND		ug/l	0.50
1,1,1-Trichloroethane	ND		ug/l	0.50
Bromodichloromethane	ND		ug/l	0.50
trans-1,3-Dichloropropene	ND		ug/l	0.50
cis-1,3-Dichloropropene	ND		ug/l	0.50
1,1-Dichloropropene	ND		ug/l	2.5
Bromoform	ND		ug/l	2.0
1,1,2,2-Tetrachloroethane	ND		ug/l	0.50
Benzene	ND		ug/l	0.50
Toluene	ND		ug/l	0.75
Ethylbenzene	ND		ug/l	0.50
Chloromethane	ND		ug/l	2.5
Bromomethane	ND		ug/l	1.0
Vinyl chloride	ND		ug/l	1.0
Chloroethane	ND		ug/l	1.0
1,1-Dichloroethene	ND		ug/l	0.50
trans-1,2-Dichloroethene	ND		ug/l	0.75
Trichloroethene	ND		ug/l	0.50
1,2-Dichlorobenzene	ND		ug/l	2.5
1,3-Dichlorobenzene	ND		ug/l	2.5
1,4-Dichlorobenzene	ND		ug/l	2.5



**Project Name:** 300 3RD  
**Project Number:** 04-7590GD2

**Lab Number:** L0903627  
**Report Date:** 03/31/09

**Method Blank Analysis  
Batch Quality Control**

Analytical Method: 60,8260B  
Analytical Date: 03/30/09 10:45  
Analyst: MM

Parameter	Result	Qualifier	Units	RDL
MCP Volatile Organics - Westborough Lab for sample(s): 05,08-09 Batch: WG357138-6				
Methyl tert butyl ether	ND		ug/l	1.0
p/m-Xylene	ND		ug/l	1.0
o-Xylene	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
4-Methyl-2-pentanone	ND		ug/l	5.0
2-Hexanone	ND		ug/l	5.0
Bromochloromethane	ND		ug/l	2.5
Tetrahydrofuran	ND		ug/l	10
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
Hexachlorobutadiene	ND		ug/l	0.60
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



**Project Name:** 300 3RD  
**Project Number:** 04-7590GD2

**Lab Number:** L0903627  
**Report Date:** 03/31/09

**Method Blank Analysis**  
**Batch Quality Control**

Analytical Method: 60,8260B  
 Analytical Date: 03/30/09 10:45  
 Analyst: MM

Parameter	Result	Qualifier	Units	RDL
MCP Volatile Organics - Westborough Lab for sample(s): 05,08-09 Batch: WG357138-6				
1,2,3-Trichlorobenzene	ND		ug/l	2.5
1,2,4-Trichlorobenzene	ND		ug/l	2.5
1,3,5-Trimethylbenzene	ND		ug/l	2.5
1,2,4-Trimethylbenzene	ND		ug/l	2.5
Ethyl ether	ND		ug/l	2.5
Isopropyl Ether	ND		ug/l	2.0
Ethyl-Tert-Butyl-Ether	ND		ug/l	2.0
Tertiary-Amyl Methyl Ether	ND		ug/l	2.0
1,4-Dioxane	ND		ug/l	250

Surrogate	%Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	115		70-130
Toluene-d8	96		70-130
4-Bromofluorobenzene	102		70-130
Dibromofluoromethane	117		70-130



**Project Name:** 300 3RD  
**Project Number:** 04-7590GD2

**Lab Number:** L0903627  
**Report Date:** 03/31/09

**Method Blank Analysis**  
**Batch Quality Control**

Analytical Method: 60,8260B  
Analytical Date: 03/27/09 17:24  
Analyst: MM

Parameter	Result	Qualifier	Units	RDL
MCP Volatile Organics - Westborough Lab for sample(s): 01-04 Batch: WG357152-3				
Methylene chloride	ND		ug/l	5.0
1,1-Dichloroethane	ND		ug/l	0.75
Chloroform	ND		ug/l	0.75
Carbon tetrachloride	ND		ug/l	0.50
1,2-Dichloropropane	ND		ug/l	1.8
Dibromochloromethane	ND		ug/l	0.50
1,1,2-Trichloroethane	ND		ug/l	0.75
Tetrachloroethene	ND		ug/l	0.50
Chlorobenzene	ND		ug/l	0.50
Trichlorofluoromethane	ND		ug/l	2.5
1,2-Dichloroethane	ND		ug/l	0.50
1,1,1-Trichloroethane	ND		ug/l	0.50
Bromodichloromethane	ND		ug/l	0.50
trans-1,3-Dichloropropene	ND		ug/l	0.50
cis-1,3-Dichloropropene	ND		ug/l	0.50
1,1-Dichloropropene	ND		ug/l	2.5
Bromoform	ND		ug/l	2.0
1,1,2,2-Tetrachloroethane	ND		ug/l	0.50
Benzene	ND		ug/l	0.50
Toluene	ND		ug/l	0.75
Ethylbenzene	ND		ug/l	0.50
Chloromethane	ND		ug/l	2.5
Bromomethane	ND		ug/l	1.0
Vinyl chloride	ND		ug/l	1.0
Chloroethane	ND		ug/l	1.0
1,1-Dichloroethene	ND		ug/l	0.50
trans-1,2-Dichloroethene	ND		ug/l	0.75
Trichloroethene	ND		ug/l	0.50
1,2-Dichlorobenzene	ND		ug/l	2.5
1,3-Dichlorobenzene	ND		ug/l	2.5
1,4-Dichlorobenzene	ND		ug/l	2.5

**Project Name:** 300 3RD  
**Project Number:** 04-7590GD2

**Lab Number:** L0903627  
**Report Date:** 03/31/09

**Method Blank Analysis**  
**Batch Quality Control**

Analytical Method: 60,8260B  
Analytical Date: 03/27/09 17:24  
Analyst: MM

Parameter	Result	Qualifier	Units	RDL
MCP Volatile Organics - Westborough Lab for sample(s): 01-04 Batch: WG357152-3				
Methyl tert butyl ether	ND		ug/l	1.0
p/m-Xylene	ND		ug/l	1.0
o-Xylene	ND		ug/l	1.0
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
4-Methyl-2-pentanone	ND		ug/l	5.0
2-Hexanone	ND		ug/l	5.0
Bromochloromethane	ND		ug/l	2.5
Tetrahydrofuran	ND		ug/l	10
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
Hexachlorobutadiene	ND		ug/l	0.60
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

**Project Name:** 300 3RD  
**Project Number:** 04-7590GD2

**Lab Number:** L0903627  
**Report Date:** 03/31/09

**Method Blank Analysis**  
**Batch Quality Control**

Analytical Method: 60,8260B  
Analytical Date: 03/27/09 17:24  
Analyst: MM

Parameter	Result	Qualifier	Units	RDL
MCP Volatile Organics - Westborough Lab for sample(s): 01-04 Batch: WG357152-3				
1,2,3-Trichlorobenzene	ND		ug/l	2.5
1,2,4-Trichlorobenzene	ND		ug/l	2.5
1,3,5-Trimethylbenzene	ND		ug/l	2.5
1,2,4-Trimethylbenzene	ND		ug/l	2.5
Ethyl ether	ND		ug/l	2.5
Isopropyl Ether	ND		ug/l	2.0
Ethyl-Tert-Butyl-Ether	ND		ug/l	2.0
Tertiary-Amyl Methyl Ether	ND		ug/l	2.0
1,4-Dioxane	ND		ug/l	250

Surrogate	%Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	102		70-130
Toluene-d8	99		70-130
4-Bromofluorobenzene	101		70-130
Dibromofluoromethane	105		70-130

**Project Name:** 300 3RD  
**Project Number:** 04-7590GD2

**Lab Number:** L0903627  
**Report Date:** 03/31/09

**Method Blank Analysis  
Batch Quality Control**

Analytical Method: 60,8260B  
Analytical Date: 03/30/09 10:45  
Analyst: MM

Parameter	Result	Qualifier	Units	RDL
MCP Volatile Organics - Westborough Lab for sample(s): 03 Batch: WG357152-6				
Methylene chloride	ND		ug/l	5.0
1,1-Dichloroethane	ND		ug/l	0.75
Chloroform	ND		ug/l	0.75
Carbon tetrachloride	ND		ug/l	0.50
1,2-Dichloropropane	ND		ug/l	1.8
Dibromochloromethane	ND		ug/l	0.50
1,1,2-Trichloroethane	ND		ug/l	0.75
Tetrachloroethene	ND		ug/l	0.50
Chlorobenzene	ND		ug/l	0.50
Trichlorofluoromethane	ND		ug/l	2.5
1,2-Dichloroethane	ND		ug/l	0.50
1,1,1-Trichloroethane	ND		ug/l	0.50
Bromodichloromethane	ND		ug/l	0.50
trans-1,3-Dichloropropene	ND		ug/l	0.50
cis-1,3-Dichloropropene	ND		ug/l	0.50
1,1-Dichloropropene	ND		ug/l	2.5
Bromoform	ND		ug/l	2.0
1,1,2,2-Tetrachloroethane	ND		ug/l	0.50
Benzene	ND		ug/l	0.50
Toluene	ND		ug/l	0.75
Ethylbenzene	ND		ug/l	0.50
Chloromethane	ND		ug/l	2.5
Bromomethane	ND		ug/l	1.0
Vinyl chloride	ND		ug/l	1.0
Chloroethane	ND		ug/l	1.0
1,1-Dichloroethene	ND		ug/l	0.50
trans-1,2-Dichloroethene	ND		ug/l	0.75
Trichloroethene	ND		ug/l	0.50
1,2-Dichlorobenzene	ND		ug/l	2.5
1,3-Dichlorobenzene	ND		ug/l	2.5
1,4-Dichlorobenzene	ND		ug/l	2.5



**Project Name:** 300 3RD  
**Project Number:** 04-7590GD2

**Lab Number:** L0903627  
**Report Date:** 03/31/09

**Method Blank Analysis**  
**Batch Quality Control**

**Analytical Method:** 60,8260B  
**Analytical Date:** 03/30/09 10:45  
**Analyst:** MM

Parameter	Result	Qualifier	Units	RDL
MCP Volatile Organics - Westborough Lab for sample(s): 03 Batch: WG357152-6				
Methyl tert butyl ether	ND		ug/l	1.0
p/m-Xylene	ND		ug/l	1.0
o-Xylene	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
4-Methyl-2-pentanone	ND		ug/l	5.0
2-Hexanone	ND		ug/l	5.0
Bromochloromethane	ND		ug/l	2.5
Tetrahydrofuran	ND		ug/l	10
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
Hexachlorobutadiene	ND		ug/l	0.60
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

**Project Name:** 300 3RD  
**Project Number:** 04-7590GD2

**Lab Number:** L0903627  
**Report Date:** 03/31/09

**Method Blank Analysis**  
**Batch Quality Control**

Analytical Method: 60,8260B  
 Analytical Date: 03/30/09 10:45  
 Analyst: MM

Parameter	Result	Qualifier	Units	RDL
MCP Volatile Organics - Westborough Lab for sample(s): 03 Batch: WG357152-6				
1,2,3-Trichlorobenzene	ND		ug/l	2.5
1,2,4-Trichlorobenzene	ND		ug/l	2.5
1,3,5-Trimethylbenzene	ND		ug/l	2.5
1,2,4-Trimethylbenzene	ND		ug/l	2.5
Ethyl ether	ND		ug/l	2.5
Isopropyl Ether	ND		ug/l	2.0
Ethyl-Tert-Butyl-Ether	ND		ug/l	2.0
Tertiary-Amyl Methyl Ether	ND		ug/l	2.0
1,4-Dioxane	ND		ug/l	250

Surrogate	%Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	115		70-130
Toluene-d8	96		70-130
4-Bromofluorobenzene	102		70-130
Dibromofluoromethane	117		70-130

## Lab Control Sample Analysis

Batch Quality Control

**Project Name:** 300 3RD  
**Project Number:** 04-7590GD2

**Lab Number:** L0903627  
**Report Date:** 03/31/09

Parameter	LCS %Recovery	LCSD %Recovery	%Recovery Limits	RPD	RPD Limits
MCP Volatile Organics - Westborough Lab Associated sample(s): 11 Batch: WG356996-1 WG356996-2					
Methylene chloride	105	106	70-130	1	25
1,1-Dichloroethane	113	112	70-130	1	25
Chloroform	99	100	70-130	1	25
Carbon tetrachloride	85	82	70-130	4	25
1,2-Dichloropropane	104	108	70-130	4	25
Dibromochloromethane	92	94	70-130	2	25
1,1,2-Trichloroethane	118	122	70-130	3	25
Tetrachloroethene	98	91	70-130	7	25
Chlorobenzene	105	103	70-130	2	25
Trichlorofluoromethane	112	112	70-130	0	25
1,2-Dichloroethane	106	110	70-130	4	25
1,1,1-Trichloroethane	89	88	70-130	1	25
Bromodichloromethane	96	97	70-130	1	25
trans-1,3-Dichloropropene	98	99	70-130	1	25
cis-1,3-Dichloropropene	85	89	70-130	5	25
1,1-Dichloropropene	106	102	70-130	4	25
Bromoform	115	120	70-130	4	50
1,1,2,2-Tetrachloroethane	129	137	70-130	6	25
Benzene	99	100	70-130	1	25
Toluene	110	104	70-130	6	25
Ethylbenzene	109	102	70-130	7	25

## Lab Control Sample Analysis

Batch Quality Control

**Project Name:** 300 3RD  
**Project Number:** 04-7590GD2

**Lab Number:** L0903627  
**Report Date:** 03/31/09

Parameter	LCS %Recovery	LCSD %Recovery	%Recovery Limits	RPD	RPD Limits
MCP Volatile Organics - Westborough Lab Associated sample(s): 11 Batch: WG356996-1 WG356996-2					
Chloromethane	108	108	70-130	0	50
Bromomethane	92	89	70-130	3	50
Vinyl chloride	104	104	70-130	0	25
Chloroethane	106	105	70-130	1	25
1,1-Dichloroethene	99	98	70-130	1	25
trans-1,2-Dichloroethene	109	106	70-130	3	25
Trichloroethene	102	102	70-130	0	25
1,2-Dichlorobenzene	109	113	70-130	4	25
1,3-Dichlorobenzene	109	109	70-130	0	25
1,4-Dichlorobenzene	108	112	70-130	4	25
Methyl tert butyl ether	95	102	70-130	7	25
p/m-Xylene	106	99	70-130	7	25
o-Xylene	105	99	70-130	6	25
cis-1,2-Dichloroethene	101	105	70-130	4	25
Dibromomethane	110	116	70-130	5	25
1,2,3-Trichloropropane	124	139	70-130	11	25
Styrene	100	101	70-130	1	25
Dichlorodifluoromethane	101	100	70-130	1	50
Acetone	122	145	70-130	17	50
Carbon disulfide	77	75	70-130	3	50
2-Butanone	101	115	70-130	13	50



## Lab Control Sample Analysis

Batch Quality Control

**Project Name:** 300 3RD  
**Project Number:** 04-7590GD2

**Lab Number:** L0903627  
**Report Date:** 03/31/09

Parameter	LCS %Recovery	LCSD %Recovery	%Recovery Limits	RPD	RPD Limits
MCP Volatile Organics - Westborough Lab Associated sample(s): 11 Batch: WG356996-1 WG356996-2					
4-Methyl-2-pentanone	110	122	70-130	10	50
2-Hexanone	99	108	70-130	9	50
Bromochloromethane	108	116	70-130	7	25
Tetrahydrofuran	121	129	70-130	6	25
2,2-Dichloropropane	77	76	70-130	1	50
1,2-Dibromoethane	107	113	70-130	5	25
1,3-Dichloropropane	117	118	70-130	1	25
1,1,1,2-Tetrachloroethane	103	102	70-130	1	25
Bromobenzene	107	110	70-130	3	25
n-Butylbenzene	130	128	70-130	2	25
sec-Butylbenzene	116	116	70-130	0	25
tert-Butylbenzene	106	105	70-130	1	25
o-Chlorotoluene	115	116	70-130	1	25
p-Chlorotoluene	119	119	70-130	0	25
1,2-Dibromo-3-chloropropane	108	130	70-130	18	50
Hexachlorobutadiene	98	93	70-130	5	25
Isopropylbenzene	103	96	70-130	7	25
p-Isopropyltoluene	114	115	70-130	1	25
Naphthalene	108	118	70-130	9	25
n-Propylbenzene	117	117	70-130	0	25
1,2,3-Trichlorobenzene	111	114	70-130	3	25

## Lab Control Sample Analysis

Batch Quality Control

**Project Name:** 300 3RD  
**Project Number:** 04-7590GD2

**Lab Number:** L0903627  
**Report Date:** 03/31/09

Parameter	LCS %Recovery	LCSD %Recovery	%Recovery Limits	RPD	RPD Limits
MCP Volatile Organics - Westborough Lab Associated sample(s): 11 Batch: WG356996-1 WG356996-2					
1,2,4-Trichlorobenzene	101	104	70-130	3	25
1,3,5-Trimethylbenzene	109	109	70-130	0	25
1,2,4-Trimethylbenzene	114	112	70-130	2	25
Ethyl ether	101	106	70-130	5	25
Isopropyl Ether	96	103	70-130	7	25
Ethyl-Tert-Butyl-Ether	85	90	70-130	6	25
Tertiary-Amyl Methyl Ether	85	91	70-130	7	25
1,4-Dioxane	109	128	70-130	16	50

Surrogate	LCS %Recovery	Qualifier	LCSD %Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	108		113		70-130
Toluene-d8	114		112		70-130
4-Bromofluorobenzene	110		115		70-130
Dibromofluoromethane	103		107		70-130

## Lab Control Sample Analysis

### Batch Quality Control

**Project Name:** 300 3RD  
**Project Number:** 04-7590GD2

**Lab Number:** L0903627  
**Report Date:** 03/31/09

Parameter	LCS %Recovery	LCSD %Recovery	%Recovery Limits	RPD	RPD Limits
MCP Volatile Organics - Westborough Lab Associated sample(s): 05-07,10 Batch: WG357138-1 WG357138-2					
Methylene chloride	107	103	70-130	4	25
1,1-Dichloroethane	107	104	70-130	3	25
Chloroform	106	102	70-130	4	25
Carbon tetrachloride	89	90	70-130	1	25
1,2-Dichloropropane	102	98	70-130	4	25
Dibromochloromethane	93	92	70-130	1	25
1,1,2-Trichloroethane	97	93	70-130	4	25
Tetrachloroethene	99	98	70-130	1	25
Chlorobenzene	98	95	70-130	3	25
Trichlorofluoromethane	110	106	70-130	4	25
1,2-Dichloroethane	102	100	70-130	2	25
1,1,1-Trichloroethane	104	102	70-130	2	25
Bromodichloromethane	106	104	70-130	2	25
trans-1,3-Dichloropropene	92	90	70-130	2	25
cis-1,3-Dichloropropene	92	90	70-130	2	25
1,1-Dichloropropene	101	98	70-130	3	25
Bromoform	102	96	70-130	6	50
1,1,2,2-Tetrachloroethane	108	102	70-130	6	25
Benzene	101	98	70-130	3	25
Toluene	100	98	70-130	2	25
Ethylbenzene	105	103	70-130	2	25

## Lab Control Sample Analysis

Batch Quality Control

**Project Name:** 300 3RD  
**Project Number:** 04-7590GD2

**Lab Number:** L0903627  
**Report Date:** 03/31/09

Parameter	LCS %Recovery	LCSD %Recovery	%Recovery Limits	RPD	RPD Limits
MCP Volatile Organics - Westborough Lab Associated sample(s): 05-07,10 Batch: WG357138-1 WG357138-2					
Chloromethane	109	98	70-130	11	50
Bromomethane	124	116	70-130	7	50
Vinyl chloride	108	101	70-130	7	25
Chloroethane	93	88	70-130	6	25
1,1-Dichloroethene	106	103	70-130	3	25
trans-1,2-Dichloroethene	111	106	70-130	5	25
Trichloroethene	98	97	70-130	1	25
1,2-Dichlorobenzene	102	99	70-130	3	25
1,3-Dichlorobenzene	103	100	70-130	3	25
1,4-Dichlorobenzene	102	99	70-130	3	25
Methyl tert butyl ether	91	84	70-130	8	25
p/m-Xylene	106	104	70-130	2	25
o-Xylene	101	97	70-130	4	25
cis-1,2-Dichloroethene	104	102	70-130	2	25
Dibromomethane	104	101	70-130	3	25
1,2,3-Trichloropropane	114	106	70-130	7	25
Styrene	99	96	70-130	3	25
Dichlorodifluoromethane	130	112	70-130	15	50
Acetone	105	98	70-130	7	50
Carbon disulfide	84	83	70-130	1	50
2-Butanone	98	99	70-130	1	50

## Lab Control Sample Analysis

### Batch Quality Control

**Project Name:** 300 3RD  
**Project Number:** 04-7590GD2

**Lab Number:** L0903627  
**Report Date:** 03/31/09

Parameter	LCS %Recovery	LCSD %Recovery	%Recovery Limits	RPD	RPD Limits
MCP Volatile Organics - Westborough Lab Associated sample(s): 05-07,10 Batch: WG357138-1 WG357138-2					
4-Methyl-2-pentanone	97	96	70-130	1	50
2-Hexanone	94	91	70-130	3	50
Bromochloromethane	109	105	70-130	4	25
Tetrahydrofuran	96	94	70-130	2	25
2,2-Dichloropropane	108	104	70-130	4	50
1,2-Dibromoethane	98	94	70-130	4	25
1,3-Dichloropropane	100	96	70-130	4	25
1,1,1,2-Tetrachloroethane	96	93	70-130	3	25
Bromobenzene	107	103	70-130	4	25
n-Butylbenzene	99	97	70-130	2	25
sec-Butylbenzene	106	104	70-130	2	25
tert-Butylbenzene	105	102	70-130	3	25
o-Chlorotoluene	105	101	70-130	4	25
p-Chlorotoluene	106	103	70-130	3	25
1,2-Dibromo-3-chloropropane	93	90	70-130	3	50
Hexachlorobutadiene	106	107	70-130	1	25
Isopropylbenzene	103	102	70-130	1	25
p-Isopropyltoluene	105	102	70-130	3	25
Naphthalene	95	92	70-130	3	25
n-Propylbenzene	103	101	70-130	2	25
1,2,3-Trichlorobenzene	100	99	70-130	1	25

## Lab Control Sample Analysis

Batch Quality Control

**Project Name:** 300 3RD  
**Project Number:** 04-7590GD2

**Lab Number:** L0903627  
**Report Date:** 03/31/09

Parameter	LCS %Recovery	LCSD %Recovery	%Recovery Limits	RPD	RPD Limits
MCP Volatile Organics - Westborough Lab Associated sample(s): 05-07,10 Batch: WG357138-1 WG357138-2					
1,2,4-Trichlorobenzene	99	96	70-130	3	25
1,3,5-Trimethylbenzene	103	100	70-130	3	25
1,2,4-Trimethylbenzene	105	102	70-130	3	25
Ethyl ether	85	81	70-130	5	25
Isopropyl Ether	83	77	70-130	8	25
Ethyl-Tert-Butyl-Ether	86	79	70-130	8	25
Tertiary-Amyl Methyl Ether	88	81	70-130	8	25
1,4-Dioxane	105	102	70-130	3	50

Surrogate	LCS %Recovery	Qualifier	LCSD %Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	97		95		70-130
Toluene-d8	98		99		70-130
4-Bromofluorobenzene	105		104		70-130
Dibromofluoromethane	100		98		70-130

## Lab Control Sample Analysis

Batch Quality Control

**Project Name:** 300 3RD  
**Project Number:** 04-7590GD2

**Lab Number:** L0903627  
**Report Date:** 03/31/09

Parameter	LCS %Recovery	LCSD %Recovery	%Recovery Limits	RPD	RPD Limits
MCP Volatile Organics - Westborough Lab Associated sample(s): 05,08-09 Batch: WG357138-4 WG357138-5					
Methylene chloride	121	125	70-130	3	25
1,1-Dichloroethane	120	122	70-130	2	25
Chloroform	119	120	70-130	1	25
Carbon tetrachloride	113	102	70-130	10	25
1,2-Dichloropropane	111	111	70-130	0	25
Dibromochloromethane	102	99	70-130	3	25
1,1,2-Trichloroethane	102	103	70-130	1	25
Tetrachloroethene	102	107	70-130	5	25
Chlorobenzene	103	106	70-130	3	25
Trichlorofluoromethane	125	128	70-130	2	25
1,2-Dichloroethane	120	119	70-130	1	25
1,1,1-Trichloroethane	113	118	70-130	4	25
Bromodichloromethane	120	119	70-130	1	25
trans-1,3-Dichloropropene	97	96	70-130	1	25
cis-1,3-Dichloropropene	98	100	70-130	2	25
1,1-Dichloropropene	106	108	70-130	2	25
Bromoform	105	108	70-130	3	50
1,1,2,2-Tetrachloroethane	110	117	70-130	6	25
Benzene	108	112	70-130	4	25
Toluene	107	110	70-130	3	25
Ethylbenzene	113	115	70-130	2	25

## Lab Control Sample Analysis

Batch Quality Control

**Project Name:** 300 3RD  
**Project Number:** 04-7590GD2

**Lab Number:** L0903627  
**Report Date:** 03/31/09

Parameter	LCS %Recovery	LCSD %Recovery	%Recovery Limits	RPD	RPD Limits
MCP Volatile Organics - Westborough Lab Associated sample(s): 05,08-09 Batch: WG357138-4 WG357138-5					
Chloromethane	114	108	70-130	5	50
Bromomethane	128	127	70-130	1	50
Vinyl chloride	116	113	70-130	3	25
Chloroethane	108	109	70-130	1	25
1,1-Dichloroethene	116	119	70-130	3	25
trans-1,2-Dichloroethene	119	119	70-130	0	25
Trichloroethene	108	108	70-130	0	25
1,2-Dichlorobenzene	107	111	70-130	4	25
1,3-Dichlorobenzene	106	112	70-130	6	25
1,4-Dichlorobenzene	105	108	70-130	3	25
Methyl tert butyl ether	97	94	70-130	3	25
p/m-Xylene	113	117	70-130	3	25
o-Xylene	107	107	70-130	0	25
cis-1,2-Dichloroethene	114	118	70-130	3	25
Dibromomethane	120	120	70-130	0	25
1,2,3-Trichloropropane	123	125	70-130	2	25
Styrene	109	107	70-130	2	25
Dichlorodifluoromethane	117	100	70-130	16	50
Acetone	<b>154</b>	<b>145</b>	70-130	6	50
Carbon disulfide	92	96	70-130	4	50
2-Butanone	120	119	70-130	1	50



## Lab Control Sample Analysis

Batch Quality Control

**Project Name:** 300 3RD  
**Project Number:** 04-7590GD2

**Lab Number:** L0903627  
**Report Date:** 03/31/09

Parameter	LCS %Recovery	LCSD %Recovery	%Recovery Limits	RPD	RPD Limits
MCP Volatile Organics - Westborough Lab Associated sample(s): 05,08-09 Batch: WG357138-4 WG357138-5					
4-Methyl-2-pentanone	108	112	70-130	4	50
2-Hexanone	103	104	70-130	1	50
Bromochloromethane	120	122	70-130	2	25
Tetrahydrofuran	116	114	70-130	2	25
2,2-Dichloropropane	115	118	70-130	3	50
1,2-Dibromoethane	103	104	70-130	1	25
1,3-Dichloropropane	108	107	70-130	1	25
1,1,1,2-Tetrachloroethane	100	102	70-130	2	25
Bromobenzene	110	112	70-130	2	25
n-Butylbenzene	106	110	70-130	4	25
sec-Butylbenzene	112	117	70-130	4	25
tert-Butylbenzene	107	111	70-130	4	25
o-Chlorotoluene	108	114	70-130	5	25
p-Chlorotoluene	112	116	70-130	4	25
1,2-Dibromo-3-chloropropane	105	111	70-130	6	50
Hexachlorobutadiene	110	110	70-130	0	25
Isopropylbenzene	110	113	70-130	3	25
p-Isopropyltoluene	108	112	70-130	4	25
Naphthalene	98	100	70-130	2	25
n-Propylbenzene	108	114	70-130	5	25
1,2,3-Trichlorobenzene	104	105	70-130	1	25

## Lab Control Sample Analysis

Batch Quality Control

**Project Name:** 300 3RD  
**Project Number:** 04-7590GD2

**Lab Number:** L0903627  
**Report Date:** 03/31/09

Parameter	LCS %Recovery	LCSD %Recovery	%Recovery Limits	RPD	RPD Limits
MCP Volatile Organics - Westborough Lab Associated sample(s): 05,08-09 Batch: WG357138-4 WG357138-5					
1,2,4-Trichlorobenzene	101	102	70-130	1	25
1,3,5-Trimethylbenzene	107	112	70-130	5	25
1,2,4-Trimethylbenzene	110	114	70-130	4	25
Ethyl ether	100	93	70-130	7	25
Isopropyl Ether	89	90	70-130	1	25
Ethyl-Tert-Butyl-Ether	91	90	70-130	1	25
Tertiary-Amyl Methyl Ether	94	94	70-130	0	25
1,4-Dioxane	152	148	70-130	3	50

Surrogate	LCS %Recovery	Qualifier	LCSD %Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	101		103		70-130
Toluene-d8	98		98		70-130
4-Bromofluorobenzene	102		105		70-130
Dibromofluoromethane	103		103		70-130

## Lab Control Sample Analysis

Batch Quality Control

**Project Name:** 300 3RD  
**Project Number:** 04-7590GD2

**Lab Number:** L0903627  
**Report Date:** 03/31/09

Parameter	LCS %Recovery	LCSD %Recovery	%Recovery Limits	RPD	RPD Limits
MCP Volatile Organics - Westborough Lab Associated sample(s): 01-04 Batch: WG357152-1 WG357152-2					
Methylene chloride	102	98	70-130	4	25
1,1-Dichloroethane	99	98	70-130	1	25
Chloroform	100	99	70-130	1	25
Carbon tetrachloride	97	86	70-130	12	25
1,2-Dichloropropane	98	95	70-130	3	25
Dibromochloromethane	98	95	70-130	3	25
1,1,2-Trichloroethane	99	94	70-130	5	25
Tetrachloroethene	99	97	70-130	2	25
Chlorobenzene	96	96	70-130	0	25
Trichlorofluoromethane	107	105	70-130	2	25
1,2-Dichloroethane	98	94	70-130	4	25
1,1,1-Trichloroethane	98	98	70-130	0	25
Bromodichloromethane	100	98	70-130	2	25
trans-1,3-Dichloropropene	100	98	70-130	2	25
cis-1,3-Dichloropropene	89	87	70-130	2	25
1,1-Dichloropropene	96	95	70-130	1	25
Bromoform	92	91	70-130	1	50
1,1,2,2-Tetrachloroethane	105	99	70-130	6	25
Benzene	97	95	70-130	2	25
Toluene	100	100	70-130	0	25
Ethylbenzene	102	102	70-130	0	25

## Lab Control Sample Analysis

Batch Quality Control

**Project Name:** 300 3RD  
**Project Number:** 04-7590GD2

**Lab Number:** L0903627  
**Report Date:** 03/31/09

Parameter	LCS %Recovery	LCSD %Recovery	%Recovery Limits	RPD	RPD Limits
MCP Volatile Organics - Westborough Lab Associated sample(s): 01-04 Batch: WG357152-1 WG357152-2					
Chloromethane	108	98	70-130	10	50
Bromomethane	96	93	70-130	3	50
Vinyl chloride	102	97	70-130	5	25
Chloroethane	92	87	70-130	6	25
1,1-Dichloroethene	100	99	70-130	1	25
trans-1,2-Dichloroethene	104	103	70-130	1	25
Trichloroethene	92	91	70-130	1	25
1,2-Dichlorobenzene	99	98	70-130	1	25
1,3-Dichlorobenzene	100	98	70-130	2	25
1,4-Dichlorobenzene	99	98	70-130	1	25
Methyl tert butyl ether	91	83	70-130	9	25
p/m-Xylene	103	102	70-130	1	25
o-Xylene	98	97	70-130	1	25
cis-1,2-Dichloroethene	98	96	70-130	2	25
Dibromomethane	99	97	70-130	2	25
1,2,3-Trichloropropane	108	104	70-130	4	25
Styrene	98	94	70-130	4	25
Dichlorodifluoromethane	124	107	70-130	15	50
Acetone	92	87	70-130	6	50
Carbon disulfide	83	82	70-130	1	50
2-Butanone	107	99	70-130	8	50

## Lab Control Sample Analysis

Batch Quality Control

**Project Name:** 300 3RD  
**Project Number:** 04-7590GD2

**Lab Number:** L0903627  
**Report Date:** 03/31/09

Parameter	LCS %Recovery	LCSD %Recovery	%Recovery Limits	RPD	RPD Limits
MCP Volatile Organics - Westborough Lab Associated sample(s): 01-04 Batch: WG357152-1 WG357152-2					
4-Methyl-2-pentanone	98	92	70-130	6	50
2-Hexanone	91	87	70-130	4	50
Bromochloromethane	103	99	70-130	4	25
Tetrahydrofuran	96	84	70-130	13	25
2,2-Dichloropropane	101	99	70-130	2	50
1,2-Dibromoethane	101	97	70-130	4	25
1,3-Dichloropropane	101	98	70-130	3	25
1,1,1,2-Tetrachloroethane	98	96	70-130	2	25
Bromobenzene	99	98	70-130	1	25
n-Butylbenzene	92	94	70-130	2	25
sec-Butylbenzene	101	102	70-130	1	25
tert-Butylbenzene	99	101	70-130	2	25
o-Chlorotoluene	99	98	70-130	1	25
p-Chlorotoluene	101	101	70-130	0	25
1,2-Dibromo-3-chloropropane	90	89	70-130	1	50
Hexachlorobutadiene	109	113	70-130	4	25
Isopropylbenzene	101	101	70-130	0	25
p-Isopropyltoluene	105	106	70-130	1	25
Naphthalene	92	91	70-130	1	25
n-Propylbenzene	100	100	70-130	0	25
1,2,3-Trichlorobenzene	92	95	70-130	3	25

## Lab Control Sample Analysis

Batch Quality Control

**Project Name:** 300 3RD  
**Project Number:** 04-7590GD2

**Lab Number:** L0903627  
**Report Date:** 03/31/09

Parameter	LCS %Recovery	LCSD %Recovery	%Recovery Limits	RPD	RPD Limits
MCP Volatile Organics - Westborough Lab Associated sample(s): 01-04 Batch: WG357152-1 WG357152-2					
1,2,4-Trichlorobenzene	96	97	70-130	1	25
1,3,5-Trimethylbenzene	100	99	70-130	1	25
1,2,4-Trimethylbenzene	101	101	70-130	0	25
Ethyl ether	82	76	70-130	8	25
Isopropyl Ether	83	77	70-130	8	25
Ethyl-Tert-Butyl-Ether	87	79	70-130	10	25
Tertiary-Amyl Methyl Ether	90	83	70-130	8	25
1,4-Dioxane	114	107	70-130	6	50

Surrogate	LCS %Recovery	Qualifier	LCSD %Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	97		96		70-130
Toluene-d8	100		100		70-130
4-Bromofluorobenzene	100		99		70-130
Dibromofluoromethane	100		99		70-130

## Lab Control Sample Analysis

Batch Quality Control

**Project Name:** 300 3RD  
**Project Number:** 04-7590GD2

**Lab Number:** L0903627  
**Report Date:** 03/31/09

Parameter	LCS %Recovery	LCSD %Recovery	%Recovery Limits	RPD	RPD Limits
MCP Volatile Organics - Westborough Lab Associated sample(s): 03 Batch: WG357152-4 WG357152-5					
Methylene chloride	121	125	70-130	3	25
1,1-Dichloroethane	120	122	70-130	2	25
Chloroform	119	120	70-130	1	25
Carbon tetrachloride	113	102	70-130	10	25
1,2-Dichloropropane	111	111	70-130	0	25
Dibromochloromethane	102	99	70-130	3	25
1,1,2-Trichloroethane	102	103	70-130	1	25
Tetrachloroethene	102	107	70-130	5	25
Chlorobenzene	103	106	70-130	3	25
Trichlorofluoromethane	125	128	70-130	2	25
1,2-Dichloroethane	120	119	70-130	1	25
1,1,1-Trichloroethane	113	118	70-130	4	25
Bromodichloromethane	120	119	70-130	1	25
trans-1,3-Dichloropropene	97	96	70-130	1	25
cis-1,3-Dichloropropene	98	100	70-130	2	25
1,1-Dichloropropene	106	108	70-130	2	25
Bromoform	105	108	70-130	3	50
1,1,2,2-Tetrachloroethane	110	117	70-130	6	25
Benzene	108	112	70-130	4	25
Toluene	107	110	70-130	3	25
Ethylbenzene	113	115	70-130	2	25

## Lab Control Sample Analysis

Batch Quality Control

**Project Name:** 300 3RD  
**Project Number:** 04-7590GD2

**Lab Number:** L0903627  
**Report Date:** 03/31/09

Parameter	LCS %Recovery	LCSD %Recovery	%Recovery Limits	RPD	RPD Limits
MCP Volatile Organics - Westborough Lab Associated sample(s): 03 Batch: WG357152-4 WG357152-5					
Chloromethane	114	108	70-130	5	50
Bromomethane	128	127	70-130	1	50
Vinyl chloride	116	113	70-130	3	25
Chloroethane	108	109	70-130	1	25
1,1-Dichloroethene	116	119	70-130	3	25
trans-1,2-Dichloroethene	119	119	70-130	0	25
Trichloroethene	108	108	70-130	0	25
1,2-Dichlorobenzene	107	111	70-130	4	25
1,3-Dichlorobenzene	106	112	70-130	6	25
1,4-Dichlorobenzene	105	108	70-130	3	25
Methyl tert butyl ether	97	94	70-130	3	25
p/m-Xylene	113	117	70-130	3	25
o-Xylene	107	107	70-130	0	25
cis-1,2-Dichloroethene	114	118	70-130	3	25
Dibromomethane	120	120	70-130	0	25
1,2,3-Trichloropropane	123	125	70-130	2	25
Styrene	109	107	70-130	2	25
Dichlorodifluoromethane	117	100	70-130	16	50
Acetone	<b>154</b>	<b>145</b>	70-130	6	50
Carbon disulfide	92	96	70-130	4	50
2-Butanone	120	119	70-130	1	50



## Lab Control Sample Analysis

Batch Quality Control

**Project Name:** 300 3RD  
**Project Number:** 04-7590GD2

**Lab Number:** L0903627  
**Report Date:** 03/31/09

Parameter	LCS %Recovery	LCSD %Recovery	%Recovery Limits	RPD	RPD Limits
MCP Volatile Organics - Westborough Lab Associated sample(s): 03 Batch: WG357152-4 WG357152-5					
4-Methyl-2-pentanone	108	112	70-130	4	50
2-Hexanone	103	104	70-130	1	50
Bromochloromethane	120	122	70-130	2	25
Tetrahydrofuran	116	114	70-130	2	25
2,2-Dichloropropane	115	118	70-130	3	50
1,2-Dibromoethane	103	104	70-130	1	25
1,3-Dichloropropane	108	107	70-130	1	25
1,1,1,2-Tetrachloroethane	100	102	70-130	2	25
Bromobenzene	110	112	70-130	2	25
n-Butylbenzene	106	110	70-130	4	25
sec-Butylbenzene	112	117	70-130	4	25
tert-Butylbenzene	107	111	70-130	4	25
o-Chlorotoluene	108	114	70-130	5	25
p-Chlorotoluene	112	116	70-130	4	25
1,2-Dibromo-3-chloropropane	105	111	70-130	6	50
Hexachlorobutadiene	110	110	70-130	0	25
Isopropylbenzene	110	113	70-130	3	25
p-Isopropyltoluene	108	112	70-130	4	25
Naphthalene	98	100	70-130	2	25
n-Propylbenzene	108	114	70-130	5	25
1,2,3-Trichlorobenzene	104	105	70-130	1	25

## Lab Control Sample Analysis

Batch Quality Control

**Project Name:** 300 3RD  
**Project Number:** 04-7590GD2

**Lab Number:** L0903627  
**Report Date:** 03/31/09

Parameter	LCS %Recovery	LCSD %Recovery	%Recovery Limits	RPD	RPD Limits
MCP Volatile Organics - Westborough Lab Associated sample(s): 03 Batch: WG357152-4 WG357152-5					
1,2,4-Trichlorobenzene	101	102	70-130	1	25
1,3,5-Trimethylbenzene	107	112	70-130	5	25
1,2,4-Trimethylbenzene	110	114	70-130	4	25
Ethyl ether	100	93	70-130	7	25
Isopropyl Ether	89	90	70-130	1	25
Ethyl-Tert-Butyl-Ether	91	90	70-130	1	25
Tertiary-Amyl Methyl Ether	94	94	70-130	0	25
1,4-Dioxane	152	148	70-130	3	50

Surrogate	LCS %Recovery	Qualifier	LCSD %Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	101		103		70-130
Toluene-d8	98		98		70-130
4-Bromofluorobenzene	102		105		70-130
Dibromofluoromethane	103		103		70-130

# SEMIVOLATILES

**Project Name:** 300 3RD  
**Project Number:** 04-7590GD2

**Lab Number:** L0903627  
**Report Date:** 03/31/09

### SAMPLE RESULTS

**Lab ID:** L0903627-06  
**Client ID:** ENV-7-032409  
**Sample Location:** CAMBRIDGE, MA  
**Matrix:** Water  
**Analytical Method:** 64,8270C-SIM  
**Analytical Date:** 03/28/09 08:02  
**Analyst:** HL

**Date Collected:** 03/24/09 09:30  
**Date Received:** 03/25/09  
**Field Prep:** Not Specified  
**Extraction Method:** EPA 3510C  
**Extraction Date:** 03/26/09 15:48

Parameter	Result	Qualifier	Units	RDL	Dilution Factor
<b>MCP PAHs by SIM - Westborough Lab</b>					
Acenaphthene	32		ug/l	3.9	20
2-Chloronaphthalene	ND		ug/l	3.9	20
Fluoranthene	ND		ug/l	3.9	20
Naphthalene	7.6		ug/l	3.9	20
Benzo(a)anthracene	ND		ug/l	3.9	20
Benzo(a)pyrene	ND		ug/l	3.9	20
Benzo(b)fluoranthene	ND		ug/l	3.9	20
Benzo(k)fluoranthene	ND		ug/l	3.9	20
Chrysene	ND		ug/l	3.9	20
Acenaphthylene	ND		ug/l	3.9	20
Anthracene	ND		ug/l	3.9	20
Benzo(ghi)perylene	ND		ug/l	3.9	20
Fluorene	ND		ug/l	3.9	20
Phenanthrene	ND		ug/l	3.9	20
Dibenzo(a,h)anthracene	ND		ug/l	3.9	20
Indeno(1,2,3-cd)Pyrene	ND		ug/l	3.9	20
Pyrene	ND		ug/l	3.9	20
2-Methylnaphthalene	ND		ug/l	3.9	20

Surrogate	% Recovery	Qualifier	Acceptance Criteria
Nitrobenzene-d5	72		30-130
2-Fluorobiphenyl	77		30-130
4-Terphenyl-d14	77		30-130

**Project Name:** 300 3RD  
**Project Number:** 04-7590GD2

**Lab Number:** L0903627  
**Report Date:** 03/31/09

### SAMPLE RESULTS

**Lab ID:** L0903627-07  
**Client ID:** ENV-8-032409  
**Sample Location:** CAMBRIDGE, MA  
**Matrix:** Water  
**Analytical Method:** 64,8270C-SIM  
**Analytical Date:** 03/28/09 08:33  
**Analyst:** HL

**Date Collected:** 03/24/09 10:35  
**Date Received:** 03/25/09  
**Field Prep:** Not Specified  
**Extraction Method:** EPA 3510C  
**Extraction Date:** 03/26/09 15:48

Parameter	Result	Qualifier	Units	RDL	Dilution Factor
<b>MCP PAHs by SIM - Westborough Lab</b>					
Acenaphthene	ND		ug/l	0.20	1
2-Chloronaphthalene	ND		ug/l	0.20	1
Fluoranthene	ND		ug/l	0.20	1
Naphthalene	ND		ug/l	0.20	1
Benzo(a)anthracene	ND		ug/l	0.20	1
Benzo(a)pyrene	ND		ug/l	0.20	1
Benzo(b)fluoranthene	ND		ug/l	0.20	1
Benzo(k)fluoranthene	ND		ug/l	0.20	1
Chrysene	ND		ug/l	0.20	1
Acenaphthylene	ND		ug/l	0.20	1
Anthracene	ND		ug/l	0.20	1
Benzo(ghi)perylene	ND		ug/l	0.20	1
Fluorene	ND		ug/l	0.20	1
Phenanthrene	ND		ug/l	0.20	1
Dibenzo(a,h)anthracene	ND		ug/l	0.20	1
Indeno(1,2,3-cd)Pyrene	ND		ug/l	0.20	1
Pyrene	ND		ug/l	0.20	1
2-Methylnaphthalene	ND		ug/l	0.20	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
Nitrobenzene-d5	53		30-130
2-Fluorobiphenyl	50		30-130
4-Terphenyl-d14	61		30-130

**Project Name:** 300 3RD  
**Project Number:** 04-7590GD2

**Lab Number:** L0903627  
**Report Date:** 03/31/09

### SAMPLE RESULTS

**Lab ID:** L0903627-08  
**Client ID:** ENV-9-032409  
**Sample Location:** CAMBRIDGE, MA  
**Matrix:** Water  
**Analytical Method:** 64,8270C-SIM  
**Analytical Date:** 03/28/09 09:02  
**Analyst:** HL

**Date Collected:** 03/24/09 12:00  
**Date Received:** 03/25/09  
**Field Prep:** Not Specified  
**Extraction Method:** EPA 3510C  
**Extraction Date:** 03/26/09 15:48

Parameter	Result	Qualifier	Units	RDL	Dilution Factor
<b>MCP PAHs by SIM - Westborough Lab</b>					
Acenaphthene	2.4		ug/l	0.19	1
2-Chloronaphthalene	ND		ug/l	0.19	1
Fluoranthene	ND		ug/l	0.19	1
Naphthalene	37		ug/l	0.19	1
Benzo(a)anthracene	ND		ug/l	0.19	1
Benzo(a)pyrene	ND		ug/l	0.19	1
Benzo(b)fluoranthene	ND		ug/l	0.19	1
Benzo(k)fluoranthene	ND		ug/l	0.19	1
Chrysene	ND		ug/l	0.19	1
Acenaphthylene	ND		ug/l	0.19	1
Anthracene	ND		ug/l	0.19	1
Benzo(ghi)perylene	ND		ug/l	0.19	1
Fluorene	ND		ug/l	0.19	1
Phenanthrene	ND		ug/l	0.19	1
Dibenzo(a,h)anthracene	ND		ug/l	0.19	1
Indeno(1,2,3-cd)Pyrene	ND		ug/l	0.19	1
Pyrene	ND		ug/l	0.19	1
2-Methylnaphthalene	1.2		ug/l	0.19	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
Nitrobenzene-d5	65		30-130
2-Fluorobiphenyl	54		30-130
4-Terphenyl-d14	63		30-130

**Project Name:** 300 3RD  
**Project Number:** 04-7590GD2

**Lab Number:** L0903627  
**Report Date:** 03/31/09

### SAMPLE RESULTS

**Lab ID:** L0903627-09  
**Client ID:** B-201-032409  
**Sample Location:** CAMBRIDGE, MA  
**Matrix:** Water  
**Analytical Method:** 64,8270C-SIM  
**Analytical Date:** 03/28/09 09:32  
**Analyst:** HL

**Date Collected:** 03/24/09 13:35  
**Date Received:** 03/25/09  
**Field Prep:** Not Specified  
**Extraction Method:** EPA 3510C  
**Extraction Date:** 03/26/09 15:48

Parameter	Result	Qualifier	Units	RDL	Dilution Factor
<b>MCP PAHs by SIM - Westborough Lab</b>					
Acenaphthene	23		ug/l	0.19	1
2-Chloronaphthalene	ND		ug/l	0.19	1
Fluoranthene	ND		ug/l	0.19	1
Naphthalene	5.6		ug/l	0.19	1
Benzo(a)anthracene	ND		ug/l	0.19	1
Benzo(a)pyrene	ND		ug/l	0.19	1
Benzo(b)fluoranthene	ND		ug/l	0.19	1
Benzo(k)fluoranthene	ND		ug/l	0.19	1
Chrysene	ND		ug/l	0.19	1
Acenaphthylene	ND		ug/l	0.19	1
Anthracene	ND		ug/l	0.19	1
Benzo(ghi)perylene	ND		ug/l	0.19	1
Fluorene	0.27		ug/l	0.19	1
Phenanthrene	ND		ug/l	0.19	1
Dibenzo(a,h)anthracene	ND		ug/l	0.19	1
Indeno(1,2,3-cd)Pyrene	ND		ug/l	0.19	1
Pyrene	ND		ug/l	0.19	1
2-Methylnaphthalene	ND		ug/l	0.19	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
Nitrobenzene-d5	55		30-130
2-Fluorobiphenyl	51		30-130
4-Terphenyl-d14	62		30-130

**Project Name:** 300 3RD  
**Project Number:** 04-7590GD2

**Lab Number:** L0903627  
**Report Date:** 03/31/09

**Method Blank Analysis**  
**Batch Quality Control**

**Analytical Method:** 64,8270C-SIM  
**Analytical Date:** 03/28/09 04:04  
**Analyst:** HL

**Extraction Method:** EPA 3510C  
**Extraction Date:** 03/26/09 15:48

Parameter	Result	Qualifier	Units	RDL
MCP PAHs by SIM - Westborough Lab for sample(s): 01-09 Batch: WG356813-1				
Acenaphthene	ND		ug/l	0.20
2-Chloronaphthalene	ND		ug/l	0.20
Fluoranthene	ND		ug/l	0.20
Naphthalene	ND		ug/l	0.20
Benzo(a)anthracene	ND		ug/l	0.20
Benzo(a)pyrene	ND		ug/l	0.20
Benzo(b)fluoranthene	ND		ug/l	0.20
Benzo(k)fluoranthene	ND		ug/l	0.20
Chrysene	ND		ug/l	0.20
Acenaphthylene	ND		ug/l	0.20
Anthracene	ND		ug/l	0.20
Benzo(ghi)perylene	ND		ug/l	0.20
Fluorene	ND		ug/l	0.20
Phenanthrene	ND		ug/l	0.20
Dibenzo(a,h)anthracene	ND		ug/l	0.20
Indeno(1,2,3-cd)Pyrene	ND		ug/l	0.20
Pyrene	ND		ug/l	0.20
2-Methylnaphthalene	ND		ug/l	0.20

Surrogate	%Recovery	Qualifier	Acceptance Criteria
Nitrobenzene-d5	65		30-130
2-Fluorobiphenyl	54		30-130
4-Terphenyl-d14	70		30-130



## Lab Control Sample Analysis

Batch Quality Control

**Project Name:** 300 3RD  
**Project Number:** 04-7590GD2

**Lab Number:** L0903627  
**Report Date:** 03/31/09

Parameter	LCS %Recovery	LCSD %Recovery	%Recovery Limits	RPD	RPD Limits
MCP PAHs by SIM - Westborough Lab Associated sample(s): 01-09 Batch: WG356813-2 WG356813-3					
Acenaphthene	70	76	40-140	8	20
2-Chloronaphthalene	79	77	40-140	3	20
Fluoranthene	84	92	40-140	9	20
Naphthalene	67	69	40-140	3	20
Benzo(a)anthracene	80	85	40-140	6	20
Benzo(a)pyrene	78	80	40-140	3	20
Benzo(b)fluoranthene	91	98	40-140	7	20
Benzo(k)fluoranthene	85	94	40-140	10	20
Chrysene	90	93	40-140	3	20
Acenaphthylene	80	76	40-140	5	20
Anthracene	69	73	40-140	6	20
Benzo(ghi)perylene	88	86	40-140	2	20
Fluorene	75	76	40-140	1	20
Phenanthrene	77	81	40-140	5	20
Dibenzo(a,h)anthracene	94	91	40-140	3	20
Indeno(1,2,3-cd)Pyrene	100	97	40-140	3	20
Pyrene	82	90	40-140	9	20
2-Methylnaphthalene	76	78	40-140	3	20

## Lab Control Sample Analysis

Batch Quality Control

**Project Name:** 300 3RD  
**Project Number:** 04-7590GD2

**Lab Number:** L0903627  
**Report Date:** 03/31/09

Parameter	LCS %Recovery	LCSD %Recovery	%Recovery Limits	RPD	RPD Limits
MCP PAHs by SIM - Westborough Lab Associated sample(s): 01-09 Batch: WG356813-2 WG356813-3					

Surrogate	LCS %Recovery	Qualifier	LCSD %Recovery	Qualifier	Acceptance Criteria
Nitrobenzene-d5	71		70		30-130
2-Fluorobiphenyl	62		59		30-130
4-Terphenyl-d14	64		73		30-130

# PETROLEUM HYDROCARBONS

**Project Name:** 300 3RD  
**Project Number:** 04-7590GD2

**Lab Number:** L0903627  
**Report Date:** 03/31/09

### SAMPLE RESULTS

**Lab ID:** L0903627-06  
**Client ID:** ENV-7-032409  
**Sample Location:** CAMBRIDGE, MA  
**Matrix:** Water  
**Analytical Method:** 59, VPH-04-1.1  
**Analytical Date:** 03/30/09 20:10  
**Analyst:** RC

**Date Collected:** 03/24/09 09:30  
**Date Received:** 03/25/09  
**Field Prep:** Not Specified

### Quality Control Information

**Condition of sample received:** Satisfactory  
**Aqueous Preservative:** Laboratory Provided Preserved Container  
**Sample Temperature upon receipt:** Received on Ice

Parameter	Result	Qualifier	Units	RDL	Dilution Factor
<b>Volatile Petroleum Hydrocarbons - Westborough Lab</b>					
C5-C8 Aliphatics	4170		ug/l	1000	20
C9-C12 Aliphatics	1690		ug/l	1000	20
C9-C10 Aromatics	ND		ug/l	1000	20
C5-C8 Aliphatics, Adjusted	1340		ug/l	1000	20
C9-C12 Aliphatics, Adjusted	1000		ug/l	1000	20
Benzene	2830		ug/l	40.0	20
Toluene	ND		ug/l	40.0	20
Ethylbenzene	430		ug/l	40.0	20
p/m-Xylene	179		ug/l	40.0	20
o-Xylene	82.6		ug/l	40.0	20
Methyl tert butyl ether	ND		ug/l	60.0	20
Naphthalene	ND		ug/l	200	20

Surrogate	% Recovery	Qualifier	Acceptance Criteria
2,5-Dibromotoluene-PID	95		70-130
2,5-Dibromotoluene-FID	100		70-130



**Project Name:** 300 3RD  
**Project Number:** 04-7590GD2

**Lab Number:** L0903627  
**Report Date:** 03/31/09

### SAMPLE RESULTS

**Lab ID:** L0903627-07  
**Client ID:** ENV-8-032409  
**Sample Location:** CAMBRIDGE, MA  
**Matrix:** Water  
**Analytical Method:** 59, VPH-04-1.1  
**Analytical Date:** 03/27/09 16:44  
**Analyst:** RC

**Date Collected:** 03/24/09 10:35  
**Date Received:** 03/25/09  
**Field Prep:** Not Specified

### Quality Control Information

**Condition of sample received:** Satisfactory  
**Aqueous Preservative:** Laboratory Provided Preserved Container  
**Sample Temperature upon receipt:** Received on Ice

Parameter	Result	Qualifier	Units	RDL	Dilution Factor
<b>Volatile Petroleum Hydrocarbons - Westborough Lab</b>					
C5-C8 Aliphatics	ND		ug/l	50.0	1
C9-C12 Aliphatics	ND		ug/l	50.0	1
C9-C10 Aromatics	ND		ug/l	50.0	1
C5-C8 Aliphatics, Adjusted	ND		ug/l	50.0	1
C9-C12 Aliphatics, Adjusted	ND		ug/l	50.0	1
Benzene	ND		ug/l	2.00	1
Toluene	ND		ug/l	2.00	1
Ethylbenzene	ND		ug/l	2.00	1
p/m-Xylene	ND		ug/l	2.00	1
o-Xylene	ND		ug/l	2.00	1
Methyl tert butyl ether	ND		ug/l	3.00	1
Naphthalene	ND		ug/l	10.0	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
2,5-Dibromotoluene-PID	85		70-130
2,5-Dibromotoluene-FID	94		70-130



**Project Name:** 300 3RD  
**Project Number:** 04-7590GD2

**Lab Number:** L0903627  
**Report Date:** 03/31/09

### SAMPLE RESULTS

**Lab ID:** L0903627-08  
**Client ID:** ENV-9-032409  
**Sample Location:** CAMBRIDGE, MA  
**Matrix:** Water  
**Analytical Method:** 59, VPH-04-1.1  
**Analytical Date:** 03/31/09 12:00  
**Analyst:** RC

**Date Collected:** 03/24/09 12:00  
**Date Received:** 03/25/09  
**Field Prep:** Not Specified

### Quality Control Information

**Condition of sample received:** Satisfactory  
**Aqueous Preservative:** Laboratory Provided Preserved Container  
**Sample Temperature upon receipt:** Received on Ice

Parameter	Result	Qualifier	Units	RDL	Dilution Factor
<b>Volatile Petroleum Hydrocarbons - Westborough Lab</b>					
C5-C8 Aliphatics	19800		ug/l	10000	200
C9-C12 Aliphatics	112000		ug/l	10000	200
C9-C10 Aromatics	12400		ug/l	10000	200
C5-C8 Aliphatics, Adjusted	ND		ug/l	10000	200
C9-C12 Aliphatics, Adjusted	21400		ug/l	10000	200
Benzene	731		ug/l	400	200
Toluene	12700		ug/l	400	200
Ethylbenzene	12600		ug/l	400	200
p/m-Xylene	49300		ug/l	400	200
o-Xylene	15900		ug/l	400	200
Methyl tert butyl ether	ND		ug/l	600	200
Naphthalene	ND		ug/l	2000	200

Surrogate	% Recovery	Qualifier	Acceptance Criteria
2,5-Dibromotoluene-PID	121		70-130
2,5-Dibromotoluene-FID	122		70-130



**Project Name:** 300 3RD  
**Project Number:** 04-7590GD2

**Lab Number:** L0903627  
**Report Date:** 03/31/09

### SAMPLE RESULTS

**Lab ID:** L0903627-09  
**Client ID:** B-201-032409  
**Sample Location:** CAMBRIDGE, MA  
**Matrix:** Water  
**Analytical Method:** 59, VPH-04-1.1  
**Analytical Date:** 03/30/09 19:20  
**Analyst:** RC

**Date Collected:** 03/24/09 13:35  
**Date Received:** 03/25/09  
**Field Prep:** Not Specified

### Quality Control Information

**Condition of sample received:** Satisfactory  
**Aqueous Preservative:** Laboratory Provided Preserved Container  
**Sample Temperature upon receipt:** Received on Ice

Parameter	Result	Qualifier	Units	RDL	Dilution Factor
<b>Volatile Petroleum Hydrocarbons - Westborough Lab</b>					
C5-C8 Aliphatics	1950		ug/l	500	10
C9-C12 Aliphatics	5410		ug/l	500	10
C9-C10 Aromatics	525		ug/l	500	10
C5-C8 Aliphatics, Adjusted	638		ug/l	500	10
C9-C12 Aliphatics, Adjusted	1580		ug/l	500	10
Benzene	1220		ug/l	20.0	10
Toluene	98.3		ug/l	20.0	10
Ethylbenzene	570		ug/l	20.0	10
p/m-Xylene	2020		ug/l	20.0	10
o-Xylene	711		ug/l	20.0	10
Methyl tert butyl ether	ND		ug/l	30.0	10
Naphthalene	ND		ug/l	100	10

Surrogate	% Recovery	Qualifier	Acceptance Criteria
2,5-Dibromotoluene-PID	99		70-130
2,5-Dibromotoluene-FID	109		70-130



**Project Name:** 300 3RD  
**Project Number:** 04-7590GD2

**Lab Number:** L0903627  
**Report Date:** 03/31/09

### SAMPLE RESULTS

**Lab ID:** L0903627-10  
**Client ID:** B-210-032409  
**Sample Location:** CAMBRIDGE, MA  
**Matrix:** Water  
**Analytical Method:** 59, VPH-04-1.1  
**Analytical Date:** 03/31/09 05:21  
**Analyst:** RC

**Date Collected:** 03/24/09 14:00  
**Date Received:** 03/25/09  
**Field Prep:** Not Specified

### Quality Control Information

**Condition of sample received:** Satisfactory  
**Aqueous Preservative:** Laboratory Provided Preserved Container  
**Sample Temperature upon receipt:** Received on Ice

Parameter	Result	Qualifier	Units	RDL	Dilution Factor
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### Volatile Petroleum Hydrocarbons - Westborough Lab

Parameter	Result	Qualifier	Units	RDL	Dilution Factor
C5-C8 Aliphatics	22900		ug/l	5000	100
C9-C12 Aliphatics	16800		ug/l	5000	100
C9-C10 Aromatics	9840		ug/l	5000	100
C5-C8 Aliphatics, Adjusted	7410		ug/l	5000	100
C9-C12 Aliphatics, Adjusted	ND		ug/l	5000	100
Benzene	9380		ug/l	200	100
Toluene	6060		ug/l	200	100
Ethylbenzene	2330		ug/l	200	100
p/m-Xylene	1940		ug/l	200	100
o-Xylene	1020		ug/l	200	100
Methyl tert butyl ether	ND		ug/l	300	100
Naphthalene	11100		ug/l	1000	100

Surrogate	% Recovery	Qualifier	Acceptance Criteria
2,5-Dibromotoluene-PID	87		70-130
2,5-Dibromotoluene-FID	90		70-130





**Project Name:** 300 3RD  
**Project Number:** 04-7590GD2

**Lab Number:** L0903627  
**Report Date:** 03/31/09

### SAMPLE RESULTS

**Lab ID:** L0903627-11  
**Client ID:** TRIPS-VOC,VPH  
**Sample Location:** CAMBRIDGE, MA  
**Matrix:** Water  
**Analytical Method:** 59,VPH-04-1.1  
**Analytical Date:** 03/31/09 12:52  
**Analyst:** RC

**Date Collected:** 03/23/09 00:00  
**Date Received:** 03/25/09  
**Field Prep:** Not Specified

### Quality Control Information

**Condition of sample received:** Satisfactory  
**Aqueous Preservative:** Laboratory Provided Preserved Container  
**Sample Temperature upon receipt:** Received on Ice

Parameter	Result	Qualifier	Units	RDL	Dilution Factor
<b>Volatile Petroleum Hydrocarbons - Westborough Lab</b>					
C5-C8 Aliphatics	ND		ug/l	50.0	1
C9-C12 Aliphatics	ND		ug/l	50.0	1
C9-C10 Aromatics	ND		ug/l	50.0	1
C5-C8 Aliphatics, Adjusted	ND		ug/l	50.0	1
C9-C12 Aliphatics, Adjusted	ND		ug/l	50.0	1
Benzene	ND		ug/l	2.00	1
Toluene	ND		ug/l	2.00	1
Ethylbenzene	ND		ug/l	2.00	1
p/m-Xylene	ND		ug/l	2.00	1
o-Xylene	ND		ug/l	2.00	1
Methyl tert butyl ether	ND		ug/l	3.00	1
Naphthalene	ND		ug/l	10.0	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
2,5-Dibromotoluene-PID	105		70-130
2,5-Dibromotoluene-FID	107		70-130

**Project Name:** 300 3RD  
**Project Number:** 04-7590GD2

**Lab Number:** L0903627  
**Report Date:** 03/31/09

**Method Blank Analysis  
Batch Quality Control**

**Analytical Method:** 59, VPH-04-1.1  
**Analytical Date:** 03/27/09 10:57  
**Analyst:** RC

<b>Parameter</b>	<b>Result</b>	<b>Qualifier</b>	<b>Units</b>	<b>RDL</b>
Volatile Petroleum Hydrocarbons - Westborough Lab for sample(s): 02,04-05,07 Batch: WG356925-3				
C5-C8 Aliphatics	ND		ug/l	50.0
C9-C12 Aliphatics	ND		ug/l	50.0
C9-C10 Aromatics	ND		ug/l	50.0
C5-C8 Aliphatics, Adjusted	ND		ug/l	50.0
C9-C12 Aliphatics, Adjusted	ND		ug/l	50.0
Benzene	ND		ug/l	2.00
Toluene	ND		ug/l	2.00
Ethylbenzene	ND		ug/l	2.00
p/m-Xylene	ND		ug/l	2.00
o-Xylene	ND		ug/l	2.00
Methyl tert butyl ether	ND		ug/l	3.00
Naphthalene	ND		ug/l	10.0

<b>Surrogate</b>	<b>%Recovery</b>	<b>Qualifier</b>	<b>Acceptance Criteria</b>
2,5-Dibromotoluene-PID	76		70-130
2,5-Dibromotoluene-FID	86		70-130

**Project Name:** 300 3RD  
**Project Number:** 04-7590GD2

**Lab Number:** L0903627  
**Report Date:** 03/31/09

**Method Blank Analysis**  
**Batch Quality Control**

**Analytical Method:** 59, VPH-04-1.1  
**Analytical Date:** 03/30/09 10:33  
**Analyst:** RC

Parameter	Result	Qualifier	Units	RDL
Volatile Petroleum Hydrocarbons - Westborough Lab for sample(s): 03,06,09-10 Batch: WG357118-3				
C5-C8 Aliphatics	ND		ug/l	50.0
C9-C12 Aliphatics	ND		ug/l	50.0
C9-C10 Aromatics	ND		ug/l	50.0
C5-C8 Aliphatics, Adjusted	ND		ug/l	50.0
C9-C12 Aliphatics, Adjusted	ND		ug/l	50.0
Benzene	ND		ug/l	2.00
Toluene	ND		ug/l	2.00
Ethylbenzene	ND		ug/l	2.00
p/m-Xylene	ND		ug/l	2.00
o-Xylene	ND		ug/l	2.00
Methyl tert butyl ether	ND		ug/l	3.00
Naphthalene	ND		ug/l	10.0

Surrogate	%Recovery	Qualifier	Acceptance Criteria
2,5-Dibromotoluene-PID	75		70-130
2,5-Dibromotoluene-FID	82		70-130

**Project Name:** 300 3RD  
**Project Number:** 04-7590GD2

**Lab Number:** L0903627  
**Report Date:** 03/31/09

**Method Blank Analysis  
Batch Quality Control**

**Analytical Method:** 59, VPH-04-1.1  
**Analytical Date:** 03/30/09 19:34  
**Analyst:** RC

Parameter	Result	Qualifier	Units	RDL
Volatile Petroleum Hydrocarbons - Westborough Lab for sample(s): 01,08 Batch: WG357211-3				
C5-C8 Aliphatics	ND		ug/l	50.0
C9-C12 Aliphatics	ND		ug/l	50.0
C9-C10 Aromatics	ND		ug/l	50.0
C5-C8 Aliphatics, Adjusted	ND		ug/l	50.0
C9-C12 Aliphatics, Adjusted	ND		ug/l	50.0
Benzene	ND		ug/l	2.00
Toluene	ND		ug/l	2.00
Ethylbenzene	ND		ug/l	2.00
p/m-Xylene	ND		ug/l	2.00
o-Xylene	ND		ug/l	2.00
Methyl tert butyl ether	ND		ug/l	3.00
Naphthalene	ND		ug/l	10.0

Surrogate	%Recovery	Qualifier	Acceptance Criteria
2,5-Dibromotoluene-PID	115		70-130
2,5-Dibromotoluene-FID	116		70-130

**Project Name:** 300 3RD  
**Project Number:** 04-7590GD2

**Lab Number:** L0903627  
**Report Date:** 03/31/09

**Method Blank Analysis  
Batch Quality Control**

**Analytical Method:** 59, VPH-04-1.1  
**Analytical Date:** 03/31/09 09:08  
**Analyst:** RC

Parameter	Result	Qualifier	Units	RDL
Volatile Petroleum Hydrocarbons - Westborough Lab for sample(s): 11 Batch: WG357213-3				
C5-C8 Aliphatics	ND		ug/l	50.0
C9-C12 Aliphatics	ND		ug/l	50.0
C9-C10 Aromatics	ND		ug/l	50.0
C5-C8 Aliphatics, Adjusted	ND		ug/l	50.0
C9-C12 Aliphatics, Adjusted	ND		ug/l	50.0
Benzene	ND		ug/l	2.00
Toluene	ND		ug/l	2.00
Ethylbenzene	ND		ug/l	2.00
p/m-Xylene	ND		ug/l	2.00
o-Xylene	ND		ug/l	2.00
Methyl tert butyl ether	ND		ug/l	3.00
Naphthalene	ND		ug/l	10.0

Surrogate	%Recovery	Qualifier	Acceptance Criteria
2,5-Dibromotoluene-PID	104		70-130
2,5-Dibromotoluene-FID	112		70-130

## Lab Control Sample Analysis

Batch Quality Control

**Project Name:** 300 3RD  
**Project Number:** 04-7590GD2

**Lab Number:** L0903627  
**Report Date:** 03/31/09

Parameter	LCS %Recovery	LCSD %Recovery	%Recovery Limits	RPD	RPD Limits
Volatile Petroleum Hydrocarbons - Westborough Lab Associated sample(s): 02,04-05,07 Batch: WG356925-1 WG356925-2					
C5-C8 Aliphatics	110	103	70-130	7	25
C9-C12 Aliphatics	97	93	70-130	3	25
C9-C10 Aromatics	87	83	70-130	4	25
Benzene	93	83	70-130	11	25
Toluene	92	90	70-130	3	25
Ethylbenzene	93	91	70-130	2	25
p/m-Xylene	91	91	70-130	0	25
o-Xylene	92	92	70-130	0	25
Methyl tert butyl ether	90	79	70-130	12	25
Naphthalene	90	85	70-130	5	25
1,2,4-Trimethylbenzene	86	83	70-130	4	25
Pentane	115	102	70-130	12	25
2-Methylpentane	112	101	70-130	10	25
2,2,4-Trimethylpentane	110	105	70-130	5	25
n-Nonane	102	101	30-130	1	25
n-Decane	95	92	70-130	3	25
n-Butylcyclohexane	98	96	70-130	2	25

## Lab Control Sample Analysis

Batch Quality Control

**Project Name:** 300 3RD  
**Project Number:** 04-7590GD2

**Lab Number:** L0903627  
**Report Date:** 03/31/09

Parameter	LCS %Recovery	LCSD %Recovery	%Recovery Limits	RPD	RPD Limits
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Volatile Petroleum Hydrocarbons - Westborough Lab Associated sample(s): 02,04-05,07 Batch: WG356925-1 WG356925-2

Surrogate	LCS %Recovery	Qualifier	LCSD %Recovery	Qualifier	Acceptance Criteria
2,5-Dibromotoluene-PID	105		94		70-130
2,5-Dibromotoluene-FID	119		109		70-130

Volatile Petroleum Hydrocarbons - Westborough Lab Associated sample(s): 03,06,09-10 Batch: WG357118-1 WG357118-2

C5-C8 Aliphatics	93	94	70-130	2	25
C9-C12 Aliphatics	94	94	70-130	1	25
C9-C10 Aromatics	88	89	70-130	1	25
Benzene	86	93	70-130	7	25
Toluene	94	94	70-130	0	25
Ethylbenzene	96	94	70-130	1	25
p/m-Xylene	96	93	70-130	3	25
o-Xylene	97	94	70-130	3	25
Methyl tert butyl ether	80	92	70-130	14	25

## Lab Control Sample Analysis

Batch Quality Control

**Project Name:** 300 3RD  
**Project Number:** 04-7590GD2

**Lab Number:** L0903627  
**Report Date:** 03/31/09

Parameter	LCS %Recovery	LCSD %Recovery	%Recovery Limits	RPD	RPD Limits
Volatile Petroleum Hydrocarbons - Westborough Lab Associated sample(s): 03,06,09-10 Batch: WG357118-1 WG357118-2					
Naphthalene	91	95	70-130	5	25
1,2,4-Trimethylbenzene	87	88	70-130	1	25
Pentane	84	89	70-130	6	25
2-Methylpentane	92	94	70-130	3	25
2,2,4-Trimethylpentane	103	101	70-130	2	25
n-Nonane	101	99	30-130	2	25
n-Decane	92	94	70-130	2	25
n-Butylcyclohexane	96	94	70-130	1	25

Surrogate	LCS %Recovery	Qualifier	LCSD %Recovery	Qualifier	Acceptance Criteria
2,5-Dibromotoluene-PID	100		107		70-130
2,5-Dibromotoluene-FID	109		115		70-130



## Lab Control Sample Analysis

Batch Quality Control

**Project Name:** 300 3RD  
**Project Number:** 04-7590GD2

**Lab Number:** L0903627  
**Report Date:** 03/31/09

Parameter	LCS %Recovery	LCSD %Recovery	%Recovery Limits	RPD	RPD Limits
Volatile Petroleum Hydrocarbons - Westborough Lab Associated sample(s): 01,08 Batch: WG357211-1 WG357211-2					
C5-C8 Aliphatics	101	98	70-130	4	25
C9-C12 Aliphatics	97	87	70-130	12	25
C9-C10 Aromatics	102	101	70-130	1	25
Benzene	102	100	70-130	2	25
Toluene	103	102	70-130	1	25
Ethylbenzene	101	105	70-130	4	25
p/m-Xylene	104	100	70-130	4	25
o-Xylene	104	103	70-130	1	25
Methyl tert butyl ether	109	109	70-130	0	25
Naphthalene	118	116	70-130	2	25
1,2,4-Trimethylbenzene	103	102	70-130	1	25
Pentane	97	92	70-130	5	25
2-Methylpentane	101	97	70-130	4	25
2,2,4-Trimethylpentane	104	102	70-130	2	25
n-Nonane	98	90	30-130	9	25
n-Decane	97	84	70-130	14	25
n-Butylcyclohexane	99	89	70-130	11	25

## Lab Control Sample Analysis

Batch Quality Control

**Project Name:** 300 3RD  
**Project Number:** 04-7590GD2

**Lab Number:** L0903627  
**Report Date:** 03/31/09

Parameter	LCS %Recovery	LCSD %Recovery	%Recovery Limits	RPD	RPD Limits
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Volatile Petroleum Hydrocarbons - Westborough Lab Associated sample(s): 01,08 Batch: WG357211-1 WG357211-2

Surrogate	LCS %Recovery	Qualifier	LCSD %Recovery	Qualifier	Acceptance Criteria
2,5-Dibromotoluene-PID	113		107		70-130
2,5-Dibromotoluene-FID	114		107		70-130

Volatile Petroleum Hydrocarbons - Westborough Lab Associated sample(s): 11 Batch: WG357213-1 WG357213-2

C5-C8 Aliphatics	91		92		70-130	1	25
C9-C12 Aliphatics	90		92		70-130	2	25
C9-C10 Aromatics	91		89		70-130	2	25
Benzene	93		91		70-130	1	25
Toluene	95		95		70-130	0	25
Ethylbenzene	95		96		70-130	2	25
p/m-Xylene	95		95		70-130	0	25
o-Xylene	96		96		70-130	1	25
Methyl tert butyl ether	94		91		70-130	4	25

## Lab Control Sample Analysis

Batch Quality Control

**Project Name:** 300 3RD  
**Project Number:** 04-7590GD2

**Lab Number:** L0903627  
**Report Date:** 03/31/09

Parameter	LCS %Recovery	LCSD %Recovery	%Recovery Limits	RPD	RPD Limits
Volatile Petroleum Hydrocarbons - Westborough Lab Associated sample(s): 11 Batch: WG357213-1 WG357213-2					
Naphthalene	102	94	70-130	8	25
1,2,4-Trimethylbenzene	91	89	70-130	2	25
Pentane	85	84	70-130	1	25
2-Methylpentane	92	93	70-130	1	25
2,2,4-Trimethylpentane	98	101	70-130	3	25
n-Nonane	94	97	30-130	3	25
n-Decane	89	92	70-130	4	25
n-Butylcyclohexane	92	94	70-130	2	25

Surrogate	LCS %Recovery	Qualifier	LCSD %Recovery	Qualifier	Acceptance Criteria
2,5-Dibromotoluene-PID	114		105		70-130
2,5-Dibromotoluene-FID	121		112		70-130

# METALS



**Project Name:** 300 3RD  
**Project Number:** 04-7590GD2

**Lab Number:** L0903627  
**Report Date:** 03/31/09

**SAMPLE RESULTS**

Lab ID: L0903627-06  
 Client ID: ENV-7-032409  
 Sample Location: CAMBRIDGE, MA  
 Matrix: Water

Date Collected: 03/24/09 09:30  
 Date Received: 03/25/09  
 Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RDL	Dilution Factor	Date Prepared	Date Analyzed	Prep Method	Analytical Method	Analyst
<b>MCP Total Metals - Westborough Lab</b>										
Antimony, Total	ND		mg/l	0.050	1	03/26/09 12:00	03/30/09 10:28	EPA 3005A	60,6010B	AI
Arsenic, Total	ND		mg/l	0.005	1	03/26/09 12:00	03/30/09 10:28	EPA 3005A	60,6010B	AI
Barium, Total	0.044		mg/l	0.010	1	03/26/09 12:00	03/30/09 10:28	EPA 3005A	60,6010B	AI
Beryllium, Total	ND		mg/l	0.005	1	03/26/09 12:00	03/30/09 10:28	EPA 3005A	60,6010B	AI
Cadmium, Total	ND		mg/l	0.004	1	03/26/09 12:00	03/30/09 10:28	EPA 3005A	60,6010B	AI
Chromium, Total	ND		mg/l	0.01	1	03/26/09 12:00	03/30/09 10:28	EPA 3005A	60,6010B	AI
Lead, Total	ND		mg/l	0.010	1	03/26/09 12:00	03/30/09 10:28	EPA 3005A	60,6010B	AI
Mercury, Total	ND		mg/l	0.0002	1	03/26/09 17:00	03/27/09 13:21	EPA 7470A	64,7470A	EZ
Nickel, Total	ND		mg/l	0.025	1	03/26/09 12:00	03/30/09 10:28	EPA 3005A	60,6010B	AI
Selenium, Total	ND		mg/l	0.010	1	03/26/09 12:00	03/30/09 10:28	EPA 3005A	60,6010B	AI
Silver, Total	ND		mg/l	0.007	1	03/26/09 12:00	03/30/09 10:28	EPA 3005A	60,6010B	AI
Thallium, Total	ND		mg/l	0.020	1	03/26/09 12:00	03/30/09 10:28	EPA 3005A	60,6010B	AI
Vanadium, Total	ND		mg/l	0.010	1	03/26/09 12:00	03/30/09 10:28	EPA 3005A	60,6010B	AI
Zinc, Total	ND		mg/l	0.050	1	03/26/09 12:00	03/30/09 10:28	EPA 3005A	60,6010B	AI



**Project Name:** 300 3RD  
**Project Number:** 04-7590GD2

**Lab Number:** L0903627  
**Report Date:** 03/31/09

**SAMPLE RESULTS**

Lab ID: L0903627-07  
 Client ID: ENV-8-032409  
 Sample Location: CAMBRIDGE, MA  
 Matrix: Water

Date Collected: 03/24/09 10:35  
 Date Received: 03/25/09  
 Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RDL	Dilution Factor	Date Prepared	Date Analyzed	Prep Method	Analytical Method	Analyst
<b>MCP Total Metals - Westborough Lab</b>										
Antimony, Total	ND		mg/l	0.050	1	03/26/09 12:00	03/30/09 10:31	EPA 3005A	60,6010B	AI
Arsenic, Total	ND		mg/l	0.005	1	03/26/09 12:00	03/30/09 10:31	EPA 3005A	60,6010B	AI
Barium, Total	0.795		mg/l	0.010	1	03/26/09 12:00	03/30/09 10:31	EPA 3005A	60,6010B	AI
Beryllium, Total	ND		mg/l	0.005	1	03/26/09 12:00	03/30/09 10:31	EPA 3005A	60,6010B	AI
Cadmium, Total	ND		mg/l	0.004	1	03/26/09 12:00	03/30/09 10:31	EPA 3005A	60,6010B	AI
Chromium, Total	ND		mg/l	0.01	1	03/26/09 12:00	03/30/09 10:31	EPA 3005A	60,6010B	AI
Lead, Total	ND		mg/l	0.010	1	03/26/09 12:00	03/30/09 10:31	EPA 3005A	60,6010B	AI
Mercury, Total	ND		mg/l	0.0002	1	03/26/09 17:00	03/27/09 13:26	EPA 7470A	64,7470A	EZ
Nickel, Total	ND		mg/l	0.025	1	03/26/09 12:00	03/30/09 10:31	EPA 3005A	60,6010B	AI
Selenium, Total	ND		mg/l	0.010	1	03/26/09 12:00	03/30/09 10:31	EPA 3005A	60,6010B	AI
Silver, Total	ND		mg/l	0.007	1	03/26/09 12:00	03/30/09 10:31	EPA 3005A	60,6010B	AI
Thallium, Total	ND		mg/l	0.020	1	03/26/09 12:00	03/30/09 10:31	EPA 3005A	60,6010B	AI
Vanadium, Total	ND		mg/l	0.010	1	03/26/09 12:00	03/30/09 10:31	EPA 3005A	60,6010B	AI
Zinc, Total	ND		mg/l	0.050	1	03/26/09 12:00	03/30/09 10:31	EPA 3005A	60,6010B	AI



**Project Name:** 300 3RD  
**Project Number:** 04-7590GD2

**Lab Number:** L0903627  
**Report Date:** 03/31/09

**SAMPLE RESULTS**

Lab ID: L0903627-08  
 Client ID: ENV-9-032409  
 Sample Location: CAMBRIDGE, MA  
 Matrix: Water

Date Collected: 03/24/09 12:00  
 Date Received: 03/25/09  
 Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RDL	Dilution Factor	Date Prepared	Date Analyzed	Prep Method	Analytical Method	Analyst
<b>MCP Total Metals - Westborough Lab</b>										
Antimony, Total	ND		mg/l	0.050	1	03/26/09 12:00	03/30/09 10:34	EPA 3005A	60,6010B	AI
Arsenic, Total	ND		mg/l	0.005	1	03/26/09 12:00	03/30/09 10:34	EPA 3005A	60,6010B	AI
Barium, Total	0.412		mg/l	0.010	1	03/26/09 12:00	03/30/09 10:34	EPA 3005A	60,6010B	AI
Beryllium, Total	ND		mg/l	0.005	1	03/26/09 12:00	03/30/09 10:34	EPA 3005A	60,6010B	AI
Cadmium, Total	ND		mg/l	0.004	1	03/26/09 12:00	03/30/09 10:34	EPA 3005A	60,6010B	AI
Chromium, Total	ND		mg/l	0.01	1	03/26/09 12:00	03/30/09 10:34	EPA 3005A	60,6010B	AI
Lead, Total	ND		mg/l	0.010	1	03/26/09 12:00	03/30/09 10:34	EPA 3005A	60,6010B	AI
Mercury, Total	ND		mg/l	0.0002	1	03/26/09 17:00	03/27/09 13:28	EPA 7470A	64,7470A	EZ
Nickel, Total	ND		mg/l	0.025	1	03/26/09 12:00	03/30/09 10:34	EPA 3005A	60,6010B	AI
Selenium, Total	ND		mg/l	0.010	1	03/26/09 12:00	03/30/09 10:34	EPA 3005A	60,6010B	AI
Silver, Total	ND		mg/l	0.007	1	03/26/09 12:00	03/30/09 10:34	EPA 3005A	60,6010B	AI
Thallium, Total	ND		mg/l	0.020	1	03/26/09 12:00	03/30/09 10:34	EPA 3005A	60,6010B	AI
Vanadium, Total	ND		mg/l	0.010	1	03/26/09 12:00	03/30/09 10:34	EPA 3005A	60,6010B	AI
Zinc, Total	ND		mg/l	0.050	1	03/26/09 12:00	03/30/09 10:34	EPA 3005A	60,6010B	AI



**Project Name:** 300 3RD  
**Project Number:** 04-7590GD2

**Lab Number:** L0903627  
**Report Date:** 03/31/09

**SAMPLE RESULTS**

Lab ID: L0903627-09  
 Client ID: B-201-032409  
 Sample Location: CAMBRIDGE, MA  
 Matrix: Water

Date Collected: 03/24/09 13:35  
 Date Received: 03/25/09  
 Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RDL	Dilution Factor	Date Prepared	Date Analyzed	Prep Method	Analytical Method	Analyst
<b>MCP Total Metals - Westborough Lab</b>										
Antimony, Total	ND		mg/l	0.050	1	03/26/09 12:00	03/30/09 10:37	EPA 3005A	60,6010B	AI
Arsenic, Total	ND		mg/l	0.005	1	03/26/09 12:00	03/30/09 10:37	EPA 3005A	60,6010B	AI
Barium, Total	0.143		mg/l	0.010	1	03/26/09 12:00	03/30/09 10:37	EPA 3005A	60,6010B	AI
Beryllium, Total	ND		mg/l	0.005	1	03/26/09 12:00	03/30/09 10:37	EPA 3005A	60,6010B	AI
Cadmium, Total	ND		mg/l	0.004	1	03/26/09 12:00	03/30/09 10:37	EPA 3005A	60,6010B	AI
Chromium, Total	ND		mg/l	0.01	1	03/26/09 12:00	03/30/09 10:37	EPA 3005A	60,6010B	AI
Lead, Total	ND		mg/l	0.010	1	03/26/09 12:00	03/30/09 10:37	EPA 3005A	60,6010B	AI
Mercury, Total	ND		mg/l	0.0002	1	03/26/09 17:00	03/27/09 13:30	EPA 7470A	64,7470A	EZ
Nickel, Total	ND		mg/l	0.025	1	03/26/09 12:00	03/30/09 10:37	EPA 3005A	60,6010B	AI
Selenium, Total	ND		mg/l	0.010	1	03/26/09 12:00	03/30/09 10:37	EPA 3005A	60,6010B	AI
Silver, Total	ND		mg/l	0.007	1	03/26/09 12:00	03/30/09 10:37	EPA 3005A	60,6010B	AI
Thallium, Total	ND		mg/l	0.020	1	03/26/09 12:00	03/30/09 10:37	EPA 3005A	60,6010B	AI
Vanadium, Total	ND		mg/l	0.010	1	03/26/09 12:00	03/30/09 10:37	EPA 3005A	60,6010B	AI
Zinc, Total	ND		mg/l	0.050	1	03/26/09 12:00	03/30/09 10:37	EPA 3005A	60,6010B	AI





**Project Name:** 300 3RD  
**Project Number:** 04-7590GD2

**Lab Number:** L0903627  
**Report Date:** 03/31/09

**SAMPLE RESULTS**

Lab ID: L0903627-10  
 Client ID: B-210-032409  
 Sample Location: CAMBRIDGE, MA  
 Matrix: Water

Date Collected: 03/24/09 14:00  
 Date Received: 03/25/09  
 Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RDL	Dilution Factor	Date Prepared	Date Analyzed	Prep Method	Analytical Method	Analyst
<b>MCP Total Metals - Westborough Lab</b>										
Antimony, Total	ND		mg/l	0.050	1	03/26/09 12:00	03/30/09 10:40	EPA 3005A	60,6010B	AI
Arsenic, Total	0.0090		mg/l	0.005	1	03/26/09 12:00	03/30/09 10:40	EPA 3005A	60,6010B	AI
Barium, Total	0.122		mg/l	0.010	1	03/26/09 12:00	03/30/09 10:40	EPA 3005A	60,6010B	AI
Beryllium, Total	ND		mg/l	0.005	1	03/26/09 12:00	03/30/09 10:40	EPA 3005A	60,6010B	AI
Cadmium, Total	ND		mg/l	0.004	1	03/26/09 12:00	03/30/09 10:40	EPA 3005A	60,6010B	AI
Chromium, Total	ND		mg/l	0.01	1	03/26/09 12:00	03/30/09 10:40	EPA 3005A	60,6010B	AI
Lead, Total	ND		mg/l	0.010	1	03/26/09 12:00	03/30/09 10:40	EPA 3005A	60,6010B	AI
Mercury, Total	ND		mg/l	0.0002	1	03/26/09 17:00	03/27/09 13:32	EPA 7470A	64,7470A	EZ
Nickel, Total	ND		mg/l	0.025	1	03/26/09 12:00	03/30/09 10:40	EPA 3005A	60,6010B	AI
Selenium, Total	ND		mg/l	0.010	1	03/26/09 12:00	03/30/09 10:40	EPA 3005A	60,6010B	AI
Silver, Total	ND		mg/l	0.007	1	03/26/09 12:00	03/30/09 10:40	EPA 3005A	60,6010B	AI
Thallium, Total	ND		mg/l	0.020	1	03/26/09 12:00	03/30/09 10:40	EPA 3005A	60,6010B	AI
Vanadium, Total	ND		mg/l	0.010	1	03/26/09 12:00	03/30/09 10:40	EPA 3005A	60,6010B	AI
Zinc, Total	ND		mg/l	0.050	1	03/26/09 12:00	03/30/09 10:40	EPA 3005A	60,6010B	AI



Project Name: 300 3RD  
 Project Number: 04-7590GD2

Lab Number: L0903627  
 Report Date: 03/31/09

### Method Blank Analysis Batch Quality Control

Parameter	Result Qualifier	Units	RDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
MCP Total Metals - Westborough Lab for sample(s): 01-10 Batch: WG356823-1								
Antimony, Total	ND	mg/l	0.050	1	03/26/09 12:00	03/30/09 09:48	60,6010B	AI
Arsenic, Total	ND	mg/l	0.005	1	03/26/09 12:00	03/30/09 09:48	60,6010B	AI
Barium, Total	ND	mg/l	0.010	1	03/26/09 12:00	03/30/09 09:48	60,6010B	AI
Beryllium, Total	ND	mg/l	0.005	1	03/26/09 12:00	03/30/09 09:48	60,6010B	AI
Cadmium, Total	ND	mg/l	0.004	1	03/26/09 12:00	03/30/09 09:48	60,6010B	AI
Chromium, Total	ND	mg/l	0.01	1	03/26/09 12:00	03/30/09 09:48	60,6010B	AI
Lead, Total	ND	mg/l	0.010	1	03/26/09 12:00	03/30/09 09:48	60,6010B	AI
Nickel, Total	ND	mg/l	0.025	1	03/26/09 12:00	03/30/09 09:48	60,6010B	AI
Selenium, Total	ND	mg/l	0.010	1	03/26/09 12:00	03/30/09 09:48	60,6010B	AI
Silver, Total	ND	mg/l	0.007	1	03/26/09 12:00	03/30/09 09:48	60,6010B	AI
Thallium, Total	ND	mg/l	0.020	1	03/26/09 12:00	03/30/09 09:48	60,6010B	AI
Vanadium, Total	ND	mg/l	0.010	1	03/26/09 12:00	03/30/09 09:48	60,6010B	AI
Zinc, Total	ND	mg/l	0.050	1	03/26/09 12:00	03/30/09 09:48	60,6010B	AI

#### Prep Information

Digestion Method: EPA 3005A

Parameter	Result Qualifier	Units	RDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
MCP Total Metals - Westborough Lab for sample(s): 01-10 Batch: WG356850-1								
Mercury, Total	ND	mg/l	0.0002	1	03/26/09 17:00	03/27/09 13:07	64,7470A	EZ

#### Prep Information

Digestion Method: EPA 7470A



## Lab Control Sample Analysis

Batch Quality Control

**Project Name:** 300 3RD  
**Project Number:** 04-7590GD2

**Lab Number:** L0903627  
**Report Date:** 03/31/09

Parameter	LCS %Recovery	LCSD %Recovery	%Recovery Limits	RPD	RPD Limits
MCP Total Metals - Westborough Lab Associated sample(s): 01-10 Batch: WG356823-2 WG356823-3					
Antimony, Total	107	103	80-120	4	20
Arsenic, Total	111	107	80-120	4	20
Barium, Total	103	100	80-120	3	20
Beryllium, Total	104	100	80-120	4	20
Cadmium, Total	111	107	80-120	4	20
Chromium, Total	105	100	80-120	5	20
Lead, Total	107	104	80-120	3	20
Nickel, Total	103	99	80-120	4	20
Selenium, Total	112	108	80-120	4	20
Silver, Total	104	101	80-120	3	20
Thallium, Total	107	104	80-120	3	20
Vanadium, Total	106	103	80-120	3	20
Zinc, Total	106	103	80-120	3	20
MCP Total Metals - Westborough Lab Associated sample(s): 01-10 Batch: WG356850-2 WG356850-3					
Mercury, Total	107	107	80-120	0	20

**Project Name:** 300 3RD  
**Project Number:** 04-7590GD2

**Lab Number:** L0903627  
**Report Date:** 03/31/09

### Sample Receipt and Container Information

Were project specific reporting limits specified? YES

#### Cooler Information

Cooler	Custody Seal
A	Absent
B	Absent
C	Absent

#### Container Information

Container ID	Container Type	Cooler	pH	Temp	Pres	Seal	Analysis
L0903627-01A	Vial HCl preserved	B	N/A	2	Y	Absent	MCP-8260-04(14)
L0903627-01B	Vial HCl preserved	B	N/A	2	Y	Absent	MCP-8260-04(14)
L0903627-01C	Vial HCl preserved	B	N/A	2	Y	Absent	VPH-DELUX-04(14)
L0903627-01D	Vial HCl preserved	B	N/A	2	Y	Absent	VPH-DELUX-04(14)
L0903627-01E	Plastic 500ml HNO3 preserved	C	<2	2.2	Y	Absent	MCP-BA-6010T(180),MCP-AS-6010T(180),MCP-V-6010T(180),MCP-7470T(28),MCP-BE-6010T(180),MCP-NI-6010T(180),MCP-PB-6010T(180),MCP-SB-6010T(180),MCP-TL-6010T(180),MCP-AG-6010T(180),MCP-SE-6010T(180),MCP-CD-6010T(180),MCP-CR-6010T(180),MCP-ZN-6010T(180)
L0903627-01G	Amber 1000ml unpreserved	C	6	2.2	Y	Absent	MCP-PAHSIM-04(7)
L0903627-01H	Amber 1000ml unpreserved	C	6	2.2	Y	Absent	MCP-PAHSIM-04(7)
L0903627-02A	Vial HCl preserved	B	N/A	2	Y	Absent	MCP-8260-04(14)
L0903627-02B	Vial HCl preserved	B	N/A	2	Y	Absent	MCP-8260-04(14)
L0903627-02C	Vial HCl preserved	B	N/A	2	Y	Absent	VPH-DELUX-04(14)
L0903627-02D	Vial HCl preserved	B	N/A	2	Y	Absent	VPH-DELUX-04(14)
L0903627-02E	Plastic 500ml HNO3 preserved	C	<2	2.2	Y	Absent	MCP-BA-6010T(180),MCP-AS-6010T(180),MCP-V-6010T(180),MCP-7470T(28),MCP-BE-6010T(180),MCP-NI-6010T(180),MCP-PB-6010T(180),MCP-SB-6010T(180),MCP-TL-6010T(180),MCP-AG-6010T(180),MCP-SE-6010T(180),MCP-CD-6010T(180),MCP-CR-6010T(180),MCP-ZN-6010T(180)
L0903627-02G	Amber 1000ml unpreserved	C	6	2.2	Y	Absent	MCP-PAHSIM-04(7)
L0903627-02H	Amber 1000ml unpreserved	C	6	2.2	Y	Absent	MCP-PAHSIM-04(7)
L0903627-03A	Vial HCl preserved	B	N/A	2	Y	Absent	MCP-8260-04(14)
L0903627-03B	Vial HCl preserved	B	N/A	2	Y	Absent	MCP-8260-04(14)
L0903627-03C	Vial HCl preserved	B	N/A	2	Y	Absent	VPH-DELUX-04(14)

\*Hold days indicated by values in parentheses

**Project Name:** 300 3RD  
**Project Number:** 04-7590GD2

**Lab Number:** L0903627  
**Report Date:** 03/31/09

### Container Information

Container ID	Container Type	Cooler	pH	Temp	Pres	Seal	Analysis
L0903627-03D	Vial HCl preserved	B	N/A	2	Y	Absent	VPH-DELUX-04(14)
L0903627-03E	Plastic 500ml HNO3 preserved	B	<2	2	Y	Absent	MCP-BA-6010T(180),MCP-AS-6010T(180),MCP-V-6010T(180),MCP-7470T(28),MCP-BE-6010T(180),MCP-NI-6010T(180),MCP-PB-6010T(180),MCP-SB-6010T(180),MCP-TL-6010T(180),MCP-AG-6010T(180),MCP-SE-6010T(180),MCP-CD-6010T(180),MCP-CR-6010T(180),MCP-ZN-6010T(180)
L0903627-03G	Amber 1000ml unpreserved	C	6	2.2	Y	Absent	MCP-PAHSIM-04(7)
L0903627-04A	Vial HCl preserved	B	N/A	2	Y	Absent	MCP-8260-04(14)
L0903627-04B	Vial HCl preserved	B	N/A	2	Y	Absent	MCP-8260-04(14)
L0903627-04C	Vial HCl preserved	B	N/A	2	Y	Absent	VPH-DELUX-04(14)
L0903627-04D	Vial HCl preserved	B	N/A	2	Y	Absent	VPH-DELUX-04(14)
L0903627-04E	Plastic 500ml HNO3 preserved	B	<2	2	Y	Absent	MCP-BA-6010T(180),MCP-AS-6010T(180),MCP-V-6010T(180),MCP-7470T(28),MCP-BE-6010T(180),MCP-NI-6010T(180),MCP-PB-6010T(180),MCP-SB-6010T(180),MCP-TL-6010T(180),MCP-AG-6010T(180),MCP-SE-6010T(180),MCP-CD-6010T(180),MCP-CR-6010T(180),MCP-ZN-6010T(180)
L0903627-04G	Amber 1000ml unpreserved	C	6	2.2	Y	Absent	MCP-PAHSIM-04(7)
L0903627-04H	Amber 1000ml unpreserved	C	6	2.2	Y	Absent	MCP-PAHSIM-04(7)
L0903627-05A	Vial HCl preserved	B	N/A	2	Y	Absent	MCP-8260-04(14)
L0903627-05B	Vial HCl preserved	B	N/A	2	Y	Absent	MCP-8260-04(14)
L0903627-05C	Vial HCl preserved	B	N/A	2	Y	Absent	VPH-DELUX-04(14)
L0903627-05D	Vial HCl preserved	B	N/A	2	Y	Absent	VPH-DELUX-04(14)
L0903627-05E	Plastic 500ml HNO3 preserved	B	<2	2	Y	Absent	MCP-BA-6010T(180),MCP-AS-6010T(180),MCP-V-6010T(180),MCP-7470T(28),MCP-BE-6010T(180),MCP-NI-6010T(180),MCP-PB-6010T(180),MCP-SB-6010T(180),MCP-TL-6010T(180),MCP-AG-6010T(180),MCP-SE-6010T(180),MCP-CD-6010T(180),MCP-CR-6010T(180),MCP-ZN-6010T(180)
L0903627-05G	Amber 1000ml unpreserved	C	6	2.2	Y	Absent	MCP-PAHSIM-04(7)
L0903627-06A	Vial HCl preserved	B	N/A	2	Y	Absent	MCP-8260-04(14)
L0903627-06B	Vial HCl preserved	B	N/A	2	Y	Absent	MCP-8260-04(14)
L0903627-06C	Vial HCl preserved	B	N/A	2	Y	Absent	VPH-DELUX-04(14)

\*Hold days indicated by values in parentheses



**Project Name:** 300 3RD  
**Project Number:** 04-7590GD2

**Lab Number:** L0903627  
**Report Date:** 03/31/09

### Container Information

Container ID	Container Type	Cooler	pH	Temp	Pres	Seal	Analysis
L0903627-06D	Vial HCl preserved	B	N/A	2	Y	Absent	VPH-DELUX-04(14)
L0903627-06E	Plastic 500ml HNO3 preserved	B	<2	2	Y	Absent	MCP-BA-6010T(180),MCP-AS-6010T(180),MCP-V-6010T(180),MCP-7470T(28),MCP-BE-6010T(180),MCP-NI-6010T(180),MCP-PB-6010T(180),MCP-SB-6010T(180),MCP-TL-6010T(180),MCP-AG-6010T(180),MCP-SE-6010T(180),MCP-CD-6010T(180),MCP-CR-6010T(180),MCP-ZN-6010T(180)
L0903627-06G	Amber 1000ml unpreserved	C	6	2.2	Y	Absent	MCP-PAHSIM-04(7)
L0903627-06H	Amber 1000ml unpreserved	C	6	2.2	Y	Absent	MCP-PAHSIM-04(7)
L0903627-07A	Vial HCl preserved	B	N/A	2	Y	Absent	MCP-8260-04(14)
L0903627-07B	Vial HCl preserved	B	N/A	2	Y	Absent	MCP-8260-04(14)
L0903627-07C	Vial HCl preserved	B	N/A	2	Y	Absent	VPH-DELUX-04(14)
L0903627-07D	Vial HCl preserved	B	N/A	2	Y	Absent	VPH-DELUX-04(14)
L0903627-07E	Plastic 500ml HNO3 preserved	B	<2	2	Y	Absent	MCP-BA-6010T(180),MCP-AS-6010T(180),MCP-V-6010T(180),MCP-7470T(28),MCP-BE-6010T(180),MCP-NI-6010T(180),MCP-PB-6010T(180),MCP-SB-6010T(180),MCP-TL-6010T(180),MCP-AG-6010T(180),MCP-SE-6010T(180),MCP-CD-6010T(180),MCP-CR-6010T(180),MCP-ZN-6010T(180)
L0903627-07G	Amber 1000ml unpreserved	A	6	2.5	Y	Absent	MCP-PAHSIM-04(7)
L0903627-07H	Amber 1000ml unpreserved	A	6	2.5	Y	Absent	MCP-PAHSIM-04(7)
L0903627-08A	Vial HCl preserved	B	N/A	2	Y	Absent	MCP-8260-04(14)
L0903627-08B	Vial HCl preserved	B	N/A	2	Y	Absent	MCP-8260-04(14)
L0903627-08C	Vial HCl preserved	B	N/A	2	Y	Absent	VPH-DELUX-04(14)
L0903627-08D	Vial HCl preserved	B	N/A	2	Y	Absent	VPH-DELUX-04(14)
L0903627-08E	Plastic 500ml HNO3 preserved	B	<2	2	Y	Absent	MCP-BA-6010T(180),MCP-AS-6010T(180),MCP-V-6010T(180),MCP-7470T(28),MCP-BE-6010T(180),MCP-NI-6010T(180),MCP-PB-6010T(180),MCP-SB-6010T(180),MCP-TL-6010T(180),MCP-AG-6010T(180),MCP-SE-6010T(180),MCP-CD-6010T(180),MCP-CR-6010T(180),MCP-ZN-6010T(180)
L0903627-08G	Amber 1000ml unpreserved	A	6	2.5	Y	Absent	MCP-PAHSIM-04(7)
L0903627-08H	Amber 1000ml unpreserved	A	6	2.5	Y	Absent	MCP-PAHSIM-04(7)
L0903627-09A	Vial HCl preserved	B	N/A	2	Y	Absent	MCP-8260-04(14)

\*Hold days indicated by values in parentheses



**Project Name:** 300 3RD  
**Project Number:** 04-7590GD2

**Lab Number:** L0903627  
**Report Date:** 03/31/09

### Container Information

Container ID	Container Type	Cooler	pH	Temp	Pres	Seal	Analysis
L0903627-09B	Vial HCl preserved	B	N/A	2	Y	Absent	MCP-8260-04(14)
L0903627-09C	Vial HCl preserved	B	N/A	2	Y	Absent	VPH-DELUX-04(14)
L0903627-09D	Vial HCl preserved	B	N/A	2	Y	Absent	VPH-DELUX-04(14)
L0903627-09E	Plastic 500ml HNO3 preserved	B	<2	2	Y	Absent	MCP-BA-6010T(180),MCP-AS-6010T(180),MCP-V-6010T(180),MCP-7470T(28),MCP-BE-6010T(180),MCP-NI-6010T(180),MCP-PB-6010T(180),MCP-SB-6010T(180),MCP-TL-6010T(180),MCP-AG-6010T(180),MCP-SE-6010T(180),MCP-CD-6010T(180),MCP-CR-6010T(180),MCP-ZN-6010T(180)
L0903627-09G	Amber 1000ml unpreserved	A	6	2.5	Y	Absent	MCP-PAHSIM-04(7)
L0903627-09H	Amber 1000ml unpreserved	A	6	2.5	Y	Absent	MCP-PAHSIM-04(7)
L0903627-10A	Vial HCl preserved	B	N/A	2	Y	Absent	MCP-8260-04(14)
L0903627-10B	Vial HCl preserved	B	N/A	2	Y	Absent	MCP-8260-04(14)
L0903627-10C	Vial HCl preserved	B	N/A	2	Y	Absent	VPH-DELUX-04(14)
L0903627-10D	Vial HCl preserved	B	N/A	2	Y	Absent	VPH-DELUX-04(14)
L0903627-10E	Plastic 500ml HNO3 preserved	B	<2	2	Y	Absent	MCP-BA-6010T(180),MCP-AS-6010T(180),MCP-V-6010T(180),MCP-7470T(28),MCP-BE-6010T(180),MCP-NI-6010T(180),MCP-PB-6010T(180),MCP-SB-6010T(180),MCP-TL-6010T(180),MCP-AG-6010T(180),MCP-SE-6010T(180),MCP-CD-6010T(180),MCP-CR-6010T(180),MCP-ZN-6010T(180)
L0903627-11A	Vial HCl preserved	B	N/A	2	Y	Absent	VPH-DELUX-04(14),MCP-8260-04(14)

### Container Comments

L0903627-05A

L0903627-10B

\*Hold days indicated by values in parentheses

**Project Name:** 300 3RD  
**Project Number:** 04-7590GD2

**Lab Number:** L0903627  
**Report Date:** 03/31/09

## GLOSSARY

### Acronyms

- EPA** - Environmental Protection Agency.
- LCS** - Laboratory Control Sample: A sample matrix, free from the analytes of interest, spiked with verified known amounts of analytes or a material containing known and verified amounts of analytes.
- LCSD** - Laboratory Control Sample Duplicate: Refer to LCS.
- 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.
- ND** - Not detected at the reported detection limit for the sample.
- NI** - Not Ignitable.
- RDL** - Reported Detection Limit: The value at which an instrument can accurately measure an analyte at a specific concentration. The RDL 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.

### 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

- \*** - The batch duplicate RPD exceeds the acceptance criteria. This flag is not applicable when the sample concentrations are less than 5x the RDL. (Metals only.)
- 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.
- 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.
- H** - The analysis of pH was performed beyond the regulatory-required holding time of 15 minutes from the time of sample collection.
- N** - The matrix spike recovery exceeds the acceptance criteria. This flag is not applicable when the sample concentration is greater than 4x the spike added. (Metals only.)
- P** - The RPD between the results for the two columns exceeds the method-specified criteria.
- 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).



**Project Name:** 300 3RD  
**Project Number:** 04-7590GD2

**Lab Number:** L0903627  
**Report Date:** 03/31/09

## REFERENCES

- 59 Method for the Determination of Volatile Petroleum Hydrocarbons (VPH). Massachusetts Department of Environmental Protection, DEA/ORS/BWSC. May 2004, Revision 1.1.
- 60 Quality Assurance and Quality Control Requirements and Performance Standards for SW-846 Methods. MADEP BWSC. WSC-CAM-IIA (Revision 4), WSC-CAM-V C (Revision 2), WSC-CAM-III A (Revision 5). May 2004.
- 64 Quality Assurance and Quality Control Requirements and Performance Standards for SW-846 Methods. MADEP BWSC. WSC-CAM-IIA (Revision 4), WSC-CAM-V C (Revision 2), WSC-CAM-III A (Revision 5). August 2004.

## 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 Woods Hole Labs 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 Woods Hole Labs.

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 February 18, 2009 - 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.

*Drinking Water* (Inorganic Parameters: Color, pH, Turbidity, Conductivity, Alkalinity, Chloride, Free Residual Chlorine, Fluoride, Calcium Hardness, Sulfate, Nitrate, Nitrite, Aluminum, Antimony, Arsenic, Barium, Beryllium, Cadmium, Calcium, Chromium, Copper, Iron, Lead, Magnesium, Manganese, Mercury, Molybdenum, Nickel, Potassium, Selenium, Silver, Sodium, Thallium, Vanadium, Zinc, Total Dissolved Solids, Total Organic Carbon, Total Cyanide, Perchlorate. Organic Parameters: Haloacetic Acids, Volatile Organics 524.2, Total Trihalomethanes 524.2, 1,2-Dibromo-3-chloropropane (DBCP), Ethylene Dibromide (EDB).)

*Wastewater/Non-Potable Water* (Inorganic Parameters: Color, pH, Conductivity, Acidity, Alkalinity, Chloride, Total Residual Chlorine, Fluoride, Total Hardness, Calcium Hardness, Silica, Sulfate, Sulfide, Ammonia, Kjeldahl Nitrogen, Nitrate, Nitrite, O-Phosphate, Total Phosphorus, Aluminum, Antimony, Arsenic, Barium, Beryllium, Boron, Cadmium, Calcium, Chromium, Hexavalent Chromium, Cobalt, Copper, Iron, Lead, Magnesium, Manganese, Mercury, Molybdenum, Nickel, Potassium, Selenium, Silver, Sodium, Strontium, Thallium, Tin, Titanium, Vanadium, Zinc, Total Residue (Solids), Total Dissolved Solids, Total Suspended Solids (non-filterable), BOD, CBOD, COD, TOC, Total Cyanide, Phenolics, Foaming Agents (MBAS), Bromide, Oil and Grease. Organic Parameters: PCBs, Organochlorine Pesticides, Technical Chlordane, Toxaphene, 2,4-D, 2,4,5-T, 2,4,5-TP(Silvex), Acid Extractables (Phenols), Benzidines, Phthalate Esters, Nitrosamines, Nitroaromatics & Isophorone, Polynuclear Aromatic Hydrocarbons, Haloethers, Chlorinated Hydrocarbons, Volatile Organics.)

*Solid Waste/Soil* (Inorganic Parameters: Lead in Paint, pH, 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), Reactivity. Organic Parameters: PCBs, Organochlorine Pesticides, Technical Chlordane, Toxaphene, Extractable Petroleum Hydrocarbons (ETPH), Dicamba, 2,4-D, 2,4,5-T, 2,4,5-TP(Silvex), Volatile Organics, Acid Extractables (Phenols), 3,3'-Dichlorobenzidine, Phthalates, Nitrosamines, Nitroaromatics & Cyclic Ketones, PAHs, Haloethers, Chlorinated Hydrocarbons. )

### Maine Department of Human Services Certificate/Lab ID: MA0086.

*Drinking Water* (Inorganic Parameters: SM9215B, 9221E, 9222B, 9222D, 9223B, EPA 150.1, 180.1, 300.0, 353.2, SM2130B, 2320B, 4500CI-D, 4500CN-C, 4500CN-E, 4500F-C, 4500H+B, 4500NO3-F, EPA 200.7, EPA 200.8, 245.1. Organic Parameters: 504.1, 524.2, SM 6251B.)

*Wastewater/Non-Potable Water* (Inorganic Parameters: EPA 120.1, 1664A, 350.1, 351.1, 353.2, 410.4, 420.1, Lachat 10-107-06-1-B, SM2320B, 2340B, 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, 4500NH3-H, 4500NO3-F, 4500P-B.5, 4500P-E, 5210B, 5220D, 5310C, EPA 200.7, 200.8, 245.1. Organic Parameters: 608, 624.)

### 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, Nitrite-N, Fluoride, Sulfate)

353.2 for: Nitrate-N, Nitrite-N; SM4500NO3-F, 4500F-C, 4500CN-CE, EPA 180.1, SM2130B, SM4500CI-D, 2320B, SM2540C, EPA 150.1, SM4500H-B.

Organic Parameters: (EPA 524.2 for: Trihalomethanes, Volatile Organics)

(504.1 for: 1,2-Dibromoethane, 1,2-Dibromo-3-Chloropropane), SM6251B, 314.0.

#### *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,Cr,Co,Cu,Fe,Pb,Mn,Mo,Ni,Se,Ag,Sr,Ti,Ti,V,Zn,Ca,Mg,Na,K)

245.1, SM4500H,B, EPA 120.1, SM2510B, 2540C, 2540B, 2320B, 4500CL-E, 4500F-BC, 426C, SM4500NH3-BH, (EPA 350.1 for: Ammonia-N), LACHAT 10-107-06-1-B for Nitrate-N, SM4500NO3-F, 353.2 for Nitrate-N, SM4500NH3-B,C-Titr, SM4500NH3-BC-NES, EPA 351.1, SM4500P-E, 4500P-B,E, 5220D, EPA 410.4, SM 5210B, 5310C, 4500CN-CE, 2540D, 4500CL-D, EPA 1664, SM14 510AC, EPA 420.1

Organic Parameters: (EPA 624 for Volatile Halocarbons, Volatile Aromatics)

(608 for: Chlordane, Aldrin, Dieldrin, DDD, DDE, DDT, Heptachlor, Heptachlor Epoxide, PCB-Water) 600/4-81-045-PCB-Oil

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

Microbiology Parameters: SM9215B; MF-SM9222B; ENZ. SUB. SM9223; EC-SM9221E; MF-SM9222D; ENZ. SUB. SM9223;

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

*Drinking Water (Inorganic Parameters:* SM6215B, 9222B, 9223B Colilert, EPA 200.7, 200.8, 245.2, 110.2, 120.1, 150.1, 300.0, 325.2, 314.0, SM4500CN-E, 4500H+B, 4500NO<sub>3</sub>-F, 2320B, 2510B, 2540C, 4500F-C, 5310C, 2120B, EPA 331.0. Organic Parameters: 504.1, 524.2, SM6251B.)

*Non-Potable Water (Inorganic Parameters:* SM9222D, 9221B, 9222B, 9221E-EC, EPA 200.7, 200.8, 245.1, 245.2, SW-846 6010B, 6020, 7196A, 7470A, SM3500-CR-D, EPA 120.1, 150.1, 300.0, 305.1, 310.1, 325.2, 340.2, 350.1, 350.2, 351.1, 353.2, 354.1, 365.2, 375.4, 376.2, 405.1, 415.1, 420.1, 425.1, 1664A, SW-846 9010, 9030, 9040B, EPA 160.1, 160.2, 160.3, SM426C, SM2310B, 2540B, 2540D, 4500H+B, 4500NH<sub>3</sub>-H, 4500NH<sub>3</sub>-E, 4500NO<sub>2</sub>-B, 4500P-E, 4500-S2-D, 5210B, 2320B, 2540C, 4500F-C, 5310C, 5540C, LACHAT 10-117-07-1-B, LACHAT 10-107-06-1-B, LACHAT 10-107-04-1-C, LACHAT 10-107-04-1-J, LACHAT 10-117-07-1-A, SM4500CL-E, LACHAT 10-204-00-1-A, LACHAT 10-107-06-2-D. Organic Parameters: SW-846 3005A, 3015A, 3510C, 5030B, 8021B, 8260B, 8270C, 8330, EPA 624, 625, 608, SW-846 8082, 8081A.)

*Solid & Chemical Materials (Inorganic Parameters:* SW-846 6010B, 7196A, 7471A, 7.3.3.2, 7.3.4.2, 1010, 1030, 9010, 9012A, 9014, 9030B, 9040, 9045C, 9050C, 1311, 3005A, 3050B, 3051A. Organic Parameters: SW-846 3540C, 3545, 3580A, 5030B, 5035, 8021B, 8260B, 8270C, 8330, 8151A, 8082, 8081A.)

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

*Drinking Water (Inorganic Parameters:* SM9222B, 9221E, 9223B, 9215B, 4500NO<sub>3</sub>-F, 4500F-C, EPA 300.0, 200.7, 2540C, 2320B, 314.0, 331.0, 110.2, SM2120B, 2510B, 5310C, EPA 150.1, SM4500H-B, EPA 200.8, 245.2. Organic Parameters: 504.1, SM6251B, 524.2.)

*Non-Potable Water (Inorganic Parameters:* SM5210B, EPA 410.1, SM5220D, 4500CI-D, EPA 300.0, SM2120B, SM4500F-BC, EPA 200.7, 351.1, LACHAT 10-107-06-2-D, EPA 353.2, SM4500NO<sub>3</sub>-F, 4500NO<sub>2</sub>-B, EPA 1664A, SM5310B, C or D, 4500-PE, EPA 420.1, SM4500P-B5+E, 2540B, 2540C, 2540D, EPA 120.1, SM2510B, SM15 426C, SM9221CE, 9222D, 9221B, 9222B, 9215B, 2310B, 2320B, 4500NH<sub>3</sub>-H, EPA 350.2/1, SM5210B, SW-846 3015, 6020, 7470A, 5540C, 4500H-B, EPA 200.8, SM3500Cr-D, EPA 245.1, 245.2, SW-846 9040B, 3005A, EPA 6010B, 7196A, SW-846 9010B, 9030B. Organic Parameters: SW-846 8260B, 8270C, 3510C, EPA 608, 624, 625, SW-846 5030B, 8021B, 8081A, 8082, 8151A, 8330.)

*Solid & Chemical Materials (Inorganic Parameters:* SW-846 9040B, 3005A, 6010B, 7196A, 5030B, 9010B, 9030B, 1030, 1311, 3050B, 3051, 7471A, 9014, 9012A, 9045C, 9050A, 9065. Organic Parameters: SW-846 8021B, 8081A, 8082, 8151A, 8330, 8260B, 8270C, 1311, 3540C, 3545, 3550B, 3580A, 5035L, 5035H.)

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

*Drinking Water (Inorganic Parameters:* SM9223B, 9222B, 8215B, EPA 200.8, 200.7, 245.2, SM5310C, EPA 314.0, 331.0, SM2320B, EPA 300.0, 325.2, 110.2, SM2120B, 4500CN-E, 4500F-C, EPA 150.1, SM4500H-B, 4500NO<sub>3</sub>-F, 2540C, EPA 120.1, SM 2510B. Organic Parameters: EPA 524.2, 504.1, SM6251B.)

*Non-Potable Water (Inorganic Parameters:* SM9221E, 9222D, 9221B, 9222B, 9215B, EPA 405.1, SM5210B, EPA 410.4, SM5220D, EPA 305.1, SM2310B-4a, EPA 310.1, SM2320B, EPA 200.7, 300.0, 325.2, LACHAT 10-117-07-1A or B, SM4500CI-E, EPA 340.2, SM4500F-C, EPA 375.4, SM15 426C, EPA 350.1, 350.2, LACHAT 10-107-06-1-B, SM4500NH<sub>3</sub>-H, EPA 351.1, LACHAT 10-107-06-2, EPA 353.2, LACHAT 10-107-041-C, SM4500-NO<sub>3</sub>F, EPA 354.1, SM4500-NO<sub>2</sub>-B, EPA 365.2, SM4500P-E, EPA 160.3, SM2540B, EPA 160.1, SM2540C, EPA 160.2, SM2540D, EPA 200.8, EPA 6010B, 6020, EPA 7196A, SM3500Cr-D, EPA 245.1, 245.2, 7470A, 110.2, SM2120B, 335.2, LACHAT 10-204-00-1-A, EPA 150.1, 9040B, SM4500-HB, EPA 1664A, EPA 415.1, SM5310C, EPA 420.1, SM14 510C, EPA 120.1, SM2510B, EPA 376.2, SM4500S-D, EPA 425.1, SM5540C, EPA 3005A, 3015. Organic Parameters: EPA 624, 8260B, 8270C, 625, 608, 8081A, 8151A, 8330, 8082, 8021B, EPA 3510C, 5030B, 9010B, 9030B.)

*Solid & Hazardous Waste (Inorganic Parameters:* EPA 9040B, 9045C, 1010, 1030, SW-846 Ch 7 Sec 7.3, EPA 6010B, 7196A, 7471A, 9012A, 9014, 9040B, 9045C, 9065, 9050, EPA 1311, 3005A, 3050B, 3051, 9010B, 9030B. Organic Parameters: EPA 8260B, 8270C, 8081A, 8151A, 8330, 8082, 8021B, 3540C, 3545, 3580, 5030B, 5035.)

*Analytical Services Protocol:* CLP Volatile Organics, CLP Inorganics, CLP PCB/Pesticides.

**Rhode Island Department of Health Certificate/Lab ID: LAO00065.**

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

Refer to NY-DOH Certificate for Potable and Non-Potable Water.

**Pennsylvania Department of Environmental Protection Certificate/Lab ID : 68-03671. Registered Laboratory.**



# CHAIN OF CUSTODY

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WESTBORO, MA  
TEL: 508-998-9200  
FAX: 508-998-9193

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

**Client Information**

Client: EVVIECO  
Address: 8 Hills St  
ROSTON MA  
Phone: 978-444-0300  
Fax: \_\_\_\_\_

**Project Information**

Project Name: 300 3rd  
Project Location: CAMBRIDGE  
Project #: 02-17590002  
Project Manager: Jim Yang  
ALPHA Quote #: \_\_\_\_\_

**Other Project Specific Requirements/Comments/Detection Limits:**

These samples have been previously analyzed by Alpha  
 Other Project Specific Requirements/Comments/Detection Limits:  
1 B-210-032409 CONTAINS FREE PRODUCT/WATER MIXTURE  
2 ANALYZE TR's FOR VOC + VPH (D)

Standard  RUSH (only confirmed 1 day turnaround)  
Date Due: 4/11/09 Time: \_\_\_\_\_

**Report Information - Data Deliverables**

FAX  EMAIL  
 ADEX  Add'l Deliverables  
Regulatory Requirements/Report Limits  
State/Fed Program Criteria

**Billing Information**

MA MCP PRESUMPTIVE CERTAINTY - CT REASONABLE CONFIDENCE PROTO.  
 Same as Client info  
PO #: \_\_\_\_\_

**ANALYSIS**  
MCP 14  
VOLs 8260  
PAHs 8270  
VPH (D) 8270  
SOLs

**SAMPLE HANDLING**  
Filtration \_\_\_\_\_  
 Done  
 Not needed  
 Lab to do  
 Preservation  
 Lab to do  
(Please specify below)

ALPHA Lab ID (Lab User Only)	Sample ID	Collection		Sample Matrix	Sampler's Initials	Container Type		Date/Time	Received By	Date/Time	Sample Specific Comments
		Date	Time			Preservative	Other				
03027-01	ENV-1-032309	3/23/09	10:10	ENV	RLD	/	/	3/23/09 17:30	[Signature]	4/25/09 17:35	
-02	DUP-A-032309		X								
-03	ENV-2-032309		11:30			/	/				
-04	ENV-3-032309		13:35			/	/				
-05	ENV-4-032309		16:00			/	/				only 1 x 1L amber
-06	ENV-7-032409	3/21/09	9:30			/	/				
-03	ENV-8-032409		10:35			/	/				
-06	ENV-9-032409		12:00			/	/				
-04	ENV-2-032409		13:35			/	/				
-04	B-201-032409		14:00			/	/				
-10	B-210-032409		14:00			/	/				

PLEASE ANSWER QUESTIONS ABOVE!! TRIPS - VOC, VPH

IS YOUR PROJECT  
MAMCP or CT RCP?

Relinquished By: [Signature]

Date/Time: 3/23/09 17:30

Received By: [Signature]

Date/Time: 4/25/09 17:35

**PRODUCT IN SAMPLE**

Please print clearly legibly and consistently. Samples can not be logged in and turnaround time clock will not start until any ambiguous are resolved. All samples submitted are subject to Alpha's Terms and Conditions. See reverse side.



## ANALYTICAL REPORT

Lab Number:	L1014827
Client:	Haley & Aldrich, Inc. 465 Medford Street, Suite 2200 Charlestown, MA 02129-1400
ATTN:	Rebecca Higgins
Phone:	(617) 886-7326
Project Name:	100 BINNEY ST.
Project Number:	34250-002
Report Date:	10/01/10

Certifications & Approvals: MA (M-MA086), NY NELAC (11148), CT (PH-0574), NH (2003), NJ (MA935), RI (LAO00065), ME (MA0086), PA (Registration #68-03671), USDA (Permit #S-72578), US Army Corps of Engineers, Naval FESC.

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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:** 100 BINNEY ST.  
**Project Number:** 34250-002

**Lab Number:** L1014827  
**Report Date:** 10/01/10

<b>Alpha Sample ID</b>	<b>Client ID</b>	<b>Sample Location</b>	<b>Collection Date/Time</b>
L1014827-01	HA-B2	Not Specified	09/23/10 14:30
L1014827-02	HA-B2 (FF)	Not Specified	09/23/10 15:00
L1014827-03	TRIP BLANK	Not Specified	09/23/10 00:00

**Project Name:** 100 BINNEY ST.  
**Project Number:** 34250-002

**Lab Number:** L1014827  
**Report Date:** 10/01/10

### Case Narrative

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

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

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

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

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#### Sample Receipt

At the client's request, the Trip Blank was not analyzed.

The Metals element list was specified by the client.

#### Volatile Organics

L1014827-01 was re-analyzed on dilution in order to quantitate the sample within the calibration range. The result should be considered estimated, and is qualified with an E flag, for any compound that exceeded the calibration on the initial analysis. The re-analysis was performed only for the compound that exceeded the calibration range.

The WG434033-3 LCS recovery, associated with L1014827-01, was above the acceptance criteria for Carbon tetrachloride (152%); however, the associated sample was non-detect for this target compound. The results of the original analysis are reported.

**Project Name:** 100 BINNEY ST.  
**Project Number:** 34250-002

**Lab Number:** L1014827  
**Report Date:** 10/01/10

**Case Narrative (continued)**

The WG434033-7 LCS recovery, associated with L1014827-01, was above the acceptance criteria for Carbon tetrachloride (156%); however, the associated sample was non-detect for this target compound. The results of the original analysis are reported.

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

Authorized Signature:  Elizabeth Simmons

Title: Technical Director/Representative

Date: 10/01/10



# ORGANICS

# VOLATILES

Project Name: 100 BINNEY ST.

Lab Number: L1014827

Project Number: 34250-002

Report Date: 10/01/10

## SAMPLE RESULTS

Lab ID: L1014827-01  
 Client ID: HA-B2  
 Sample Location: Not Specified  
 Matrix: Water  
 Analytical Method: 5,624  
 Analytical Date: 09/24/10 13:24  
 Analyst: TT

Date Collected: 09/23/10 14:30  
 Date Received: 09/23/10  
 Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
Methylene chloride	ND		ug/l	5.0	--	1
1,1-Dichloroethane	ND		ug/l	1.5	--	1
Chloroform	ND		ug/l	1.5	--	1
Carbon tetrachloride	ND		ug/l	1.0	--	1
1,2-Dichloropropane	ND		ug/l	3.5	--	1
Dibromochloromethane	ND		ug/l	1.0	--	1
1,1,2-Trichloroethane	ND		ug/l	1.5	--	1
2-Chloroethylvinyl ether	ND		ug/l	10	--	1
Tetrachloroethene	ND		ug/l	1.5	--	1
Chlorobenzene	ND		ug/l	3.5	--	1
Trichlorofluoromethane	ND		ug/l	5.0	--	1
1,2-Dichloroethane	ND		ug/l	1.5	--	1
1,1,1-Trichloroethane	ND		ug/l	2.0	--	1
Bromodichloromethane	ND		ug/l	1.0	--	1
trans-1,3-Dichloropropene	ND		ug/l	1.5	--	1
cis-1,3-Dichloropropene	ND		ug/l	1.5	--	1
Bromoform	ND		ug/l	1.0	--	1
1,1,2,2-Tetrachloroethane	ND		ug/l	1.0	--	1
Benzene	610	E	ug/l	1.0	--	1
Toluene	1.0		ug/l	1.0	--	1
Ethylbenzene	3.4		ug/l	1.0	--	1
Chloromethane	ND		ug/l	10	--	1
Bromomethane	ND		ug/l	5.0	--	1
Vinyl chloride	ND		ug/l	2.0	--	1
Chloroethane	ND		ug/l	2.0	--	1
1,1-Dichloroethene	ND		ug/l	1.0	--	1
trans-1,2-Dichloroethene	ND		ug/l	1.5	--	1
cis-1,2-Dichloroethene	ND		ug/l	1.0	--	1
Trichloroethene	ND		ug/l	1.0	--	1
1,2-Dichlorobenzene	ND		ug/l	5.0	--	1

Project Name: 100 BINNEY ST.

Lab Number: L1014827

Project Number: 34250-002

Report Date: 10/01/10

## SAMPLE RESULTS

Lab ID: L1014827-01

Date Collected: 09/23/10 14:30

Client ID: HA-B2

Date Received: 09/23/10

Sample Location: Not Specified

Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
<b>Volatile Organics by GC/MS - Westborough Lab</b>						
1,3-Dichlorobenzene	ND		ug/l	5.0	--	1
1,4-Dichlorobenzene	ND		ug/l	5.0	--	1
p/m-Xylene	5.5		ug/l	2.0	--	1
o-xylene	11		ug/l	1.0	--	1
Xylene (Total)	16		ug/l	2.0	--	1
Styrene	ND		ug/l	1.0	--	1
Acetone	ND		ug/l	10	--	1
Carbon disulfide	ND		ug/l	5.0	--	1
2-Butanone	ND		ug/l	10	--	1
Vinyl acetate	ND		ug/l	20	--	1
4-Methyl-2-pentanone	ND		ug/l	10	--	1
2-Hexanone	ND		ug/l	10	--	1
Acrolein	ND		ug/l	8.0	--	1
Acrylonitrile	ND		ug/l	10	--	1
Methyl tert butyl ether	ND		ug/l	20	--	1
Dibromomethane	ND		ug/l	1.0	--	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
Pentafluorobenzene	105		80-120
Fluorobenzene	110		80-120
4-Bromofluorobenzene	98		80-120

**Project Name:** 100 BINNEY ST.**Lab Number:** L1014827**Project Number:** 34250-002**Report Date:** 10/01/10**SAMPLE RESULTS**

**Lab ID:** L1014827-01      D  
**Client ID:** HA-B2  
**Sample Location:** Not Specified  
**Matrix:** Water  
**Analytical Method:** 5,624  
**Analytical Date:** 09/27/10 11:32  
**Analyst:** TT

**Date Collected:** 09/23/10 14:30  
**Date Received:** 09/23/10  
**Field Prep:** Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
<b>Volatile Organics by GC/MS - Westborough Lab</b>						
Benzene	610		ug/l	10	--	10

Surrogate	% Recovery	Qualifier	Acceptance Criteria
Pentafluorobenzene	101		80-120
Fluorobenzene	106		80-120
4-Bromofluorobenzene	98		80-120

**Project Name:** 100 BINNEY ST.  
**Project Number:** 34250-002

**Lab Number:** L1014827  
**Report Date:** 10/01/10

**Method Blank Analysis**  
**Batch Quality Control**

Analytical Method: 5,624  
 Analytical Date: 09/24/10 07:30  
 Analyst: TT

Parameter	Result	Qualifier	Units	RL	MDL
Volatile Organics by GC/MS - Westborough Lab for sample(s): 01 Batch: WG434033-4					
Methylene chloride	ND		ug/l	5.0	--
1,1-Dichloroethane	ND		ug/l	1.5	--
Chloroform	ND		ug/l	1.5	--
Carbon tetrachloride	ND		ug/l	1.0	--
1,2-Dichloropropane	ND		ug/l	3.5	--
Dibromochloromethane	ND		ug/l	1.0	--
1,1,2-Trichloroethane	ND		ug/l	1.5	--
2-Chloroethylvinyl ether	ND		ug/l	10	--
Tetrachloroethene	ND		ug/l	1.5	--
Chlorobenzene	ND		ug/l	3.5	--
Trichlorofluoromethane	ND		ug/l	5.0	--
1,2-Dichloroethane	ND		ug/l	1.5	--
1,1,1-Trichloroethane	ND		ug/l	2.0	--
Bromodichloromethane	ND		ug/l	1.0	--
trans-1,3-Dichloropropene	ND		ug/l	1.5	--
cis-1,3-Dichloropropene	ND		ug/l	1.5	--
Bromoform	ND		ug/l	1.0	--
1,1,2,2-Tetrachloroethane	ND		ug/l	1.0	--
Benzene	ND		ug/l	1.0	--
Toluene	ND		ug/l	1.0	--
Ethylbenzene	ND		ug/l	1.0	--
Chloromethane	ND		ug/l	10	--
Bromomethane	ND		ug/l	5.0	--
Vinyl chloride	ND		ug/l	2.0	--
Chloroethane	ND		ug/l	2.0	--
1,1-Dichloroethene	ND		ug/l	1.0	--
trans-1,2-Dichloroethene	ND		ug/l	1.5	--
cis-1,2-Dichloroethene	ND		ug/l	1.0	--
Trichloroethene	ND		ug/l	1.0	--
1,2-Dichlorobenzene	ND		ug/l	5.0	--
1,3-Dichlorobenzene	ND		ug/l	5.0	--



**Project Name:** 100 BINNEY ST.  
**Project Number:** 34250-002

**Lab Number:** L1014827  
**Report Date:** 10/01/10

**Method Blank Analysis  
Batch Quality Control**

Analytical Method: 5,624  
Analytical Date: 09/24/10 07:30  
Analyst: TT

Parameter	Result	Qualifier	Units	RL	MDL
Volatile Organics by GC/MS - Westborough Lab for sample(s): 01 Batch: WG434033-4					
1,4-Dichlorobenzene	ND		ug/l	5.0	--
p/m-Xylene	ND		ug/l	2.0	--
o-xylene	ND		ug/l	1.0	--
Xylene (Total)	ND		ug/l	2.0	--
Styrene	ND		ug/l	1.0	--
Acetone	ND		ug/l	10	--
Carbon disulfide	ND		ug/l	5.0	--
2-Butanone	ND		ug/l	10	--
Vinyl acetate	ND		ug/l	20	--
4-Methyl-2-pentanone	ND		ug/l	10	--
2-Hexanone	ND		ug/l	10	--
Acrolein	ND		ug/l	8.0	--
Acrylonitrile	ND		ug/l	10	--
Methyl tert butyl ether	ND		ug/l	20	--
Dibromomethane	ND		ug/l	1.0	--
1,4-Dioxane	ND		ug/l	2000	--
Tert-Butyl Alcohol	ND		ug/l	100	--
Tertiary-Amyl Methyl Ether	ND		ug/l	20	--

Surrogate	%Recovery	Qualifier	Acceptance Criteria
Pentafluorobenzene	104		80-120
Fluorobenzene	103		80-120
4-Bromofluorobenzene	99		80-120

**Project Name:** 100 BINNEY ST.  
**Project Number:** 34250-002

**Lab Number:** L1014827  
**Report Date:** 10/01/10

**Method Blank Analysis**  
**Batch Quality Control**

Analytical Method: 5,624  
Analytical Date: 09/27/10 07:27  
Analyst: TT

Parameter	Result	Qualifier	Units	RL	MDL
Volatile Organics by GC/MS - Westborough Lab for sample(s): 01 Batch: WG434033-8					
Methylene chloride	ND		ug/l	5.0	--
1,1-Dichloroethane	ND		ug/l	1.5	--
Chloroform	ND		ug/l	1.5	--
Carbon tetrachloride	ND		ug/l	1.0	--
1,2-Dichloropropane	ND		ug/l	3.5	--
Dibromochloromethane	ND		ug/l	1.0	--
1,1,2-Trichloroethane	ND		ug/l	1.5	--
2-Chloroethylvinyl ether	ND		ug/l	10	--
Tetrachloroethene	ND		ug/l	1.5	--
Chlorobenzene	ND		ug/l	3.5	--
Trichlorofluoromethane	ND		ug/l	5.0	--
1,2-Dichloroethane	ND		ug/l	1.5	--
1,1,1-Trichloroethane	ND		ug/l	2.0	--
Bromodichloromethane	ND		ug/l	1.0	--
trans-1,3-Dichloropropene	ND		ug/l	1.5	--
cis-1,3-Dichloropropene	ND		ug/l	1.5	--
Bromoform	ND		ug/l	1.0	--
1,1,2,2-Tetrachloroethane	ND		ug/l	1.0	--
Benzene	ND		ug/l	1.0	--
Toluene	ND		ug/l	1.0	--
Ethylbenzene	ND		ug/l	1.0	--
Chloromethane	ND		ug/l	10	--
Bromomethane	ND		ug/l	5.0	--
Vinyl chloride	ND		ug/l	2.0	--
Chloroethane	ND		ug/l	2.0	--
1,1-Dichloroethene	ND		ug/l	1.0	--
trans-1,2-Dichloroethene	ND		ug/l	1.5	--
cis-1,2-Dichloroethene	ND		ug/l	1.0	--
Trichloroethene	ND		ug/l	1.0	--
1,2-Dichlorobenzene	ND		ug/l	5.0	--
1,3-Dichlorobenzene	ND		ug/l	5.0	--





**Project Name:** 100 BINNEY ST.  
**Project Number:** 34250-002

**Lab Number:** L1014827  
**Report Date:** 10/01/10

**Method Blank Analysis**  
**Batch Quality Control**

Analytical Method: 5,624  
Analytical Date: 09/27/10 07:27  
Analyst: TT

Parameter	Result	Qualifier	Units	RL	MDL
Volatile Organics by GC/MS - Westborough Lab for sample(s): 01 Batch: WG434033-8					
1,4-Dichlorobenzene	ND		ug/l	5.0	--
p/m-Xylene	ND		ug/l	2.0	--
o-xylene	ND		ug/l	1.0	--
Xylene (Total)	ND		ug/l	2.0	--
Styrene	ND		ug/l	1.0	--
Acetone	ND		ug/l	10	--
Carbon disulfide	ND		ug/l	5.0	--
2-Butanone	ND		ug/l	10	--
Vinyl acetate	ND		ug/l	20	--
4-Methyl-2-pentanone	ND		ug/l	10	--
2-Hexanone	ND		ug/l	10	--
Acrolein	ND		ug/l	8.0	--
Acrylonitrile	ND		ug/l	10	--
Methyl tert butyl ether	ND		ug/l	20	--
Dibromomethane	ND		ug/l	1.0	--
1,4-Dioxane	ND		ug/l	2000	--
Tert-Butyl Alcohol	ND		ug/l	100	--
Tertiary-Amyl Methyl Ether	ND		ug/l	20	--

Surrogate	%Recovery	Qualifier	Acceptance Criteria
Pentafluorobenzene	105		80-120
Fluorobenzene	103		80-120
4-Bromofluorobenzene	100		80-120

## Lab Control Sample Analysis

### Batch Quality Control

Project Name: 100 BINNEY ST.

Lab Number: L1014827

Project Number: 34250-002

Report Date: 10/01/10

Parameter	LCS		LCSD		%Recovery Limits	RPD	Qual	RPD Limits
	%Recovery	Qual	%Recovery	Qual				
Volatile Organics by GC/MS - Westborough Lab Associated sample(s): 01 Batch: WG434033-3								
Methylene chloride	65		-		1-221	-		30
1,1-Dichloroethane	121		-		59-155	-		30
Chloroform	126		-		51-138	-		30
Carbon tetrachloride	152	Q	-		70-140	-		30
1,2-Dichloropropane	113		-		1-210	-		30
Dibromochloromethane	116		-		53-149	-		30
1,1,2-Trichloroethane	103		-		52-150	-		30
2-Chloroethylvinyl ether	106		-		1-305	-		30
Tetrachloroethene	118		-		64-148	-		30
Chlorobenzene	93		-		37-160	-		30
Trichlorofluoromethane	71		-		17-181	-		30
1,2-Dichloroethane	137		-		49-155	-		30
1,1,1-Trichloroethane	138		-		52-162	-		30
Bromodichloromethane	124		-		35-155	-		30
trans-1,3-Dichloropropene	128		-		17-183	-		30
cis-1,3-Dichloropropene	114		-		1-227	-		30
Bromoform	97		-		45-169	-		30
1,1,2,2-Tetrachloroethane	86		-		46-157	-		30
Benzene	105		-		37-151	-		30
Toluene	104		-		47-150	-		30
Ethylbenzene	100		-		37-162	-		30

## Lab Control Sample Analysis

### Batch Quality Control

Project Name: 100 BINNEY ST.

Lab Number: L1014827

Project Number: 34250-002

Report Date: 10/01/10

Parameter	LCS		LCSD		%Recovery Limits	RPD	Qual	RPD Limits
	%Recovery	Qual	%Recovery	Qual				
Volatile Organics by GC/MS - Westborough Lab Associated sample(s): 01 Batch: WG434033-3								
Chloromethane	107		-		1-273	-		30
Bromomethane	90		-		1-242	-		30
Vinyl chloride	80		-		1-251	-		30
Chloroethane	81		-		14-230	-		30
1,1-Dichloroethene	76		-		1-234	-		30
trans-1,2-Dichloroethene	120		-		54-156	-		30
cis-1,2-Dichloroethene	110		-		60-140	-		30
Trichloroethene	112		-		71-157	-		30
1,2-Dichlorobenzene	98		-		18-190	-		30
1,3-Dichlorobenzene	97		-		59-156	-		30
1,4-Dichlorobenzene	97		-		18-190	-		30
p/m-Xylene	85		-		40-160	-		30
o-Xylene	85		-		40-160	-		30
XYLENE (TOTAL)	85		-		40-160	-		30
Styrene	83		-		40-160	-		30
Acetone	70		-		40-160	-		30
Carbon disulfide	72		-		40-160	-		30
2-Butanone	100		-		40-160	-		30
Vinyl acetate	124		-		40-160	-		30
4-Methyl-2-pentanone	94		-		40-160	-		30
2-Hexanone	97		-		40-160	-		30

## Lab Control Sample Analysis

### Batch Quality Control

Project Name: 100 BINNEY ST.

Lab Number: L1014827

Project Number: 34250-002

Report Date: 10/01/10

Parameter	LCS		LCSD		%Recovery Limits	RPD	Qual	RPD Limits
	%Recovery	Qual	%Recovery	Qual				
Volatile Organics by GC/MS - Westborough Lab Associated sample(s): 01 Batch: WG434033-3								
Acrolein	56		-		40-160	-		30
Acrylonitrile	92		-		40-160	-		30
Dibromomethane	109		-		70-130	-		30

Surrogate	LCS		LCSD		Acceptance Criteria
	%Recovery	Qual	%Recovery	Qual	
Pentafluorobenzene	107				80-120
Fluorobenzene	103				80-120
4-Bromofluorobenzene	99				80-120

Volatile Organics by GC/MS - Westborough Lab Associated sample(s): 01 Batch: WG434033-7								
Methylene chloride	78		-		1-221	-		30
1,1-Dichloroethane	125		-		59-155	-		30
Chloroform	126		-		51-138	-		30
Carbon tetrachloride	156	Q	-		70-140	-		30
1,2-Dichloropropane	114		-		1-210	-		30
Dibromochloromethane	120		-		53-149	-		30
1,1,2-Trichloroethane	106		-		52-150	-		30
2-Chloroethylvinyl ether	112		-		1-305	-		30
Tetrachloroethene	122		-		64-148	-		30

## Lab Control Sample Analysis

### Batch Quality Control

Project Name: 100 BINNEY ST.

Lab Number: L1014827

Project Number: 34250-002

Report Date: 10/01/10

Parameter	LCS		LCSD		%Recovery Limits	RPD	Qual	RPD Limits
	%Recovery	Qual	%Recovery	Qual				
Volatile Organics by GC/MS - Westborough Lab Associated sample(s): 01 Batch: WG434033-7								
Chlorobenzene	95		-		37-160	-		30
Trichlorofluoromethane	85		-		17-181	-		30
1,2-Dichloroethane	134		-		49-155	-		30
1,1,1-Trichloroethane	144		-		52-162	-		30
Bromodichloromethane	128		-		35-155	-		30
trans-1,3-Dichloropropene	137		-		17-183	-		30
cis-1,3-Dichloropropene	123		-		1-227	-		30
Bromoform	102		-		45-169	-		30
1,1,2,2-Tetrachloroethane	87		-		46-157	-		30
Benzene	105		-		37-151	-		30
Toluene	106		-		47-150	-		30
Ethylbenzene	101		-		37-162	-		30
Chloromethane	131		-		1-273	-		30
Bromomethane	92		-		1-242	-		30
Vinyl chloride	80		-		1-251	-		30
Chloroethane	78		-		14-230	-		30
1,1-Dichloroethene	76		-		1-234	-		30
trans-1,2-Dichloroethene	122		-		54-156	-		30
cis-1,2-Dichloroethene	110		-		60-140	-		30
Trichloroethene	113		-		71-157	-		30
1,2-Dichlorobenzene	98		-		18-190	-		30

## Lab Control Sample Analysis

Batch Quality Control

**Project Name:** 100 BINNEY ST.  
**Project Number:** 34250-002

**Lab Number:** L1014827  
**Report Date:** 10/01/10

Parameter	LCS		LCSD		%Recovery Limits	RPD	Qual	RPD Limits
	%Recovery	Qual	%Recovery	Qual				
Volatile Organics by GC/MS - Westborough Lab Associated sample(s): 01 Batch: WG434033-7								
1,3-Dichlorobenzene	98		-		59-156	-		30
1,4-Dichlorobenzene	99		-		18-190	-		30
p/m-Xylene	85		-		40-160	-		30
o-Xylene	87		-		40-160	-		30
XYLENE (TOTAL)	86		-		40-160	-		30
Styrene	85		-		40-160	-		30
Acetone	84		-		40-160	-		30
Carbon disulfide	86		-		40-160	-		30
2-Butanone	120		-		40-160	-		30
Vinyl acetate	131		-		40-160	-		30
4-Methyl-2-pentanone	108		-		40-160	-		30
2-Hexanone	113		-		40-160	-		30
Acrolein	60		-		40-160	-		30
Acrylonitrile	108		-		40-160	-		30
Dibromomethane	105		-		70-130	-		30

Surrogate	LCS		LCSD		Acceptance Criteria
	%Recovery	Qual	%Recovery	Qual	
Pentafluorobenzene	108				80-120
Fluorobenzene	104				80-120
4-Bromofluorobenzene	97				80-120



## Matrix Spike Analysis

### Batch Quality Control

Project Name: 100 BINNEY ST.

Lab Number: L1014827

Project Number: 34250-002

Report Date: 10/01/10

Parameter	Native Sample	MS Added	MS Found	MS %Recovery	Qual	MSD Found	MSD %Recovery	Qual	Recovery Limits	RPD	Qual	RPD Limits
Volatile Organics by GC/MS - Westborough Lab Associated sample(s): 01 QC Batch ID: WG434033-5 QC Sample: L1014752-01 Client ID: MS Sample												
Methylene chloride	ND	200	140	71		-	-		1-221	-		30
1,1-Dichloroethane	ND	200	250	127		-	-		59-155	-		30
Chloroform	ND	200	270	133		-	-		51-138	-		30
Carbon tetrachloride	ND	200	340	169	Q	-	-		70-140	-		30
1,2-Dichloropropane	ND	200	230	117		-	-		1-210	-		30
Dibromochloromethane	ND	200	250	126		-	-		53-149	-		30
1,1,2-Trichloroethane	ND	200	220	112		-	-		52-150	-		30
2-Chloroethylvinyl ether	ND	200	220	109		-	-		1-305	-		30
Tetrachloroethene	ND	200	250	126		-	-		64-148	-		30
Chlorobenzene	ND	200	180	92		-	-		37-160	-		30
Trichlorofluoromethane	ND	200	190	94		-	-		17-181	-		30
1,2-Dichloroethane	ND	200	280	143		-	-		49-155	-		30
1,1,1-Trichloroethane	ND	200	300	151		-	-		52-162	-		30
Bromodichloromethane	ND	200	270	133		-	-		35-155	-		30
trans-1,3-Dichloropropene	ND	200	280	140		-	-		17-183	-		30
cis-1,3-Dichloropropene	ND	200	250	123		-	-		1-227	-		30
Bromoform	ND	200	200	102		-	-		45-169	-		30
1,1,1,2-Tetrachloroethane	ND	200	180	89		-	-		46-157	-		30
Benzene	ND	200	220	110		-	-		35-151	-		30
Toluene	ND	200	220	110		-	-		47-150	-		30
Ethylbenzene	ND	200	200	100		-	-		37-162	-		30

## Matrix Spike Analysis

Batch Quality Control

Project Name: 100 BINNEY ST.

Lab Number: L1014827

Project Number: 34250-002

Report Date: 10/01/10

Parameter	Native Sample	MS Added	MS Found	MS %Recovery	Qual	MSD Found	MSD %Recovery	Qual	Recovery Limits	RPD	Qual	RPD Limits
Volatile Organics by GC/MS - Westborough Lab Associated sample(s): 01 QC Batch ID: WG434033-5 QC Sample: L1014752-01 Client ID: MS Sample												
Chloromethane	ND	200	210	107		-	-		1-273	-		30
Bromomethane	ND	200	150	75		-	-		1-242	-		30
Vinyl chloride	ND	200	170	85		-	-		1-251	-		30
Chloroethane	ND	200	170	83		-	-		14-230	-		30
1,1-Dichloroethene	ND	200	170	84		-	-		1-234	-		30
trans-1,2-Dichloroethene	ND	200	260	128		-	-		54-156	-		30
cis-1,2-Dichloroethene	ND	200	230	113		-	-		60-140	-		30
Trichloroethene	ND	200	230	115		-	-		71-157	-		30
1,2-Dichlorobenzene	ND	200	190	96		-	-		18-190	-		30
1,3-Dichlorobenzene	ND	200	190	94		-	-		59-156	-		30
1,4-Dichlorobenzene	ND	200	190	96		-	-		18-190	-		30
p/m-Xylene	ND	400	340	84		-	-		40-160	-		30
o-Xylene	ND	200	170	84		-	-		40-160	-		30
XYLENE (TOTAL)	ND	600	500	84		-	-		40-160	-		30
Styrene	ND	200	170	83		-	-		40-160	-		30
Acetone	ND	500	390	77		-	-		40-160	-		30
Carbon disulfide	ND	200	160	82		-	-		40-160	-		30
2-Butanone	ND	500	550	109		-	-		40-160	-		30
Vinyl acetate	ND	400	520	131		-	-		40-160	-		30
4-Methyl-2-pentanone	ND	500	510	103		-	-		40-160	-		30
2-Hexanone	ND	500	530	105		-	-		40-160	-		30



## Matrix Spike Analysis

Batch Quality Control

Project Name: 100 BINNEY ST.

Lab Number: L1014827

Project Number: 34250-002

Report Date: 10/01/10

Parameter	Native Sample	MS Added	MS Found	MS %Recovery	Qual	MSD Found	MSD %Recovery	Qual	Recovery Limits	RPD	Qual	RPD Limits
Volatile Organics by GC/MS - Westborough Lab Associated sample(s): 01 QC Batch ID: WG434033-5 QC Sample: L1014752-01 Client ID: MS Sample												
Acrolein	ND	400	220	56		-	-		40-160	-		30
Acrylonitrile	ND	400	360	91		-	-		40-160	-		30
Dibromomethane	ND	200	210	104		-	-			-		30

Surrogate	MS % Recovery	MS Qualifier	MSD % Recovery	MSD Qualifier	Acceptance Criteria
4-Bromofluorobenzene	93				80-120
Fluorobenzene	101				80-120
Pentafluorobenzene	104				80-120

## Lab Duplicate Analysis

Batch Quality Control

Project Name: 100 BINNEY ST.

Project Number: 34250-002

Lab Number: L1014827

Report Date: 10/01/10

Parameter	Native Sample	Duplicate Sample	Units	RPD	Qual	RPD Limits
Volatile Organics by GC/MS - Westborough Lab Associated sample(s): 01 QC Batch ID: WG434033-6 QC Sample: L1014752-01 Client ID: DUP Sample						
Methylene chloride	ND	ND	ug/l	NC		30
1,1-Dichloroethane	ND	ND	ug/l	NC		30
Chloroform	ND	ND	ug/l	NC		30
Carbon tetrachloride	ND	ND	ug/l	NC		30
1,2-Dichloropropane	ND	ND	ug/l	NC		30
Dibromochloromethane	ND	ND	ug/l	NC		30
1,1,2-Trichloroethane	ND	ND	ug/l	NC		30
2-Chloroethylvinyl ether	ND	ND	ug/l	NC		30
Tetrachloroethene	ND	ND	ug/l	NC		30
Chlorobenzene	ND	ND	ug/l	NC		30
Trichlorofluoromethane	ND	ND	ug/l	NC		30
1,2-Dichloroethane	ND	ND	ug/l	NC		30
1,1,1-Trichloroethane	ND	ND	ug/l	NC		30
Bromodichloromethane	ND	ND	ug/l	NC		30
trans-1,3-Dichloropropene	ND	ND	ug/l	NC		30
cis-1,3-Dichloropropene	ND	ND	ug/l	NC		30
Bromoform	ND	ND	ug/l	NC		30
1,1,2,2-Tetrachloroethane	ND	ND	ug/l	NC		30
Benzene	ND	ND	ug/l	NC		30

## Lab Duplicate Analysis

Batch Quality Control

Project Name: 100 BINNEY ST.

Project Number: 34250-002

Lab Number: L1014827

Report Date: 10/01/10

Parameter	Native Sample	Duplicate Sample	Units	RPD	RPD Limits
Volatile Organics by GC/MS - Westborough Lab Associated sample(s): 01 QC Batch ID: WG434033-6 QC Sample: L1014752-01 Client ID: DUP Sample					
Toluene	ND	ND	ug/l	NC	30
Ethylbenzene	ND	ND	ug/l	NC	30
Chloromethane	ND	ND	ug/l	NC	30
Bromomethane	ND	ND	ug/l	NC	30
Vinyl chloride	ND	ND	ug/l	NC	30
Chloroethane	ND	ND	ug/l	NC	30
1,1-Dichloroethene	ND	ND	ug/l	NC	30
trans-1,2-Dichloroethene	ND	ND	ug/l	NC	30
cis-1,2-Dichloroethene	ND	ND	ug/l	NC	30
Trichloroethene	ND	ND	ug/l	NC	30
1,2-Dichlorobenzene	ND	ND	ug/l	NC	30
1,3-Dichlorobenzene	ND	ND	ug/l	NC	30
1,4-Dichlorobenzene	ND	ND	ug/l	NC	30
p/m-Xylene	ND	ND	ug/l	NC	30
o-xylene	ND	ND	ug/l	NC	30
Xylene (Total)	ND	ND	ug/l	NC	30
Styrene	ND	ND	ug/l	NC	30
Acetone	ND	ND	ug/l	NC	30
Carbon disulfide	ND	ND	ug/l	NC	30

## Lab Duplicate Analysis

Batch Quality Control

Project Name: 100 BINNEY ST.

Project Number: 34250-002

Lab Number: L1014827

Report Date: 10/01/10

Parameter	Native Sample	Duplicate Sample	Units	RPD	RPD Limits
Volatile Organics by GC/MS - Westborough Lab Associated sample(s): 01 QC Batch ID: WG434033-6 QC Sample: L1014752-01 Client ID: DUP Sample					
2-Butanone	ND	ND	ug/l	NC	30
Vinyl acetate	ND	ND	ug/l	NC	30
4-Methyl-2-pentanone	ND	ND	ug/l	NC	30
2-Hexanone	ND	ND	ug/l	NC	30
Acrolein	ND	ND	ug/l	NC	30
Acrylonitrile	ND	ND	ug/l	NC	30
Dibromomethane	ND	ND	ug/l	NC	30

Surrogate	%Recovery	Qualifier	%Recovery	Qualifier	Acceptance Criteria
Pentafluorobenzene	103		103		80-120
Fluorobenzene	103		102		80-120
4-Bromofluorobenzene	100		99		80-120

# SEMIVOLATILES

Project Name: 100 BINNEY ST.

Lab Number: L1014827

Project Number: 34250-002

Report Date: 10/01/10

## SAMPLE RESULTS

Lab ID: L1014827-01  
 Client ID: HA-B2  
 Sample Location: Not Specified  
 Matrix: Water  
 Analytical Method: 5,625  
 Analytical Date: 10/01/10 10:28  
 Analyst: JB

Date Collected: 09/23/10 14:30  
 Date Received: 09/23/10  
 Field Prep: Not Specified  
 Extraction Method: EPA 625  
 Extraction Date: 09/25/10 02:45

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
<b>Semivolatile Organics by GC/MS - Westborough Lab</b>						
Acenaphthene	36		ug/l	5.0	--	1
Benzidine	ND		ug/l	50	--	1
1,2,4-Trichlorobenzene	ND		ug/l	5.0	--	1
Hexachlorobenzene	ND		ug/l	5.0	--	1
Bis(2-chloroethyl)ether	ND		ug/l	5.0	--	1
2-Chloronaphthalene	ND		ug/l	6.0	--	1
3,3'-Dichlorobenzidine	ND		ug/l	50	--	1
2,4-Dinitrotoluene	ND		ug/l	6.0	--	1
2,6-Dinitrotoluene	ND		ug/l	5.0	--	1
Azobenzene	ND		ug/l	5.0	--	1
Fluoranthene	ND		ug/l	5.0	--	1
4-Chlorophenyl phenyl ether	ND		ug/l	5.0	--	1
4-Bromophenyl phenyl ether	ND		ug/l	5.0	--	1
Bis(2-chloroisopropyl)ether	ND		ug/l	5.0	--	1
Bis(2-chloroethoxy)methane	ND		ug/l	5.0	--	1
Hexachlorobutadiene	ND		ug/l	10	--	1
Hexachlorocyclopentadiene	ND		ug/l	30	--	1
Hexachloroethane	ND		ug/l	5.0	--	1
Isophorone	ND		ug/l	5.0	--	1
Naphthalene	6.4		ug/l	5.0	--	1
Nitrobenzene	ND		ug/l	5.0	--	1
NDPA/DPA	ND		ug/l	15	--	1
n-Nitrosodi-n-propylamine	ND		ug/l	5.0	--	1
Bis(2-ethylhexyl)phthalate	ND		ug/l	5.0	--	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
Benzo(a)anthracene	ND		ug/l	5.0	--	1

Project Name: 100 BINNEY ST.

Lab Number: L1014827

Project Number: 34250-002

Report Date: 10/01/10

## SAMPLE RESULTS

Lab ID: L1014827-01

Date Collected: 09/23/10 14:30

Client ID: HA-B2

Date Received: 09/23/10

Sample Location: Not Specified

Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Semivolatile Organics by GC/MS - Westborough Lab						
Benzo(a)pyrene	ND		ug/l	5.0	--	1
Benzo(b)fluoranthene	ND		ug/l	5.0	--	1
Benzo(k)fluoranthene	ND		ug/l	5.0	--	1
Chrysene	ND		ug/l	5.0	--	1
Acenaphthylene	ND		ug/l	5.0	--	1
Anthracene	ND		ug/l	5.0	--	1
Benzo(ghi)perylene	ND		ug/l	5.0	--	1
Fluorene	7.4		ug/l	5.0	--	1
Phenanthrene	ND		ug/l	5.0	--	1
Dibenzo(a,h)anthracene	ND		ug/l	5.0	--	1
Indeno(1,2,3-cd)pyrene	ND		ug/l	7.0	--	1
Pyrene	ND		ug/l	5.0	--	1
Aniline	ND		ug/l	20	--	1
4-Chloroaniline	ND		ug/l	5.0	--	1
1-Methylnaphthalene	47		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	7.0	--	1
Dibenzofuran	ND		ug/l	5.0	--	1
2-Methylnaphthalene	ND		ug/l	5.0	--	1
n-Nitrosodimethylamine	ND		ug/l	50	--	1
2,4,6-Trichlorophenol	ND		ug/l	5.0	--	1
p-Chloro-m-cresol	ND		ug/l	5.0	--	1
2-Chlorophenol	ND		ug/l	6.0	--	1
2,4-Dichlorophenol	ND		ug/l	10	--	1
2,4-Dimethylphenol	ND		ug/l	10	--	1
2-Nitrophenol	ND		ug/l	20	--	1
4-Nitrophenol	ND		ug/l	10	--	1
2,4-Dinitrophenol	ND		ug/l	30	--	1
4,6-Dinitro-o-cresol	ND		ug/l	20	--	1
Pentachlorophenol	ND		ug/l	10	--	1
Phenol	ND		ug/l	7.0	--	1
2-Methylphenol	ND		ug/l	6.0	--	1
3-Methylphenol/4-Methylphenol	ND		ug/l	6.0	--	1
2,4,5-Trichlorophenol	ND		ug/l	5.0	--	1
Benzoic Acid	ND		ug/l	50	--	1
Benzyl Alcohol	ND		ug/l	10	--	1



Project Name: 100 BINNEY ST.

Lab Number: L1014827

Project Number: 34250-002

Report Date: 10/01/10

## SAMPLE RESULTS

Lab ID: L1014827-01

Date Collected: 09/23/10 14:30

Client ID: HA-B2

Date Received: 09/23/10

Sample Location: Not Specified

Field Prep: Not Specified

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

Surrogate	% Recovery	Qualifier	Acceptance Criteria
2-Fluorophenol	48		21-120
Phenol-d6	37		10-120
Nitrobenzene-d5	65		23-120
2-Fluorobiphenyl	67		15-120
2,4,6-Tribromophenol	108		10-120
4-Terphenyl-d14	100		33-120



**Project Name:** 100 BINNEY ST.  
**Project Number:** 34250-002

**Lab Number:** L1014827  
**Report Date:** 10/01/10

**Method Blank Analysis**  
**Batch Quality Control**

**Analytical Method:** 5,625  
**Analytical Date:** 09/29/10 13:39  
**Analyst:** JB

**Extraction Method:** EPA 625  
**Extraction Date:** 09/25/10 02:45

Parameter	Result	Qualifier	Units	RL	MDL
Semivolatile Organics by GC/MS - Westborough Lab for sample(s): 01 Batch: WG434227-1					
Acenaphthene	ND		ug/l	5.0	--
Benzidine	ND		ug/l	50	--
1,2,4-Trichlorobenzene	ND		ug/l	5.0	--
Hexachlorobenzene	ND		ug/l	5.0	--
Bis(2-chloroethyl)ether	ND		ug/l	5.0	--
2-Chloronaphthalene	ND		ug/l	6.0	--
3,3'-Dichlorobenzidine	ND		ug/l	50	--
2,4-Dinitrotoluene	ND		ug/l	6.0	--
2,6-Dinitrotoluene	ND		ug/l	5.0	--
Azobenzene	ND		ug/l	5.0	--
Fluoranthene	ND		ug/l	5.0	--
4-Chlorophenyl phenyl ether	ND		ug/l	5.0	--
4-Bromophenyl phenyl ether	ND		ug/l	5.0	--
Bis(2-chloroisopropyl)ether	ND		ug/l	5.0	--
Bis(2-chloroethoxy)methane	ND		ug/l	5.0	--
Hexachlorobutadiene	ND		ug/l	10	--
Hexachlorocyclopentadiene	ND		ug/l	30	--
Hexachloroethane	ND		ug/l	5.0	--
Isophorone	ND		ug/l	5.0	--
Naphthalene	ND		ug/l	5.0	--
Nitrobenzene	ND		ug/l	5.0	--
NDPA/DPA	ND		ug/l	15	--
n-Nitrosodi-n-propylamine	ND		ug/l	5.0	--
Bis(2-ethylhexyl)phthalate	ND		ug/l	5.0	--
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	--
Benzo(a)anthracene	ND		ug/l	5.0	--
Benzo(a)pyrene	ND		ug/l	5.0	--



**Project Name:** 100 BINNEY ST.  
**Project Number:** 34250-002

**Lab Number:** L1014827  
**Report Date:** 10/01/10

**Method Blank Analysis**  
**Batch Quality Control**

**Analytical Method:** 5,625  
**Analytical Date:** 09/29/10 13:39  
**Analyst:** JB

**Extraction Method:** EPA 625  
**Extraction Date:** 09/25/10 02:45

Parameter	Result	Qualifier	Units	RL	MDL
Semivolatile Organics by GC/MS - Westborough Lab for sample(s): 01 Batch: WG434227-1					
Benzo(b)fluoranthene	ND		ug/l	5.0	--
Benzo(k)fluoranthene	ND		ug/l	5.0	--
Chrysene	ND		ug/l	5.0	--
Acenaphthylene	ND		ug/l	5.0	--
Anthracene	ND		ug/l	5.0	--
Benzo(ghi)perylene	ND		ug/l	5.0	--
Fluorene	ND		ug/l	5.0	--
Phenanthrene	ND		ug/l	5.0	--
Dibenzo(a,h)anthracene	ND		ug/l	5.0	--
Indeno(1,2,3-cd)pyrene	ND		ug/l	7.0	--
Pyrene	ND		ug/l	5.0	--
Aniline	ND		ug/l	20	--
4-Chloroaniline	ND		ug/l	5.0	--
1-Methylnaphthalene	ND		ug/l	5.0	--
2-Nitroaniline	ND		ug/l	5.0	--
3-Nitroaniline	ND		ug/l	5.0	--
4-Nitroaniline	ND		ug/l	7.0	--
Dibenzofuran	ND		ug/l	5.0	--
2-Methylnaphthalene	ND		ug/l	5.0	--
n-Nitrosodimethylamine	ND		ug/l	50	--
2,4,6-Trichlorophenol	ND		ug/l	5.0	--
p-Chloro-m-cresol	ND		ug/l	5.0	--
2-Chlorophenol	ND		ug/l	6.0	--
2,4-Dichlorophenol	ND		ug/l	10	--
2,4-Dimethylphenol	ND		ug/l	10	--
2-Nitrophenol	ND		ug/l	20	--
4-Nitrophenol	ND		ug/l	10	--
2,4-Dinitrophenol	ND		ug/l	30	--
4,6-Dinitro-o-cresol	ND		ug/l	20	--
Pentachlorophenol	ND		ug/l	10	--
Phenol	ND		ug/l	7.0	--



**Project Name:** 100 BINNEY ST.  
**Project Number:** 34250-002

**Lab Number:** L1014827  
**Report Date:** 10/01/10

**Method Blank Analysis**  
**Batch Quality Control**

**Analytical Method:** 5,625  
**Analytical Date:** 09/29/10 13:39  
**Analyst:** JB

**Extraction Method:** EPA 625  
**Extraction Date:** 09/25/10 02:45

Parameter	Result	Qualifier	Units	RL	MDL
Semivolatile Organics by GC/MS - Westborough Lab for sample(s): 01 Batch: WG434227-1					
2-Methylphenol	ND		ug/l	6.0	--
3-Methylphenol/4-Methylphenol	ND		ug/l	6.0	--
2,4,5-Trichlorophenol	ND		ug/l	5.0	--
Benzoic Acid	ND		ug/l	50	--
Benzyl Alcohol	ND		ug/l	10	--
Carbazole	ND		ug/l	5.0	--

Surrogate	%Recovery	Qualifier	Acceptance Criteria
2-Fluorophenol	77		21-120
Phenol-d6	55		10-120
Nitrobenzene-d5	100		23-120
2-Fluorobiphenyl	94		15-120
2,4,6-Tribromophenol	84		10-120
4-Terphenyl-d14	95		33-120

## Lab Control Sample Analysis

### Batch Quality Control

Project Name: 100 BINNEY ST.

Project Number: 34250-002

Lab Number: L1014827

Report Date: 10/01/10

Parameter	LCS		LCSD		%Recovery Limits	RPD	Qual	RPD Limits
	%Recovery	Qual	%Recovery	Qual				
Semivolatile Organics by GC/MS - Westborough Lab Associated sample(s): 01 Batch: WG434227-2								
Acenaphthene	78		-		46-118	-		30
1,2,4-Trichlorobenzene	63		-		39-98	-		30
2-Chloronaphthalene	82		-		40-140	-		30
2,4-Dinitrotoluene	94		-		24-96	-		30
2,6-Dinitrotoluene	84		-		40-140	-		30
Fluoranthene	95		-		40-140	-		30
4-Chlorophenyl phenyl ether	85		-		40-140	-		30
n-Nitrosodi-n-propylamine	72		-		41-116	-		30
Butyl benzyl phthalate	100		-		40-140	-		30
Anthracene	89		-		40-140	-		30
Pyrene	89		-		26-127	-		30
P-Chloro-M-Cresol	88		-		23-97	-		30
2-Chlorophenol	71		-		27-123	-		30
2-Nitrophenol	73		-		30-130	-		30
4-Nitrophenol	52		-		10-80	-		30
2,4-Dinitrophenol	39		-		20-130	-		30
Pentachlorophenol	70		-		9-103	-		30
Phenol	45		-		12-110	-		30

## Lab Control Sample Analysis

Batch Quality Control

**Project Name:** 100 BINNEY ST.  
**Project Number:** 34250-002

**Lab Number:** L1014827  
**Report Date:** 10/01/10

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
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Semivolatile Organics by GC/MS - Westborough Lab Associated sample(s): 01 Batch: WG434227-2

Surrogate	LCS %Recovery	Qual	LCSD %Recovery	Qual	Acceptance Criteria
2-Fluorophenol	58				21-120
Phenol-d6	44				10-120
Nitrobenzene-d5	76				23-120
2-Fluorobiphenyl	72				15-120
2,4,6-Tribromophenol	85				10-120
4-Terphenyl-d14	85				33-120

## Matrix Spike Analysis

### Batch Quality Control

Project Name: 100 BINNEY ST.

Lab Number: L1014827

Project Number: 34250-002

Report Date: 10/01/10

Parameter	Native Sample	MS Added	MS Found	MS %Recovery	Qual	MSD Found	MSD %Recovery	Qual	Recovery Limits	RPD	Qual	RPD Limits
Semivolatile Organics by GC/MS - Westborough Lab Associated sample(s): 01 QC Batch ID: WG434227-3 QC Sample: L1014655-01 Client ID: MS Sample												
Acenaphthene	ND	80	68	85		-	-		46-118	-		30
1,2,4-Trichlorobenzene	ND	80	54	68		-	-		39-98	-		30
2-Chloronaphthalene	ND	80	72	90		-	-		40-140	-		30
2,4-Dinitrotoluene	ND	80	80	100	Q	-	-		24-96	-		30
2,6-Dinitrotoluene	ND	80	70	88		-	-		40-140	-		30
Fluoranthene	ND	80	81	100		-	-		40-140	-		30
4-Chlorophenyl phenyl ether	ND	80	74	93		-	-		40-140	-		30
n-Nitrosodi-n-propylamine	ND	80	66	83		-	-		41-116	-		30
Butyl benzyl phthalate	ND	80	87	110		-	-		40-140	-		30
Anthracene	ND	80	78	98		-	-		40-140	-		30
Pyrene	ND	80	77	96		-	-		26-127	-		30
P-Chloro-M-Cresol	ND	80	80	100	Q	-	-		23-97	-		30
2-Chlorophenol	ND	80	65	81		-	-		27-123	-		30
2-Nitrophenol	ND	80	63	79		-	-		30-130	-		30
4-Nitrophenol	ND	80	66	83	Q	-	-		10-80	-		30
2,4-Dinitrophenol	ND	80	66	83		-	-		20-130	-		30
Pentachlorophenol	ND	80	62	78		-	-		9-103	-		30
Phenol	ND	80	58	73		-	-		12-110	-		30

## Matrix Spike Analysis

Batch Quality Control

Project Name: 100 BINNEY ST.

Lab Number: L1014827

Project Number: 34250-002

Report Date: 10/01/10

Parameter	Native Sample	MS Added	MS Found	MS %Recovery	Qual	MSD Found	MSD %Recovery	Qual	Recovery Limits	RPD	Qual	RPD Limits
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Semivolatle Organics by GC/MS - Westborough Lab Associated sample(s): 01 QC Batch ID: WG434227-3 QC Sample: L1014655-01 Client ID: MS Sample

Surrogate	MS		MSD		Acceptance Criteria
	% Recovery	Qualifier	% Recovery	Qualifier	
2,4,6-Tribromophenol	90				10-120
2-Fluorobiphenyl	75				15-120
2-Fluorophenol	74				21-120
4-Terphenyl-d14	88				33-120
Nitrobenzene-d5	76				23-120
Phenol-d6	68				10-120

## Lab Duplicate Analysis

Batch Quality Control

Project Name: 100 BINNEY ST.

Project Number: 34250-002

Lab Number: L1014827

Report Date: 10/01/10

Parameter	Native Sample	Duplicate Sample	Units	RPD	Qual	RPD Limits
Semivolatiles by GC/MS - Westborough Lab Associated sample(s): 01 QC Batch ID: WG434227-4 QC Sample: L1014655-01 Client ID: DUP Sample						
Acenaphthene	ND	ND	ug/l	NC		30
Benzidine	ND	ND	ug/l	NC		30
1,2,4-Trichlorobenzene	ND	ND	ug/l	NC		30
Hexachlorobenzene	ND	ND	ug/l	NC		30
Bis(2-chloroethyl)ether	ND	ND	ug/l	NC		30
2-Chloronaphthalene	ND	ND	ug/l	NC		30
3,3'-Dichlorobenzidine	ND	ND	ug/l	NC		30
2,4-Dinitrotoluene	ND	ND	ug/l	NC		30
2,6-Dinitrotoluene	ND	ND	ug/l	NC		30
Azobenzene	ND	ND	ug/l	NC		30
Fluoranthene	ND	ND	ug/l	NC		30
4-Chlorophenyl phenyl ether	ND	ND	ug/l	NC		30
4-Bromophenyl phenyl ether	ND	ND	ug/l	NC		30
Bis(2-chloroisopropyl)ether	ND	ND	ug/l	NC		30
Bis(2-chloroethoxy)methane	ND	ND	ug/l	NC		30
Hexachlorobutadiene	ND	ND	ug/l	NC		30
Hexachlorocyclopentadiene	ND	ND	ug/l	NC		30
Hexachloroethane	ND	ND	ug/l	NC		30
Isophorone	ND	ND	ug/l	NC		30



## Lab Duplicate Analysis

Batch Quality Control

Project Name: 100 BINNEY ST.

Project Number: 34250-002

Lab Number: L1014827

Report Date: 10/01/10

Parameter	Native Sample	Duplicate Sample	Units	RPD	RPD Limits
Semivolatiles by GC/MS - Westborough Lab Associated sample(s): 01 QC Batch ID: WG434227-4 QC Sample: L1014655-01 Client ID: DUP Sample					
Naphthalene	ND	ND	ug/l	NC	30
Nitrobenzene	ND	ND	ug/l	NC	30
NDPA/DPA	ND	ND	ug/l	NC	30
n-Nitrosodi-n-propylamine	ND	ND	ug/l	NC	30
Bis(2-ethylhexyl)phthalate	ND	ND	ug/l	NC	30
Butyl benzyl phthalate	ND	ND	ug/l	NC	30
Di-n-butylphthalate	ND	ND	ug/l	NC	30
Di-n-octylphthalate	ND	ND	ug/l	NC	30
Diethyl phthalate	ND	ND	ug/l	NC	30
Dimethyl phthalate	ND	ND	ug/l	NC	30
Benzo(a)anthracene	ND	ND	ug/l	NC	30
Benzo(a)pyrene	ND	ND	ug/l	NC	30
Benzo(b)fluoranthene	ND	ND	ug/l	NC	30
Benzo(k)fluoranthene	ND	ND	ug/l	NC	30
Chrysene	ND	ND	ug/l	NC	30
Acenaphthylene	ND	ND	ug/l	NC	30
Anthracene	ND	ND	ug/l	NC	30
Benzo(ghi)perylene	ND	ND	ug/l	NC	30
Fluorene	ND	ND	ug/l	NC	30

## Lab Duplicate Analysis

Batch Quality Control

Project Name: 100 BINNEY ST.

Project Number: 34250-002

Lab Number: L1014827

Report Date: 10/01/10

Parameter	Native Sample	Duplicate Sample	Units	RPD	RPD Limits
Semivolatiles by GC/MS - Westborough Lab Associated sample(s): 01 QC Batch ID: WG434227-4 QC Sample: L1014655-01 Client ID: DUP Sample					
Phenanthrene	ND	ND	ug/l	NC	30
Dibenzo(a,h)anthracene	ND	ND	ug/l	NC	30
Indeno(1,2,3-cd)pyrene	ND	ND	ug/l	NC	30
Pyrene	ND	ND	ug/l	NC	30
Aniline	ND	ND	ug/l	NC	30
4-Chloroaniline	ND	ND	ug/l	NC	30
1-Methylnaphthalene	ND	ND	ug/l	NC	30
2-Nitroaniline	ND	ND	ug/l	NC	30
3-Nitroaniline	ND	ND	ug/l	NC	30
4-Nitroaniline	ND	ND	ug/l	NC	30
Dibenzofuran	ND	ND	ug/l	NC	30
2-Methylnaphthalene	ND	ND	ug/l	NC	30
n-Nitrosodimethylamine	ND	ND	ug/l	NC	30
2,4,6-Trichlorophenol	ND	ND	ug/l	NC	30
p-Chloro-m-cresol	ND	ND	ug/l	NC	30
2-Chlorophenol	ND	ND	ug/l	NC	30
2,4-Dichlorophenol	ND	ND	ug/l	NC	30
2,4-Dimethylphenol	ND	ND	ug/l	NC	30
2-Nitrophenol	ND	ND	ug/l	NC	30

## Lab Duplicate Analysis

Batch Quality Control

Project Name: 100 BINNEY ST.

Project Number: 34250-002

Lab Number: L1014827

Report Date: 10/01/10

Parameter	Native Sample	Duplicate Sample	Units	RPD	RPD Limits
Semivolatle Organics by GC/MS - Westborough Lab Associated sample(s): 01 QC Batch ID: WG434227-4 QC Sample: L1014655-01 Client ID: DUP Sample					
4-Nitrophenol	ND	ND	ug/l	NC	30
2,4-Dinitrophenol	ND	ND	ug/l	NC	30
4,6-Dinitro-o-cresol	ND	ND	ug/l	NC	30
Pentachlorophenol	ND	ND	ug/l	NC	30
Phenol	ND	ND	ug/l	NC	30
2-Methylphenol	ND	ND	ug/l	NC	30
3-Methylphenol/4-Methylphenol	ND	ND	ug/l	NC	30
2,4,5-Trichlorophenol	ND	ND	ug/l	NC	30
Benzoic Acid	ND	ND	ug/l	NC	30
Benzyl Alcohol	ND	ND	ug/l	NC	30
Carbazole	ND	ND	ug/l	NC	30

Surrogate	%Recovery	Qualifier	%Recovery	Qualifier	Acceptance Criteria
2-Fluorophenol	40		61		21-120
Phenol-d6	40		54		10-120
Nitrobenzene-d5	53		67		23-120
2-Fluorobiphenyl	64		64		15-120
2,4,6-Tribromophenol	92		87		10-120
4-Terphenyl-d14	92		89		33-120

## Lab Duplicate Analysis

Batch Quality Control

Project Name: 100 BINNEY ST.

Project Number: 34250-002

Lab Number: L1014827

Report Date: 10/01/10

Parameter	Native Sample	Duplicate Sample	Units	RPD	RPD Limits
Semivolatile Organics by GC/MS - Westborough Lab Associated sample(s): 01 QC Batch ID: WG434227-4 QC Sample: L1014655-01 Client ID: DUP Sample					

Surrogate	%Recovery	Qualifier	%Recovery	Qualifier	Acceptance Criteria
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# PCBS

**Project Name:** 100 BINNEY ST.**Lab Number:** L1014827**Project Number:** 34250-002**Report Date:** 10/01/10**SAMPLE RESULTS**

**Lab ID:** L1014827-01  
**Client ID:** HA-B2  
**Sample Location:** Not Specified  
**Matrix:** Water  
**Analytical Method:** 5,608  
**Analytical Date:** 09/29/10 07:46  
**Analyst:** SH

**Date Collected:** 09/23/10 14:30  
**Date Received:** 09/23/10  
**Field Prep:** Not Specified  
**Extraction Method:** EPA 608  
**Extraction Date:** 09/28/10 13:57  
**Cleanup Method1:** EPA 3665A  
**Cleanup Date1:** 09/29/10  
**Cleanup Method2:** EPA 3660B  
**Cleanup Date2:** 09/29/10

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
<b>Polychlorinated Biphenyls by GC - Westborough Lab</b>						
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	Column
2,4,5,6-Tetrachloro-m-xylene	96		30-150	A
Decachlorobiphenyl	65		30-150	A

**Project Name:** 100 BINNEY ST.  
**Project Number:** 34250-002

**Lab Number:** L1014827  
**Report Date:** 10/01/10

**Method Blank Analysis**  
**Batch Quality Control**

Analytical Method: 5,608  
 Analytical Date: 09/29/10 06:32  
 Analyst: SH

Extraction Method: EPA 608  
 Extraction Date: 09/28/10 13:57  
 Cleanup Method1: EPA 3665A  
 Cleanup Date1: 09/29/10  
 Cleanup Method2: EPA 3660B  
 Cleanup Date2: 09/29/10

Parameter	Result	Qualifier	Units	RL	MDL
Polychlorinated Biphenyls by GC - Westborough Lab for sample(s): 01 Batch: WG434605-1					
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	Column
2,4,5,6-Tetrachloro-m-xylene	83		30-150	A
Decachlorobiphenyl	65		30-150	A

## Matrix Spike Analysis

Batch Quality Control

Project Name: 100 BINNEY ST.

Lab Number: L1014827

Project Number: 34250-002

Report Date: 10/01/10

Parameter	Native Sample	MS Added	MS Found	MS %Recovery	Qual	MSD Found	MSD %Recovery	Qual	Recovery Limits	RPD	Qual	RPD Limits
Polychlorinated Biphenyls by GC - Westborough Lab Associated sample(s): 01 QC Batch ID: WG434605-3 QC Sample: L1014912-08 Client ID: MS Sample												
Aroclor 1016	ND	2	2.31	116		-	-		40-126	-		30
Aroclor 1260	ND	2	2.06	103		-	-		40-127	-		30

Surrogate	MS		MSD		Acceptance Criteria	Column
	% Recovery	Qualifier	% Recovery	Qualifier		
2,4,5,6-Tetrachloro-m-xylene	84				30-150	A
Decachlorobiphenyl	56				30-150	A



## Lab Control Sample Analysis

Batch Quality Control

Project Name: 100 BINNEY ST.

Lab Number: L1014827

Project Number: 34250-002

Report Date: 10/01/10

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Polychlorinated Biphenyls by GC - Westborough Lab Associated sample(s): 01 Batch: WG434605-2								
Aroclor 1016	114		-		40-126	-		30
Aroclor 1260	108		-		40-127	-		30

Surrogate	LCS %Recovery	Qual	LCSD %Recovery	Qual	Acceptance Criteria	Column
2,4,5,6-Tetrachloro-m-xylene	89				30-150	A
Decachlorobiphenyl	62				30-150	A

## Lab Duplicate Analysis

Batch Quality Control

Project Name: 100 BINNEY ST.

Project Number: 34250-002

Lab Number: L1014827

Report Date: 10/01/10

Parameter	Native Sample	Duplicate Sample	Units	RPD	Qual	RPD Limits
Polychlorinated Biphenyls by GC - Westborough Lab Associated sample(s): 01 QC Batch ID: WG434605-4 QC Sample: L1014912-08 Client ID: DUP Sample						
Aroclor 1016	ND	ND	ug/l	NC		30
Aroclor 1221	ND	ND	ug/l	NC		30
Aroclor 1232	ND	ND	ug/l	NC		30
Aroclor 1242	ND	ND	ug/l	NC		30
Aroclor 1248	ND	ND	ug/l	NC		30
Aroclor 1254	ND	ND	ug/l	NC		30
Aroclor 1260	ND	ND	ug/l	NC		30

Surrogate	%Recovery	Qualifier	%Recovery	Qualifier	Acceptance Criteria	Column
2,4,5,6-Tetrachloro-m-xylene	82		90		30-150	A
Decachlorobiphenyl	56		60		30-150	A

## METALS

**Project Name:** 100 BINNEY ST.  
**Project Number:** 34250-002

**Lab Number:** L1014827  
**Report Date:** 10/01/10

**SAMPLE RESULTS**

Lab ID: L1014827-01  
 Client ID: HA-B2  
 Sample Location: Not Specified  
 Matrix: Water

Date Collected: 09/23/10 14:30  
 Date Received: 09/23/10  
 Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Prep Method	Analytical Method	Analyst
<b>Total Metals - Westborough Lab</b>											
Antimony, Total	ND		mg/l	0.050	--	1	09/28/10 10:00	09/29/10 10:13	EPA 3005A	19,200.7	MG
Arsenic, Total	ND		mg/l	0.005	--	1	09/28/10 10:00	09/29/10 10:13	EPA 3005A	19,200.7	MG
Cadmium, Total	ND		mg/l	0.005	--	1	09/28/10 10:00	09/29/10 10:13	EPA 3005A	19,200.7	MG
Chromium, Total	ND		mg/l	0.01	--	1	09/28/10 10:00	09/29/10 10:13	EPA 3005A	19,200.7	MG
Copper, Total	ND		mg/l	0.010	--	1	09/28/10 10:00	09/29/10 10:13	EPA 3005A	19,200.7	MG
Lead, Total	ND		mg/l	0.010	--	1	09/28/10 10:00	09/29/10 10:13	EPA 3005A	19,200.7	MG
Mercury, Total	ND		mg/l	0.0002	--	1	09/24/10 16:45	09/27/10 11:35	EPA 245.1	3,245.1	EZ
Nickel, Total	ND		mg/l	0.025	--	1	09/28/10 10:00	09/29/10 10:13	EPA 3005A	19,200.7	MG
Selenium, Total	ND		mg/l	0.010	--	1	09/28/10 10:00	09/29/10 10:13	EPA 3005A	19,200.7	MG
Silver, Total	ND		mg/l	0.007	--	1	09/28/10 10:00	09/29/10 10:13	EPA 3005A	19,200.7	MG
Zinc, Total	ND		mg/l	0.050	--	1	09/28/10 10:00	09/29/10 10:13	EPA 3005A	19,200.7	MG



**Project Name:** 100 BINNEY ST.  
**Project Number:** 34250-002

**Lab Number:** L1014827  
**Report Date:** 10/01/10

## Method Blank Analysis Batch Quality Control

Parameter	Result Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
Total Metals - Westborough Lab for sample(s): 01 Batch: WG434166-1									
Mercury, Total	ND	mg/l	0.0002	--	1	09/24/10 16:45	09/27/10 11:10	3,245.1	EZ

### Prep Information

Digestion Method: EPA 245.1

Parameter	Result Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
Total Metals - Westborough Lab for sample(s): 01 Batch: WG434577-1									
Antimony, Total	ND	mg/l	0.050	--	1	09/28/10 10:00	09/29/10 09:55	19,200.7	MG
Arsenic, Total	ND	mg/l	0.005	--	1	09/28/10 10:00	09/29/10 09:55	19,200.7	MG
Cadmium, Total	ND	mg/l	0.005	--	1	09/28/10 10:00	09/29/10 09:55	19,200.7	MG
Chromium, Total	ND	mg/l	0.01	--	1	09/28/10 10:00	09/29/10 09:55	19,200.7	MG
Copper, Total	ND	mg/l	0.010	--	1	09/28/10 10:00	09/29/10 09:55	19,200.7	MG
Lead, Total	ND	mg/l	0.010	--	1	09/28/10 10:00	09/29/10 09:55	19,200.7	MG
Nickel, Total	ND	mg/l	0.025	--	1	09/28/10 10:00	09/29/10 09:55	19,200.7	MG
Selenium, Total	ND	mg/l	0.010	--	1	09/28/10 10:00	09/29/10 09:55	19,200.7	MG
Silver, Total	ND	mg/l	0.007	--	1	09/28/10 10:00	09/29/10 09:55	19,200.7	MG
Zinc, Total	ND	mg/l	0.050	--	1	09/28/10 10:00	09/29/10 09:55	19,200.7	MG

### Prep Information

Digestion Method: EPA 3005A



## Lab Control Sample Analysis

### Batch Quality Control

Project Name: 100 BINNEY ST.

Lab Number: L1014827

Project Number: 34250-002

Report Date: 10/01/10

Parameter	LCS		LCSD		%Recovery Limits	RPD	Qual	RPD Limits
	%Recovery	Qual	%Recovery	Qual				
Total Metals - Westborough Lab Associated sample(s): 01 Batch: WG434166-2								
Mercury, Total	98		-		85-115	-		
Total Metals - Westborough Lab Associated sample(s): 01 Batch: WG434577-2								
Antimony, Total	107		-		85-115	-		
Arsenic, Total	111		-		85-115	-		
Cadmium, Total	112		-		85-115	-		
Chromium, Total	100		-		85-115	-		
Copper, Total	102		-		85-115	-		
Lead, Total	103		-		85-115	-		
Nickel, Total	100		-		85-115	-		
Selenium, Total	114		-		85-115	-		
Silver, Total	106		-		85-115	-		
Zinc, Total	105		-		85-115	-		

### Matrix Spike Analysis Batch Quality Control

Project Name: 100 BINNEY ST.

Lab Number: L1014827

Project Number: 34250-002

Report Date: 10/01/10

Parameter	Native Sample	MS Added	MS Found	MS %Recovery	Qual	MSD Found	MSD %Recovery	Qual	Recovery Limits	RPD	Qual	RPD Limits
Total Metals - Westborough Lab Associated sample(s): 01    QC Batch ID: WG434166-4    QC Sample: L1014655-01    Client ID: MS Sample												
Mercury, Total	ND	0.001	0.0013	132	Q	-	-		70-130	-		20
Total Metals - Westborough Lab Associated sample(s): 01    QC Batch ID: WG434577-4    QC Sample: L1014983-01    Client ID: MS Sample												
Antimony, Total	ND	0.5	0.537	107		-	-		75-125	-		20
Arsenic, Total	ND	0.12	0.132	110		-	-		75-125	-		20
Cadmium, Total	ND	0.051	0.058	113		-	-		75-125	-		20
Chromium, Total	ND	0.2	0.20	100		-	-		75-125	-		20
Copper, Total	0.041	0.25	0.296	102		-	-		75-125	-		20
Lead, Total	ND	0.51	0.532	104		-	-		75-125	-		20
Nickel, Total	ND	0.5	0.503	101		-	-		75-125	-		20
Selenium, Total	ND	0.12	0.135	112		-	-		75-125	-		20
Silver, Total	ND	0.05	0.053	106		-	-		75-125	-		20
Zinc, Total	0.290	0.5	0.803	103		-	-		75-125	-		20

### Lab Duplicate Analysis Batch Quality Control

**Project Name:** 100 BINNEY ST.  
**Project Number:** 34250-002

**Lab Number:** L1014827  
**Report Date:** 10/01/10

Parameter	Native Sample	Duplicate Sample	Units	RPD	Qual	RPD Limits
Total Metals - Westborough Lab Associated sample(s): 01 QC Batch ID: WG434166-3 QC Sample: L1014655-01 Client ID: DUP Sample						
Mercury, Total	ND	ND	mg/l	NC		20
Total Metals - Westborough Lab Associated sample(s): 01 QC Batch ID: WG434577-3 QC Sample: L1014983-01 Client ID: DUP Sample						
Copper, Total	0.041	0.041	mg/l	1		20
Zinc, Total	0.290	0.294	mg/l	1		20





# **INORGANICS & MISCELLANEOUS**

**Project Name:** 100 BINNEY ST.  
**Project Number:** 34250-002

**Lab Number:** L1014827  
**Report Date:** 10/01/10

**SAMPLE RESULTS**

**Lab ID:** L1014827-01  
**Client ID:** HA-B2  
**Sample Location:** Not Specified  
**Matrix:** Water

**Date Collected:** 09/23/10 14:30  
**Date Received:** 09/23/10  
**Field Prep:** Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Westborough Lab										
pH (H)	6.8		SU	-	NA	1	-	09/23/10 21:17	30,4500H+-B	JW
Oil & Grease, Hem-Grav	ND		mg/l	4.4	--	1.1	09/28/10 17:00	09/29/10 11:30	74,1664A	JO
TPH	ND		mg/l	4.40	--	1.1	09/28/10 17:00	09/29/10 14:00	74,1664A	JO



**Project Name:** 100 BINNEY ST.  
**Project Number:** 34250-002

**Lab Number:** L1014827  
**Report Date:** 10/01/10

**Method Blank Analysis**  
**Batch Quality Control**

Parameter	Result Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Westborough Lab for sample(s): 01 Batch: WG434652-2									
Oil & Grease, Hem-Grav	ND	mg/l	4.0	--	1	09/28/10 17:00	09/29/10 11:30	74,1664A	JO
General Chemistry - Westborough Lab for sample(s): 01 Batch: WG434653-2									
TPH	ND	mg/l	4.00	--	1	09/28/10 17:00	09/29/10 14:00	74,1664A	JO

## Lab Control Sample Analysis

Batch Quality Control

**Project Name:** 100 BINNEY ST.  
**Project Number:** 34250-002

**Lab Number:** L1014827  
**Report Date:** 10/01/10

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
General Chemistry - Westborough Lab Associated sample(s): 01 Batch: WG434012-1								
pH	100		-		99-101	-		5
General Chemistry - Westborough Lab Associated sample(s): 01 Batch: WG434652-1								
Oil & Grease, Hem-Grav	92		-		78-114	-		18
General Chemistry - Westborough Lab Associated sample(s): 01 Batch: WG434653-1								
TPH	85		-		64-132	-		34



**Matrix Spike Analysis**  
Batch Quality Control

Project Name: 100 BINNEY ST.

Lab Number: L1014827

Project Number: 34250-002

Report Date: 10/01/10

Parameter	Native Sample	MS Added	MS Found	MS %Recovery	MSD Qual	MSD Found	MSD %Recovery	MSD Qual	Recovery Limits	RPD	RPD Qual	RPD Limits
General Chemistry - Westborough Lab Associated sample(s): 01 QC Batch ID: WG434652-3 QC Sample: L1014827-01 Client ID: HA-B2												
Oil & Grease, Hem-Grav	ND	44.4	38	86	-	-	-	-	78-114	-	-	18
General Chemistry - Westborough Lab Associated sample(s): 01 QC Batch ID: WG434653-3 QC Sample: L1014827-01 Client ID: HA-B2												
TPH	ND	22.2	19.3	87	-	-	-	-	64-132	-	-	34

## Lab Duplicate Analysis

Batch Quality Control

Project Name: 100 BINNEY ST.

Project Number: 34250-002

Lab Number: L1014827

Report Date: 10/01/10

Parameter	Native Sample	Duplicate Sample	Units	RPD	Qual	RPD Limits
General Chemistry - Westborough Lab Associated sample(s): 01 QC Batch ID: WG434012-2 QC Sample: L1014828-01 Client ID: DUP Sample						
pH (H)	7.0	7.0	SU	0		5
General Chemistry - Westborough Lab Associated sample(s): 01 QC Batch ID: WG434652-4 QC Sample: L1014828-01 Client ID: DUP Sample						
Oil & Grease, Hem-Grav	ND	ND	mg/l	NC		18
General Chemistry - Westborough Lab Associated sample(s): 01 QC Batch ID: WG434653-4 QC Sample: L1014827-01 Client ID: HA-B2						
TPH	ND	ND	mg/l	NC		34

Project Name: 100 BINNEY ST.

Lab Number: L1014827

Project Number: 34250-002

Report Date: 10/01/10

## 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
C	Absent

## Container Information

Container ID	Container Type	Cooler	pH	Temp deg C	Pres	Seal	Analysis(*)
L1014827-01A	Vial Na2S2O3 preserved	C	N/A	2	Y	Absent	624(7)
L1014827-01B	Vial Na2S2O3 preserved	C	N/A	2	Y	Absent	624(7)
L1014827-01C	Plastic 250ml unpreserved	B	7	2	Y	Absent	PH-4500(.01)
L1014827-01D	Plastic 250ml HNO3 preserved	B	<2	2	Y	Absent	NI-UI(180),SB-UI(180),AG-UI(180),ZN-UI(180),SE-UI(180),HG-U(28),CD-UI(180),CR-UI(180),AS-UI(180),CU-UI(180),PB-UI(180)
L1014827-01E	Amber 1000ml HCl preserved	B	<2	2	Y	Absent	TPH-1664(28)
L1014827-01F	Amber 1000ml HCl preserved	B	<2	2	Y	Absent	TPH-1664(28)
L1014827-01G	Amber 1000ml HCl preserved	B	N/A	2	Y	Absent	OG-1664(28)
L1014827-01H	Amber 1000ml HCl preserved	B	N/A	2	Y	Absent	OG-1664(28)
L1014827-01I	Amber 1000ml Na2S2O3	B	7	2	Y	Absent	PCB-608(7)
L1014827-01J	Amber 1000ml Na2S2O3	B	7	2	Y	Absent	PCB-608(7)
L1014827-01K	Amber 1000ml Na2S2O3	A	7	2	Y	Absent	625(7)
L1014827-01L	Amber 1000ml Na2S2O3	A	7	2	Y	Absent	625(7)
L1014827-02A	Vial Na2S2O3 preserved	C	N/A	2	Y	Absent	HOLD(14)
L1014827-02C	Plastic 250ml unpreserved	C	7	2	Y	Absent	HOLD(14)
L1014827-02D	Plastic 250ml HNO3 preserved	C	<2	2	Y	Absent	HOLD(14)
L1014827-02E	Amber 1000ml HCl preserved	C	<2	2	Y	Absent	HOLD(14)
L1014827-02F	Amber 1000ml HCl preserved	C	<2	2	Y	Absent	HOLD(14)
L1014827-02G	Amber 1000ml HCl preserved	C	N/A	2	Y	Absent	HOLD(14)
L1014827-02H	Amber 1000ml HCl preserved	C	N/A	2	Y	Absent	HOLD(14)
L1014827-02I	Amber 1000ml Na2S2O3	C	7	2	Y	Absent	HOLD(14)
L1014827-02J	Amber 1000ml Na2S2O3	C	7	2	Y	Absent	HOLD(14)
L1014827-02K	Amber 1000ml Na2S2O3	C	7	2	Y	Absent	HOLD(14)

\*Values in parentheses indicate holding time in days

**Project Name:** 100 BINNEY ST.**Project Number:** 34250-002**Lab Number:** L1014827**Report Date:** 10/01/10**Container Information**

<b>Container ID</b>	<b>Container Type</b>	<b>Cooler</b>	<b>pH</b>	<b>Temp deg C</b>	<b>Pres</b>	<b>Seal</b>	<b>Analysis(*)</b>
L1014827-02L	Amber 1000ml Na2S2O3	C	7	2	Y	Absent	HOLD(14)
L1014827-02M	Plastic 250ml HNO3 preserved	C	<2	2	Y	Absent	HOLD(14)
L1014827-03A	Vial Na2S2O3 preserved	C	N/A	2	Y	Absent	HOLD(14)

\*Values in parentheses indicate holding time in days



**Project Name:** 100 BINNEY ST.  
**Project Number:** 34250-002

**Lab Number:** L1014827  
**Report Date:** 10/01/10

## GLOSSARY

### Acronyms

- EPA** - Environmental Protection Agency.
- LCS** - Laboratory Control Sample: A sample matrix, free from the analytes of interest, spiked with verified known amounts of analytes or a material containing known and verified amounts of analytes.
- LCSD** - Laboratory Control Sample Duplicate: Refer to LCS.
- 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.

### 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.
- 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.
- H** - The analysis of pH was performed beyond the regulatory-required holding time of 15 minutes from the time of sample collection.
- I** - The RPD between the results for the two columns exceeds the method-specified criteria; however, the lower value has been reported due to obvious interference.
- 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. 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.

Report Format: Data Usability Report



**Project Name:** 100 BINNEY ST.

**Lab Number:** L1014827

**Project Number:** 34250-002

**Report Date:** 10/01/10

*Data Qualifiers*

**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:** 100 BINNEY ST.  
**Project Number:** 34250-002

**Lab Number:** L1014827  
**Report Date:** 10/01/10

## REFERENCES

- 3 Methods for the Determination of Metals in Environmental Samples, Supplement I. EPA/600/R-94/111. May 1994.
- 5 Methods for the Organic Chemical Analysis of Municipal and Industrial Wastewater. Appendix A, Part 136, 40 CFR (Code of Federal Regulations).
- 19 Inductively Coupled Plasma Atomic Emission Spectrometric Method for Trace Element Analysis of Water and Wastes. Appendix C, Part 136, 40 CFR (Code of Federal Regulations). July 1, 1999 edition.
- 30 Standard Methods for the Examination of Water and Wastewater. APHA-AWWA-WPCF. 18th Edition. 1992.
- 74 Method 1664, Revision A: N-Hexane Extractable Material (HEM; Oil & Grease) and Silica Gel Treated N-Hexane Extractable Material (SGT-HEM; Non-polar Material) by Extraction and Gravimetry, EPA-821-R-98-002, February 1999.

## 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 July 19, 2010 - Westboro Facility

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

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

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

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

*Solid Waste/Soil* (Inorganic Parameters: pH, Sulfide, Aluminum, Antimony, Arsenic, Barium, Beryllium, Boron, Cadmium, Calcium, Chromium, Hexavalent Chromium, Cobalt, Copper, Iron, Lead, Magnesium, Manganese, Mercury, Molybdenum, Nickel, Potassium, Selenium, Silver, Sodium, Thallium, Tin, Vanadium, Zinc, Total Cyanide, Ignitability, Phenolics, Corrosivity, TCLP Leach (1311), SPLP Leach (1312 metals only), Reactivity. Organic Parameters: PCBs, PCBs in Oil, Organochlorine Pesticides, Technical Chlordane, Toxaphene, Extractable Petroleum Hydrocarbons (ETPH), MA-EPH, MA-VPH, Dicamba, 2,4-D, 2,4,5-T, 2,4,5-TP(Silvex), Volatile Organics, Acid Extractables (Phenols), 3,3'-Dichlorobenzidine, Phthalates, Nitrosamines, Nitroaromatics & Cyclic Ketones, PAHs, Haloethers, Chlorinated Hydrocarbons. )

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

*Drinking Water* (Inorganic Parameters: SM9215B, 9222D, 9223B, EPA 180.1, 300.0, 353.2, SM2130B, 2320B, 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, Lachat 10-107-06-1-B, SM2320B, 2340B, 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, 4500NH3-H, 4500NO3-F, 4500P-B.5, 4500P-E, 5210B, 5220D, 5310C, EPA 200.7, 200.8, 245.1. Organic Parameters: 608, 624, ME DRO, ME GRO, MA EPH, MA VPH.)

*Solid Waste/Soil* (Organic Parameters: ME DRO, ME GRO, MA EPH, MA VPH.)

### 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)

353.2 for: Nitrate-N, Nitrite-N; SM4500NO3-F, 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), 314.0, 332.

Microbiology Parameters: SM9215B; ENZ. SUB. SM9223; 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,Cr,Co,Cu,Fe,Pb,Mn,Mo,Ni,Se,Ag,Sr,Ti,Tl, V,Zn,Ca,Mg,Na,K)

245.1, SM4500H,B, EPA 120.1, SM2510B, 2540C, 2540B, 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-B,C-Titr, 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, SM4500-CN-CE, SM2540D.

Organic Parameters: (EPA 624 for Volatile Halocarbons, Volatile Aromatics)

(608 for: Chlordane, Aldrin, Dieldrin, DDD, DDE, DDT, Heptachlor, Heptachlor Epoxide, PCBs-Water), EPA 625 for SVOC Acid Extractables and SVOC Base/Neutral Extractables, 600/4-81-045-PCB-Oil

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

*Drinking Water (Inorganic Parameters:* SM6215B, 9222B, 9223B Colilert, EPA 200.7, 200.8, 245.2, 120.1, 300.0, 314.0, SM4500CN-E, 4500H+B, 4500NO3-F, 2320B, 2510B, 2540C, 4500F-C, 5310C, 2120B, EPA 331.0. Organic Parameters: 504.1, 524.2, SM6251B.)

*Non-Potable Water (Inorganic Parameters:* SM9222D, 9221B, 9222B, 9221E-EC, EPA 200.7, 200.8, 245.1, 245.2, SW-846 6010B, 6020, 7196A, 7470A, SM3500-CR-D, EPA 120.1, 300.0, 350.1, 351.1, 353.2, 420.1, 1664A, SW-846 9010, 9030, 9040B, SM426C, SM2310B, 2540B, 2540D, 4500H+B, 4500NH3-H, 4500NH3-E, 4500NO2-B, 4500P-E, 4500-S2-D, 5210B, 2320B, 2540C, 4500F-C, 5310C, 5540C, LACHAT 10-117-07-1-B, LACHAT 10-107-06-1-B, LACHAT 10-107-04-1-C, LACHAT 10-107-04-1-J, LACHAT 10-117-07-1-A, SM4500CL-E, LACHAT 10-204-00-1-A, LACHAT 10-107-06-2-D. Organic Parameters: SW-846 3005A, 3015A, 3510C, 5030B, 8021B, 8260B, 8270C, 8330, EPA 624, 625, 608, SW-846 8082, 8081A.)

*Solid & Chemical Materials (Inorganic Parameters:* SW-846 6010B, 7196A, 7471A, 7.3.3.2, 7.3.4.2, 1010, 1030, 9010, 9012A, 9014, 9030B, 9040, 9045C, 9050C, 1311, 3005A, 3050B, 3051A. Organic Parameters: SW-846 3540C, 3545, 3580A, 5030B, 5035, 8021B, 8260B, 8270C, 8330, 8151A, 8082, 8081A.)

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

*Drinking Water (Inorganic Parameters:* SM9222B, 9221E, 9223B, 9215B, 4500NO3-F, 4500F-C, EPA 300.0, 200.7, 2540C, 2320B, 314.0, SM2120B, 2510B, 5310C, SM4500H-B, EPA 200.8, 245.2. Organic Parameters: 504.1, SM6251B, 524.2.)

*Non-Potable Water (Inorganic Parameters:* SM5210B, EPA 410.4, SM5220D, 4500CI-D, EPA 300.0, SM2120B, SM4500F-BC, EPA 200.7, 351.1, LACHAT 10-107-06-2-D, EPA 353.2, SM4500NO3-F, 4500NO2-B, EPA 1664A, SM5310B, C or D, 4500-PE, EPA 420.1, SM4500P-B5+E, 2540B, 2540C, 2540D, EPA 120.1, SM2510B, SM15 426C, SM9221CE, 9222D, 9221B, 9222B, 9215B, 2310B, 2320B, 4500NH3-H, 4500-S D, EPA 350.1, SM5210B, SW-846 3015, 6020, 7470A, 5540C, 4500H-B, EPA 200.8, SM3500Cr-D, EPA 245.1, 245.2, SW-846 9040B, 3005A, EPA 6010B, 7196A, SW-846 9010B, 9030B. Organic Parameters: SW-846 8260B, 8270C, 3510C, EPA 608, 624, 625, SW-846 5030B, 8021B, 8081A, 8082, 8151A, 8330, NJ OQA-QAM-025 Rev.7.)

*Solid & Chemical Materials (Inorganic Parameters:* SW-846 9040B, 3005A, 6010B, 7196A, 5030B, 9010B, 9030B, 1030, 1311, 3050B, 3051, 7471A, 9014, 9012A, 9045C, 9050A, 9065. Organic Parameters: SW-846 8021B, 8081A, 8082, 8151A, 8330, 8260B, 8270C, 1311, 1312, 3540C, 3545, 3550B, 3580A, 5035L, 5035H, NJ OQA-QAM-025 Rev.7.)

**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 314.0, 332.0, SM2320B, EPA 300.0, SM2120B, 4500CN-E, 4500F-C, 4500H-B, 4500NO3-F, 2540C, EPA 120.1, SM 2510B. Organic Parameters: EPA 524.2, 504.1.)

*Non-Potable Water (Inorganic Parameters:* SM9221E, 9222D, 9221B, 9222B, 9215B, 5210B, EPA 410.4, SM5220D, 2310B-4a, 2320B, EPA 200.7, 300.0, LACHAT 10-117-07-1A or B, SM4500CI-E, 4500F-C, SM15 426C, EPA 350.1, LACHAT 10-107-06-1-B, SM4500NH3-H, EPA 351.1, LACHAT 10-107-06-2, EPA 353.2, LACHAT 10-107-041-C, SM4500-NO3-F, 4500-NO2-B, 4500P-E, 2540C, 2540B, 2540D, EPA 200.8, EPA 6010B, 6020, EPA 7196A, SM3500Cr-D, EPA 245.1, 245.2, 7470A, SM2120B, SM4500-CN-E LACHAT 10-204-00-1-A, EPA 9040B, SM4500-HB, EPA 1664A, SM5310C, EPA 420.1, SM14 510C, EPA 120.1, SM2510B, SM4500S-D, SM5540C, EPA 3005A, 3015. Organic Parameters: EPA 624, 8260B, 8270C, 625, 608, 8081A, 8151A, 8330, 8082, EPA 3510C, 5030B, 9010B, 9030B.)

*Solid & Hazardous Waste (Inorganic Parameters:* 1010, 1030, SW-846 Ch 7 Sec 7.3, EPA 6010B, 7196A, 7471A, 9012A, 9014, 9040B, 9045C, 9065, 9050, EPA 1311, 1312, 3005A, 3050B, 9010B, 9030B. Organic Parameters: EPA 8260B, 8270C, 8081A, 8151A, 8330, 8082, 3540C, 3545, 3546, 3580, 5030B, 5035.)

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

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

*Non-Potable Water (Organic Parameters:* EPA 3510C, 5030B, 625, 624. 608, 8081A, 8082, 8151A, 8260B, 8270C, 8330)

*Solid & Hazardous Waste (Inorganic Parameters:* EPA 1010, 1030, 1311, 3050B, 3051, 6010B, EPA 7.3.3.2, EPA 7.3.4.2, 7196A, 7471A, 9010B, 9012A, 9014, 9040B, 9045C, 9050, 9065. Organic Parameters: 3540C, 3545, 3580A, 5035, 8021B, 8081A, 8082, 8151A, 8260B, 8270C, 8330)

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

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

Refer to NY-DOH Certificate for Potable and Non-Potable Water.

**Texas Commission on Environmental Quality Certificate/Lab ID: T104704476-09-1. NELAP Accredited.**

*Non-Potable Water (Inorganic Parameters: EPA 120.1, 1664, 200.7, 200.8, 245.1, 245.2, 300.0, 350.1, 351.1, 353.2, 376.2, 410.4, 420.1, 6010, 6020, 7196, 7470, 9040, SM 2120B, 2310B, 2320B, 2510B, 2540B, 2540C, 2540D, 426C, 4500CL-E, 4500CN-E, 4500F-C, 4500H+B, 4500NH3-H, 4500NO2B, 4500P-E, 4500 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.)*

**Department of Defense Certificate/Lab ID: L2217.**

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

*Non-Potable Water (Inorganic Parameters: EPA 200.7, 200.8, 6010B, 6020, 245.1, 245.2, 7470A, 9040B, 300.0, 9251, 9038, 350.1, 353.2, 351.1, 120.1, 9050A, 410.4, 9060, 1664, 420.1, LACHAT 10-107-06-1-B, SM 4500CN-E, 4500H-B, 4500CL-E, 4500F-BC, 4500SO4-E, 426C, 4500NH3-B, 4500NH3-H, 4500NO3-F, 4500NO2-B, 4500Norg-C, 4500PE, 2510B, 5540C, 5220D, 5310C, 2540B, 2540C, 2540D, 510C, 4500S2-AD, 3005A, 3015, 9010B, 9030B. Organic Parameters: EPA 8260B, 8270C, 8330, 625, 8082, 8151A, 8081A, 3510C, 5030B, MassDEP EPH, MassDEP VPH.)*

*Solid & Hazardous Waste (Inorganic Parameters: EPA 200.7, 6010B, 7471A, 9040B, 9045C, 9065, 420.1, 9012A, 6860, 1311, 1312, 3050B, 9030B, 3051, 9010B, 3540C, SM 510ABC, 4500CN-CE, 2540G, SW-846 7.3, Organic Parameters: EPA 8260B, 8270C, 8330, 8082, 8081A, 8151A, 3545, 3546, 3580, 5035, MassDEP EPH, MassDEP VPH.)*

**Analytes Not Accredited by NELAP**

Certification is not available by NELAP for the following analytes: **EPA 8260B:** Freon-113, 1,2,4,5-Tetramethylbenzene, 4-Ethyltoluene. **EPA 8330A:** PETN, Picric Acid, Nitroglycerine, 2,6-DANT, 2,4-DANT. **EPA 8270C:** Methyl naphthalene, Dimethyl naphthalene, Total Methylnaphthalenes, Total Dimethylnaphthalenes, 1,4-Diphenylhydrazine (Azobenzene). **EPA 625:** 4-Chloroaniline. **EPA 350.1** for Ammonia in a Soil matrix.

**HALEY & ALDRICH**

Haley & Aldrich, Inc.  
465 Medford St.,  
Suite 2200,  
Boston, MA 02129-1400

**CHAIN OF CUSTODY RECORD**

ALPHA Job # L1014827

H&A FILE NO. 34253-002  
PROJECT NAME 100 B. Weymouth St.  
H&A CONTACT T. Castiglia

LABORATORY ALPHA  
ADDRESS BINA B.  
CONTACT

DELIVERY DATE 9-23-10  
TURNAROUND TIME 5 DAY TAT  
PROJECT MANAGER R. Higgins

Phone (617) 886-7400  
Fax (617) 886-7600  
Page 1 of 1

Sample No.	Date	Time	Depth	Type	Analysis Requested										Number of Containers	Comments (special instructions, precautions, additional method numbers, etc.)	
					① VOA	② VOB	③ VPC	④ VPH	⑤ VPI	⑥ VPS	⑦ VPT	⑧ VPF	⑨ VPC	⑩ VPH			
HA-R2	9-23	1430	-	AP	X	X	X	X	X	X	X	X	X	X	X	12	Laboratory to use applicable DEP CAM methods, unless otherwise directed. ① 624 ② PCB 608 ③ Oil & Grease ④ TPH-1067 ⑤ 625 ⑥ TOTAL METALS (RQP) ⑦ PH ⑧ Dissolved Metals (FE)
HA-R2 (PF)	"	1500	-	"	X	X	X	X	X	X	X	X	X	X	X	13	
THIRDBLANK																1	
<b>LIQUID</b>																	
Sign: <u>Mary Roseoro</u> Print: <u>Mary Roseoro</u> Firm: <u>BEH</u> Date: <u>9-23-10</u> Time: <u>1555</u>	Received by: <u>MWA</u> Print: <u>Wayne Pwns</u> Firm: <u>APWA</u> Date: <u>9/23/10</u> Time: <u>1555</u>	Requisitioned by: <u>MWA</u> Print: <u>MWA</u> Firm: <u>APWA</u> Date: <u>9/23/10</u> Time: <u>1555</u>	Received by: <u>MWA</u> Print: <u>MWA</u> Firm: <u>APWA</u> Date: <u>9/23/10</u> Time: <u>1555</u>														
<b>SOLID</b>																	
<p><b>PRESERVATION KEY</b></p> <p>A Sample chilled    C NaOH    E H<sub>2</sub>SO<sub>4</sub>    G Methanol</p> <p>B Sample Filtered    D HNO<sub>3</sub>    F HCL    H Water/NaHSO<sub>4</sub> (circles)</p>																	
<p><b>Required Reporting Limits and Data Quality Objectives</b></p> <p> <input type="checkbox"/> RC-S1    <input type="checkbox"/> S1    <input type="checkbox"/> GW1  <input type="checkbox"/> RC-S2    <input type="checkbox"/> S2    <input type="checkbox"/> GW2  <input type="checkbox"/> RC-GW1    <input type="checkbox"/> S3    <input type="checkbox"/> GW3  <input type="checkbox"/> RC-GW2                 </p>																	



## ANALYTICAL REPORT

Lab Number:	L1014828
Client:	Haley & Aldrich, Inc. 465 Medford Street, Suite 2200 Charlestown, MA 02129-1400
ATTN:	Rebecca Higgins
Phone:	(617) 886-7326
Project Name:	100 BINNEY ST.
Project Number:	34250-002
Report Date:	10/04/10

Certifications & Approvals: MA (M-MA086), NY NELAC (11148), CT (PH-0574), NH (2003), NJ (MA935), RI (LAO00065), ME (MA0086), PA (Registration #68-03671), USDA (Permit #S-72578), US Army Corps of Engineers, Naval FESC.

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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:** 100 BINNEY ST.  
**Project Number:** 34250-002

**Lab Number:** L1014828  
**Report Date:** 10/04/10

<b>Alpha Sample ID</b>	<b>Client ID</b>	<b>Sample Location</b>	<b>Collection Date/Time</b>
L1014828-01	HA-B10	Not Specified	09/23/10 12:00
L1014828-02	HA-B10 (FF)	Not Specified	09/23/10 12:30

**Project Name:** 100 BINNEY ST.  
**Project Number:** 34250-002

**Lab Number:** L1014828  
**Report Date:** 10/04/10

### Case Narrative

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

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

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

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

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#### Sample Receipt

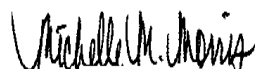
The element list for metals analysis was specified by the client.

#### Semivolatile Organics

The surrogate recovery for the WG435165-1 Method Blank is above the acceptance criteria for 2,4,6-Tribromophenol (135%). Since the blank was non-detect for all target analytes, re-analysis is not required.

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: 10/04/10

# ORGANICS

# VOLATILES

Project Name: 100 BINNEY ST.

Lab Number: L1014828

Project Number: 34250-002

Report Date: 10/04/10

## SAMPLE RESULTS

Lab ID: L1014828-01  
 Client ID: HA-B10  
 Sample Location: Not Specified  
 Matrix: Water  
 Analytical Method: 5,624  
 Analytical Date: 09/28/10 10:38  
 Analyst: TT

Date Collected: 09/23/10 12:00  
 Date Received: 09/23/10  
 Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
Methylene chloride	ND		ug/l	5.0	--	1
1,1-Dichloroethane	ND		ug/l	1.5	--	1
Chloroform	ND		ug/l	1.5	--	1
Carbon tetrachloride	ND		ug/l	1.0	--	1
1,2-Dichloropropane	ND		ug/l	3.5	--	1
Dibromochloromethane	ND		ug/l	1.0	--	1
1,1,2-Trichloroethane	ND		ug/l	1.5	--	1
2-Chloroethylvinyl ether	ND		ug/l	10	--	1
Tetrachloroethene	ND		ug/l	1.5	--	1
Chlorobenzene	ND		ug/l	3.5	--	1
Trichlorofluoromethane	ND		ug/l	5.0	--	1
1,2-Dichloroethane	ND		ug/l	1.5	--	1
1,1,1-Trichloroethane	ND		ug/l	2.0	--	1
Bromodichloromethane	ND		ug/l	1.0	--	1
trans-1,3-Dichloropropene	ND		ug/l	1.5	--	1
cis-1,3-Dichloropropene	ND		ug/l	1.5	--	1
Bromoform	ND		ug/l	1.0	--	1
1,1,2,2-Tetrachloroethane	ND		ug/l	1.0	--	1
Benzene	1.7		ug/l	1.0	--	1
Toluene	ND		ug/l	1.0	--	1
Ethylbenzene	ND		ug/l	1.0	--	1
Chloromethane	ND		ug/l	10	--	1
Bromomethane	ND		ug/l	5.0	--	1
Vinyl chloride	ND		ug/l	2.0	--	1
Chloroethane	ND		ug/l	2.0	--	1
1,1-Dichloroethene	ND		ug/l	1.0	--	1
trans-1,2-Dichloroethene	ND		ug/l	1.5	--	1
cis-1,2-Dichloroethene	ND		ug/l	1.0	--	1
Trichloroethene	ND		ug/l	1.0	--	1
1,2-Dichlorobenzene	ND		ug/l	5.0	--	1

Project Name: 100 BINNEY ST.

Lab Number: L1014828

Project Number: 34250-002

Report Date: 10/04/10

## SAMPLE RESULTS

Lab ID: L1014828-01

Date Collected: 09/23/10 12:00

Client ID: HA-B10

Date Received: 09/23/10

Sample Location: Not Specified

Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
<b>Volatile Organics by GC/MS - Westborough Lab</b>						
1,3-Dichlorobenzene	ND		ug/l	5.0	--	1
1,4-Dichlorobenzene	ND		ug/l	5.0	--	1
p/m-Xylene	ND		ug/l	2.0	--	1
o-xylene	ND		ug/l	1.0	--	1
Xylene (Total)	ND		ug/l	2.0	--	1
Styrene	ND		ug/l	1.0	--	1
Acetone	ND		ug/l	10	--	1
Carbon disulfide	ND		ug/l	5.0	--	1
2-Butanone	ND		ug/l	10	--	1
Vinyl acetate	ND		ug/l	20	--	1
4-Methyl-2-pentanone	ND		ug/l	10	--	1
2-Hexanone	ND		ug/l	10	--	1
Acrolein	ND		ug/l	8.0	--	1
Acrylonitrile	ND		ug/l	10	--	1
Dibromomethane	ND		ug/l	1.0	--	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
Pentafluorobenzene	110		80-120
Fluorobenzene	109		80-120
4-Bromofluorobenzene	101		80-120

**Project Name:** 100 BINNEY ST.  
**Project Number:** 34250-002

**Lab Number:** L1014828  
**Report Date:** 10/04/10

**Method Blank Analysis**  
**Batch Quality Control**

Analytical Method: 5,624  
Analytical Date: 09/28/10 07:30  
Analyst: TT

Parameter	Result	Qualifier	Units	RL	MDL
Volatile Organics by GC/MS - Westborough Lab for sample(s): 01 Batch: WG434313-6					
Methylene chloride	ND		ug/l	5.0	--
1,1-Dichloroethane	ND		ug/l	1.5	--
Chloroform	ND		ug/l	1.5	--
Carbon tetrachloride	ND		ug/l	1.0	--
1,2-Dichloropropane	ND		ug/l	3.5	--
Dibromochloromethane	ND		ug/l	1.0	--
1,1,2-Trichloroethane	ND		ug/l	1.5	--
2-Chloroethylvinyl ether	ND		ug/l	10	--
Tetrachloroethene	ND		ug/l	1.5	--
Chlorobenzene	ND		ug/l	3.5	--
Trichlorofluoromethane	ND		ug/l	5.0	--
1,2-Dichloroethane	ND		ug/l	1.5	--
1,1,1-Trichloroethane	ND		ug/l	2.0	--
Bromodichloromethane	ND		ug/l	1.0	--
trans-1,3-Dichloropropene	ND		ug/l	1.5	--
cis-1,3-Dichloropropene	ND		ug/l	1.5	--
Bromoform	ND		ug/l	1.0	--
1,1,2,2-Tetrachloroethane	ND		ug/l	1.0	--
Benzene	ND		ug/l	1.0	--
Toluene	ND		ug/l	1.0	--
Ethylbenzene	ND		ug/l	1.0	--
Chloromethane	ND		ug/l	10	--
Bromomethane	ND		ug/l	5.0	--
Vinyl chloride	ND		ug/l	2.0	--
Chloroethane	ND		ug/l	2.0	--
1,1-Dichloroethene	ND		ug/l	1.0	--
trans-1,2-Dichloroethene	ND		ug/l	1.5	--
cis-1,2-Dichloroethene	ND		ug/l	1.0	--
Trichloroethene	ND		ug/l	1.0	--
1,2-Dichlorobenzene	ND		ug/l	5.0	--
1,3-Dichlorobenzene	ND		ug/l	5.0	--



**Project Name:** 100 BINNEY ST.  
**Project Number:** 34250-002

**Lab Number:** L1014828  
**Report Date:** 10/04/10

**Method Blank Analysis  
Batch Quality Control**

Analytical Method: 5,624  
Analytical Date: 09/28/10 07:30  
Analyst: TT

Parameter	Result	Qualifier	Units	RL	MDL
Volatile Organics by GC/MS - Westborough Lab for sample(s): 01 Batch: WG434313-6					
1,4-Dichlorobenzene	ND		ug/l	5.0	--
p/m-Xylene	ND		ug/l	2.0	--
o-xylene	ND		ug/l	1.0	--
Xylene (Total)	ND		ug/l	2.0	--
Styrene	ND		ug/l	1.0	--
Acetone	ND		ug/l	10	--
Carbon disulfide	ND		ug/l	5.0	--
2-Butanone	ND		ug/l	10	--
Vinyl acetate	ND		ug/l	20	--
4-Methyl-2-pentanone	ND		ug/l	10	--
2-Hexanone	ND		ug/l	10	--
Acrolein	ND		ug/l	8.0	--
Acrylonitrile	ND		ug/l	10	--
Methyl tert butyl ether	ND		ug/l	20	--
Dibromomethane	ND		ug/l	1.0	--
1,4-Dioxane	ND		ug/l	2000	--
Tert-Butyl Alcohol	ND		ug/l	100	--
Tertiary-Amyl Methyl Ether	ND		ug/l	20	--

Surrogate	%Recovery	Qualifier	Acceptance Criteria
Pentafluorobenzene	103		80-120
Fluorobenzene	100		80-120
4-Bromofluorobenzene	99		80-120



## Lab Control Sample Analysis

### Batch Quality Control

Project Name: 100 BINNEY ST.

Project Number: 34250-002

Lab Number: L1014828

Report Date: 10/04/10

Parameter	LCS		LCSD		%Recovery Limits	RPD	Qual	RPD Limits
	%Recovery	Qual	%Recovery	Qual				
Volatile Organics by GC/MS - Westborough Lab Associated sample(s): 01 Batch: WG434313-5								
Methylene chloride	73		-		1-221	-		30
1,1-Dichloroethane	112		-		59-155	-		30
Chloroform	112		-		51-138	-		30
Carbon tetrachloride	136		-		70-140	-		30
1,2-Dichloropropane	101		-		1-210	-		30
Dibromochloromethane	108		-		53-149	-		30
1,1,2-Trichloroethane	100		-		52-150	-		30
2-Chloroethylvinyl ether	100		-		1-305	-		30
Tetrachloroethene	109		-		64-148	-		30
Chlorobenzene	84		-		37-160	-		30
Trichlorofluoromethane	78		-		17-181	-		30
1,2-Dichloroethane	125		-		49-155	-		30
1,1,1-Trichloroethane	125		-		52-162	-		30
Bromodichloromethane	116		-		35-155	-		30
trans-1,3-Dichloropropene	122		-		17-183	-		30
cis-1,3-Dichloropropene	108		-		1-227	-		30
Bromoform	90		-		45-169	-		30
1,1,2,2-Tetrachloroethane	80		-		46-157	-		30
Benzene	95		-		37-151	-		30
Toluene	96		-		47-150	-		30
Ethylbenzene	88		-		37-162	-		30

## Lab Control Sample Analysis

### Batch Quality Control

Project Name: 100 BINNEY ST.

Lab Number: L1014828

Project Number: 34250-002

Report Date: 10/04/10

Parameter	LCS		LCSD		%Recovery Limits	RPD	Qual	RPD Limits
	%Recovery	Qual	%Recovery	Qual				
Volatile Organics by GC/MS - Westborough Lab Associated sample(s): 01 Batch: WG434313-5								
Chloromethane	118		-		1-273	-		30
Bromomethane	78		-		1-242	-		30
Vinyl chloride	76		-		1-251	-		30
Chloroethane	77		-		14-230	-		30
1,1-Dichloroethene	70		-		1-234	-		30
trans-1,2-Dichloroethene	110		-		54-156	-		30
cis-1,2-Dichloroethene	97		-		60-140	-		30
Trichloroethene	100		-		71-157	-		30
1,2-Dichlorobenzene	87		-		18-190	-		30
1,3-Dichlorobenzene	86		-		59-156	-		30
1,4-Dichlorobenzene	87		-		18-190	-		30
p/m-Xylene	76		-		40-160	-		30
o-Xylene	75		-		40-160	-		30
XYLENE (TOTAL)	75		-		40-160	-		30
Styrene	74		-		40-160	-		30
Acetone	74		-		40-160	-		30
Carbon disulfide	76		-		40-160	-		30
2-Butanone	116		-		40-160	-		30
Vinyl acetate	114		-		40-160	-		30
4-Methyl-2-pentanone	108		-		40-160	-		30
2-Hexanone	114		-		40-160	-		30

## Lab Control Sample Analysis

Batch Quality Control

Project Name: 100 BINNEY ST.

Lab Number: L1014828

Project Number: 34250-002

Report Date: 10/04/10

Parameter	LCS		LCSD		%Recovery Limits	RPD	Qual	RPD Limits
	%Recovery	Qual	%Recovery	Qual				
Volatile Organics by GC/MS - Westborough Lab Associated sample(s): 01 Batch: WG434313-5								
Acrolein	54		-		40-160	-		30
Acrylonitrile	97		-		40-160	-		30
Dibromomethane	98		-		70-130	-		30

Surrogate	LCS		LCSD		Acceptance Criteria
	%Recovery	Qual	%Recovery	Qual	
Pentafluorobenzene	106				80-120
Fluorobenzene	101				80-120
4-Bromofluorobenzene	95				80-120

## Matrix Spike Analysis

Batch Quality Control

Project Name: 100 BINNEY ST.

Lab Number: L1014828

Project Number: 34250-002

Report Date: 10/04/10

Parameter	Native Sample	MS Added	MS Found	MS %Recovery	Qual	MSD Found	MSD %Recovery	Qual	Recovery Limits	RPD	Qual	RPD Limits
Volatile Organics by GC/MS - Westborough Lab Associated sample(s): 01 QC Batch ID: WG434313-3 QC Sample: L1014912-06 Client ID: MS Sample												
Methylene chloride	ND	20	16	81		-	-		1-221	-		30
1,1-Dichloroethane	ND	20	26	129		-	-		59-155	-		30
Chloroform	ND	20	26	132		-	-		51-138	-		30
Carbon tetrachloride	ND	20	34	171	Q	-	-		70-140	-		30
1,2-Dichloropropane	ND	20	24	118		-	-		1-210	-		30
Dibromochloromethane	ND	20	24	120		-	-		53-149	-		30
1,1,2-Trichloroethane	ND	20	21	106		-	-		52-150	-		30
2-Chloroethylvinyl ether	ND	20	21	107		-	-		1-305	-		30
Tetrachloroethene	ND	20	25	123		-	-		64-148	-		30
Chlorobenzene	ND	20	19	95		-	-		37-160	-		30
Trichlorofluoromethane	ND	20	20	99		-	-		17-181	-		30
1,2-Dichloroethane	ND	20	28	141		-	-		49-155	-		30
1,1,1-Trichloroethane	ND	20	31	154		-	-		52-162	-		30
Bromodichloromethane	ND	20	26	129		-	-		35-155	-		30
trans-1,3-Dichloropropene	ND	20	28	141		-	-		17-183	-		30
cis-1,3-Dichloropropene	ND	20	25	124		-	-		1-227	-		30
Bromoform	ND	20	21	105		-	-		45-169	-		30
1,1,2,2-Tetrachloroethane	ND	20	18	90		-	-		46-157	-		30
Benzene	ND	20	22	110		-	-		35-151	-		30
Toluene	ND	20	22	108		-	-		47-150	-		30
Ethylbenzene	ND	20	20	101		-	-		37-162	-		30

## Matrix Spike Analysis

Batch Quality Control

Project Name: 100 BINNEY ST.

Lab Number: L1014828

Project Number: 34250-002

Report Date: 10/04/10

Parameter	Native Sample	MS Added	MS Found	MS %Recovery	Qual	MSD Found	MSD %Recovery	Qual	Recovery Limits	RPD	Qual	RPD Limits
Volatile Organics by GC/MS - Westborough Lab Associated sample(s): 01 QC Batch ID: WG434313-3 QC Sample: L1014912-06 Client ID: MS Sample												
Chloromethane	ND	20	21	103		-	-		1-273	-		30
Bromomethane	ND	20	18	88		-	-		1-242	-		30
Vinyl chloride	ND	20	17	86		-	-		1-251	-		30
Chloroethane	ND	20	17	85		-	-		14-230	-		30
1,1-Dichloroethene	ND	20	17	84		-	-		1-234	-		30
trans-1,2-Dichloroethene	ND	20	26	130		-	-		54-156	-		30
cis-1,2-Dichloroethene	ND	20	23	114		-	-		60-140	-		30
Trichloroethene	ND	20	24	118		-	-		71-157	-		30
1,2-Dichlorobenzene	ND	20	20	98		-	-		18-190	-		30
1,3-Dichlorobenzene	ND	20	20	98		-	-		59-156	-		30
1,4-Dichlorobenzene	ND	20	19	96		-	-		18-190	-		30
p/m-Xylene	ND	40	34	86		-	-		40-160	-		30
o-Xylene	ND	20	17	86		-	-		40-160	-		30
XYLENE (TOTAL)	ND	60	52	86		-	-		40-160	-		30
Styrene	ND	20	17	86		-	-		40-160	-		30
Acetone	ND	50	43	86		-	-		40-160	-		30
Carbon disulfide	ND	20	19	96		-	-		40-160	-		30
2-Butanone	ND	50	61	122		-	-		40-160	-		30
Vinyl acetate	ND	40	59	148		-	-		40-160	-		30
4-Methyl-2-pentanone	ND	50	55	111		-	-		40-160	-		30
2-Hexanone	ND	50	57	114		-	-		40-160	-		30

## Matrix Spike Analysis

Batch Quality Control

Project Name: 100 BINNEY ST.

Lab Number: L1014828

Project Number: 34250-002

Report Date: 10/04/10

Parameter	Native Sample	MS Added	MS Found	MS %Recovery	Qual	MSD Found	MSD %Recovery	Qual	Recovery Limits	RPD	Qual	RPD Limits
Volatile Organics by GC/MS - Westborough Lab Associated sample(s): 01    QC Batch ID: WG434313-3    QC Sample: L1014912-06    Client ID: MS Sample												
Acrolein	ND	40	24	60		-	-		40-160	-		30
Acrylonitrile	ND	40	37	92		-	-		40-160	-		30
Dibromomethane	ND	20	21	106		-	-			-		30

Surrogate	MS		MSD		Acceptance Criteria
	% Recovery	Qualifier	% Recovery	Qualifier	
4-Bromofluorobenzene	94				80-120
Fluorobenzene	104				80-120
Pentafluorobenzene	108				80-120

## Lab Duplicate Analysis

Batch Quality Control

Project Name: 100 BINNEY ST.

Project Number: 34250-002

Lab Number: L1014828

Report Date: 10/04/10

Parameter	Native Sample	Duplicate Sample	Units	RPD	Qual	RPD Limits
Volatile Organics by GC/MS - Westborough Lab Associated sample(s): 01 QC Batch ID: WG434313-4 QC Sample: L1014912-06 Client ID: DUP Sample						
Methylene chloride	ND	ND	ug/l	NC		30
Chloroform	ND	ND	ug/l	NC		30
Tetrachloroethene	ND	ND	ug/l	NC		30
Chlorobenzene	ND	ND	ug/l	NC		30
1,2-Dichloroethane	ND	ND	ug/l	NC		30
Benzene	ND	ND	ug/l	NC		30
Toluene	ND	ND	ug/l	NC		30
Ethylbenzene	ND	ND	ug/l	NC		30
Vinyl chloride	ND	ND	ug/l	NC		30
trans-1,2-Dichloroethene	ND	ND	ug/l	NC		30
cis-1,2-Dichloroethene	ND	ND	ug/l	NC		30
1,2-Dichlorobenzene	ND	ND	ug/l	NC		30
1,3-Dichlorobenzene	ND	ND	ug/l	NC		30
1,4-Dichlorobenzene	ND	ND	ug/l	NC		30
p/m-Xylene	ND	ND	ug/l	NC		30
o-xylene	ND	ND	ug/l	NC		30
Xylene (Total)	ND	ND	ug/l	NC		30
Methyl tert butyl ether	ND	ND	ug/l	NC		30
1,4-Dioxane	ND	ND	ug/l	NC		30

## Lab Duplicate Analysis

Batch Quality Control

Project Name: 100 BINNEY ST.

Project Number: 34250-002

Lab Number: L1014828

Report Date: 10/04/10

Parameter	Native Sample	Duplicate Sample	Units	RPD	RPD Limits
Volatile Organics by GC/MS - Westborough Lab Associated sample(s): 01 QC Batch ID: WG434313-4 QC Sample: L1014912-06 Client ID: DUP Sample					

Surrogate	%Recovery	Qualifier	%Recovery	Qualifier	Acceptance Criteria
Pentafluorobenzene	107		103		80-120
Fluorobenzene	105		102		80-120
4-Bromofluorobenzene	98		99		80-120



# SEMIVOLATILES

Project Name: 100 BINNEY ST.

Lab Number: L1014828

Project Number: 34250-002

Report Date: 10/04/10

## SAMPLE RESULTS

Lab ID: L1014828-01  
 Client ID: HA-B10  
 Sample Location: Not Specified  
 Matrix: Water  
 Analytical Method: 5,625  
 Analytical Date: 10/03/10 15:30  
 Analyst: JB

Date Collected: 09/23/10 12:00  
 Date Received: 09/23/10  
 Field Prep: Not Specified  
 Extraction Method: EPA 625  
 Extraction Date: 09/30/10 21:33

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
<b>Semivolatile Organics by GC/MS - Westborough Lab</b>						
Acenaphthene	6.5		ug/l	5.0	--	1
Benzidine	ND		ug/l	50	--	1
1,2,4-Trichlorobenzene	ND		ug/l	5.0	--	1
Hexachlorobenzene	ND		ug/l	5.0	--	1
Bis(2-chloroethyl)ether	ND		ug/l	5.0	--	1
2-Chloronaphthalene	ND		ug/l	6.0	--	1
3,3'-Dichlorobenzidine	ND		ug/l	50	--	1
2,4-Dinitrotoluene	ND		ug/l	6.0	--	1
2,6-Dinitrotoluene	ND		ug/l	5.0	--	1
Azobenzene	ND		ug/l	5.0	--	1
Fluoranthene	ND		ug/l	5.0	--	1
4-Chlorophenyl phenyl ether	ND		ug/l	5.0	--	1
4-Bromophenyl phenyl ether	ND		ug/l	5.0	--	1
Bis(2-chloroisopropyl)ether	ND		ug/l	5.0	--	1
Bis(2-chloroethoxy)methane	ND		ug/l	5.0	--	1
Hexachlorobutadiene	ND		ug/l	10	--	1
Hexachlorocyclopentadiene	ND		ug/l	30	--	1
Hexachloroethane	ND		ug/l	5.0	--	1
Isophorone	ND		ug/l	5.0	--	1
Naphthalene	ND		ug/l	5.0	--	1
Nitrobenzene	ND		ug/l	5.0	--	1
NDPA/DPA	ND		ug/l	15	--	1
n-Nitrosodi-n-propylamine	ND		ug/l	5.0	--	1
Bis(2-ethylhexyl)phthalate	ND		ug/l	5.0	--	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
Benzo(a)anthracene	ND		ug/l	5.0	--	1

Project Name: 100 BINNEY ST.

Lab Number: L1014828

Project Number: 34250-002

Report Date: 10/04/10

## SAMPLE RESULTS

Lab ID: L1014828-01

Date Collected: 09/23/10 12:00

Client ID: HA-B10

Date Received: 09/23/10

Sample Location: Not Specified

Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Semivolatile Organics by GC/MS - Westborough Lab						
Benzo(a)pyrene	ND		ug/l	5.0	--	1
Benzo(b)fluoranthene	ND		ug/l	5.0	--	1
Benzo(k)fluoranthene	ND		ug/l	5.0	--	1
Chrysene	ND		ug/l	5.0	--	1
Acenaphthylene	ND		ug/l	5.0	--	1
Anthracene	ND		ug/l	5.0	--	1
Benzo(ghi)perylene	ND		ug/l	5.0	--	1
Fluorene	ND		ug/l	5.0	--	1
Phenanthrene	ND		ug/l	5.0	--	1
Dibenzo(a,h)anthracene	ND		ug/l	5.0	--	1
Indeno(1,2,3-cd)pyrene	ND		ug/l	7.0	--	1
Pyrene	ND		ug/l	5.0	--	1
Aniline	ND		ug/l	20	--	1
4-Chloroaniline	ND		ug/l	5.0	--	1
1-Methylnaphthalene	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	7.0	--	1
Dibenzofuran	ND		ug/l	5.0	--	1
2-Methylnaphthalene	ND		ug/l	5.0	--	1
n-Nitrosodimethylamine	ND		ug/l	50	--	1
2,4,6-Trichlorophenol	ND		ug/l	5.0	--	1
p-Chloro-m-cresol	ND		ug/l	5.0	--	1
2-Chlorophenol	ND		ug/l	6.0	--	1
2,4-Dichlorophenol	ND		ug/l	10	--	1
2,4-Dimethylphenol	ND		ug/l	10	--	1
2-Nitrophenol	ND		ug/l	20	--	1
4-Nitrophenol	ND		ug/l	10	--	1
2,4-Dinitrophenol	ND		ug/l	30	--	1
4,6-Dinitro-o-cresol	ND		ug/l	20	--	1
Pentachlorophenol	ND		ug/l	10	--	1
Phenol	ND		ug/l	7.0	--	1
2-Methylphenol	ND		ug/l	6.0	--	1
3-Methylphenol/4-Methylphenol	ND		ug/l	6.0	--	1
2,4,5-Trichlorophenol	ND		ug/l	5.0	--	1
Benzoic Acid	ND		ug/l	50	--	1
Benzyl Alcohol	ND		ug/l	10	--	1



Project Name: 100 BINNEY ST.

Lab Number: L1014828

Project Number: 34250-002

Report Date: 10/04/10

**SAMPLE RESULTS**

Lab ID: L1014828-01

Date Collected: 09/23/10 12:00

Client ID: HA-B10

Date Received: 09/23/10

Sample Location: Not Specified

Field Prep: Not Specified

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

Surrogate	% Recovery	Qualifier	Acceptance Criteria
2-Fluorophenol	46		21-120
Phenol-d6	31		10-120
Nitrobenzene-d5	68		23-120
2-Fluorobiphenyl	69		15-120
2,4,6-Tribromophenol	92		10-120
4-Terphenyl-d14	87		33-120

**Project Name:** 100 BINNEY ST.  
**Project Number:** 34250-002

**Lab Number:** L1014828  
**Report Date:** 10/04/10

**Method Blank Analysis**  
**Batch Quality Control**

**Analytical Method:** 5,625  
**Analytical Date:** 10/01/10 13:54  
**Analyst:** JB

**Extraction Method:** EPA 625  
**Extraction Date:** 09/30/10 21:29

Parameter	Result	Qualifier	Units	RL	MDL
Semivolatile Organics by GC/MS - Westborough Lab for sample(s): 01 Batch: WG435165-1					
Acenaphthene	ND		ug/l	5.0	--
Benzidine	ND		ug/l	50	--
1,2,4-Trichlorobenzene	ND		ug/l	5.0	--
Hexachlorobenzene	ND		ug/l	5.0	--
Bis(2-chloroethyl)ether	ND		ug/l	5.0	--
2-Chloronaphthalene	ND		ug/l	6.0	--
3,3'-Dichlorobenzidine	ND		ug/l	50	--
2,4-Dinitrotoluene	ND		ug/l	6.0	--
2,6-Dinitrotoluene	ND		ug/l	5.0	--
Azobenzene	ND		ug/l	5.0	--
Fluoranthene	ND		ug/l	5.0	--
4-Chlorophenyl phenyl ether	ND		ug/l	5.0	--
4-Bromophenyl phenyl ether	ND		ug/l	5.0	--
Bis(2-chloroisopropyl)ether	ND		ug/l	5.0	--
Bis(2-chloroethoxy)methane	ND		ug/l	5.0	--
Hexachlorobutadiene	ND		ug/l	10	--
Hexachlorocyclopentadiene	ND		ug/l	30	--
Hexachloroethane	ND		ug/l	5.0	--
Isophorone	ND		ug/l	5.0	--
Naphthalene	ND		ug/l	5.0	--
Nitrobenzene	ND		ug/l	5.0	--
NDPA/DPA	ND		ug/l	15	--
n-Nitrosodi-n-propylamine	ND		ug/l	5.0	--
Bis(2-ethylhexyl)phthalate	ND		ug/l	5.0	--
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	--
Benzo(a)anthracene	ND		ug/l	5.0	--
Benzo(a)pyrene	ND		ug/l	5.0	--



**Project Name:** 100 BINNEY ST.  
**Project Number:** 34250-002

**Lab Number:** L1014828  
**Report Date:** 10/04/10

**Method Blank Analysis**  
**Batch Quality Control**

**Analytical Method:** 5,625  
**Analytical Date:** 10/01/10 13:54  
**Analyst:** JB

**Extraction Method:** EPA 625  
**Extraction Date:** 09/30/10 21:29

Parameter	Result	Qualifier	Units	RL	MDL
Semivolatile Organics by GC/MS - Westborough Lab for sample(s): 01 Batch: WG435165-1					
Benzo(b)fluoranthene	ND		ug/l	5.0	--
Benzo(k)fluoranthene	ND		ug/l	5.0	--
Chrysene	ND		ug/l	5.0	--
Acenaphthylene	ND		ug/l	5.0	--
Anthracene	ND		ug/l	5.0	--
Benzo(ghi)perylene	ND		ug/l	5.0	--
Fluorene	ND		ug/l	5.0	--
Phenanthrene	ND		ug/l	5.0	--
Dibenzo(a,h)anthracene	ND		ug/l	5.0	--
Indeno(1,2,3-cd)pyrene	ND		ug/l	7.0	--
Pyrene	ND		ug/l	5.0	--
Aniline	ND		ug/l	20	--
4-Chloroaniline	ND		ug/l	5.0	--
1-Methylnaphthalene	ND		ug/l	5.0	--
2-Nitroaniline	ND		ug/l	5.0	--
3-Nitroaniline	ND		ug/l	5.0	--
4-Nitroaniline	ND		ug/l	7.0	--
Dibenzofuran	ND		ug/l	5.0	--
2-Methylnaphthalene	ND		ug/l	5.0	--
n-Nitrosodimethylamine	ND		ug/l	50	--
2,4,6-Trichlorophenol	ND		ug/l	5.0	--
p-Chloro-m-cresol	ND		ug/l	5.0	--
2-Chlorophenol	ND		ug/l	6.0	--
2,4-Dichlorophenol	ND		ug/l	10	--
2,4-Dimethylphenol	ND		ug/l	10	--
2-Nitrophenol	ND		ug/l	20	--
4-Nitrophenol	ND		ug/l	10	--
2,4-Dinitrophenol	ND		ug/l	30	--
4,6-Dinitro-o-cresol	ND		ug/l	20	--
Pentachlorophenol	ND		ug/l	10	--
Phenol	ND		ug/l	7.0	--



**Project Name:** 100 BINNEY ST.  
**Project Number:** 34250-002

**Lab Number:** L1014828  
**Report Date:** 10/04/10

**Method Blank Analysis**  
**Batch Quality Control**

Analytical Method: 5,625  
 Analytical Date: 10/01/10 13:54  
 Analyst: JB

Extraction Method: EPA 625  
 Extraction Date: 09/30/10 21:29

Parameter	Result	Qualifier	Units	RL	MDL
Semivolatile Organics by GC/MS - Westborough Lab for sample(s): 01 Batch: WG435165-1					
2-Methylphenol	ND		ug/l	6.0	--
3-Methylphenol/4-Methylphenol	ND		ug/l	6.0	--
2,4,5-Trichlorophenol	ND		ug/l	5.0	--
Benzoic Acid	ND		ug/l	50	--
Benzyl Alcohol	ND		ug/l	10	--
Carbazole	ND		ug/l	5.0	--

Surrogate	%Recovery	Qualifier	Acceptance Criteria
2-Fluorophenol	67		21-120
Phenol-d6	44		10-120
Nitrobenzene-d5	102		23-120
2-Fluorobiphenyl	106		15-120
2,4,6-Tribromophenol	<b>135</b>	Q	10-120
4-Terphenyl-d14	117		33-120

## Lab Control Sample Analysis

### Batch Quality Control

Project Name: 100 BINNEY ST.

Project Number: 34250-002

Lab Number: L1014828

Report Date: 10/04/10

Parameter	LCS		LCSD		%Recovery Limits	RPD	Qual	RPD Limits
	%Recovery	Qual	%Recovery	Qual				
Semivolatile Organics by GC/MS - Westborough Lab Associated sample(s): 01 Batch: WG435165-2								
Acenaphthene	77		-		46-118	-		30
1,2,4-Trichlorobenzene	58		-		39-98	-		30
2-Chloronaphthalene	75		-		40-140	-		30
2,4-Dinitrotoluene	94		-		24-96	-		30
2,6-Dinitrotoluene	75		-		40-140	-		30
Fluoranthene	91		-		40-140	-		30
4-Chlorophenyl phenyl ether	85		-		40-140	-		30
n-Nitrosodi-n-propylamine	68		-		41-116	-		30
Butyl benzyl phthalate	90		-		40-140	-		30
Anthracene	90		-		40-140	-		30
Pyrene	86		-		26-127	-		30
P-Chloro-M-Cresol	79		-		23-97	-		30
2-Chlorophenol	66		-		27-123	-		30
2-Nitrophenol	68		-		30-130	-		30
4-Nitrophenol	28		-		10-80	-		30
2,4-Dinitrophenol	66		-		20-130	-		30
Pentachlorophenol	61		-		9-103	-		30
Phenol	27		-		12-110	-		30



## Lab Control Sample Analysis

### Batch Quality Control

Project Name: 100 BINNEY ST.

Lab Number: L1014828

Project Number: 34250-002

Report Date: 10/04/10

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
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Semivolatile Organics by GC/MS - Westborough Lab Associated sample(s): 01 Batch: WG435165-2

Surrogate	LCS %Recovery	Qual	LCSD %Recovery	Qual	Acceptance Criteria
2-Fluorophenol	42				21-120
Phenol-d6	27				10-120
Nitrobenzene-d5	71				23-120
2-Fluorobiphenyl	74				15-120
2,4,6-Tribromophenol	88				10-120
4-Terphenyl-d14	89				33-120

## Lab Duplicate Analysis

Batch Quality Control

Project Name: 100 BINNEY ST.

Project Number: 34250-002

Lab Number: L1014828

Report Date: 10/04/10

Parameter	Native Sample	Duplicate Sample	Units	RPD	Qual	RPD Limits
Semivolatiles by GC/MS - Westborough Lab Associated sample(s): 01 QC Batch ID: WG435165-4 QC Sample: L1014876-01 Client ID: DUP Sample						
Acenaphthene	ND	ND	ug/l	NC		30
Benzidine	ND	ND	ug/l	NC		30
1,2,4-Trichlorobenzene	ND	ND	ug/l	NC		30
Hexachlorobenzene	ND	ND	ug/l	NC		30
Bis(2-chloroethyl)ether	ND	ND	ug/l	NC		30
2-Chloronaphthalene	ND	ND	ug/l	NC		30
3,3'-Dichlorobenzidine	ND	ND	ug/l	NC		30
2,4-Dinitrotoluene	ND	ND	ug/l	NC		30
2,6-Dinitrotoluene	ND	ND	ug/l	NC		30
Azobenzene	ND	ND	ug/l	NC		30
Fluoranthene	ND	ND	ug/l	NC		30
4-Chlorophenyl phenyl ether	ND	ND	ug/l	NC		30
4-Bromophenyl phenyl ether	ND	ND	ug/l	NC		30
Bis(2-chloroisopropyl)ether	ND	ND	ug/l	NC		30
Bis(2-chloroethoxy)methane	ND	ND	ug/l	NC		30
Hexachlorobutadiene	ND	ND	ug/l	NC		30
Hexachlorocyclopentadiene	ND	ND	ug/l	NC		30
Hexachloroethane	ND	ND	ug/l	NC		30
Isophorone	ND	ND	ug/l	NC		30

## Lab Duplicate Analysis

Batch Quality Control

Project Name: 100 BINNEY ST.

Project Number: 34250-002

Lab Number: L1014828

Report Date: 10/04/10

Parameter	Native Sample	Duplicate Sample	Units	RPD	RPD Limits
Semivolatiles Organics by GC/MS - Westborough Lab Associated sample(s): 01 QC Batch ID: WG435165-4 QC Sample: L1014876-01 Client ID: DUP Sample					
Naphthalene	ND	ND	ug/l	NC	30
Nitrobenzene	ND	ND	ug/l	NC	30
NDPA/DPA	ND	ND	ug/l	NC	30
n-Nitrosodi-n-propylamine	ND	ND	ug/l	NC	30
Bis(2-ethylhexyl)phthalate	ND	ND	ug/l	NC	30
Butyl benzyl phthalate	ND	ND	ug/l	NC	30
Di-n-butylphthalate	ND	ND	ug/l	NC	30
Di-n-octylphthalate	ND	ND	ug/l	NC	30
Diethyl phthalate	ND	ND	ug/l	NC	30
Dimethyl phthalate	ND	ND	ug/l	NC	30
Benzo(a)anthracene	ND	ND	ug/l	NC	30
Benzo(a)pyrene	ND	ND	ug/l	NC	30
Benzo(b)fluoranthene	ND	ND	ug/l	NC	30
Benzo(k)fluoranthene	ND	ND	ug/l	NC	30
Chrysene	ND	ND	ug/l	NC	30
Acenaphthylene	ND	ND	ug/l	NC	30
Anthracene	ND	ND	ug/l	NC	30
Benzo(ghi)perylene	ND	ND	ug/l	NC	30
Fluorene	ND	ND	ug/l	NC	30

## Lab Duplicate Analysis

Batch Quality Control

Project Name: 100 BINNEY ST.

Project Number: 34250-002

Lab Number: L1014828

Report Date: 10/04/10

Parameter	Native Sample	Duplicate Sample	Units	RPD	RPD Limits
Semivolatiles Organics by GC/MS - Westborough Lab Associated sample(s): 01 QC Batch ID: WG435165-4 QC Sample: L1014876-01 Client ID: DUP Sample					
Phenanthrene	ND	ND	ug/l	NC	30
Dibenzo(a,h)anthracene	ND	ND	ug/l	NC	30
Indeno(1,2,3-cd)pyrene	ND	ND	ug/l	NC	30
Pyrene	ND	ND	ug/l	NC	30
Aniline	ND	ND	ug/l	NC	30
4-Chloroaniline	ND	ND	ug/l	NC	30
1-Methylnaphthalene	ND	ND	ug/l	NC	30
2-Nitroaniline	ND	ND	ug/l	NC	30
3-Nitroaniline	ND	ND	ug/l	NC	30
4-Nitroaniline	ND	ND	ug/l	NC	30
Dibenzofuran	ND	ND	ug/l	NC	30
2-Methylnaphthalene	ND	ND	ug/l	NC	30
n-Nitrosodimethylamine	ND	ND	ug/l	NC	30
2,4,6-Trichlorophenol	ND	ND	ug/l	NC	30
p-Chloro-m-cresol	ND	ND	ug/l	NC	30
2-Chlorophenol	ND	ND	ug/l	NC	30
2,4-Dichlorophenol	ND	ND	ug/l	NC	30
2,4-Dimethylphenol	ND	ND	ug/l	NC	30
2-Nitrophenol	ND	ND	ug/l	NC	30

**Lab Duplicate Analysis**  
Batch Quality Control

**Project Name:** 100 BINNEY ST.  
**Project Number:** 34250-002

**Lab Number:** L1014828  
**Report Date:** 10/04/10

Parameter	Native Sample	Duplicate Sample	Units	RPD	RPD Limits
Semivolatle Organics by GC/MS - Westborough Lab Associated sample(s): 01 QC Batch ID: WG435165-4 QC Sample: L1014876-01 Client ID: DUP Sample					
4-Nitrophenol	ND	ND	ug/l	NC	30
2,4-Dinitrophenol	ND	ND	ug/l	NC	30
4,6-Dinitro-o-cresol	ND	ND	ug/l	NC	30
Pentachlorophenol	ND	ND	ug/l	NC	30
Phenol	ND	ND	ug/l	NC	30
2-Methylphenol	ND	ND	ug/l	NC	30
3-Methylphenol/4-Methylphenol	ND	ND	ug/l	NC	30
2,4,5-Trichlorophenol	ND	ND	ug/l	NC	30
Benzoic Acid	ND	ND	ug/l	NC	30
Benzyl Alcohol	ND	ND	ug/l	NC	30
Carbazole	ND	ND	ug/l	NC	30

Surrogate	%Recovery	Qualifier	%Recovery	Qualifier	Acceptance Criteria
2-Fluorophenol	0	Q	7	Q	21-120
Phenol-d6	0	Q	0	Q	10-120
Nitrobenzene-d5	99		114		23-120
2-Fluorobiphenyl	105		119		15-120
2,4,6-Tribromophenol	122	Q	99		10-120
4-Terphenyl-d14	112		116		33-120



## Lab Duplicate Analysis

Batch Quality Control

Project Name: 100 BINNEY ST.

Project Number: 34250-002

Lab Number: L1014828

Report Date: 10/04/10

Parameter	Native Sample	Duplicate Sample	Units	RPD	RPD Limits
Semivolatile Organics by GC/MS - Westborough Lab Associated sample(s): 01 QC Batch ID: WG435165-4 QC Sample: L1014876-01 Client ID: DUP Sample					

Surrogate	%Recovery	Qualifier	%Recovery	Qualifier	Acceptance Criteria
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# PCBS

**Project Name:** 100 BINNEY ST.**Lab Number:** L1014828**Project Number:** 34250-002**Report Date:** 10/04/10**SAMPLE RESULTS**

**Lab ID:** L1014828-01  
**Client ID:** HA-B10  
**Sample Location:** Not Specified  
**Matrix:** Water  
**Analytical Method:** 5,608  
**Analytical Date:** 09/29/10 07:58  
**Analyst:** SH

**Date Collected:** 09/23/10 12:00  
**Date Received:** 09/23/10  
**Field Prep:** Not Specified  
**Extraction Method:** EPA 608  
**Extraction Date:** 09/28/10 13:57  
**Cleanup Method1:** EPA 3665A  
**Cleanup Date1:** 09/29/10  
**Cleanup Method2:** EPA 3660B  
**Cleanup Date2:** 09/29/10

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
<b>Polychlorinated Biphenyls by GC - Westborough Lab</b>						
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	Column
2,4,5,6-Tetrachloro-m-xylene	81		30-150	A
Decachlorobiphenyl	54		30-150	A



**Project Name:** 100 BINNEY ST.  
**Project Number:** 34250-002

**Lab Number:** L1014828  
**Report Date:** 10/04/10

**Method Blank Analysis  
 Batch Quality Control**

Analytical Method: 5,608  
 Analytical Date: 09/29/10 06:32  
 Analyst: SH

Extraction Method: EPA 608  
 Extraction Date: 09/28/10 13:57  
 Cleanup Method1: EPA 3665A  
 Cleanup Date1: 09/29/10  
 Cleanup Method2: EPA 3660B  
 Cleanup Date2: 09/29/10

Parameter	Result	Qualifier	Units	RL	MDL
Polychlorinated Biphenyls by GC - Westborough Lab for sample(s): 01 Batch: WG434605-1					
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	Column
2,4,5,6-Tetrachloro-m-xylene	83		30-150	A
Decachlorobiphenyl	65		30-150	A

## Matrix Spike Analysis

Batch Quality Control

Project Name: 100 BINNEY ST.

Lab Number: L1014828

Project Number: 34250-002

Report Date: 10/04/10

Parameter	Native Sample	MS Added	MS Found	MS %Recovery	Qual	MSD Found	MSD %Recovery	Qual	Recovery Limits	RPD	Qual	RPD Limits
Polychlorinated Biphenyls by GC - Westborough Lab Associated sample(s): 01 QC Batch ID: WG434605-3 QC Sample: L1014912-08 Client ID: MS Sample												
Aroclor 1016	ND	2	2.31	116		-	-		40-126	-		30
Aroclor 1260	ND	2	2.06	103		-	-		40-127	-		30

Surrogate	MS		MSD		Acceptance Criteria	Column
	% Recovery	Qualifier	% Recovery	Qualifier		
2,4,5,6-Tetrachloro-m-xylene	84				30-150	A
Decachlorobiphenyl	56				30-150	A

## Lab Control Sample Analysis

Batch Quality Control

Project Name: 100 BINNEY ST.

Lab Number: L1014828

Project Number: 34250-002

Report Date: 10/04/10

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Polychlorinated Biphenyls by GC - Westborough Lab Associated sample(s): 01 Batch: WG434605-2								
Aroclor 1016	114		-		40-126	-		30
Aroclor 1260	108		-		40-127	-		30

Surrogate	LCS %Recovery	Qual	LCSD %Recovery	Qual	Acceptance Criteria	Column
2,4,5,6-Tetrachloro-m-xylene	89				30-150	A
Decachlorobiphenyl	62				30-150	A

## Lab Duplicate Analysis

Batch Quality Control

Project Name: 100 BINNEY ST.

Project Number: 34250-002

Lab Number: L1014828

Report Date: 10/04/10

Parameter	Native Sample	Duplicate Sample	Units	RPD	Qual	RPD Limits
Polychlorinated Biphenyls by GC - Westborough Lab Associated sample(s): 01 QC Batch ID: WG434605-4 QC Sample: L1014912-08 Client ID: DUP Sample						
Aroclor 1016	ND	ND	ug/l	NC		30
Aroclor 1221	ND	ND	ug/l	NC		30
Aroclor 1232	ND	ND	ug/l	NC		30
Aroclor 1242	ND	ND	ug/l	NC		30
Aroclor 1248	ND	ND	ug/l	NC		30
Aroclor 1254	ND	ND	ug/l	NC		30
Aroclor 1260	ND	ND	ug/l	NC		30

Surrogate	%Recovery	Qualifier	%Recovery	Qualifier	Acceptance Criteria	Column
2,4,5,6-Tetrachloro-m-xylene	82		90		30-150	A
Decachlorobiphenyl	56		60		30-150	A

## METALS

**Project Name:** 100 BINNEY ST.  
**Project Number:** 34250-002

**Lab Number:** L1014828  
**Report Date:** 10/04/10

**SAMPLE RESULTS**

**Lab ID:** L1014828-01  
**Client ID:** HA-B10  
**Sample Location:** Not Specified  
**Matrix:** Water

**Date Collected:** 09/23/10 12:00  
**Date Received:** 09/23/10  
**Field Prep:** Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Prep Method	Analytical Method	Analyst
<b>Total Metals - Westborough Lab</b>											
Antimony, Total	ND		mg/l	0.050	--	1	09/28/10 10:00	09/29/10 10:17	EPA 3005A	19,200.7	MG
Arsenic, Total	ND		mg/l	0.005	--	1	09/28/10 10:00	09/29/10 10:17	EPA 3005A	19,200.7	MG
Cadmium, Total	ND		mg/l	0.005	--	1	09/28/10 10:00	09/29/10 10:17	EPA 3005A	19,200.7	MG
Chromium, Total	ND		mg/l	0.01	--	1	09/28/10 10:00	09/29/10 10:17	EPA 3005A	19,200.7	MG
Copper, Total	ND		mg/l	0.010	--	1	09/28/10 10:00	09/29/10 10:17	EPA 3005A	19,200.7	MG
Lead, Total	ND		mg/l	0.010	--	1	09/28/10 10:00	09/29/10 10:17	EPA 3005A	19,200.7	MG
Mercury, Total	ND		mg/l	0.0002	--	1	09/24/10 16:45	09/27/10 11:37	EPA 245.1	3,245.1	EZ
Nickel, Total	ND		mg/l	0.025	--	1	09/28/10 10:00	09/29/10 10:17	EPA 3005A	19,200.7	MG
Selenium, Total	ND		mg/l	0.010	--	1	09/28/10 10:00	09/29/10 10:17	EPA 3005A	19,200.7	MG
Silver, Total	ND		mg/l	0.007	--	1	09/28/10 10:00	09/29/10 10:17	EPA 3005A	19,200.7	MG
Zinc, Total	ND		mg/l	0.050	--	1	09/28/10 10:00	09/29/10 10:17	EPA 3005A	19,200.7	MG



**Project Name:** 100 BINNEY ST.  
**Project Number:** 34250-002

**Lab Number:** L1014828  
**Report Date:** 10/04/10

## Method Blank Analysis Batch Quality Control

Parameter	Result Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
Total Metals - Westborough Lab for sample(s): 01 Batch: WG434166-1									
Mercury, Total	ND	mg/l	0.0002	--	1	09/24/10 16:45	09/27/10 11:10	3,245.1	EZ

### Prep Information

Digestion Method: EPA 245.1

Parameter	Result Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
Total Metals - Westborough Lab for sample(s): 01 Batch: WG434577-1									
Antimony, Total	ND	mg/l	0.050	--	1	09/28/10 10:00	09/29/10 09:55	19,200.7	MG
Arsenic, Total	ND	mg/l	0.005	--	1	09/28/10 10:00	09/29/10 09:55	19,200.7	MG
Cadmium, Total	ND	mg/l	0.005	--	1	09/28/10 10:00	09/29/10 09:55	19,200.7	MG
Chromium, Total	ND	mg/l	0.01	--	1	09/28/10 10:00	09/29/10 09:55	19,200.7	MG
Copper, Total	ND	mg/l	0.010	--	1	09/28/10 10:00	09/29/10 09:55	19,200.7	MG
Lead, Total	ND	mg/l	0.010	--	1	09/28/10 10:00	09/29/10 09:55	19,200.7	MG
Nickel, Total	ND	mg/l	0.025	--	1	09/28/10 10:00	09/29/10 09:55	19,200.7	MG
Selenium, Total	ND	mg/l	0.010	--	1	09/28/10 10:00	09/29/10 09:55	19,200.7	MG
Silver, Total	ND	mg/l	0.007	--	1	09/28/10 10:00	09/29/10 09:55	19,200.7	MG
Zinc, Total	ND	mg/l	0.050	--	1	09/28/10 10:00	09/29/10 09:55	19,200.7	MG

### Prep Information

Digestion Method: EPA 3005A



## Lab Control Sample Analysis

### Batch Quality Control

Project Name: 100 BINNEY ST.

Project Number: 34250-002

Lab Number: L1014828

Report Date: 10/04/10

Parameter	LCS		LCSD		%Recovery Limits	RPD	Qual	RPD Limits
	%Recovery	Qual	%Recovery	Qual				
Total Metals - Westborough Lab Associated sample(s): 01 Batch: WG434166-2								
Mercury, Total	98		-		85-115	-		
Total Metals - Westborough Lab Associated sample(s): 01 Batch: WG434577-2								
Antimony, Total	107		-		85-115	-		
Arsenic, Total	111		-		85-115	-		
Cadmium, Total	112		-		85-115	-		
Chromium, Total	100		-		85-115	-		
Copper, Total	102		-		85-115	-		
Lead, Total	103		-		85-115	-		
Nickel, Total	100		-		85-115	-		
Selenium, Total	114		-		85-115	-		
Silver, Total	106		-		85-115	-		
Zinc, Total	105		-		85-115	-		



### Matrix Spike Analysis Batch Quality Control

**Project Name:** 100 BINNEY ST.  
**Project Number:** 34250-002

**Lab Number:** L1014828  
**Report Date:** 10/04/10

Parameter	Native Sample	MS Added	MS Found	MS %Recovery	Qual	MSD Found	MSD %Recovery	Qual	Recovery Limits	RPD	Qual	RPD Limits
Total Metals - Westborough Lab Associated sample(s): 01    QC Batch ID: WG434166-4    QC Sample: L1014655-01    Client ID: MS Sample												
Mercury, Total	ND	0.001	0.0013	132	Q	-	-		70-130	-		20
Total Metals - Westborough Lab Associated sample(s): 01    QC Batch ID: WG434577-4    QC Sample: L1014983-01    Client ID: MS Sample												
Antimony, Total	ND	0.5	0.537	107		-	-		75-125	-		20
Arsenic, Total	ND	0.12	0.132	110		-	-		75-125	-		20
Cadmium, Total	ND	0.051	0.058	113		-	-		75-125	-		20
Chromium, Total	ND	0.2	0.20	100		-	-		75-125	-		20
Copper, Total	0.041	0.25	0.296	102		-	-		75-125	-		20
Lead, Total	ND	0.51	0.532	104		-	-		75-125	-		20
Nickel, Total	ND	0.5	0.503	101		-	-		75-125	-		20
Selenium, Total	ND	0.12	0.135	112		-	-		75-125	-		20
Silver, Total	ND	0.05	0.053	106		-	-		75-125	-		20
Zinc, Total	0.290	0.5	0.803	103		-	-		75-125	-		20

## Lab Duplicate Analysis

Batch Quality Control

Project Name: 100 BINNEY ST.

Project Number: 34250-002

Lab Number: L1014828

Report Date: 10/04/10

Parameter	Native Sample	Duplicate Sample	Units	RPD	Qual	RPD Limits
Total Metals - Westborough Lab Associated sample(s): 01 QC Batch ID: WG434166-3 QC Sample: L1014655-01 Client ID: DUP Sample						
Mercury, Total	ND	ND	mg/l	NC		20
Total Metals - Westborough Lab Associated sample(s): 01 QC Batch ID: WG434577-3 QC Sample: L1014983-01 Client ID: DUP Sample						
Copper, Total	0.041	0.041	mg/l	1		20
Zinc, Total	0.290	0.294	mg/l	1		20

# **INORGANICS & MISCELLANEOUS**

Project Name: 100 BINNEY ST.

Lab Number: L1014828

Project Number: 34250-002

Report Date: 10/04/10

## SAMPLE RESULTS

Lab ID: L1014828-01

Date Collected: 09/23/10 12:00

Client ID: HA-B10

Date Received: 09/23/10

Sample Location: Not Specified

Field Prep: Not Specified

Matrix: Water

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Westborough Lab										
pH (H)	7.0		SU	-	NA	1	-	09/23/10 21:17	30,4500H+-B	JW
Oil & Grease, Hem-Grav	ND		mg/l	4.0	--	1	09/28/10 17:00	09/29/10 11:30	74,1664A	JO
TPH	ND		mg/l	4.00	--	1	09/28/10 17:00	09/29/10 14:00	74,1664A	JO



Project Name: 100 BINNEY ST.

Lab Number: L1014828

Project Number: 34250-002

Report Date: 10/04/10

**Method Blank Analysis**  
**Batch Quality Control**

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Westborough Lab for sample(s): 01 Batch: WG434652-2										
Oil & Grease, Hem-Grav	ND		mg/l	4.0	--	1	09/28/10 17:00	09/29/10 11:30	74,1664A	JO
General Chemistry - Westborough Lab for sample(s): 01 Batch: WG434653-2										
TPH	ND		mg/l	4.00	--	1	09/28/10 17:00	09/29/10 14:00	74,1664A	JO

## Lab Control Sample Analysis

### Batch Quality Control

Project Name: 100 BINNEY ST.

Project Number: 34250-002

Lab Number: L1014828

Report Date: 10/04/10

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
General Chemistry - Westborough Lab Associated sample(s): 01 Batch: WG434012-1								
pH	100		-		99-101	-		5
General Chemistry - Westborough Lab Associated sample(s): 01 Batch: WG434652-1								
Oil & Grease, Hem-Grav	92		-		78-114	-		18
General Chemistry - Westborough Lab Associated sample(s): 01 Batch: WG434653-1								
TPH	85		-		64-132	-		34

### Matrix Spike Analysis Batch Quality Control

**Project Name:** 100 BINNEY ST.  
**Project Number:** 34250-002

**Lab Number:** L1014828  
**Report Date:** 10/04/10

Parameter	Native Sample	MS Added	MS Found	MS %Recovery	MSD Qual	MSD Found	MSD %Recovery	MSD Qual	Recovery Limits	RPD	RPD Qual	RPD Limits
General Chemistry - Westborough Lab Associated sample(s): 01 QC Batch ID: WG434652-3 QC Sample: L1014827-01 Client ID: MS Sample												
Oil & Grease, Hem-Grav	ND	44.4	38	86	-	-	-	-	78-114	-	-	18
General Chemistry - Westborough Lab Associated sample(s): 01 QC Batch ID: WG434653-3 QC Sample: L1014827-01 Client ID: MS Sample												
TPH	ND	22.2	19.3	87	-	-	-	-	64-132	-	-	34



## Lab Duplicate Analysis

Batch Quality Control

Project Name: 100 BINNEY ST.

Project Number: 34250-002

Lab Number: L1014828

Report Date: 10/04/10

Parameter	Native Sample	Duplicate Sample	Units	RPD	Qual	RPD Limits
General Chemistry - Westborough Lab Associated sample(s): 01 QC Batch ID: WG434012-2 QC Sample: L1014828-01 Client ID: HA-B10						
pH (H)	7.0	7.0	SU	0		5
General Chemistry - Westborough Lab Associated sample(s): 01 QC Batch ID: WG434652-4 QC Sample: L1014828-01 Client ID: HA-B10						
Oil & Grease, Hem-Grav	ND	ND	mg/l	NC		18
General Chemistry - Westborough Lab Associated sample(s): 01 QC Batch ID: WG434653-4 QC Sample: L1014827-01 Client ID: DUP Sample						
TPH	ND	ND	mg/l	NC		34



Project Name: 100 BINNEY ST.

Lab Number: L1014828

Project Number: 34250-002

Report Date: 10/04/10

## 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  
C Absent

## Container Information

Container ID	Container Type	Cooler	pH	Temp deg C	Pres	Seal	Analysis(*)
L1014828-01A	Vial Na2S2O3 preserved	C	N/A	2	Y	Absent	624(7)
L1014828-01B	Vial Na2S2O3 preserved	C	N/A	2	Y	Absent	624(7)
L1014828-01C	Plastic 250ml unpreserved	B	7	2	Y	Absent	PH-4500(.01)
L1014828-01D	Plastic 250ml HNO3 preserved	B	<2	2	Y	Absent	NI-UI(180),SB-UI(180),AG-UI(180),ZN-UI(180),SE-UI(180),HG-U(28),CD-UI(180),CR-UI(180),AS-UI(180),CU-UI(180),PB-UI(180)
L1014828-01E	Amber 1000ml HCl preserved	A	<2	2	Y	Absent	TPH-1664(28)
L1014828-01F	Amber 1000ml HCl preserved	A	<2	2	Y	Absent	TPH-1664(28)
L1014828-01G	Amber 1000ml HCl preserved	A	N/A	2	Y	Absent	OG-1664(28)
L1014828-01H	Amber 1000ml HCl preserved	A	N/A	2	Y	Absent	OG-1664(28)
L1014828-01I	Amber 1000ml Na2S2O3	A	7	2	Y	Absent	PCB-608(7)
L1014828-01J	Amber 1000ml Na2S2O3	A	7	2	Y	Absent	PCB-608(7)
L1014828-01K	Amber 1000ml Na2S2O3	A	7	2	Y	Absent	625(7)
L1014828-01L	Amber 1000ml Na2S2O3	A	7	2	Y	Absent	625(7)
L1014828-02A	Vial Na2S2O3 preserved	C	N/A	2	Y	Absent	HOLD(14)
L1014828-02B	Vial Na2S2O3 preserved	C	N/A	2	Y	Absent	HOLD(14)
L1014828-02C	Plastic 250ml unpreserved	B	7	2	Y	Absent	HOLD(14)
L1014828-02D	Plastic 250ml HNO3 preserved	B	<2	2	Y	Absent	HOLD(14)
L1014828-02E	Amber 1000ml HCl preserved	A	<2	2	Y	Absent	HOLD(14)
L1014828-02F	Amber 1000ml HCl preserved	A	<2	2	Y	Absent	HOLD(14)
L1014828-02G	Amber 1000ml HCl preserved	A	N/A	2	Y	Absent	HOLD(14)
L1014828-02H	Amber 1000ml HCl preserved	A	N/A	2	Y	Absent	HOLD(14)
L1014828-02I	Amber 1000ml Na2S2O3	A	7	2	Y	Absent	HOLD(14)
L1014828-02J	Amber 1000ml Na2S2O3	A	7	2	Y	Absent	HOLD(14)

\*Values in parentheses indicate holding time in days



**Project Name:** 100 BINNEY ST.**Project Number:** 34250-002**Lab Number:** L1014828**Report Date:** 10/04/10**Container Information**

<b>Container ID</b>	<b>Container Type</b>	<b>Cooler</b>	<b>pH</b>	<b>Temp deg C</b>	<b>Pres</b>	<b>Seal</b>	<b>Analysis(*)</b>
L1014828-02K	Amber 1000ml Na2S2O3	A	7	2	Y	Absent	HOLD(14)
L1014828-02L	Amber 1000ml Na2S2O3	A	7	2	Y	Absent	HOLD(14)
L1014828-02M	Plastic 250ml HNO3 preserved	B	<2	2	Y	Absent	HOLD(14)

\*Values in parentheses indicate holding time in days

**Project Name:** 100 BINNEY ST.  
**Project Number:** 34250-002

**Lab Number:** L1014828  
**Report Date:** 10/04/10

## GLOSSARY

### Acronyms

- EPA** - Environmental Protection Agency.
- LCS** - Laboratory Control Sample: A sample matrix, free from the analytes of interest, spiked with verified known amounts of analytes or a material containing known and verified amounts of analytes.
- LCSD** - Laboratory Control Sample Duplicate: Refer to LCS.
- 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.

### 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.
- 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.
- H** - The analysis of pH was performed beyond the regulatory-required holding time of 15 minutes from the time of sample collection.
- I** - The RPD between the results for the two columns exceeds the method-specified criteria; however, the lower value has been reported due to obvious interference.
- 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. 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.

Report Format: Data Usability Report



**Project Name:** 100 BINNEY ST.

**Lab Number:** L1014828

**Project Number:** 34250-002

**Report Date:** 10/04/10

*Data Qualifiers*

**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:** 100 BINNEY ST.  
**Project Number:** 34250-002

**Lab Number:** L1014828  
**Report Date:** 10/04/10

## REFERENCES

- 3 Methods for the Determination of Metals in Environmental Samples, Supplement I. EPA/600/R-94/111. May 1994.
- 5 Methods for the Organic Chemical Analysis of Municipal and Industrial Wastewater. Appendix A, Part 136, 40 CFR (Code of Federal Regulations).
- 19 Inductively Coupled Plasma Atomic Emission Spectrometric Method for Trace Element Analysis of Water and Wastes. Appendix C, Part 136, 40 CFR (Code of Federal Regulations). July 1, 1999 edition.
- 30 Standard Methods for the Examination of Water and Wastewater. APHA-AWWA-WPCF. 18th Edition. 1992.
- 74 Method 1664, Revision A: N-Hexane Extractable Material (HEM; Oil & Grease) and Silica Gel Treated N-Hexane Extractable Material (SGT-HEM; Non-polar Material) by Extraction and Gravimetry, EPA-821-R-98-002, February 1999.

## 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 July 19, 2010 - Westboro Facility

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

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

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

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

*Solid Waste/Soil* (Inorganic Parameters: pH, Sulfide, Aluminum, Antimony, Arsenic, Barium, Beryllium, Boron, Cadmium, Calcium, Chromium, Hexavalent Chromium, Cobalt, Copper, Iron, Lead, Magnesium, Manganese, Mercury, Molybdenum, Nickel, Potassium, Selenium, Silver, Sodium, Thallium, Tin, Vanadium, Zinc, Total Cyanide, Ignitability, Phenolics, Corrosivity, TCLP Leach (1311), SPLP Leach (1312 metals only), Reactivity. Organic Parameters: PCBs, PCBs in Oil, Organochlorine Pesticides, Technical Chlordane, Toxaphene, Extractable Petroleum Hydrocarbons (ETPH), MA-EPH, MA-VPH, Dicamba, 2,4-D, 2,4,5-T, 2,4,5-TP(Silvex), Volatile Organics, Acid Extractables (Phenols), 3,3'-Dichlorobenzidine, Phthalates, Nitrosamines, Nitroaromatics & Cyclic Ketones, PAHs, Haloethers, Chlorinated Hydrocarbons. )

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

*Drinking Water* (Inorganic Parameters: SM9215B, 9222D, 9223B, EPA 180.1, 300.0, 353.2, SM2130B, 2320B, 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, Lachat 10-107-06-1-B, SM2320B, 2340B, 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, 4500NH3-H, 4500NO3-F, 4500P-B.5, 4500P-E, 5210B, 5220D, 5310C, EPA 200.7, 200.8, 245.1. Organic Parameters: 608, 624, ME DRO, ME GRO, MA EPH, MA VPH.)

*Solid Waste/Soil* (Organic Parameters: ME DRO, ME GRO, MA EPH, MA VPH.)

### 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)

353.2 for: Nitrate-N, Nitrite-N; SM4500NO3-F, 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), 314.0, 332.

Microbiology Parameters: SM9215B; ENZ. SUB. SM9223; 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,Cr,Co,Cu,Fe,Pb,Mn,Mo,Ni,Se,Ag,Sr,Ti,Tl, V,Zn,Ca,Mg,Na,K)

245.1, SM4500H,B, EPA 120.1, SM2510B, 2540C, 2540B, 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-B,C-Titr, 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, SM4500-CN-CE, SM2540D.

Organic Parameters: (EPA 624 for Volatile Halocarbons, Volatile Aromatics)

(608 for: Chlordane, Aldrin, Dieldrin, DDD, DDE, DDT, Heptachlor, Heptachlor Epoxide, PCBs-Water), EPA 625 for SVOC Acid Extractables and SVOC Base/Neutral Extractables, 600/4-81-045-PCB-Oil

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

*Drinking Water (Inorganic Parameters:* SM6215B, 9222B, 9223B Colilert, EPA 200.7, 200.8, 245.2, 120.1, 300.0, 314.0, SM4500CN-E, 4500H+B, 4500NO3-F, 2320B, 2510B, 2540C, 4500F-C, 5310C, 2120B, EPA 331.0. *Organic Parameters:* 504.1, 524.2, SM6251B.)

*Non-Potable Water (Inorganic Parameters:* SM9222D, 9221B, 9222B, 9221E-EC, EPA 200.7, 200.8, 245.1, 245.2, SW-846 6010B, 6020, 7196A, 7470A, SM3500-CR-D, EPA 120.1, 300.0, 350.1, 351.1, 353.2, 420.1, 1664A, SW-846 9010, 9030, 9040B, SM426C, SM2310B, 2540B, 2540D, 4500H+B, 4500NH3-H, 4500NH3-E, 4500NO2-B, 4500P-E, 4500-S2-D, 5210B, 2320B, 2540C, 4500F-C, 5310C, 5540C, LACHAT 10-117-07-1-B, LACHAT 10-107-06-1-B, LACHAT 10-107-04-1-C, LACHAT 10-107-04-1-J, LACHAT 10-117-07-1-A, SM4500CL-E, LACHAT 10-204-00-1-A, LACHAT 10-107-06-2-D. *Organic Parameters:* SW-846 3005A, 3015A, 3510C, 5030B, 8021B, 8260B, 8270C, 8330, EPA 624, 625, 608, SW-846 8082, 8081A.)

*Solid & Chemical Materials (Inorganic Parameters:* SW-846 6010B, 7196A, 7471A, 7.3.3.2, 7.3.4.2, 1010, 1030, 9010, 9012A, 9014, 9030B, 9040, 9045C, 9050C, 1311, 3005A, 3050B, 3051A. *Organic Parameters:* SW-846 3540C, 3545, 3580A, 5030B, 5035, 8021B, 8260B, 8270C, 8330, 8151A, 8082, 8081A.)

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

*Drinking Water (Inorganic Parameters:* SM9222B, 9221E, 9223B, 9215B, 4500NO3-F, 4500F-C, EPA 300.0, 200.7, 2540C, 2320B, 314.0, SM2120B, 2510B, 5310C, SM4500H-B, EPA 200.8, 245.2. *Organic Parameters:* 504.1, SM6251B, 524.2.)

*Non-Potable Water (Inorganic Parameters:* SM5210B, EPA 410.4, SM5220D, 4500CI-D, EPA 300.0, SM2120B, SM4500F-BC, EPA 200.7, 351.1, LACHAT 10-107-06-2-D, EPA 353.2, SM4500NO3-F, 4500NO2-B, EPA 1664A, SM5310B, C or D, 4500-PE, EPA 420.1, SM4500P-B5+E, 2540B, 2540C, 2540D, EPA 120.1, SM2510B, SM15 426C, SM9221CE, 9222D, 9221B, 9222B, 9215B, 2310B, 2320B, 4500NH3-H, 4500-S D, EPA 350.1, SM5210B, SW-846 3015, 6020, 7470A, 5540C, 4500H-B, EPA 200.8, SM3500Cr-D, EPA 245.1, 245.2, SW-846 9040B, 3005A, EPA 6010B, 7196A, SW-846 9010B, 9030B. *Organic Parameters:* SW-846 8260B, 8270C, 3510C, EPA 608, 624, 625, SW-846 5030B, 8021B, 8081A, 8082, 8151A, 8330, NJ OQA-QAM-025 Rev.7.)

*Solid & Chemical Materials (Inorganic Parameters:* SW-846 9040B, 3005A, 6010B, 7196A, 5030B, 9010B, 9030B, 1030, 1311, 3050B, 3051, 7471A, 9014, 9012A, 9045C, 9050A, 9065. *Organic Parameters:* SW-846 8021B, 8081A, 8082, 8151A, 8330, 8260B, 8270C, 1311, 1312, 3540C, 3545, 3550B, 3580A, 5035L, 5035H, NJ OQA-QAM-025 Rev.7.)

**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 314.0, 332.0, SM2320B, EPA 300.0, SM2120B, 4500CN-E, 4500F-C, 4500H-B, 4500NO3-F, 2540C, EPA 120.1, SM 2510B. *Organic Parameters:* EPA 524.2, 504.1.)

*Non-Potable Water (Inorganic Parameters:* SM9221E, 9222D, 9221B, 9222B, 9215B, 5210B, EPA 410.4, SM5220D, 2310B-4a, 2320B, EPA 200.7, 300.0, LACHAT 10-117-07-1A or B, SM4500CI-E, 4500F-C, SM15 426C, EPA 350.1, LACHAT 10-107-06-1-B, SM4500NH3-H, EPA 351.1, LACHAT 10-107-06-2, EPA 353.2, LACHAT 10-107-041-C, SM4500-NO3-F, 4500-NO2-B, 4500P-E, 2540C, 2540B, 2540D, EPA 200.8, EPA 6010B, 6020, EPA 7196A, SM3500Cr-D, EPA 245.1, 245.2, 7470A, SM2120B, SM4500-CN-E LACHAT 10-204-00-1-A, EPA 9040B, SM4500-HB, EPA 1664A, SM5310C, EPA 420.1, SM14 510C, EPA 120.1, SM2510B, SM4500S-D, SM5540C, EPA 3005A, 3015. *Organic Parameters:* EPA 624, 8260B, 8270C, 625, 608, 8081A, 8151A, 8330, 8082, EPA 3510C, 5030B, 9010B, 9030B.)

*Solid & Hazardous Waste (Inorganic Parameters:* 1010, 1030, SW-846 Ch 7 Sec 7.3, EPA 6010B, 7196A, 7471A, 9012A, 9014, 9040B, 9045C, 9065, 9050, EPA 1311, 1312, 3005A, 3050B, 9010B, 9030B. *Organic Parameters:* EPA 8260B, 8270C, 8081A, 8151A, 8330, 8082, 3540C, 3545, 3546, 3580, 5030B, 5035.)

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

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

*Non-Potable Water (Organic Parameters:* EPA 3510C, 5030B, 625, 624. 608, 8081A, 8082, 8151A, 8260B, 8270C, 8330)

*Solid & Hazardous Waste (Inorganic Parameters:* EPA 1010, 1030, 1311, 3050B, 3051, 6010B, EPA 7.3.3.2, EPA 7.3.4.2, 7196A, 7471A, 9010B, 9012A, 9014, 9040B, 9045C, 9050, 9065. *Organic Parameters:* 3540C, 3545, 3580A, 5035, 8021B, 8081A, 8082, 8151A, 8260B, 8270C, 8330)

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

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

Refer to NY-DOH Certificate for Potable and Non-Potable Water.

**Texas Commission on Environmental Quality Certificate/Lab ID: T104704476-09-1. NELAP Accredited.**

*Non-Potable Water (Inorganic Parameters: EPA 120.1, 1664, 200.7, 200.8, 245.1, 245.2, 300.0, 350.1, 351.1, 353.2, 376.2, 410.4, 420.1, 6010, 6020, 7196, 7470, 9040, SM 2120B, 2310B, 2320B, 2510B, 2540B, 2540C, 2540D, 426C, 4500CL-E, 4500CN-E, 4500F-C, 4500H+B, 4500NH3-H, 4500NO2B, 4500P-E, 4500 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.)*

**Department of Defense Certificate/Lab ID: L2217.**

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

*Non-Potable Water (Inorganic Parameters: EPA 200.7, 200.8, 6010B, 6020, 245.1, 245.2, 7470A, 9040B, 300.0, 9251, 9038, 350.1, 353.2, 351.1, 120.1, 9050A, 410.4, 9060, 1664, 420.1, LACHAT 10-107-06-1-B, SM 4500CN-E, 4500H-B, 4500CL-E, 4500F-BC, 4500SO4-E, 426C, 4500NH3-B, 4500NH3-H, 4500NO3-F, 4500NO2-B, 4500Norg-C, 4500PE, 2510B, 5540C, 5220D, 5310C, 2540B, 2540C, 2540D, 510C, 4500S2-AD, 3005A, 3015, 9010B, 9030B. Organic Parameters: EPA 8260B, 8270C, 8330, 625, 8082, 8151A, 8081A, 3510C, 5030B, MassDEP EPH, MassDEP VPH.)*

*Solid & Hazardous Waste (Inorganic Parameters: EPA 200.7, 6010B, 7471A, 9040B, 9045C, 9065, 420.1, 9012A, 6860, 1311, 1312, 3050B, 9030B, 3051, 9010B, 3540C, SM 510ABC, 4500CN-CE, 2540G, SW-846 7.3, Organic Parameters: EPA 8260B, 8270C, 8330, 8082, 8081A, 8151A, 3545, 3546, 3580, 5035, MassDEP EPH, MassDEP VPH.)*

**Analytes Not Accredited by NELAP**

Certification is not available by NELAP for the following analytes: **EPA 8260B:** Freon-113, 1,2,4,5-Tetramethylbenzene, 4-Ethyltoluene. **EPA 8330A:** PETN, Picric Acid, Nitroglycerine, 2,6-DANT, 2,4-DANT. **EPA 8270C:** Methyl naphthalene, Dimethyl naphthalene, Total Methylnaphthalenes, Total Dimethylnaphthalenes, 1,4-Diphenylhydrazine (Azobenzene). **EPA 625:** 4-Chloroaniline. **EPA 350.1** for Ammonia in a Soil matrix.





Haley & Aldrich, Inc.  
465 Medford St.,  
Suite 2280,  
Boston, MA 02129-1400

# CHAIN OF CUSTODY RECORD

ALPHA Job # L10148828

H&A FILE NO. 34250-002  
PROJECT NAME 100 BINNEY ST.  
H&A CONTACT J. CASTILLA

LABORATORY ALPHA  
ADDRESS GINN ST.  
CONTACT GINN ST.

DELIVERY DATE 9-23-10  
TURNAROUND TIME 5 DAY TAT  
PRODUCT MANAGER R. BISHOP

Phone (617) 886-7400  
Fax (617) 886-7600  
Page 1 of 1

Sample No.	Date	Time	Depth	Type	Analysis Requested										Number of Containers	Comments			
					PAHs only	PCBs	PFAS	PCBs	PCBs	PCBs	PCBs	PCBs	PCBs	PCBs			PCBs		
HA-B10	9-23	1200	-	AG	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	12	Laboratory to use applicable DEP CAM methods, unless otherwise directed. ① 624 ② PCB COE ③ OIL & GREASE ④ TPH - 166 x ⑤ 625 ⑥ TOTAL HTLS (REG) ⑦ PH ⑧ DISSOLVED METALS (DE)
HA-B10 (FB)	"	1230	-	"	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	13	
					<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>		* PLACE HOLD on THE FIELD FILTERED SAMPLES until Results For unfiltered samples ARE DETERMINED.
					<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>		

Form 3003

WHITE - Laboratory

CANARY - Project Manager

PINK - Haley & Aldrich Laboratory

ARGENT 2008



## ANALYTICAL REPORT

Lab Number:	L1015553
Client:	Haley & Aldrich, Inc. 465 Medford Street, Suite 2200 Charlestown, MA 02129-1400
ATTN:	Rebecca Higgins
Phone:	(617) 886-7326
Project Name:	100 BINNEY ST.
Project Number:	34250-002
Report Date:	10/11/10

Certifications & Approvals: MA (M-MA086), NY NELAC (11148), CT (PH-0574), NH (2003), NJ (MA935), RI (LAO00065), ME (MA0086), PA (Registration #68-03671), USDA (Permit #S-72578), US Army Corps of Engineers, Naval FESC.

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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:** 100 BINNEY ST.  
**Project Number:** 34250-002

**Lab Number:** L1015553  
**Report Date:** 10/11/10

<b>Alpha Sample ID</b>	<b>Client ID</b>	<b>Sample Location</b>	<b>Collection Date/Time</b>
L1015553-01	HA-B2	Not Specified	09/23/10 14:30

**Project Name:** 100 BINNEY ST.  
**Project Number:** 34250-002

**Lab Number:** L1015553  
**Report Date:** 10/11/10

### Case Narrative

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

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

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

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

---

#### Pesticides

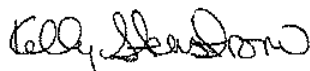
L1015553-01 was extracted with the method required holding time exceeded, at the client's request.

An LCS/LCSD was performed in lieu of a Laboratory Duplicate and Matrix Spike due to insufficient sample volume available for analysis.

The WG436114-2/-3 LCS/LCSD RPDs, associated with L1015553-01, are above the acceptance criteria for Delta-BHC (47%), Lindane (46%), Alpha-BHC (46%), Beta-BHC (47%), Heptachlor (48%), Aldrin (47%), Heptachlor epoxide (47%), Endrin (43%), Endrin aldehyde (34%), Endrin ketone (66%), Dieldrin (45%), 4,4'-DDE (67%), 4,4'-DDD (43%), 4,4'-DDT (42%), Endosulfan II (42%), Endosulfan sulfate (44%), Methoxychlor (42%), cis-Chlordane (47%), and trans-Chlordane (46%); however, the individual LCS/LCSD recoveries are within method limits.

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

Authorized Signature:

 Kelly Stenstrom

Title: Technical Director/Representative

Date: 10/11/10

# ORGANICS

# PESTICIDES

Project Name: 100 BINNEY ST.

Lab Number: L1015553

Project Number: 34250-002

Report Date: 10/11/10

## SAMPLE RESULTS

Lab ID: L1015553-01  
 Client ID: HA-B2  
 Sample Location: Not Specified  
 Matrix: Water  
 Analytical Method: 5,608  
 Analytical Date: 10/08/10 09:46  
 Analyst: SH

Date Collected: 09/23/10 14:30  
 Date Received: 09/23/10  
 Field Prep: Not Specified  
 Extraction Method: EPA 608  
 Extraction Date: 10/06/10 17:44  
 Cleanup Method1: EPA 3620B  
 Cleanup Date1: 10/08/10

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
<b>Organochlorine Pesticides by GC - Westborough Lab</b>						
Delta-BHC	ND		ug/l	0.024	--	1
Lindane	ND		ug/l	0.024	--	1
Alpha-BHC	ND		ug/l	0.024	--	1
Beta-BHC	ND		ug/l	0.024	--	1
Heptachlor	ND		ug/l	0.024	--	1
Aldrin	ND		ug/l	0.024	--	1
Heptachlor epoxide	ND		ug/l	0.024	--	1
Endrin	ND		ug/l	0.047	--	1
Endrin aldehyde	ND		ug/l	0.047	--	1
Endrin ketone	ND		ug/l	0.047	--	1
Dieldrin	ND		ug/l	0.047	--	1
4,4'-DDE	ND		ug/l	0.047	--	1
4,4'-DDD	ND		ug/l	0.047	--	1
4,4'-DDT	ND		ug/l	0.047	--	1
Endosulfan I	ND		ug/l	0.024	--	1
Endosulfan II	ND		ug/l	0.047	--	1
Endosulfan sulfate	ND		ug/l	0.047	--	1
Methoxychlor	ND		ug/l	0.235	--	1
Toxaphene	ND		ug/l	0.235	--	1
Chlordane	ND		ug/l	0.235	--	1
cis-Chlordane	ND		ug/l	0.024	--	1
trans-Chlordane	ND		ug/l	0.024	--	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria	Column
2,4,5,6-Tetrachloro-m-xylene	95		30-150	A
Decachlorobiphenyl	98		30-150	A



**Project Name:** 100 BINNEY ST.  
**Project Number:** 34250-002

**Lab Number:** L1015553  
**Report Date:** 10/11/10

**Method Blank Analysis  
Batch Quality Control**

**Analytical Method:** 5,608  
**Analytical Date:** 10/08/10 09:08  
**Analyst:** SH

**Extraction Method:** EPA 608  
**Extraction Date:** 10/06/10 17:45  
**Cleanup Method1:** EPA 3620B  
**Cleanup Date1:** 10/08/10

Parameter	Result	Qualifier	Units	RL	MDL
Organochlorine Pesticides by GC - Westborough Lab for sample(s): 01 Batch: WG436114-1					
Delta-BHC	ND		ug/l	0.020	--
Lindane	ND		ug/l	0.020	--
Alpha-BHC	ND		ug/l	0.020	--
Beta-BHC	ND		ug/l	0.020	--
Heptachlor	ND		ug/l	0.020	--
Aldrin	ND		ug/l	0.020	--
Heptachlor epoxide	ND		ug/l	0.020	--
Endrin	ND		ug/l	0.040	--
Endrin aldehyde	ND		ug/l	0.040	--
Endrin ketone	ND		ug/l	0.040	--
Dieldrin	ND		ug/l	0.040	--
4,4'-DDE	ND		ug/l	0.040	--
4,4'-DDD	ND		ug/l	0.040	--
4,4'-DDT	ND		ug/l	0.040	--
Endosulfan I	ND		ug/l	0.020	--
Endosulfan II	ND		ug/l	0.040	--
Endosulfan sulfate	ND		ug/l	0.040	--
Methoxychlor	ND		ug/l	0.200	--
Toxaphene	ND		ug/l	0.200	--
Chlordane	ND		ug/l	0.200	--
cis-Chlordane	ND		ug/l	0.020	--
trans-Chlordane	ND		ug/l	0.020	--

Surrogate	%Recovery	Qualifier	Acceptance Criteria	Column
2,4,5,6-Tetrachloro-m-xylene	95		30-150	A
Decachlorobiphenyl	124		30-150	A





## Lab Control Sample Analysis

### Batch Quality Control

Project Name: 100 BINNEY ST.

Lab Number: L1015553

Project Number: 34250-002

Report Date: 10/11/10

Parameter	LCS		LCSD		%Recovery Limits	RPD	Qual	RPD Limits
	%Recovery	Qual	%Recovery	Qual				
Organochlorine Pesticides by GC - Westborough Lab Associated sample(s): 01 Batch: WG436114-2 WG436114-3								
Delta-BHC	74		119		30-150	47	Q	30
Lindane	77		123		30-150	46	Q	30
Alpha-BHC	74		118		30-150	46	Q	30
Beta-BHC	82		132		30-150	47	Q	30
Heptachlor	66		108		30-150	48	Q	30
Aldrin	64		103		30-150	47	Q	30
Heptachlor epoxide	85		137		30-150	47	Q	30
Endrin	90		139		30-150	43	Q	30
Endrin aldehyde	88		124		30-150	34	Q	30
Endrin ketone	143		72		30-150	66	Q	30
Dieldrin	89		140		30-150	45	Q	30
4,4'-DDE	72		144		30-150	67	Q	30
4,4'-DDD	92		143		30-150	43	Q	30
4,4'-DDT	90		138		30-150	42	Q	30
Endosulfan I	93		124		30-150	29		30
Endosulfan II	93		142		30-150	42	Q	30
Endosulfan sulfate	82		128		30-150	44	Q	30
Methoxychlor	0		0		30-150	NC	Q	30
cis-Chlordane	86		138		30-150	47	Q	30
trans-Chlordane	83		132		30-150	46	Q	30

## Lab Control Sample Analysis

### Batch Quality Control

Project Name: 100 BINNEY ST.

Lab Number: L1015553

Project Number: 34250-002

Report Date: 10/11/10

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
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Organochlorine Pesticides by GC - Westborough Lab Associated sample(s): 01 Batch: WG436114-2 WG436114-3

Surrogate	LCS %Recovery	Qual	LCSD %Recovery	Qual	Acceptance Criteria	Column
2,4,5,6-Tetrachloro-m-xylene	60		88		30-150	A
Decachlorobiphenyl	84		129		30-150	A

Project Name: 100 BINNEY ST.

Lab Number: L1015553

Project Number: 34250-002

Report Date: 10/11/10

**Sample Receipt and Container Information**

Were project specific reporting limits specified? YES

Reagent H2O Preserved Vials Frozen on: NA

**Cooler Information Custody Seal****Cooler**

A Absent

**Container Information**

Container ID	Container Type	Cooler	pH	Temp deg C	Pres	Seal	Analysis(*)
L1015553-01A	Amber 1000ml Na2S2O3	A	7	2	Y	Absent	PESTICIDE-608(7)

\*Values in parentheses indicate holding time in days



**Project Name:** 100 BINNEY ST.  
**Project Number:** 34250-002

**Lab Number:** L1015553  
**Report Date:** 10/11/10

## GLOSSARY

### Acronyms

- EPA** - Environmental Protection Agency.
- LCS** - Laboratory Control Sample: A sample matrix, free from the analytes of interest, spiked with verified known amounts of analytes or a material containing known and verified amounts of analytes.
- LCSD** - Laboratory Control Sample Duplicate: Refer to LCS.
- 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.

### 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.
- 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.
- H** - The analysis of pH was performed beyond the regulatory-required holding time of 15 minutes from the time of sample collection.
- I** - The RPD between the results for the two columns exceeds the method-specified criteria; however, the lower value has been reported due to obvious interference.
- 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. 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.

Report Format: Data Usability Report



**Project Name:** 100 BINNEY ST.

**Lab Number:** L1015553

**Project Number:** 34250-002

**Report Date:** 10/11/10

*Data Qualifiers*

**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:** 100 BINNEY ST.  
**Project Number:** 34250-002

**Lab Number:** L1015553  
**Report Date:** 10/11/10

## REFERENCES

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

## 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 July 19, 2010 - Westboro Facility

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

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

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

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

*Solid Waste/Soil* (Inorganic Parameters: pH, Sulfide, Aluminum, Antimony, Arsenic, Barium, Beryllium, Boron, Cadmium, Calcium, Chromium, Hexavalent Chromium, Cobalt, Copper, Iron, Lead, Magnesium, Manganese, Mercury, Molybdenum, Nickel, Potassium, Selenium, Silver, Sodium, Thallium, Tin, Vanadium, Zinc, Total Cyanide, Ignitability, Phenolics, Corrosivity, TCLP Leach (1311), SPLP Leach (1312 metals only), Reactivity. Organic Parameters: PCBs, PCBs in Oil, Organochlorine Pesticides, Technical Chlordane, Toxaphene, Extractable Petroleum Hydrocarbons (ETPH), MA-EPH, MA-VPH, Dicamba, 2,4-D, 2,4,5-T, 2,4,5-TP(Silvex), Volatile Organics, Acid Extractables (Phenols), 3,3'-Dichlorobenzidine, Phthalates, Nitrosamines, Nitroaromatics & Cyclic Ketones, PAHs, Haloethers, Chlorinated Hydrocarbons. )

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

*Drinking Water* (Inorganic Parameters: SM9215B, 9222D, 9223B, EPA 180.1, 300.0, 353.2, SM2130B, 2320B, 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, Lachat 10-107-06-1-B, SM2320B, 2340B, 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, 4500NH3-H, 4500NO3-F, 4500P-B.5, 4500P-E, 5210B, 5220D, 5310C, EPA 200.7, 200.8, 245.1. Organic Parameters: 608, 624, ME DRO, ME GRO, MA EPH, MA VPH.)

*Solid Waste/Soil* (Organic Parameters: ME DRO, ME GRO, MA EPH, MA VPH.)

### 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)

353.2 for: Nitrate-N, Nitrite-N; SM4500NO3-F, 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), 314.0, 332.

Microbiology Parameters: SM9215B; ENZ. SUB. SM9223; 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,Cr,Co,Cu,Fe,Pb,Mn,Mo,Ni,Se,Ag,Sr,Ti,Tl, V,Zn,Ca,Mg,Na,K)

245.1, SM4500H,B, EPA 120.1, SM2510B, 2540C, 2540B, 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-B,C-Titr, 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, SM4500-CN-CE, SM2540D.

Organic Parameters: (EPA 624 for Volatile Halocarbons, Volatile Aromatics)

(608 for: Chlordane, Aldrin, Dieldrin, DDD, DDE, DDT, Heptachlor, Heptachlor Epoxide, PCBs-Water), EPA 625 for SVOC Acid Extractables and SVOC Base/Neutral Extractables, 600/4-81-045-PCB-Oil

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

*Drinking Water (Inorganic Parameters:* SM6215B, 9222B, 9223B Colilert, EPA 200.7, 200.8, 245.2, 120.1, 300.0, 314.0, SM4500CN-E, 4500H+B, 4500NO3-F, 2320B, 2510B, 2540C, 4500F-C, 5310C, 2120B, EPA 331.0. *Organic Parameters:* 504.1, 524.2, SM6251B.)

*Non-Potable Water (Inorganic Parameters:* SM9222D, 9221B, 9222B, 9221E-EC, EPA 200.7, 200.8, 245.1, 245.2, SW-846 6010B, 6020, 7196A, 7470A, SM3500-CR-D, EPA 120.1, 300.0, 350.1, 351.1, 353.2, 420.1, 1664A, SW-846 9010, 9030, 9040B, SM426C, SM2310B, 2540B, 2540D, 4500H+B, 4500NH3-H, 4500NH3-E, 4500NO2-B, 4500P-E, 4500-S2-D, 5210B, 2320B, 2540C, 4500F-C, 5310C, 5540C, LACHAT 10-117-07-1-B, LACHAT 10-107-06-1-B, LACHAT 10-107-04-1-C, LACHAT 10-107-04-1-J, LACHAT 10-117-07-1-A, SM4500CL-E, LACHAT 10-204-00-1-A, LACHAT 10-107-06-2-D. *Organic Parameters:* SW-846 3005A, 3015A, 3510C, 5030B, 8021B, 8260B, 8270C, 8330, EPA 624, 625, 608, SW-846 8082, 8081A.)

*Solid & Chemical Materials (Inorganic Parameters:* SW-846 6010B, 7196A, 7471A, 7.3.3.2, 7.3.4.2, 1010, 1030, 9010, 9012A, 9014, 9030B, 9040, 9045C, 9050C, 1311, 3005A, 3050B, 3051A. *Organic Parameters:* SW-846 3540C, 3545, 3580A, 5030B, 5035, 8021B, 8260B, 8270C, 8330, 8151A, 8082, 8081A.)

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

*Drinking Water (Inorganic Parameters:* SM9222B, 9221E, 9223B, 9215B, 4500NO3-F, 4500F-C, EPA 300.0, 200.7, 2540C, 2320B, 314.0, SM2120B, 2510B, 5310C, SM4500H-B, EPA 200.8, 245.2. *Organic Parameters:* 504.1, SM6251B, 524.2.)

*Non-Potable Water (Inorganic Parameters:* SM5210B, EPA 410.4, SM5220D, 4500CI-D, EPA 300.0, SM2120B, SM4500F-BC, EPA 200.7, 351.1, LACHAT 10-107-06-2-D, EPA 353.2, SM4500NO3-F, 4500NO2-B, EPA 1664A, SM5310B, C or D, 4500-PE, EPA 420.1, SM4500P-B5+E, 2540B, 2540C, 2540D, EPA 120.1, SM2510B, SM15 426C, SM9221CE, 9222D, 9221B, 9222B, 9215B, 2310B, 2320B, 4500NH3-H, 4500-S D, EPA 350.1, SM5210B, SW-846 3015, 6020, 7470A, 5540C, 4500H-B, EPA 200.8, SM3500Cr-D, EPA 245.1, 245.2, SW-846 9040B, 3005A, EPA 6010B, 7196A, SW-846 9010B, 9030B. *Organic Parameters:* SW-846 8260B, 8270C, 3510C, EPA 608, 624, 625, SW-846 5030B, 8021B, 8081A, 8082, 8151A, 8330, NJ OQA-QAM-025 Rev.7.)

*Solid & Chemical Materials (Inorganic Parameters:* SW-846 9040B, 3005A, 6010B, 7196A, 5030B, 9010B, 9030B, 1030, 1311, 3050B, 3051, 7471A, 9014, 9012A, 9045C, 9050A, 9065. *Organic Parameters:* SW-846 8021B, 8081A, 8082, 8151A, 8330, 8260B, 8270C, 1311, 1312, 3540C, 3545, 3550B, 3580A, 5035L, 5035H, NJ OQA-QAM-025 Rev.7.)

**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 314.0, 332.0, SM2320B, EPA 300.0, SM2120B, 4500CN-E, 4500F-C, 4500H-B, 4500NO3-F, 2540C, EPA 120.1, SM 2510B. *Organic Parameters:* EPA 524.2, 504.1.)

*Non-Potable Water (Inorganic Parameters:* SM9221E, 9222D, 9221B, 9222B, 9215B, 5210B, EPA 410.4, SM5220D, 2310B-4a, 2320B, EPA 200.7, 300.0, LACHAT 10-117-07-1A or B, SM4500CI-E, 4500F-C, SM15 426C, EPA 350.1, LACHAT 10-107-06-1-B, SM4500NH3-H, EPA 351.1, LACHAT 10-107-06-2, EPA 353.2, LACHAT 10-107-041-C, SM4500-NO3-F, 4500-NO2-B, 4500P-E, 2540C, 2540B, 2540D, EPA 200.8, EPA 6010B, 6020, EPA 7196A, SM3500Cr-D, EPA 245.1, 245.2, 7470A, SM2120B, SM4500-CN-E LACHAT 10-204-00-1-A, EPA 9040B, SM4500-HB, EPA 1664A, SM5310C, EPA 420.1, SM14 510C, EPA 120.1, SM2510B, SM4500S-D, SM5540C, EPA 3005A, 3015. *Organic Parameters:* EPA 624, 8260B, 8270C, 625, 608, 8081A, 8151A, 8330, 8082, EPA 3510C, 5030B, 9010B, 9030B.)

*Solid & Hazardous Waste (Inorganic Parameters:* 1010, 1030, SW-846 Ch 7 Sec 7.3, EPA 6010B, 7196A, 7471A, 9012A, 9014, 9040B, 9045C, 9065, 9050, EPA 1311, 1312, 3005A, 3050B, 9010B, 9030B. *Organic Parameters:* EPA 8260B, 8270C, 8081A, 8151A, 8330, 8082, 3540C, 3545, 3546, 3580, 5030B, 5035.)

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

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

*Non-Potable Water (Organic Parameters:* EPA 3510C, 5030B, 625, 624. 608, 8081A, 8082, 8151A, 8260B, 8270C, 8330)

*Solid & Hazardous Waste (Inorganic Parameters:* EPA 1010, 1030, 1311, 3050B, 3051, 6010B, EPA 7.3.3.2, EPA 7.3.4.2, 7196A, 7471A, 9010B, 9012A, 9014, 9040B, 9045C, 9050, 9065. *Organic Parameters:* 3540C, 3545, 3580A, 5035, 8021B, 8081A, 8082, 8151A, 8260B, 8270C, 8330)

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

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

Refer to NY-DOH Certificate for Potable and Non-Potable Water.



**Texas Commission on Environmental Quality Certificate/Lab ID: T104704476-09-1. NELAP Accredited.**

*Non-Potable Water (Inorganic Parameters: EPA 120.1, 1664, 200.7, 200.8, 245.1, 245.2, 300.0, 350.1, 351.1, 353.2, 376.2, 410.4, 420.1, 6010, 6020, 7196, 7470, 9040, SM 2120B, 2310B, 2320B, 2510B, 2540B, 2540C, 2540D, 426C, 4500CL-E, 4500CN-E, 4500F-C, 4500H+B, 4500NH3-H, 4500NO2B, 4500P-E, 4500 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.)*

**Department of Defense Certificate/Lab ID: L2217.**

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

*Non-Potable Water (Inorganic Parameters: EPA 200.7, 200.8, 6010B, 6020, 245.1, 245.2, 7470A, 9040B, 300.0, 9251, 9038, 350.1, 353.2, 351.1, 120.1, 9050A, 410.4, 9060, 1664, 420.1, LACHAT 10-107-06-1-B, SM 4500CN-E, 4500H-B, 4500CL-E, 4500F-BC, 4500SO4-E, 426C, 4500NH3-B, 4500NH3-H, 4500NO3-F, 4500NO2-B, 4500Norg-C, 4500PE, 2510B, 5540C, 5220D, 5310C, 2540B, 2540C, 2540D, 510C, 4500S2-AD, 3005A, 3015, 9010B, 9030B. Organic Parameters: EPA 8260B, 8270C, 8330, 625, 8082, 8151A, 8081A, 3510C, 5030B, MassDEP EPH, MassDEP VPH.)*

*Solid & Hazardous Waste (Inorganic Parameters: EPA 200.7, 6010B, 7471A, 9040B, 9045C, 9065, 420.1, 9012A, 6860, 1311, 1312, 3050B, 9030B, 3051, 9010B, 3540C, SM 510ABC, 4500CN-CE, 2540G, SW-846 7.3, Organic Parameters: EPA 8260B, 8270C, 8330, 8082, 8081A, 8151A, 3545, 3546, 3580, 5035, MassDEP EPH, MassDEP VPH.)*

**Analytes Not Accredited by NELAP**

Certification is not available by NELAP for the following analytes: **EPA 8260B:** Freon-113, 1,2,4,5-Tetramethylbenzene, 4-Ethyltoluene. **EPA 8330A:** PETN, Picric Acid, Nitroglycerine, 2,6-DANT, 2,4-DANT. **EPA 8270C:** Methyl naphthalene, Dimethyl naphthalene, Total Methylnaphthalenes, Total Dimethylnaphthalenes, 1,4-Diphenylhydrazine (Azobenzene). **EPA 625:** 4-Chloroaniline. **EPA 350.1** for Ammonia in a Soil matrix.

**HALEY & ALDRICH**  
ALDRICH

Haley & Aldrich, Inc.  
465 Medford St.,  
Suite 2200,  
Boston, MA 02129-1480

**CHAIN OF CUSTODY RECORD**

ALPHA Job # 11015553 LT 10/5  
11015553

H&A FILE NO. 34253-002  
PROJECT NAME 100 Bunker St  
H&A CONTACT F. CALZAVALLA  
LABORATORY ADDRESS ALPHA  
CONTACT GINA B.  
DELIVERY DATE 9-23-10  
TURNAROUND TIME 5 DAY TAT  
PROJECT MANAGER R. HENNINGER

Page 1 of 1  
Phone (617) 886-7400  
Fax (617) 886-7600

Sample No.	Date	Time	Depth	Type	Analysis Requested										Number of Containers	Comments (special instructions, preservation, additional method numbers, etc.)			
					1	2	3	4	5	6	7	8	9	10					
<u>NA-RZ</u>	<u>2010</u>	<u>1530</u>	<u>---</u>	<u>AP</u>	<u>X</u>	<u>X</u>	<u>X</u>	<u>X</u>	<u>X</u>	<u>X</u>	<u>X</u>	<u>X</u>	<u>X</u>	<u>X</u>	<u>X</u>	<u>X</u>	<u>X</u>	<u>X</u>	<u>X</u>
<u>NA-02 (PF)</u>	<u>"</u>	<u>1500</u>	<u>---</u>	<u>"</u>	<u>X</u>	<u>X</u>	<u>X</u>	<u>X</u>	<u>X</u>	<u>X</u>	<u>X</u>	<u>X</u>	<u>X</u>	<u>X</u>	<u>X</u>	<u>X</u>	<u>X</u>	<u>X</u>	<u>X</u>
<u>181PDRANK</u>																			

Signature	Date	Time	Received by	Signature	Date	Time	Signature	Date	Time
<u>WAVE PINS</u>	<u>9-23-10</u>	<u>1555</u>	<u>WAVE PINS</u>	<u>WAVE PINS</u>	<u>9/23/10</u>	<u>1735</u>	<u>WAVE PINS</u>	<u>9/23/10</u>	<u>1735</u>
<u>WAVE PINS</u>	<u>9/23/10</u>	<u>1735</u>	<u>WAVE PINS</u>	<u>WAVE PINS</u>	<u>9/23/10</u>	<u>1735</u>	<u>WAVE PINS</u>	<u>9/23/10</u>	<u>1735</u>

**RESERVATION KEY**

A	C	D	E	F	G
Sample chilled	NaOH	NO <sub>3</sub>	H <sub>2</sub> SO <sub>4</sub>	HCL	Mechanical

**SOILID**

1	2	3	4	5	6

**LIQUID**

1	2	3	4	5	6

Number of Containers: 1

Sampling Comments: \* PLACED ON HOLD BY FIELD ENTORSED  
SAMPLES NOT RESULTS FOR UNLISHED  
SAMPLES AND DETERMINED

Preservation Notes: RT-608



## ANALYTICAL REPORT

Lab Number:	L1015554
Client:	Haley & Aldrich, Inc. 465 Medford Street, Suite 2200 Charlestown, MA 02129-1400
ATTN:	Rebecca Higgins
Phone:	(617) 886-7326
Project Name:	100 BINNEY ST.
Project Number:	34250-002
Report Date:	10/11/10

Certifications & Approvals: MA (M-MA086), NY NELAC (11148), CT (PH-0574), NH (2003), NJ (MA935), RI (LAO00065), ME (MA0086), PA (Registration #68-03671), USDA (Permit #S-72578), US Army Corps of Engineers, Naval FESC.

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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:** 100 BINNEY ST.  
**Project Number:** 34250-002

**Lab Number:** L1015554  
**Report Date:** 10/11/10

<b>Alpha Sample ID</b>	<b>Client ID</b>	<b>Sample Location</b>	<b>Collection Date/Time</b>
L1015554-01	HA-B10	Not Specified	09/23/10 12:00

**Project Name:** 100 BINNEY ST.  
**Project Number:** 34250-002

**Lab Number:** L1015554  
**Report Date:** 10/11/10

### Case Narrative

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

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

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

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

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#### Pesticides

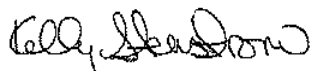
L1015554-01 was extracted with the method required holding time exceeded, at the client's request.

An LCS/LCSD was performed in lieu of a Laboratory Duplicate and Matrix Spike due to insufficient sample volume available for analysis.

The WG436114-2/-3 LCS/LCSD RPDs, associated with L1015554-01, are above the acceptance criteria for Delta-BHC (47%), Lindane (46%), Alpha-BHC (46%), Beta-BHC (47%), Heptachlor (48%), Aldrin (47%), Heptachlor epoxide (47%), Endrin (43%), Endrin aldehyde (34%), Endrin ketone (66%), Dieldrin (45%), 4,4'-DDE (67%), 4,4'-DDD (43%), 4,4'-DDT (42%), Endosulfan II (42%), Endosulfan sulfate (44%), Methoxychlor (42%), cis-Chlordane (47%), and trans-Chlordane (46%); however, the individual LCS/LCSD recoveries are within method limits.

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

Authorized Signature:

 Kelly Stenstrom

Title: Technical Director/Representative

Date: 10/11/10

# ORGANICS

# PESTICIDES

Project Name: 100 BINNEY ST.

Lab Number: L1015554

Project Number: 34250-002

Report Date: 10/11/10

## SAMPLE RESULTS

Lab ID: L1015554-01  
 Client ID: HA-B10  
 Sample Location: Not Specified  
 Matrix: Water  
 Analytical Method: 5,608  
 Analytical Date: 10/08/10 09:59  
 Analyst: SH

Date Collected: 09/23/10 12:00  
 Date Received: 09/23/10  
 Field Prep: Not Specified  
 Extraction Method: EPA 608  
 Extraction Date: 10/06/10 17:44  
 Cleanup Method1: EPA 3620B  
 Cleanup Date1: 10/08/10

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
<b>Organochlorine Pesticides by GC - Westborough Lab</b>						
Delta-BHC	ND		ug/l	0.024	--	1
Lindane	ND		ug/l	0.024	--	1
Alpha-BHC	ND		ug/l	0.024	--	1
Beta-BHC	ND		ug/l	0.024	--	1
Heptachlor	ND		ug/l	0.024	--	1
Aldrin	ND		ug/l	0.024	--	1
Heptachlor epoxide	ND		ug/l	0.024	--	1
Endrin	ND		ug/l	0.047	--	1
Endrin aldehyde	ND		ug/l	0.047	--	1
Endrin ketone	ND		ug/l	0.047	--	1
Dieldrin	ND		ug/l	0.047	--	1
4,4'-DDE	ND		ug/l	0.047	--	1
4,4'-DDD	ND		ug/l	0.047	--	1
4,4'-DDT	ND		ug/l	0.047	--	1
Endosulfan I	ND		ug/l	0.024	--	1
Endosulfan II	ND		ug/l	0.047	--	1
Endosulfan sulfate	ND		ug/l	0.047	--	1
Methoxychlor	ND		ug/l	0.235	--	1
Toxaphene	ND		ug/l	0.235	--	1
Chlordane	ND		ug/l	0.235	--	1
cis-Chlordane	ND		ug/l	0.024	--	1
trans-Chlordane	ND		ug/l	0.024	--	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria	Column
2,4,5,6-Tetrachloro-m-xylene	82		30-150	A
Decachlorobiphenyl	100		30-150	A



**Project Name:** 100 BINNEY ST.  
**Project Number:** 34250-002

**Lab Number:** L1015554  
**Report Date:** 10/11/10

**Method Blank Analysis  
Batch Quality Control**

Analytical Method: 5,608  
Analytical Date: 10/08/10 09:08  
Analyst: SH

Extraction Method: EPA 608  
Extraction Date: 10/06/10 17:45  
Cleanup Method1: EPA 3620B  
Cleanup Date1: 10/08/10

Parameter	Result	Qualifier	Units	RL	MDL
Organochlorine Pesticides by GC - Westborough Lab for sample(s): 01 Batch: WG436114-1					
Delta-BHC	ND		ug/l	0.020	--
Lindane	ND		ug/l	0.020	--
Alpha-BHC	ND		ug/l	0.020	--
Beta-BHC	ND		ug/l	0.020	--
Heptachlor	ND		ug/l	0.020	--
Aldrin	ND		ug/l	0.020	--
Heptachlor epoxide	ND		ug/l	0.020	--
Endrin	ND		ug/l	0.040	--
Endrin aldehyde	ND		ug/l	0.040	--
Endrin ketone	ND		ug/l	0.040	--
Dieldrin	ND		ug/l	0.040	--
4,4'-DDE	ND		ug/l	0.040	--
4,4'-DDD	ND		ug/l	0.040	--
4,4'-DDT	ND		ug/l	0.040	--
Endosulfan I	ND		ug/l	0.020	--
Endosulfan II	ND		ug/l	0.040	--
Endosulfan sulfate	ND		ug/l	0.040	--
Methoxychlor	ND		ug/l	0.200	--
Toxaphene	ND		ug/l	0.200	--
Chlordane	ND		ug/l	0.200	--
cis-Chlordane	ND		ug/l	0.020	--
trans-Chlordane	ND		ug/l	0.020	--

Surrogate	%Recovery	Qualifier	Acceptance Criteria	Column
2,4,5,6-Tetrachloro-m-xylene	95		30-150	A
Decachlorobiphenyl	124		30-150	A



## Lab Control Sample Analysis

### Batch Quality Control

Project Name: 100 BINNEY ST.

Lab Number: L1015554

Project Number: 34250-002

Report Date: 10/11/10

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Organochlorine Pesticides by GC - Westborough Lab Associated sample(s): 01 Batch: WG436114-2 WG436114-3								
Delta-BHC	74		119		30-150	47	Q	30
Lindane	77		123		30-150	46	Q	30
Alpha-BHC	74		118		30-150	46	Q	30
Beta-BHC	82		132		30-150	47	Q	30
Heptachlor	66		108		30-150	48	Q	30
Aldrin	64		103		30-150	47	Q	30
Heptachlor epoxide	85		137		30-150	47	Q	30
Endrin	90		139		30-150	43	Q	30
Endrin aldehyde	88		124		30-150	34	Q	30
Endrin ketone	143		72		30-150	66	Q	30
Dieldrin	89		140		30-150	45	Q	30
4,4'-DDE	72		144		30-150	67	Q	30
4,4'-DDD	92		143		30-150	43	Q	30
4,4'-DDT	90		138		30-150	42	Q	30
Endosulfan I	93		124		30-150	29		30
Endosulfan II	93		142		30-150	42	Q	30
Endosulfan sulfate	82		128		30-150	44	Q	30
Methoxychlor	0		0		30-150	NC	Q	30
cis-Chlordane	86		138		30-150	47	Q	30
trans-Chlordane	83		132		30-150	46	Q	30

## Lab Control Sample Analysis

### Batch Quality Control

Project Name: 100 BINNEY ST.

Lab Number: L1015554

Project Number: 34250-002

Report Date: 10/11/10

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
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Organochlorine Pesticides by GC - Westborough Lab Associated sample(s): 01 Batch: WG436114-2 WG436114-3

Surrogate	LCS %Recovery	Qual	LCSD %Recovery	Qual	Acceptance Criteria	Column
2,4,5,6-Tetrachloro-m-xylene	60		88		30-150	A
Decachlorobiphenyl	84		129		30-150	A

Project Name: 100 BINNEY ST.

Lab Number: L1015554

Project Number: 34250-002

Report Date: 10/11/10

**Sample Receipt and Container Information**

Were project specific reporting limits specified? YES

Reagent H2O Preserved Vials Frozen on: NA

**Cooler Information Custody Seal****Cooler**

A Absent

**Container Information**

Container ID	Container Type	Cooler	pH	Temp deg C	Pres	Seal	Analysis(*)
L1015554-01A	Amber 1000ml Na2S2O3	A	7	2	Y	Absent	PESTICIDE-608(7)

\*Values in parentheses indicate holding time in days



**Project Name:** 100 BINNEY ST.  
**Project Number:** 34250-002

**Lab Number:** L1015554  
**Report Date:** 10/11/10

## GLOSSARY

### Acronyms

- EPA** - Environmental Protection Agency.
- LCS** - Laboratory Control Sample: A sample matrix, free from the analytes of interest, spiked with verified known amounts of analytes or a material containing known and verified amounts of analytes.
- LCSD** - Laboratory Control Sample Duplicate: Refer to LCS.
- 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.

### 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.
- 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.
- H** - The analysis of pH was performed beyond the regulatory-required holding time of 15 minutes from the time of sample collection.
- I** - The RPD between the results for the two columns exceeds the method-specified criteria; however, the lower value has been reported due to obvious interference.
- 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. 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.

Report Format: Data Usability Report



**Project Name:** 100 BINNEY ST.  
**Project Number:** 34250-002

**Lab Number:** L1015554  
**Report Date:** 10/11/10

*Data Qualifiers*

- 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:** 100 BINNEY ST.  
**Project Number:** 34250-002

**Lab Number:** L1015554  
**Report Date:** 10/11/10

## REFERENCES

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

## 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 July 19, 2010 - Westboro Facility

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

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

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

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

*Solid Waste/Soil* (Inorganic Parameters: pH, Sulfide, Aluminum, Antimony, Arsenic, Barium, Beryllium, Boron, Cadmium, Calcium, Chromium, Hexavalent Chromium, Cobalt, Copper, Iron, Lead, Magnesium, Manganese, Mercury, Molybdenum, Nickel, Potassium, Selenium, Silver, Sodium, Thallium, Tin, Vanadium, Zinc, Total Cyanide, Ignitability, Phenolics, Corrosivity, TCLP Leach (1311), SPLP Leach (1312 metals only), Reactivity. Organic Parameters: PCBs, PCBs in Oil, Organochlorine Pesticides, Technical Chlordane, Toxaphene, Extractable Petroleum Hydrocarbons (ETPH), MA-EPH, MA-VPH, Dicamba, 2,4-D, 2,4,5-T, 2,4,5-TP(Silvex), Volatile Organics, Acid Extractables (Phenols), 3,3'-Dichlorobenzidine, Phthalates, Nitrosamines, Nitroaromatics & Cyclic Ketones, PAHs, Haloethers, Chlorinated Hydrocarbons. )

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

*Drinking Water* (Inorganic Parameters: SM9215B, 9222D, 9223B, EPA 180.1, 300.0, 353.2, SM2130B, 2320B, 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, Lachat 10-107-06-1-B, SM2320B, 2340B, 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, 4500NH3-H, 4500NO3-F, 4500P-B.5, 4500P-E, 5210B, 5220D, 5310C, EPA 200.7, 200.8, 245.1. Organic Parameters: 608, 624, ME DRO, ME GRO, MA EPH, MA VPH.)

*Solid Waste/Soil* (Organic Parameters: ME DRO, ME GRO, MA EPH, MA VPH.)

### 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)

353.2 for: Nitrate-N, Nitrite-N; SM4500NO3-F, 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), 314.0, 332.

Microbiology Parameters: SM9215B; ENZ. SUB. SM9223; 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,Cr,Co,Cu,Fe,Pb,Mn,Mo,Ni,Se,Ag,Sr,Ti,Tl, V,Zn,Ca,Mg,Na,K)

245.1, SM4500H,B, EPA 120.1, SM2510B, 2540C, 2540B, 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-B,C-Titr, 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, SM4500-CN-CE, SM2540D.

Organic Parameters: (EPA 624 for Volatile Halocarbons, Volatile Aromatics)



(608 for: Chlordane, Aldrin, Dieldrin, DDD, DDE, DDT, Heptachlor, Heptachlor Epoxide, PCBs-Water), EPA 625 for SVOC Acid Extractables and SVOC Base/Neutral Extractables, 600/4-81-045-PCB-Oil

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

*Drinking Water (Inorganic Parameters:* SM6215B, 9222B, 9223B Colilert, EPA 200.7, 200.8, 245.2, 120.1, 300.0, 314.0, SM4500CN-E, 4500H+B, 4500NO3-F, 2320B, 2510B, 2540C, 4500F-C, 5310C, 2120B, EPA 331.0. *Organic Parameters:* 504.1, 524.2, SM6251B.)

*Non-Potable Water (Inorganic Parameters:* SM9222D, 9221B, 9222B, 9221E-EC, EPA 200.7, 200.8, 245.1, 245.2, SW-846 6010B, 6020, 7196A, 7470A, SM3500-CR-D, EPA 120.1, 300.0, 350.1, 351.1, 353.2, 420.1, 1664A, SW-846 9010, 9030, 9040B, SM426C, SM2310B, 2540B, 2540D, 4500H+B, 4500NH3-H, 4500NH3-E, 4500NO2-B, 4500P-E, 4500-S2-D, 5210B, 2320B, 2540C, 4500F-C, 5310C, 5540C, LACHAT 10-117-07-1-B, LACHAT 10-107-06-1-B, LACHAT 10-107-04-1-C, LACHAT 10-107-04-1-J, LACHAT 10-117-07-1-A, SM4500CL-E, LACHAT 10-204-00-1-A, LACHAT 10-107-06-2-D. *Organic Parameters:* SW-846 3005A, 3015A, 3510C, 5030B, 8021B, 8260B, 8270C, 8330, EPA 624, 625, 608, SW-846 8082, 8081A.)

*Solid & Chemical Materials (Inorganic Parameters:* SW-846 6010B, 7196A, 7471A, 7.3.3.2, 7.3.4.2, 1010, 1030, 9010, 9012A, 9014, 9030B, 9040, 9045C, 9050C, 1311, 3005A, 3050B, 3051A. *Organic Parameters:* SW-846 3540C, 3545, 3580A, 5030B, 5035, 8021B, 8260B, 8270C, 8330, 8151A, 8082, 8081A.)

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

*Drinking Water (Inorganic Parameters:* SM9222B, 9221E, 9223B, 9215B, 4500NO3-F, 4500F-C, EPA 300.0, 200.7, 2540C, 2320B, 314.0, SM2120B, 2510B, 5310C, SM4500H-B, EPA 200.8, 245.2. *Organic Parameters:* 504.1, SM6251B, 524.2.)

*Non-Potable Water (Inorganic Parameters:* SM5210B, EPA 410.4, SM5220D, 4500CI-D, EPA 300.0, SM2120B, SM4500F-BC, EPA 200.7, 351.1, LACHAT 10-107-06-2-D, EPA 353.2, SM4500NO3-F, 4500NO2-B, EPA 1664A, SM5310B, C or D, 4500-PE, EPA 420.1, SM4500P-B5+E, 2540B, 2540C, 2540D, EPA 120.1, SM2510B, SM15 426C, SM9221CE, 9222D, 9221B, 9222B, 9215B, 2310B, 2320B, 4500NH3-H, 4500-S D, EPA 350.1, SM5210B, SW-846 3015, 6020, 7470A, 5540C, 4500H-B, EPA 200.8, SM3500Cr-D, EPA 245.1, 245.2, SW-846 9040B, 3005A, EPA 6010B, 7196A, SW-846 9010B, 9030B. *Organic Parameters:* SW-846 8260B, 8270C, 3510C, EPA 608, 624, 625, SW-846 5030B, 8021B, 8081A, 8082, 8151A, 8330, NJ OQA-QAM-025 Rev.7.)

*Solid & Chemical Materials (Inorganic Parameters:* SW-846 9040B, 3005A, 6010B, 7196A, 5030B, 9010B, 9030B, 1030, 1311, 3050B, 3051, 7471A, 9014, 9012A, 9045C, 9050A, 9065. *Organic Parameters:* SW-846 8021B, 8081A, 8082, 8151A, 8330, 8260B, 8270C, 1311, 1312, 3540C, 3545, 3550B, 3580A, 5035L, 5035H, NJ OQA-QAM-025 Rev.7.)

**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 314.0, 332.0, SM2320B, EPA 300.0, SM2120B, 4500CN-E, 4500F-C, 4500H-B, 4500NO3-F, 2540C, EPA 120.1, SM 2510B. *Organic Parameters:* EPA 524.2, 504.1.)

*Non-Potable Water (Inorganic Parameters:* SM9221E, 9222D, 9221B, 9222B, 9215B, 5210B, EPA 410.4, SM5220D, 2310B-4a, 2320B, EPA 200.7, 300.0, LACHAT 10-117-07-1A or B, SM4500CI-E, 4500F-C, SM15 426C, EPA 350.1, LACHAT 10-107-06-1-B, SM4500NH3-H, EPA 351.1, LACHAT 10-107-06-2, EPA 353.2, LACHAT 10-107-041-C, SM4500-NO3-F, 4500-NO2-B, 4500P-E, 2540C, 2540B, 2540D, EPA 200.8, EPA 6010B, 6020, EPA 7196A, SM3500Cr-D, EPA 245.1, 245.2, 7470A, SM2120B, SM4500-CN-E LACHAT 10-204-00-1-A, EPA 9040B, SM4500-HB, EPA 1664A, SM5310C, EPA 420.1, SM14 510C, EPA 120.1, SM2510B, SM4500S-D, SM5540C, EPA 3005A, 3015. *Organic Parameters:* EPA 624, 8260B, 8270C, 625, 608, 8081A, 8151A, 8330, 8082, EPA 3510C, 5030B, 9010B, 9030B.)

*Solid & Hazardous Waste (Inorganic Parameters:* 1010, 1030, SW-846 Ch 7 Sec 7.3, EPA 6010B, 7196A, 7471A, 9012A, 9014, 9040B, 9045C, 9065, 9050, EPA 1311, 1312, 3005A, 3050B, 9010B, 9030B. *Organic Parameters:* EPA 8260B, 8270C, 8081A, 8151A, 8330, 8082, 3540C, 3545, 3546, 3580, 5030B, 5035.)

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

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

*Non-Potable Water (Organic Parameters:* EPA 3510C, 5030B, 625, 624. 608, 8081A, 8082, 8151A, 8260B, 8270C, 8330)

*Solid & Hazardous Waste (Inorganic Parameters:* EPA 1010, 1030, 1311, 3050B, 3051, 6010B, EPA 7.3.3.2, EPA 7.3.4.2, 7196A, 7471A, 9010B, 9012A, 9014, 9040B, 9045C, 9050, 9065. *Organic Parameters:* 3540C, 3545, 3580A, 5035, 8021B, 8081A, 8082, 8151A, 8260B, 8270C, 8330)

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

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

Refer to NY-DOH Certificate for Potable and Non-Potable Water.

**Texas Commission on Environmental Quality Certificate/Lab ID: T104704476-09-1. NELAP Accredited.**

*Non-Potable Water (Inorganic Parameters: EPA 120.1, 1664, 200.7, 200.8, 245.1, 245.2, 300.0, 350.1, 351.1, 353.2, 376.2, 410.4, 420.1, 6010, 6020, 7196, 7470, 9040, SM 2120B, 2310B, 2320B, 2510B, 2540B, 2540C, 2540D, 426C, 4500CL-E, 4500CN-E, 4500F-C, 4500H+B, 4500NH3-H, 4500NO2B, 4500P-E, 4500 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.)*

**Department of Defense Certificate/Lab ID: L2217.**

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

*Non-Potable Water (Inorganic Parameters: EPA 200.7, 200.8, 6010B, 6020, 245.1, 245.2, 7470A, 9040B, 300.0, 9251, 9038, 350.1, 353.2, 351.1, 120.1, 9050A, 410.4, 9060, 1664, 420.1, LACHAT 10-107-06-1-B, SM 4500CN-E, 4500H-B, 4500CL-E, 4500F-BC, 4500SO4-E, 426C, 4500NH3-B, 4500NH3-H, 4500NO3-F, 4500NO2-B, 4500Norg-C, 4500PE, 2510B, 5540C, 5220D, 5310C, 2540B, 2540C, 2540D, 510C, 4500S2-AD, 3005A, 3015, 9010B, 9030B. Organic Parameters: EPA 8260B, 8270C, 8330, 625, 8082, 8151A, 8081A, 3510C, 5030B, MassDEP EPH, MassDEP VPH.)*

*Solid & Hazardous Waste (Inorganic Parameters: EPA 200.7, 6010B, 7471A, 9040B, 9045C, 9065, 420.1, 9012A, 6860, 1311, 1312, 3050B, 9030B, 3051, 9010B, 3540C, SM 510ABC, 4500CN-CE, 2540G, SW-846 7.3, Organic Parameters: EPA 8260B, 8270C, 8330, 8082, 8081A, 8151A, 3545, 3546, 3580, 5035, MassDEP EPH, MassDEP VPH.)*

**Analytes Not Accredited by NELAP**

Certification is not available by NELAP for the following analytes: **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. **EPA 350.1** for Ammonia in a Soil matrix.

**HALEY & ALDRICH**

Haley & Aldrich, Inc.  
465 Bedford St.,  
Suite 2200,  
Boston, MA 02129-1400

**CHAIN OF CUSTODY RECORD**

ALPHA Job # 1011028 U1015

10155554

BEA FILE NO. 34258-002  
PROJECT NAME 100 BUNNEY ST,  
HEAD CONTACT T. CASTALLA

LABORATORY ALPHA  
ADDRESS 500 N B.  
CONTACT

DELIVERY DATE 9-25-10  
TURNAROUND TIME  
PROJECT MANAGER R. KAPLAN

Page 1 of 1  
Phone (617) 886-7400  
Fax (617) 886-7600

Sample No.	Date	Time	Depth	Type
HA-810	9-23	1200	-	AP
<del>HA-810 (EP)</del>	"	1230	-	"

Sample No.	Date	Time	Depth	Type	Analysis Requested													Number of Containers	Comment			
					1	2	3	4	5	6	7	8	9	10	11	12	13					
HA-810	9-23	1200	-	AP	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	12	① 624 ② 928 608 ③ 07 f Amaris ④ TD4-766 f ⑤ 625 ⑥ TOTAL HTLS (REG) ⑦ 24 ⑧ DISOLVED METALS (EP)
<del>HA-810 (EP)</del>	"	1230	-	"	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	13	

Received by	Signature	Date	Time	Signature	Date	Time
Received by	<i>M. K.</i>	9/23/10	1555	<i>W. Quinn Pius</i>	9/23/10	1555
Received by	<i>W. Quinn Pius</i>	9/23/10	1555	<i>W. Quinn Pius</i>	9/23/10	1555
Received by	<i>W. Quinn Pius</i>	9/23/10	1555	<i>W. Quinn Pius</i>	9/23/10	1555
Received by	<i>W. Quinn Pius</i>	9/23/10	1555	<i>W. Quinn Pius</i>	9/23/10	1555

Sample No.	Date	Time	Signature	Date	Time	Signature	Date	Time
HA-810	9/23/10	1555	<i>W. Quinn Pius</i>	9/23/10	1555	<i>W. Quinn Pius</i>	9/23/10	1555
<del>HA-810 (EP)</del>	"	1230	"	"	"	"	"	"

IF PRESUMPTIVE CERTAINTY DATA PACKAGE IS NEEDED, INITIAL ALL SECTIONS.

The required minimum field QC samples, as designated in BYWSC CAM-VII have been or will be collected, as appropriate, to meet the requirements of Presumptive Certainty.

Main's Spikes (MS) samples for MCP Metals and/or Cyanide are included and identified herein.

This Chain of Custody Record (specify) includes  does not include samples defined as Drinking Water Samples.

If this Chain of Custody Record identifies samples defined as Drinking Water Samples, Trip Blanks and Field Duplicate are included and identified and analysis of TICs are required, as appropriate. Laboratory should (specify if applicable) analyze \_\_\_\_\_.



## ANALYTICAL REPORT

Lab Number:	L1017449
Client:	Environ 8 Hollis Street Groton, MA 01450
ATTN:	Jim Young
Phone:	(978) 449-0325
Project Name:	100 BINNEY
Project Number:	04-7590JD1
Report Date:	11/11/10

Certifications & Approvals: MA (M-MA086), NY NELAC (11148), CT (PH-0574), NH (2003), NJ (MA935), RI (LAO00065), ME (MA0086), PA (Registration #68-03671), USDA (Permit #S-72578), US Army Corps of Engineers, Naval FESC.

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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:** 100 BINNEY  
**Project Number:** 04-7590JD1

**Lab Number:** L1017449  
**Report Date:** 11/11/10

<b>Alpha Sample ID</b>	<b>Client ID</b>	<b>Sample Location</b>	<b>Collection Date/Time</b>
L1017449-01	ENV-19-GW	CAMBRIDGE, MA	11/03/10 09:08
L1017449-02	ENV-17-GW	CAMBRIDGE, MA	11/03/10 10:28
L1017449-03	MW-59-GW	CAMBRIDGE, MA	11/03/10 12:14
L1017449-04	ENV-23-GW	CAMBRIDGE, MA	11/03/10 13:34
L1017449-05	ENV-20-GW	CAMBRIDGE, MA	11/03/10 14:58
L1017449-06	B-201-GW	CAMBRIDGE, MA	11/03/10 15:43

Project Name: 100 BINNEY

Lab Number: L1017449

Project Number: 04-7590JD1

Report Date: 11/11/10

**MADEP MCP Response Action Analytical Report Certification**

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

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

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



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### Case Narrative

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

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

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

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

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#### MCP Related Narratives

##### Sample Receipt

The samples were Field Filtered for Dissolved Metals only.

##### Volatile Organics

L1017449-02 through -06 have elevated detection limits due to the dilutions required by the elevated concentrations of target compounds in the samples.

In reference to question G:

One or more of the target analytes did not achieve the requested CAM reporting limits.

In reference to question H:

The WG441986-1/-2 LCS/LCSD RPD, associated with L1017449-03 through -06, is above the acceptance criteria for Trichlorofluoromethane (23%); however, the individual LCS/LCSD recoveries are within method

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### Case Narrative (continued)

limits.

The initial calibration, associated with L1017449-02 through -06, did not meet the method required minimum response factors for 2-Butanone, 4-Methyl-2-pentanone, Tetrahydrofuran, and 1,4-Dioxane; and utilized quadratic fits for Acetone and 1,2-Dibromo-3-chloropropane.

The continuing calibration standard, associated with L1017449-02 through -06, is outside the acceptance criteria for several compounds; however, they are within overall method allowances. A copy of the continuing calibration standard is included as an addendum to this report.

#### Semivolatile Organics

L1017449-04 was re-analyzed on dilution in order to quantitate the sample within the calibration range. The result should be considered estimated, and is qualified with an E flag, for any compound that exceeded the calibration on the initial analysis. The re-analysis was performed only for the compound that exceeded the calibration range.

In reference to question H:

The WG441629-2/-3 LCS/LCSD recoveries, associated with L1017449-03 and -04, are below the individual acceptance criteria for 3,3'-Dichlorobenzidine (29%/31%), Aniline (16%/19%), Acetophenone (LCS at 39%) and Phenol (28%/29%), but within the overall method allowances. The results of the associated samples are reported; however, all results are considered to have a potentially low bias for these compounds.

#### EPH

In reference to question G:

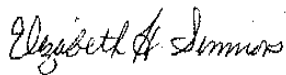
One or more of the target analytes did not achieve the requested CAM reporting limits.

In reference to question H:

The surrogate recovery for the WG441724-2 LCS, associated with L1017449-01 and -02 is below the acceptance criteria for Chloro-Octadecane (29%). The LCS spike compounds are within overall method allowances; therefore, no further action was taken.

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

Authorized Signature:

 Elizabeth Simmons

Title: Technical Director/Representative

Date: 11/11/10



# ORGANICS

# VOLATILES

Project Name: 100 BINNEY

Lab Number: L1017449

Project Number: 04-7590JD1

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## SAMPLE RESULTS

Lab ID: L1017449-02 D  
 Client ID: ENV-17-GW  
 Sample Location: CAMBRIDGE, MA  
 Matrix: Water  
 Analytical Method: 97,8260B  
 Analytical Date: 11/09/10 10:44  
 Analyst: MM

Date Collected: 11/03/10 10:28  
 Date Received: 11/03/10  
 Field Prep: See Narrative

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
<b>MCP Volatile Organics - Westborough Lab</b>						
Methylene chloride	ND		ug/l	80	--	40
1,1-Dichloroethane	ND		ug/l	40	--	40
Chloroform	ND		ug/l	40	--	40
Carbon tetrachloride	ND		ug/l	40	--	40
1,2-Dichloropropane	ND		ug/l	40	--	40
Dibromochloromethane	ND		ug/l	40	--	40
1,1,2-Trichloroethane	ND		ug/l	40	--	40
Tetrachloroethene	ND		ug/l	40	--	40
Chlorobenzene	ND		ug/l	40	--	40
Trichlorofluoromethane	ND		ug/l	80	--	40
1,2-Dichloroethane	ND		ug/l	40	--	40
1,1,1-Trichloroethane	ND		ug/l	40	--	40
Bromodichloromethane	ND		ug/l	40	--	40
trans-1,3-Dichloropropene	ND		ug/l	20	--	40
cis-1,3-Dichloropropene	ND		ug/l	20	--	40
1,1-Dichloropropene	ND		ug/l	80	--	40
Bromoform	ND		ug/l	80	--	40
1,1,2,2-Tetrachloroethane	ND		ug/l	40	--	40
Benzene	1600		ug/l	40	--	40
Toluene	ND		ug/l	40	--	40
Ethylbenzene	290		ug/l	40	--	40
Chloromethane	ND		ug/l	80	--	40
Bromomethane	ND		ug/l	80	--	40
Vinyl chloride	ND		ug/l	40	--	40
Chloroethane	ND		ug/l	80	--	40
1,1-Dichloroethene	ND		ug/l	40	--	40
trans-1,2-Dichloroethene	ND		ug/l	40	--	40
Trichloroethene	ND		ug/l	40	--	40
1,2-Dichlorobenzene	ND		ug/l	40	--	40
1,3-Dichlorobenzene	ND		ug/l	40	--	40

Project Name: 100 BINNEY

Lab Number: L1017449

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## SAMPLE RESULTS

Lab ID: L1017449-02 D Date Collected: 11/03/10 10:28  
 Client ID: ENV-17-GW Date Received: 11/03/10  
 Sample Location: CAMBRIDGE, MA Field Prep: See Narrative

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
<b>MCP Volatile Organics - Westborough Lab</b>						
1,4-Dichlorobenzene	ND		ug/l	40	--	40
Methyl tert butyl ether	ND		ug/l	80	--	40
p/m-Xylene	ND		ug/l	80	--	40
o-Xylene	87		ug/l	40	--	40
cis-1,2-Dichloroethene	ND		ug/l	40	--	40
Dibromomethane	ND		ug/l	80	--	40
1,2,3-Trichloropropane	ND		ug/l	80	--	40
Styrene	ND		ug/l	40	--	40
Dichlorodifluoromethane	ND		ug/l	80	--	40
Acetone	ND		ug/l	200	--	40
Carbon disulfide	ND		ug/l	80	--	40
2-Butanone	ND		ug/l	200	--	40
4-Methyl-2-pentanone	ND		ug/l	200	--	40
2-Hexanone	ND		ug/l	200	--	40
Bromochloromethane	ND		ug/l	80	--	40
Tetrahydrofuran	ND		ug/l	400	--	40
2,2-Dichloropropane	ND		ug/l	80	--	40
1,2-Dibromoethane	ND		ug/l	80	--	40
1,3-Dichloropropane	ND		ug/l	80	--	40
1,1,1,2-Tetrachloroethane	ND		ug/l	40	--	40
Bromobenzene	ND		ug/l	80	--	40
n-Butylbenzene	ND		ug/l	80	--	40
sec-Butylbenzene	ND		ug/l	80	--	40
tert-Butylbenzene	ND		ug/l	80	--	40
o-Chlorotoluene	ND		ug/l	80	--	40
p-Chlorotoluene	ND		ug/l	80	--	40
1,2-Dibromo-3-chloropropane	ND		ug/l	80	--	40
Hexachlorobutadiene	ND		ug/l	24	--	40
Isopropylbenzene	ND		ug/l	80	--	40
p-Isopropyltoluene	ND		ug/l	80	--	40
Naphthalene	250		ug/l	80	--	40
n-Propylbenzene	ND		ug/l	80	--	40
1,2,3-Trichlorobenzene	ND		ug/l	80	--	40
1,2,4-Trichlorobenzene	ND		ug/l	80	--	40
1,3,5-Trimethylbenzene	ND		ug/l	80	--	40
1,2,4-Trimethylbenzene	ND		ug/l	80	--	40
Ethyl ether	ND		ug/l	80	--	40

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## SAMPLE RESULTS

Lab ID: L1017449-02 D

Date Collected: 11/03/10 10:28

Client ID: ENV-17-GW

Date Received: 11/03/10

Sample Location: CAMBRIDGE, MA

Field Prep: See Narrative

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
<b>MCP Volatile Organics - Westborough Lab</b>						
Isopropyl Ether	ND		ug/l	80	--	40
Ethyl-Tert-Butyl-Ether	ND		ug/l	80	--	40
Tertiary-Amyl Methyl Ether	ND		ug/l	80	--	40
1,4-Dioxane	ND		ug/l	10000	--	40

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	96		70-130
Toluene-d8	99		70-130
4-Bromofluorobenzene	103		70-130
Dibromofluoromethane	97		70-130

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Lab Number: L1017449

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Report Date: 11/11/10

## SAMPLE RESULTS

Lab ID: L1017449-03 D  
 Client ID: MW-59-GW  
 Sample Location: CAMBRIDGE, MA  
 Matrix: Water  
 Analytical Method: 97,8260B  
 Analytical Date: 11/08/10 15:34  
 Analyst: MM

Date Collected: 11/03/10 12:14  
 Date Received: 11/03/10  
 Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
<b>MCP Volatile Organics - Westborough Lab</b>						
Methylene chloride	ND		ug/l	40	--	20
1,1-Dichloroethane	ND		ug/l	20	--	20
Chloroform	ND		ug/l	20	--	20
Carbon tetrachloride	ND		ug/l	20	--	20
1,2-Dichloropropane	ND		ug/l	20	--	20
Dibromochloromethane	ND		ug/l	20	--	20
1,1,2-Trichloroethane	ND		ug/l	20	--	20
Tetrachloroethene	ND		ug/l	20	--	20
Chlorobenzene	ND		ug/l	20	--	20
Trichlorofluoromethane	ND		ug/l	40	--	20
1,2-Dichloroethane	ND		ug/l	20	--	20
1,1,1-Trichloroethane	ND		ug/l	20	--	20
Bromodichloromethane	ND		ug/l	20	--	20
trans-1,3-Dichloropropene	ND		ug/l	10	--	20
cis-1,3-Dichloropropene	ND		ug/l	10	--	20
1,1-Dichloropropene	ND		ug/l	40	--	20
Bromoform	ND		ug/l	40	--	20
1,1,2,2-Tetrachloroethane	ND		ug/l	20	--	20
Benzene	1100		ug/l	20	--	20
Toluene	ND		ug/l	20	--	20
Ethylbenzene	120		ug/l	20	--	20
Chloromethane	ND		ug/l	40	--	20
Bromomethane	ND		ug/l	40	--	20
Vinyl chloride	ND		ug/l	20	--	20
Chloroethane	ND		ug/l	40	--	20
1,1-Dichloroethene	ND		ug/l	20	--	20
trans-1,2-Dichloroethene	ND		ug/l	20	--	20
Trichloroethene	ND		ug/l	20	--	20
1,2-Dichlorobenzene	ND		ug/l	20	--	20
1,3-Dichlorobenzene	ND		ug/l	20	--	20

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## SAMPLE RESULTS

Lab ID: L1017449-03 D Date Collected: 11/03/10 12:14  
 Client ID: MW-59-GW Date Received: 11/03/10  
 Sample Location: CAMBRIDGE, MA Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
<b>MCP Volatile Organics - Westborough Lab</b>						
1,4-Dichlorobenzene	ND		ug/l	20	--	20
Methyl tert butyl ether	ND		ug/l	40	--	20
p/m-Xylene	ND		ug/l	40	--	20
o-Xylene	ND		ug/l	20	--	20
cis-1,2-Dichloroethene	21		ug/l	20	--	20
Dibromomethane	ND		ug/l	40	--	20
1,2,3-Trichloropropane	ND		ug/l	40	--	20
Styrene	ND		ug/l	20	--	20
Dichlorodifluoromethane	ND		ug/l	40	--	20
Acetone	ND		ug/l	100	--	20
Carbon disulfide	ND		ug/l	40	--	20
2-Butanone	ND		ug/l	100	--	20
4-Methyl-2-pentanone	ND		ug/l	100	--	20
2-Hexanone	ND		ug/l	100	--	20
Bromochloromethane	ND		ug/l	40	--	20
Tetrahydrofuran	ND		ug/l	200	--	20
2,2-Dichloropropane	ND		ug/l	40	--	20
1,2-Dibromoethane	ND		ug/l	40	--	20
1,3-Dichloropropane	ND		ug/l	40	--	20
1,1,1,2-Tetrachloroethane	ND		ug/l	20	--	20
Bromobenzene	ND		ug/l	40	--	20
n-Butylbenzene	ND		ug/l	40	--	20
sec-Butylbenzene	ND		ug/l	40	--	20
tert-Butylbenzene	ND		ug/l	40	--	20
o-Chlorotoluene	ND		ug/l	40	--	20
p-Chlorotoluene	ND		ug/l	40	--	20
1,2-Dibromo-3-chloropropane	ND		ug/l	40	--	20
Hexachlorobutadiene	ND		ug/l	12	--	20
Isopropylbenzene	ND		ug/l	40	--	20
p-Isopropyltoluene	ND		ug/l	40	--	20
Naphthalene	43		ug/l	40	--	20
n-Propylbenzene	ND		ug/l	40	--	20
1,2,3-Trichlorobenzene	ND		ug/l	40	--	20
1,2,4-Trichlorobenzene	ND		ug/l	40	--	20
1,3,5-Trimethylbenzene	ND		ug/l	40	--	20
1,2,4-Trimethylbenzene	ND		ug/l	40	--	20
Ethyl ether	ND		ug/l	40	--	20



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## SAMPLE RESULTS

Lab ID: L1017449-03 D

Date Collected: 11/03/10 12:14

Client ID: MW-59-GW

Date Received: 11/03/10

Sample Location: CAMBRIDGE, MA

Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
<b>MCP Volatile Organics - Westborough Lab</b>						
Isopropyl Ether	ND		ug/l	40	--	20
Ethyl-Tert-Butyl-Ether	ND		ug/l	40	--	20
Tertiary-Amyl Methyl Ether	ND		ug/l	40	--	20
1,4-Dioxane	ND		ug/l	5000	--	20

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	102		70-130
Toluene-d8	100		70-130
4-Bromofluorobenzene	104		70-130
Dibromofluoromethane	103		70-130



Project Name: 100 BINNEY

Lab Number: L1017449

Project Number: 04-7590JD1

Report Date: 11/11/10

## SAMPLE RESULTS

Lab ID: L1017449-04 D  
 Client ID: ENV-23-GW  
 Sample Location: CAMBRIDGE, MA  
 Matrix: Water  
 Analytical Method: 97,8260B  
 Analytical Date: 11/08/10 16:05  
 Analyst: MM

Date Collected: 11/03/10 13:34  
 Date Received: 11/03/10  
 Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
<b>MCP Volatile Organics - Westborough Lab</b>						
Methylene chloride	ND		ug/l	80	--	40
1,1-Dichloroethane	ND		ug/l	40	--	40
Chloroform	ND		ug/l	40	--	40
Carbon tetrachloride	ND		ug/l	40	--	40
1,2-Dichloropropane	ND		ug/l	40	--	40
Dibromochloromethane	ND		ug/l	40	--	40
1,1,2-Trichloroethane	ND		ug/l	40	--	40
Tetrachloroethene	ND		ug/l	40	--	40
Chlorobenzene	ND		ug/l	40	--	40
Trichlorofluoromethane	ND		ug/l	80	--	40
1,2-Dichloroethane	ND		ug/l	40	--	40
1,1,1-Trichloroethane	ND		ug/l	40	--	40
Bromodichloromethane	ND		ug/l	40	--	40
trans-1,3-Dichloropropene	ND		ug/l	20	--	40
cis-1,3-Dichloropropene	ND		ug/l	20	--	40
1,1-Dichloropropene	ND		ug/l	80	--	40
Bromoform	ND		ug/l	80	--	40
1,1,2,2-Tetrachloroethane	ND		ug/l	40	--	40
Benzene	3300		ug/l	40	--	40
Toluene	530		ug/l	40	--	40
Ethylbenzene	540		ug/l	40	--	40
Chloromethane	ND		ug/l	80	--	40
Bromomethane	ND		ug/l	80	--	40
Vinyl chloride	ND		ug/l	40	--	40
Chloroethane	ND		ug/l	80	--	40
1,1-Dichloroethene	ND		ug/l	40	--	40
trans-1,2-Dichloroethene	ND		ug/l	40	--	40
Trichloroethene	ND		ug/l	40	--	40
1,2-Dichlorobenzene	ND		ug/l	40	--	40
1,3-Dichlorobenzene	ND		ug/l	40	--	40

Project Name: 100 BINNEY

Lab Number: L1017449

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Report Date: 11/11/10

## SAMPLE RESULTS

Lab ID: L1017449-04 D Date Collected: 11/03/10 13:34  
 Client ID: ENV-23-GW Date Received: 11/03/10  
 Sample Location: CAMBRIDGE, MA Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
<b>MCP Volatile Organics - Westborough Lab</b>						
1,4-Dichlorobenzene	ND		ug/l	40	--	40
Methyl tert butyl ether	ND		ug/l	80	--	40
p/m-Xylene	220		ug/l	80	--	40
o-Xylene	110		ug/l	40	--	40
cis-1,2-Dichloroethene	ND		ug/l	40	--	40
Dibromomethane	ND		ug/l	80	--	40
1,2,3-Trichloropropane	ND		ug/l	80	--	40
Styrene	ND		ug/l	40	--	40
Dichlorodifluoromethane	ND		ug/l	80	--	40
Acetone	ND		ug/l	200	--	40
Carbon disulfide	ND		ug/l	80	--	40
2-Butanone	ND		ug/l	200	--	40
4-Methyl-2-pentanone	ND		ug/l	200	--	40
2-Hexanone	ND		ug/l	200	--	40
Bromochloromethane	ND		ug/l	80	--	40
Tetrahydrofuran	ND		ug/l	400	--	40
2,2-Dichloropropane	ND		ug/l	80	--	40
1,2-Dibromoethane	ND		ug/l	80	--	40
1,3-Dichloropropane	ND		ug/l	80	--	40
1,1,1,2-Tetrachloroethane	ND		ug/l	40	--	40
Bromobenzene	ND		ug/l	80	--	40
n-Butylbenzene	ND		ug/l	80	--	40
sec-Butylbenzene	ND		ug/l	80	--	40
tert-Butylbenzene	ND		ug/l	80	--	40
o-Chlorotoluene	ND		ug/l	80	--	40
p-Chlorotoluene	ND		ug/l	80	--	40
1,2-Dibromo-3-chloropropane	ND		ug/l	80	--	40
Hexachlorobutadiene	ND		ug/l	24	--	40
Isopropylbenzene	ND		ug/l	80	--	40
p-Isopropyltoluene	ND		ug/l	80	--	40
Naphthalene	830		ug/l	80	--	40
n-Propylbenzene	ND		ug/l	80	--	40
1,2,3-Trichlorobenzene	ND		ug/l	80	--	40
1,2,4-Trichlorobenzene	ND		ug/l	80	--	40
1,3,5-Trimethylbenzene	ND		ug/l	80	--	40
1,2,4-Trimethylbenzene	ND		ug/l	80	--	40
Ethyl ether	ND		ug/l	80	--	40



Project Name: 100 BINNEY

Lab Number: L1017449

Project Number: 04-7590JD1

Report Date: 11/11/10

## SAMPLE RESULTS

Lab ID: L1017449-04 D  
 Client ID: ENV-23-GW  
 Sample Location: CAMBRIDGE, MA

Date Collected: 11/03/10 13:34  
 Date Received: 11/03/10  
 Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
<b>MCP Volatile Organics - Westborough Lab</b>						
Isopropyl Ether	ND		ug/l	80	--	40
Ethyl-Tert-Butyl-Ether	ND		ug/l	80	--	40
Tertiary-Amyl Methyl Ether	ND		ug/l	80	--	40
1,4-Dioxane	ND		ug/l	10000	--	40

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

Project Name: 100 BINNEY

Lab Number: L1017449

Project Number: 04-7590JD1

Report Date: 11/11/10

## SAMPLE RESULTS

Lab ID: L1017449-05 D  
 Client ID: ENV-20-GW  
 Sample Location: CAMBRIDGE, MA  
 Matrix: Water  
 Analytical Method: 97,8260B  
 Analytical Date: 11/08/10 16:37  
 Analyst: MM

Date Collected: 11/03/10 14:58  
 Date Received: 11/03/10  
 Field Prep: See Narrative

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
<b>MCP Volatile Organics - Westborough Lab</b>						
Methylene chloride	ND		ug/l	200	--	100
1,1-Dichloroethane	ND		ug/l	100	--	100
Chloroform	ND		ug/l	100	--	100
Carbon tetrachloride	ND		ug/l	100	--	100
1,2-Dichloropropane	ND		ug/l	100	--	100
Dibromochloromethane	ND		ug/l	100	--	100
1,1,2-Trichloroethane	ND		ug/l	100	--	100
Tetrachloroethene	ND		ug/l	100	--	100
Chlorobenzene	ND		ug/l	100	--	100
Trichlorofluoromethane	ND		ug/l	200	--	100
1,2-Dichloroethane	ND		ug/l	100	--	100
1,1,1-Trichloroethane	ND		ug/l	100	--	100
Bromodichloromethane	ND		ug/l	100	--	100
trans-1,3-Dichloropropene	ND		ug/l	50	--	100
cis-1,3-Dichloropropene	ND		ug/l	50	--	100
1,1-Dichloropropene	ND		ug/l	200	--	100
Bromoform	ND		ug/l	200	--	100
1,1,2,2-Tetrachloroethane	ND		ug/l	100	--	100
Benzene	4400		ug/l	100	--	100
Toluene	320		ug/l	100	--	100
Ethylbenzene	1000		ug/l	100	--	100
Chloromethane	ND		ug/l	200	--	100
Bromomethane	ND		ug/l	200	--	100
Vinyl chloride	ND		ug/l	100	--	100
Chloroethane	ND		ug/l	200	--	100
1,1-Dichloroethene	ND		ug/l	100	--	100
trans-1,2-Dichloroethene	ND		ug/l	100	--	100
Trichloroethene	ND		ug/l	100	--	100
1,2-Dichlorobenzene	ND		ug/l	100	--	100
1,3-Dichlorobenzene	ND		ug/l	100	--	100

Project Name: 100 BINNEY

Lab Number: L1017449

Project Number: 04-7590JD1

Report Date: 11/11/10

## SAMPLE RESULTS

Lab ID: L1017449-05 D  
 Client ID: ENV-20-GW  
 Sample Location: CAMBRIDGE, MA

Date Collected: 11/03/10 14:58  
 Date Received: 11/03/10  
 Field Prep: See Narrative

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
<b>MCP Volatile Organics - Westborough Lab</b>						
1,4-Dichlorobenzene	ND		ug/l	100	--	100
Methyl tert butyl ether	ND		ug/l	200	--	100
p/m-Xylene	1500		ug/l	200	--	100
o-Xylene	400		ug/l	100	--	100
cis-1,2-Dichloroethene	ND		ug/l	100	--	100
Dibromomethane	ND		ug/l	200	--	100
1,2,3-Trichloropropane	ND		ug/l	200	--	100
Styrene	ND		ug/l	100	--	100
Dichlorodifluoromethane	ND		ug/l	200	--	100
Acetone	ND		ug/l	500	--	100
Carbon disulfide	ND		ug/l	200	--	100
2-Butanone	ND		ug/l	500	--	100
4-Methyl-2-pentanone	ND		ug/l	500	--	100
2-Hexanone	ND		ug/l	500	--	100
Bromochloromethane	ND		ug/l	200	--	100
Tetrahydrofuran	ND		ug/l	1000	--	100
2,2-Dichloropropane	ND		ug/l	200	--	100
1,2-Dibromoethane	ND		ug/l	200	--	100
1,3-Dichloropropane	ND		ug/l	200	--	100
1,1,1,2-Tetrachloroethane	ND		ug/l	100	--	100
Bromobenzene	ND		ug/l	200	--	100
n-Butylbenzene	ND		ug/l	200	--	100
sec-Butylbenzene	ND		ug/l	200	--	100
tert-Butylbenzene	ND		ug/l	200	--	100
o-Chlorotoluene	ND		ug/l	200	--	100
p-Chlorotoluene	ND		ug/l	200	--	100
1,2-Dibromo-3-chloropropane	ND		ug/l	200	--	100
Hexachlorobutadiene	ND		ug/l	60	--	100
Isopropylbenzene	ND		ug/l	200	--	100
p-Isopropyltoluene	ND		ug/l	200	--	100
Naphthalene	ND		ug/l	200	--	100
n-Propylbenzene	ND		ug/l	200	--	100
1,2,3-Trichlorobenzene	ND		ug/l	200	--	100
1,2,4-Trichlorobenzene	ND		ug/l	200	--	100
1,3,5-Trimethylbenzene	ND		ug/l	200	--	100
1,2,4-Trimethylbenzene	ND		ug/l	200	--	100
Ethyl ether	ND		ug/l	200	--	100



Project Name: 100 BINNEY

Lab Number: L1017449

Project Number: 04-7590JD1

Report Date: 11/11/10

## SAMPLE RESULTS

Lab ID: L1017449-05 D  
 Client ID: ENV-20-GW  
 Sample Location: CAMBRIDGE, MA

Date Collected: 11/03/10 14:58  
 Date Received: 11/03/10  
 Field Prep: See Narrative

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
<b>MCP Volatile Organics - Westborough Lab</b>						
Isopropyl Ether	ND		ug/l	200	--	100
Ethyl-Tert-Butyl-Ether	ND		ug/l	200	--	100
Tertiary-Amyl Methyl Ether	ND		ug/l	200	--	100
1,4-Dioxane	ND		ug/l	25000	--	100

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	99		70-130
Toluene-d8	99		70-130
4-Bromofluorobenzene	107		70-130
Dibromofluoromethane	98		70-130

Project Name: 100 BINNEY

Lab Number: L1017449

Project Number: 04-7590JD1

Report Date: 11/11/10

## SAMPLE RESULTS

Lab ID: L1017449-06 D  
 Client ID: B-201-GW  
 Sample Location: CAMBRIDGE, MA  
 Matrix: Water  
 Analytical Method: 97,8260B  
 Analytical Date: 11/08/10 17:08  
 Analyst: MM

Date Collected: 11/03/10 15:43  
 Date Received: 11/03/10  
 Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
<b>MCP Volatile Organics - Westborough Lab</b>						
Methylene chloride	ND		ug/l	80	--	40
1,1-Dichloroethane	ND		ug/l	40	--	40
Chloroform	ND		ug/l	40	--	40
Carbon tetrachloride	ND		ug/l	40	--	40
1,2-Dichloropropane	ND		ug/l	40	--	40
Dibromochloromethane	ND		ug/l	40	--	40
1,1,2-Trichloroethane	ND		ug/l	40	--	40
Tetrachloroethene	ND		ug/l	40	--	40
Chlorobenzene	ND		ug/l	40	--	40
Trichlorofluoromethane	ND		ug/l	80	--	40
1,2-Dichloroethane	ND		ug/l	40	--	40
1,1,1-Trichloroethane	ND		ug/l	40	--	40
Bromodichloromethane	ND		ug/l	40	--	40
trans-1,3-Dichloropropene	ND		ug/l	20	--	40
cis-1,3-Dichloropropene	ND		ug/l	20	--	40
1,1-Dichloropropene	ND		ug/l	80	--	40
Bromoform	ND		ug/l	80	--	40
1,1,2,2-Tetrachloroethane	ND		ug/l	40	--	40
Benzene	2600		ug/l	40	--	40
Toluene	270		ug/l	40	--	40
Ethylbenzene	920		ug/l	40	--	40
Chloromethane	ND		ug/l	80	--	40
Bromomethane	ND		ug/l	80	--	40
Vinyl chloride	ND		ug/l	40	--	40
Chloroethane	ND		ug/l	80	--	40
1,1-Dichloroethene	ND		ug/l	40	--	40
trans-1,2-Dichloroethene	ND		ug/l	40	--	40
Trichloroethene	ND		ug/l	40	--	40
1,2-Dichlorobenzene	ND		ug/l	40	--	40
1,3-Dichlorobenzene	ND		ug/l	40	--	40

Project Name: 100 BINNEY

Lab Number: L1017449

Project Number: 04-7590JD1

Report Date: 11/11/10

## SAMPLE RESULTS

Lab ID: L1017449-06 D Date Collected: 11/03/10 15:43  
 Client ID: B-201-GW Date Received: 11/03/10  
 Sample Location: CAMBRIDGE, MA Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
<b>MCP Volatile Organics - Westborough Lab</b>						
1,4-Dichlorobenzene	ND		ug/l	40	--	40
Methyl tert butyl ether	ND		ug/l	80	--	40
p/m-Xylene	1700		ug/l	80	--	40
o-Xylene	920		ug/l	40	--	40
cis-1,2-Dichloroethene	57		ug/l	40	--	40
Dibromomethane	ND		ug/l	80	--	40
1,2,3-Trichloropropane	ND		ug/l	80	--	40
Styrene	ND		ug/l	40	--	40
Dichlorodifluoromethane	ND		ug/l	80	--	40
Acetone	ND		ug/l	200	--	40
Carbon disulfide	ND		ug/l	80	--	40
2-Butanone	ND		ug/l	200	--	40
4-Methyl-2-pentanone	ND		ug/l	200	--	40
2-Hexanone	ND		ug/l	200	--	40
Bromochloromethane	ND		ug/l	80	--	40
Tetrahydrofuran	ND		ug/l	400	--	40
2,2-Dichloropropane	ND		ug/l	80	--	40
1,2-Dibromoethane	ND		ug/l	80	--	40
1,3-Dichloropropane	ND		ug/l	80	--	40
1,1,1,2-Tetrachloroethane	ND		ug/l	40	--	40
Bromobenzene	ND		ug/l	80	--	40
n-Butylbenzene	ND		ug/l	80	--	40
sec-Butylbenzene	ND		ug/l	80	--	40
tert-Butylbenzene	ND		ug/l	80	--	40
o-Chlorotoluene	ND		ug/l	80	--	40
p-Chlorotoluene	ND		ug/l	80	--	40
1,2-Dibromo-3-chloropropane	ND		ug/l	80	--	40
Hexachlorobutadiene	ND		ug/l	24	--	40
Isopropylbenzene	ND		ug/l	80	--	40
p-Isopropyltoluene	ND		ug/l	80	--	40
Naphthalene	ND		ug/l	80	--	40
n-Propylbenzene	ND		ug/l	80	--	40
1,2,3-Trichlorobenzene	ND		ug/l	80	--	40
1,2,4-Trichlorobenzene	ND		ug/l	80	--	40
1,3,5-Trimethylbenzene	ND		ug/l	80	--	40
1,2,4-Trimethylbenzene	94		ug/l	80	--	40
Ethyl ether	ND		ug/l	80	--	40



Project Name: 100 BINNEY

Lab Number: L1017449

Project Number: 04-7590JD1

Report Date: 11/11/10

## SAMPLE RESULTS

Lab ID: L1017449-06 D  
 Client ID: B-201-GW  
 Sample Location: CAMBRIDGE, MA

Date Collected: 11/03/10 15:43  
 Date Received: 11/03/10  
 Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
<b>MCP Volatile Organics - Westborough Lab</b>						
Isopropyl Ether	ND		ug/l	80	--	40
Ethyl-Tert-Butyl-Ether	ND		ug/l	80	--	40
Tertiary-Amyl Methyl Ether	ND		ug/l	80	--	40
1,4-Dioxane	ND		ug/l	10000	--	40

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	98		70-130
Toluene-d8	100		70-130
4-Bromofluorobenzene	105		70-130
Dibromofluoromethane	99		70-130

Project Name: 100 BINNEY

Lab Number: L1017449

Project Number: 04-7590JD1

Report Date: 11/11/10

**Method Blank Analysis  
Batch Quality Control**

Analytical Method: 97,8260B  
 Analytical Date: 11/08/10 08:12  
 Analyst: MM

Parameter	Result	Qualifier	Units	RL	MDL
MCP Volatile Organics - Westborough Lab for sample(s): 03-06 Batch: WG441986-3					
Methylene chloride	ND		ug/l	2.0	--
1,1-Dichloroethane	ND		ug/l	1.0	--
Chloroform	ND		ug/l	1.0	--
Carbon tetrachloride	ND		ug/l	1.0	--
1,2-Dichloropropane	ND		ug/l	1.0	--
Dibromochloromethane	ND		ug/l	1.0	--
1,1,2-Trichloroethane	ND		ug/l	1.0	--
Tetrachloroethene	ND		ug/l	1.0	--
Chlorobenzene	ND		ug/l	1.0	--
Trichlorofluoromethane	ND		ug/l	2.0	--
1,2-Dichloroethane	ND		ug/l	1.0	--
1,1,1-Trichloroethane	ND		ug/l	1.0	--
Bromodichloromethane	ND		ug/l	1.0	--
trans-1,3-Dichloropropene	ND		ug/l	0.50	--
cis-1,3-Dichloropropene	ND		ug/l	0.50	--
1,1-Dichloropropene	ND		ug/l	2.0	--
Bromoform	ND		ug/l	2.0	--
1,1,2,2-Tetrachloroethane	ND		ug/l	1.0	--
Benzene	ND		ug/l	1.0	--
Toluene	ND		ug/l	1.0	--
Ethylbenzene	ND		ug/l	1.0	--
Chloromethane	ND		ug/l	2.0	--
Bromomethane	ND		ug/l	2.0	--
Vinyl chloride	ND		ug/l	1.0	--
Chloroethane	ND		ug/l	2.0	--
1,1-Dichloroethene	ND		ug/l	1.0	--
trans-1,2-Dichloroethene	ND		ug/l	1.0	--
Trichloroethene	ND		ug/l	1.0	--
1,2-Dichlorobenzene	ND		ug/l	1.0	--
1,3-Dichlorobenzene	ND		ug/l	1.0	--
1,4-Dichlorobenzene	ND		ug/l	1.0	--



Project Name: 100 BINNEY

Lab Number: L1017449

Project Number: 04-7590JD1

Report Date: 11/11/10

### Method Blank Analysis Batch Quality Control

Analytical Method: 97,8260B  
 Analytical Date: 11/08/10 08:12  
 Analyst: MM

Parameter	Result	Qualifier	Units	RL	MDL
MCP Volatile Organics - Westborough Lab for sample(s): 03-06 Batch: WG441986-3					
Methyl tert butyl ether	ND		ug/l	2.0	--
p/m-Xylene	ND		ug/l	2.0	--
o-Xylene	ND		ug/l	1.0	--
cis-1,2-Dichloroethene	ND		ug/l	1.0	--
Dibromomethane	ND		ug/l	2.0	--
1,2,3-Trichloropropane	ND		ug/l	2.0	--
Styrene	ND		ug/l	1.0	--
Dichlorodifluoromethane	ND		ug/l	2.0	--
Acetone	ND		ug/l	5.0	--
Carbon disulfide	ND		ug/l	2.0	--
2-Butanone	ND		ug/l	5.0	--
4-Methyl-2-pentanone	ND		ug/l	5.0	--
2-Hexanone	ND		ug/l	5.0	--
Bromochloromethane	ND		ug/l	2.0	--
Tetrahydrofuran	ND		ug/l	10	--
2,2-Dichloropropane	ND		ug/l	2.0	--
1,2-Dibromoethane	ND		ug/l	2.0	--
1,3-Dichloropropane	ND		ug/l	2.0	--
1,1,1,2-Tetrachloroethane	ND		ug/l	1.0	--
Bromobenzene	ND		ug/l	2.0	--
n-Butylbenzene	ND		ug/l	2.0	--
sec-Butylbenzene	ND		ug/l	2.0	--
tert-Butylbenzene	ND		ug/l	2.0	--
o-Chlorotoluene	ND		ug/l	2.0	--
p-Chlorotoluene	ND		ug/l	2.0	--
1,2-Dibromo-3-chloropropane	ND		ug/l	2.0	--
Hexachlorobutadiene	ND		ug/l	0.60	--
Isopropylbenzene	ND		ug/l	2.0	--
p-Isopropyltoluene	ND		ug/l	2.0	--
Naphthalene	ND		ug/l	2.0	--
n-Propylbenzene	ND		ug/l	2.0	--



Project Name: 100 BINNEY

Lab Number: L1017449

Project Number: 04-7590JD1

Report Date: 11/11/10

**Method Blank Analysis**  
**Batch Quality Control**

Analytical Method: 97,8260B  
 Analytical Date: 11/08/10 08:12  
 Analyst: MM

Parameter	Result	Qualifier	Units	RL	MDL
MCP Volatile Organics - Westborough Lab for sample(s): 03-06 Batch: WG441986-3					
1,2,3-Trichlorobenzene	ND		ug/l	2.0	--
1,2,4-Trichlorobenzene	ND		ug/l	2.0	--
1,3,5-Trimethylbenzene	ND		ug/l	2.0	--
1,2,4-Trimethylbenzene	ND		ug/l	2.0	--
Ethyl ether	ND		ug/l	2.0	--
Isopropyl Ether	ND		ug/l	2.0	--
Ethyl-Tert-Butyl-Ether	ND		ug/l	2.0	--
Tertiary-Amyl Methyl Ether	ND		ug/l	2.0	--
1,4-Dioxane	ND		ug/l	250	--

Surrogate	%Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	100		70-130
Toluene-d8	100		70-130
4-Bromofluorobenzene	105		70-130
Dibromofluoromethane	98		70-130

Project Name: 100 BINNEY

Lab Number: L1017449

Project Number: 04-7590JD1

Report Date: 11/11/10

**Method Blank Analysis  
Batch Quality Control**

Analytical Method: 97,8260B  
 Analytical Date: 11/09/10 08:06  
 Analyst: MM

Parameter	Result	Qualifier	Units	RL	MDL
MCP Volatile Organics - Westborough Lab for sample(s): 02 Batch: WG442087-3					
Methylene chloride	ND		ug/l	2.0	--
1,1-Dichloroethane	ND		ug/l	1.0	--
Chloroform	ND		ug/l	1.0	--
Carbon tetrachloride	ND		ug/l	1.0	--
1,2-Dichloropropane	ND		ug/l	1.0	--
Dibromochloromethane	ND		ug/l	1.0	--
1,1,2-Trichloroethane	ND		ug/l	1.0	--
Tetrachloroethene	ND		ug/l	1.0	--
Chlorobenzene	ND		ug/l	1.0	--
Trichlorofluoromethane	ND		ug/l	2.0	--
1,2-Dichloroethane	ND		ug/l	1.0	--
1,1,1-Trichloroethane	ND		ug/l	1.0	--
Bromodichloromethane	ND		ug/l	1.0	--
trans-1,3-Dichloropropene	ND		ug/l	0.50	--
cis-1,3-Dichloropropene	ND		ug/l	0.50	--
1,1-Dichloropropene	ND		ug/l	2.0	--
Bromoform	ND		ug/l	2.0	--
1,1,2,2-Tetrachloroethane	ND		ug/l	1.0	--
Benzene	ND		ug/l	1.0	--
Toluene	ND		ug/l	1.0	--
Ethylbenzene	ND		ug/l	1.0	--
Chloromethane	ND		ug/l	2.0	--
Bromomethane	ND		ug/l	2.0	--
Vinyl chloride	ND		ug/l	1.0	--
Chloroethane	ND		ug/l	2.0	--
1,1-Dichloroethene	ND		ug/l	1.0	--
trans-1,2-Dichloroethene	ND		ug/l	1.0	--
Trichloroethene	ND		ug/l	1.0	--
1,2-Dichlorobenzene	ND		ug/l	1.0	--
1,3-Dichlorobenzene	ND		ug/l	1.0	--
1,4-Dichlorobenzene	ND		ug/l	1.0	--



Project Name: 100 BINNEY

Lab Number: L1017449

Project Number: 04-7590JD1

Report Date: 11/11/10

### Method Blank Analysis Batch Quality Control

Analytical Method: 97,8260B  
 Analytical Date: 11/09/10 08:06  
 Analyst: MM

Parameter	Result	Qualifier	Units	RL	MDL
MCP Volatile Organics - Westborough Lab for sample(s): 02 Batch: WG442087-3					
Methyl tert butyl ether	ND		ug/l	2.0	--
p/m-Xylene	ND		ug/l	2.0	--
o-Xylene	ND		ug/l	1.0	--
cis-1,2-Dichloroethene	ND		ug/l	1.0	--
Dibromomethane	ND		ug/l	2.0	--
1,2,3-Trichloropropane	ND		ug/l	2.0	--
Styrene	ND		ug/l	1.0	--
Dichlorodifluoromethane	ND		ug/l	2.0	--
Acetone	ND		ug/l	5.0	--
Carbon disulfide	ND		ug/l	2.0	--
2-Butanone	ND		ug/l	5.0	--
4-Methyl-2-pentanone	ND		ug/l	5.0	--
2-Hexanone	ND		ug/l	5.0	--
Bromochloromethane	ND		ug/l	2.0	--
Tetrahydrofuran	ND		ug/l	10	--
2,2-Dichloropropane	ND		ug/l	2.0	--
1,2-Dibromoethane	ND		ug/l	2.0	--
1,3-Dichloropropane	ND		ug/l	2.0	--
1,1,1,2-Tetrachloroethane	ND		ug/l	1.0	--
Bromobenzene	ND		ug/l	2.0	--
n-Butylbenzene	ND		ug/l	2.0	--
sec-Butylbenzene	ND		ug/l	2.0	--
tert-Butylbenzene	ND		ug/l	2.0	--
o-Chlorotoluene	ND		ug/l	2.0	--
p-Chlorotoluene	ND		ug/l	2.0	--
1,2-Dibromo-3-chloropropane	ND		ug/l	2.0	--
Hexachlorobutadiene	ND		ug/l	0.60	--
Isopropylbenzene	ND		ug/l	2.0	--
p-Isopropyltoluene	ND		ug/l	2.0	--
Naphthalene	ND		ug/l	2.0	--
n-Propylbenzene	ND		ug/l	2.0	--



Project Name: 100 BINNEY

Lab Number: L1017449

Project Number: 04-7590JD1

Report Date: 11/11/10

**Method Blank Analysis**  
**Batch Quality Control**

Analytical Method: 97,8260B  
 Analytical Date: 11/09/10 08:06  
 Analyst: MM

Parameter	Result	Qualifier	Units	RL	MDL
MCP Volatile Organics - Westborough Lab for sample(s): 02 Batch: WG442087-3					
1,2,3-Trichlorobenzene	ND		ug/l	2.0	--
1,2,4-Trichlorobenzene	ND		ug/l	2.0	--
1,3,5-Trimethylbenzene	ND		ug/l	2.0	--
1,2,4-Trimethylbenzene	ND		ug/l	2.0	--
Ethyl ether	ND		ug/l	2.0	--
Isopropyl Ether	ND		ug/l	2.0	--
Ethyl-Tert-Butyl-Ether	ND		ug/l	2.0	--
Tertiary-Amyl Methyl Ether	ND		ug/l	2.0	--
1,4-Dioxane	ND		ug/l	250	--

Surrogate	%Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	99		70-130
Toluene-d8	101		70-130
4-Bromofluorobenzene	110		70-130
Dibromofluoromethane	100		70-130

## Lab Control Sample Analysis

### Batch Quality Control

Project Name: 100 BINNEY

Project Number: 04-7590JD1

Lab Number: L1017449

Report Date: 11/11/10

Parameter	LCS		LCSD		%Recovery Limits	RPD	Qual	RPD Limits
	%Recovery	Qual	%Recovery	Qual				
MCP Volatile Organics - Westborough Lab Associated sample(s): 03-06 Batch: WG441986-1 WG441986-2								
Methylene chloride	95		96		70-130	1		20
1,1-Dichloroethane	91		93		70-130	2		20
Chloroform	93		95		70-130	2		20
Carbon tetrachloride	86		89		70-130	3		20
1,2-Dichloropropane	93		92		70-130	1		20
Dibromochloromethane	80		85		70-130	6		20
1,1,2-Trichloroethane	96		96		70-130	0		20
Tetrachloroethene	88		92		70-130	4		20
Chlorobenzene	85		88		70-130	3		20
Trichlorofluoromethane	98		123		70-130	23	Q	20
1,2-Dichloroethane	89		92		70-130	3		20
1,1,1-Trichloroethane	84		87		70-130	4		20
Bromodichloromethane	87		89		70-130	2		20
trans-1,3-Dichloropropene	74		76		70-130	3		20
cis-1,3-Dichloropropene	76		81		70-130	6		20
1,1-Dichloropropene	92		94		70-130	2		20
Bromoform	83		87		70-130	5		20
1,1,2,2-Tetrachloroethane	98		97		70-130	1		20
Benzene	94		95		70-130	1		20
Toluene	88		91		70-130	3		20
Ethylbenzene	91		94		70-130	3		20



## Lab Control Sample Analysis

### Batch Quality Control

Project Name: 100 BINNEY

Project Number: 04-7590JD1

Lab Number: L1017449

Report Date: 11/11/10

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
MCP Volatile Organics - Westborough Lab Associated sample(s): 03-06 Batch: WG441986-1 WG441986-2								
Chloromethane	94		94		70-130	0		20
Bromomethane	97		96		70-130	1		20
Vinyl chloride	98		98		70-130	0		20
Chloroethane	98		98		70-130	0		20
1,1-Dichloroethene	94		95		70-130	1		20
trans-1,2-Dichloroethene	88		89		70-130	1		20
Trichloroethene	91		93		70-130	2		20
1,2-Dichlorobenzene	87		90		70-130	3		20
1,3-Dichlorobenzene	86		88		70-130	2		20
1,4-Dichlorobenzene	90		92		70-130	2		20
Methyl tert butyl ether	91		90		70-130	1		20
p/m-Xylene	88		92		70-130	4		20
o-Xylene	90		95		70-130	5		20
cis-1,2-Dichloroethene	93		94		70-130	1		20
Dibromomethane	102		105		70-130	3		20
1,2,3-Trichloropropane	95		96		70-130	1		20
Styrene	87		92		70-130	6		20
Dichlorodifluoromethane	81		79		70-130	3		20
Acetone	101		105		70-130	4		20
Carbon disulfide	95		97		70-130	2		20
2-Butanone	102		104		70-130	2		20

## Lab Control Sample Analysis

### Batch Quality Control

Project Name: 100 BINNEY

Project Number: 04-7590JD1

Lab Number: L1017449

Report Date: 11/11/10

Parameter	LCS		LCSD		%Recovery Limits	RPD	Qual	RPD Limits
	%Recovery	Qual	%Recovery	Qual				
MCP Volatile Organics - Westborough Lab Associated sample(s): 03-06 Batch: WG441986-1 WG441986-2								
4-Methyl-2-pentanone	83		93		70-130	11		20
2-Hexanone	89		98		70-130	10		20
Bromochloromethane	94		91		70-130	3		20
Tetrahydrofuran	97		90		70-130	7		20
2,2-Dichloropropane	84		86		70-130	2		20
1,2-Dibromoethane	89		93		70-130	4		20
1,3-Dichloropropane	92		94		70-130	2		20
1,1,1,2-Tetrachloroethane	79		83		70-130	5		20
Bromobenzene	86		89		70-130	3		20
n-Butylbenzene	75		76		70-130	1		20
sec-Butylbenzene	90		92		70-130	2		20
tert-Butylbenzene	86		88		70-130	2		20
o-Chlorotoluene	88		91		70-130	3		20
p-Chlorotoluene	88		89		70-130	1		20
1,2-Dibromo-3-chloropropane	87		93		70-130	7		20
Hexachlorobutadiene	83		83		70-130	0		20
Isopropylbenzene	88		91		70-130	3		20
p-Isopropyltoluene	93		93		70-130	0		20
Naphthalene	82		82		70-130	0		20
n-Propylbenzene	92		95		70-130	3		20
1,2,3-Trichlorobenzene	79		80		70-130	1		20

## Lab Control Sample Analysis

### Batch Quality Control

Project Name: 100 BINNEY

Lab Number: L1017449

Project Number: 04-7590JD1

Report Date: 11/11/10

Parameter	LCS		LCSD		%Recovery Limits	RPD	Qual	RPD Limits
	%Recovery	Qual	%Recovery	Qual				
MCP Volatile Organics - Westborough Lab Associated sample(s): 03-06 Batch: WG441986-1 WG441986-2								
1,2,4-Trichlorobenzene	78		81		70-130	4		20
1,3,5-Trimethylbenzene	86		87		70-130	1		20
1,2,4-Trimethylbenzene	88		90		70-130	2		20
Ethyl ether	97		97		70-130	0		20
Isopropyl Ether	92		92		70-130	0		20
Ethyl-Tert-Butyl-Ether	88		87		70-130	1		20
Tertiary-Amyl Methyl Ether	92		95		70-130	3		20
1,4-Dioxane	117		110		70-130	6		20

Surrogate	LCS		LCSD		Acceptance Criteria
	%Recovery	Qual	%Recovery	Qual	
1,2-Dichloroethane-d4	98		95		70-130
Toluene-d8	99		100		70-130
4-Bromofluorobenzene	99		100		70-130
Dibromofluoromethane	104		102		70-130

## Lab Control Sample Analysis

### Batch Quality Control

Project Name: 100 BINNEY

Lab Number: L1017449

Project Number: 04-7590JD1

Report Date: 11/11/10

Parameter	LCS		LCSD		%Recovery Limits	RPD	Qual	RPD Limits
	%Recovery	Qual	%Recovery	Qual				
MCP Volatile Organics - Westborough Lab Associated sample(s): 02 Batch: WG442087-1 WG442087-2								
Methylene chloride	96		95		70-130	1		20
1,1-Dichloroethane	96		94		70-130	2		20
Chloroform	96		95		70-130	1		20
Carbon tetrachloride	85		88		70-130	3		20
1,2-Dichloropropane	95		95		70-130	0		20
Dibromochloromethane	84		82		70-130	2		20
1,1,2-Trichloroethane	96		91		70-130	5		20
Tetrachloroethene	92		92		70-130	0		20
Chlorobenzene	88		86		70-130	2		20
Trichlorofluoromethane	98		95		70-130	3		20
1,2-Dichloroethane	94		91		70-130	3		20
1,1,1-Trichloroethane	86		89		70-130	3		20
Bromodichloromethane	90		89		70-130	1		20
trans-1,3-Dichloropropene	77		79		70-130	3		20
cis-1,3-Dichloropropene	82		81		70-130	1		20
1,1-Dichloropropene	95		94		70-130	1		20
Bromoform	84		87		70-130	4		20
1,1,2,2-Tetrachloroethane	96		91		70-130	5		20
Benzene	96		95		70-130	1		20
Toluene	91		90		70-130	1		20
Ethylbenzene	91		92		70-130	1		20

## Lab Control Sample Analysis

### Batch Quality Control

Project Name: 100 BINNEY

Project Number: 04-7590JD1

Lab Number: L1017449

Report Date: 11/11/10

Parameter	LCS		LCSD		%Recovery Limits	RPD	Qual	RPD Limits
	%Recovery	Qual	%Recovery	Qual				
MCP Volatile Organics - Westborough Lab Associated sample(s): 02 Batch: WG442087-1 WG442087-2								
Chloromethane	92		92		70-130	0		20
Bromomethane	97		93		70-130	4		20
Vinyl chloride	93		97		70-130	4		20
Chloroethane	96		96		70-130	0		20
1,1-Dichloroethene	97		97		70-130	0		20
trans-1,2-Dichloroethene	92		94		70-130	2		20
Trichloroethene	94		94		70-130	0		20
1,2-Dichlorobenzene	90		85		70-130	6		20
1,3-Dichlorobenzene	88		85		70-130	3		20
1,4-Dichlorobenzene	92		89		70-130	3		20
Methyl tert butyl ether	96		87		70-130	10		20
p/m-Xylene	90		90		70-130	0		20
o-Xylene	93		91		70-130	2		20
cis-1,2-Dichloroethene	98		96		70-130	2		20
Dibromomethane	104		104		70-130	0		20
1,2,3-Trichloropropane	99		96		70-130	3		20
Styrene	92		88		70-130	4		20
Dichlorodifluoromethane	79		79		70-130	0		20
Acetone	97		98		70-130	1		20
Carbon disulfide	96		97		70-130	1		20
2-Butanone	105		95		70-130	10		20

## Lab Control Sample Analysis

### Batch Quality Control

Project Name: 100 BINNEY

Project Number: 04-7590JD1

Lab Number: L1017449

Report Date: 11/11/10

Parameter	LCS		LCSD		%Recovery Limits	RPD	Qual	RPD Limits
	%Recovery	Qual	%Recovery	Qual				
MCP Volatile Organics - Westborough Lab Associated sample(s): 02 Batch: WG442087-1 WG442087-2								
4-Methyl-2-pentanone	93		97		70-130	4		20
2-Hexanone	97		87		70-130	11		20
Bromochloromethane	91		94		70-130	3		20
Tetrahydrofuran	94		88		70-130	7		20
2,2-Dichloropropane	91		92		70-130	1		20
1,2-Dibromoethane	91		92		70-130	1		20
1,3-Dichloropropane	94		93		70-130	1		20
1,1,1,2-Tetrachloroethane	78		79		70-130	1		20
Bromobenzene	89		87		70-130	2		20
n-Butylbenzene	75		72		70-130	4		20
sec-Butylbenzene	91		87		70-130	4		20
tert-Butylbenzene	90		87		70-130	3		20
o-Chlorotoluene	89		87		70-130	2		20
p-Chlorotoluene	89		87		70-130	2		20
1,2-Dibromo-3-chloropropane	86		92		70-130	7		20
Hexachlorobutadiene	85		83		70-130	2		20
Isopropylbenzene	90		89		70-130	1		20
p-Isopropyltoluene	94		90		70-130	4		20
Naphthalene	87		82		70-130	6		20
n-Propylbenzene	93		91		70-130	2		20
1,2,3-Trichlorobenzene	85		79		70-130	7		20

## Lab Control Sample Analysis

Batch Quality Control

**Project Name:** 100 BINNEY  
**Project Number:** 04-7590JD1

**Lab Number:** L1017449  
**Report Date:** 11/11/10

Parameter	LCS		LCSD		%Recovery Limits	RPD	Qual	RPD Limits
	%Recovery	Qual	%Recovery	Qual				
MCP Volatile Organics - Westborough Lab Associated sample(s): 02 Batch: WG442087-1 WG442087-2								
1,2,4-Trichlorobenzene	81		79		70-130	3		20
1,3,5-Trimethylbenzene	86		84		70-130	2		20
1,2,4-Trimethylbenzene	91		87		70-130	4		20
Ethyl ether	100		93		70-130	7		20
Isopropyl Ether	96		90		70-130	6		20
Ethyl-Tert-Butyl-Ether	92		87		70-130	6		20
Tertiary-Amyl Methyl Ether	98		94		70-130	4		20
1,4-Dioxane	109		111		70-130	2		20

Surrogate	LCS		LCSD		Acceptance Criteria
	%Recovery	Qual	%Recovery	Qual	
1,2-Dichloroethane-d4	100		94		70-130
Toluene-d8	99		98		70-130
4-Bromofluorobenzene	99		98		70-130
Dibromofluoromethane	102		101		70-130



# SEMIVOLATILES



Project Name: 100 BINNEY

Lab Number: L1017449

Project Number: 04-7590JD1

Report Date: 11/11/10

## SAMPLE RESULTS

Lab ID: L1017449-03  
 Client ID: MW-59-GW  
 Sample Location: CAMBRIDGE, MA  
 Matrix: Water  
 Analytical Method: 97,8270C  
 Analytical Date: 11/08/10 01:13  
 Analyst: JB

Date Collected: 11/03/10 12:14  
 Date Received: 11/03/10  
 Field Prep: Not Specified  
 Extraction Method: EPA 3510C  
 Extraction Date: 11/05/10 20:49

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
<b>MCP Semivolatile Organics - Westborough Lab</b>						
Acenaphthene	29		ug/l	5.0	--	1
1,2,4-Trichlorobenzene	ND		ug/l	5.0	--	1
Hexachlorobenzene	ND		ug/l	5.0	--	1
Bis(2-chloroethyl)ether	ND		ug/l	5.0	--	1
2-Chloronaphthalene	ND		ug/l	5.0	--	1
1,2-Dichlorobenzene	ND		ug/l	5.0	--	1
1,3-Dichlorobenzene	ND		ug/l	5.0	--	1
1,4-Dichlorobenzene	ND		ug/l	5.0	--	1
3,3'-Dichlorobenzidine	ND		ug/l	10	--	1
2,4-Dinitrotoluene	ND		ug/l	5.0	--	1
2,6-Dinitrotoluene	ND		ug/l	5.0	--	1
Azobenzene	ND		ug/l	5.0	--	1
Fluoranthene	ND		ug/l	5.0	--	1
4-Bromophenyl phenyl ether	ND		ug/l	5.0	--	1
Bis(2-chloroisopropyl)ether	ND		ug/l	5.0	--	1
Bis(2-chloroethoxy)methane	ND		ug/l	5.0	--	1
Hexachlorobutadiene	ND		ug/l	10	--	1
Hexachloroethane	ND		ug/l	5.0	--	1
Isophorone	ND		ug/l	5.0	--	1
Naphthalene	36		ug/l	5.0	--	1
Nitrobenzene	ND		ug/l	5.0	--	1
Bis(2-Ethylhexyl)phthalate	ND		ug/l	5.0	--	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
Benzo(a)anthracene	ND		ug/l	5.0	--	1
Benzo(a)pyrene	ND		ug/l	5.0	--	1
Benzo(b)fluoranthene	ND		ug/l	5.0	--	1

Project Name: 100 BINNEY

Lab Number: L1017449

Project Number: 04-7590JD1

Report Date: 11/11/10

## SAMPLE RESULTS

Lab ID: L1017449-03  
 Client ID: MW-59-GW  
 Sample Location: CAMBRIDGE, MA

Date Collected: 11/03/10 12:14  
 Date Received: 11/03/10  
 Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
<b>MCP Semivolatile Organics - Westborough Lab</b>						
Benzo(k)fluoranthene	ND		ug/l	5.0	--	1
Chrysene	ND		ug/l	5.0	--	1
Acenaphthylene	ND		ug/l	5.0	--	1
Anthracene	ND		ug/l	5.0	--	1
Benzo(ghi)perylene	ND		ug/l	5.0	--	1
Fluorene	ND		ug/l	5.0	--	1
Phenanthrene	ND		ug/l	5.0	--	1
Dibenzo(a,h)anthracene	ND		ug/l	5.0	--	1
Indeno(1,2,3-cd)Pyrene	ND		ug/l	5.0	--	1
Pyrene	ND		ug/l	5.0	--	1
Aniline	ND		ug/l	20	--	1
4-Chloroaniline	ND		ug/l	5.0	--	1
Dibenzofuran	ND		ug/l	5.0	--	1
2-Methylnaphthalene	ND		ug/l	5.0	--	1
Acetophenone	ND		ug/l	10	--	1
2,4,6-Trichlorophenol	ND		ug/l	5.0	--	1
2-Chlorophenol	ND		ug/l	6.0	--	1
2,4-Dichlorophenol	ND		ug/l	10	--	1
2,4-Dimethylphenol	ND		ug/l	5.0	--	1
2-Nitrophenol	ND		ug/l	20	--	1
4-Nitrophenol	ND		ug/l	10	--	1
2,4-Dinitrophenol	ND		ug/l	30	--	1
Pentachlorophenol	ND		ug/l	10	--	1
Phenol	ND		ug/l	7.0	--	1
2-Methylphenol	ND		ug/l	6.0	--	1
3-Methylphenol/4-Methylphenol	ND		ug/l	6.0	--	1
2,4,5-Trichlorophenol	ND		ug/l	5.0	--	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
2-Fluorophenol	38		15-110
Phenol-d6	25		15-110
Nitrobenzene-d5	70		30-130
2-Fluorobiphenyl	80		30-130
2,4,6-Tribromophenol	94		15-110
4-Terphenyl-d14	91		30-130

Project Name: 100 BINNEY

Lab Number: L1017449

Project Number: 04-7590JD1

Report Date: 11/11/10

## SAMPLE RESULTS

Lab ID: L1017449-04  
 Client ID: ENV-23-GW  
 Sample Location: CAMBRIDGE, MA  
 Matrix: Water  
 Analytical Method: 97,8270C  
 Analytical Date: 11/08/10 01:39  
 Analyst: JB

Date Collected: 11/03/10 13:34  
 Date Received: 11/03/10  
 Field Prep: Not Specified  
 Extraction Method: EPA 3510C  
 Extraction Date: 11/05/10 20:49

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
<b>MCP Semivolatile Organics - Westborough Lab</b>						
Acenaphthene	ND		ug/l	5.0	--	1
1,2,4-Trichlorobenzene	ND		ug/l	5.0	--	1
Hexachlorobenzene	ND		ug/l	5.0	--	1
Bis(2-chloroethyl)ether	ND		ug/l	5.0	--	1
2-Chloronaphthalene	ND		ug/l	5.0	--	1
1,2-Dichlorobenzene	ND		ug/l	5.0	--	1
1,3-Dichlorobenzene	ND		ug/l	5.0	--	1
1,4-Dichlorobenzene	ND		ug/l	5.0	--	1
3,3'-Dichlorobenzidine	ND		ug/l	10	--	1
2,4-Dinitrotoluene	ND		ug/l	5.0	--	1
2,6-Dinitrotoluene	ND		ug/l	5.0	--	1
Azobenzene	ND		ug/l	5.0	--	1
Fluoranthene	ND		ug/l	5.0	--	1
4-Bromophenyl phenyl ether	ND		ug/l	5.0	--	1
Bis(2-chloroisopropyl)ether	ND		ug/l	5.0	--	1
Bis(2-chloroethoxy)methane	ND		ug/l	5.0	--	1
Hexachlorobutadiene	ND		ug/l	10	--	1
Hexachloroethane	ND		ug/l	5.0	--	1
Isophorone	ND		ug/l	5.0	--	1
Naphthalene	240	E	ug/l	5.0	--	1
Nitrobenzene	ND		ug/l	5.0	--	1
Bis(2-Ethylhexyl)phthalate	ND		ug/l	5.0	--	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
Benzo(a)anthracene	ND		ug/l	5.0	--	1
Benzo(a)pyrene	ND		ug/l	5.0	--	1
Benzo(b)fluoranthene	ND		ug/l	5.0	--	1

Project Name: 100 BINNEY

Lab Number: L1017449

Project Number: 04-7590JD1

Report Date: 11/11/10

## SAMPLE RESULTS

Lab ID: L1017449-04  
 Client ID: ENV-23-GW  
 Sample Location: CAMBRIDGE, MA

Date Collected: 11/03/10 13:34  
 Date Received: 11/03/10  
 Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
<b>MCP Semivolatile Organics - Westborough Lab</b>						
Benzo(k)fluoranthene	ND		ug/l	5.0	--	1
Chrysene	ND		ug/l	5.0	--	1
Acenaphthylene	28		ug/l	5.0	--	1
Anthracene	ND		ug/l	5.0	--	1
Benzo(ghi)perylene	ND		ug/l	5.0	--	1
Fluorene	ND		ug/l	5.0	--	1
Phenanthrene	26		ug/l	5.0	--	1
Dibenzo(a,h)anthracene	ND		ug/l	5.0	--	1
Indeno(1,2,3-cd)Pyrene	ND		ug/l	5.0	--	1
Pyrene	ND		ug/l	5.0	--	1
Aniline	ND		ug/l	20	--	1
4-Chloroaniline	ND		ug/l	5.0	--	1
Dibenzofuran	ND		ug/l	5.0	--	1
2-Methylnaphthalene	64		ug/l	5.0	--	1
Acetophenone	ND		ug/l	10	--	1
2,4,6-Trichlorophenol	ND		ug/l	5.0	--	1
2-Chlorophenol	ND		ug/l	6.0	--	1
2,4-Dichlorophenol	ND		ug/l	10	--	1
2,4-Dimethylphenol	ND		ug/l	5.0	--	1
2-Nitrophenol	ND		ug/l	20	--	1
4-Nitrophenol	ND		ug/l	10	--	1
2,4-Dinitrophenol	ND		ug/l	30	--	1
Pentachlorophenol	ND		ug/l	10	--	1
Phenol	ND		ug/l	7.0	--	1
2-Methylphenol	ND		ug/l	6.0	--	1
3-Methylphenol/4-Methylphenol	ND		ug/l	6.0	--	1
2,4,5-Trichlorophenol	ND		ug/l	5.0	--	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
2-Fluorophenol	33		15-110
Phenol-d6	22		15-110
Nitrobenzene-d5	57		30-130
2-Fluorobiphenyl	66		30-130
2,4,6-Tribromophenol	86		15-110
4-Terphenyl-d14	93		30-130

**Project Name:** 100 BINNEY**Lab Number:** L1017449**Project Number:** 04-7590JD1**Report Date:** 11/11/10**SAMPLE RESULTS**

**Lab ID:** L1017449-04      D  
**Client ID:** ENV-23-GW  
**Sample Location:** CAMBRIDGE, MA  
**Matrix:** Water  
**Analytical Method:** 97,8270C  
**Analytical Date:** 11/09/10 15:00  
**Analyst:** JB

**Date Collected:** 11/03/10 13:34  
**Date Received:** 11/03/10  
**Field Prep:** Not Specified  
**Extraction Method:** EPA 3510C  
**Extraction Date:** 11/05/10 20:49

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
MCP Semivolatile Organics - Westborough Lab						
Naphthalene	290		ug/l	25	--	5

**Project Name:** 100 BINNEY  
**Project Number:** 04-7590JD1

**Lab Number:** L1017449  
**Report Date:** 11/11/10

**Method Blank Analysis**  
**Batch Quality Control**

**Analytical Method:** 97,8270C  
**Analytical Date:** 11/07/10 19:46  
**Analyst:** JB

**Extraction Method:** EPA 3510C  
**Extraction Date:** 11/05/10 20:49

Parameter	Result	Qualifier	Units	RL	MDL
MCP Semivolatile Organics - Westborough Lab for sample(s): 03-04 Batch: WG441629-1					
Acenaphthene	ND		ug/l	5.0	--
1,2,4-Trichlorobenzene	ND		ug/l	5.0	--
Hexachlorobenzene	ND		ug/l	5.0	--
Bis(2-chloroethyl)ether	ND		ug/l	5.0	--
2-Chloronaphthalene	ND		ug/l	5.0	--
1,2-Dichlorobenzene	ND		ug/l	5.0	--
1,3-Dichlorobenzene	ND		ug/l	5.0	--
1,4-Dichlorobenzene	ND		ug/l	5.0	--
3,3'-Dichlorobenzidine	ND		ug/l	10	--
2,4-Dinitrotoluene	ND		ug/l	5.0	--
2,6-Dinitrotoluene	ND		ug/l	5.0	--
Azobenzene	ND		ug/l	5.0	--
Fluoranthene	ND		ug/l	5.0	--
4-Bromophenyl phenyl ether	ND		ug/l	5.0	--
Bis(2-chloroisopropyl)ether	ND		ug/l	5.0	--
Bis(2-chloroethoxy)methane	ND		ug/l	5.0	--
Hexachlorobutadiene	ND		ug/l	10	--
Hexachloroethane	ND		ug/l	5.0	--
Isophorone	ND		ug/l	5.0	--
Naphthalene	ND		ug/l	5.0	--
Nitrobenzene	ND		ug/l	5.0	--
Bis(2-Ethylhexyl)phthalate	ND		ug/l	5.0	--
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	--
Benzo(a)anthracene	ND		ug/l	5.0	--
Benzo(a)pyrene	ND		ug/l	5.0	--
Benzo(b)fluoranthene	ND		ug/l	5.0	--
Benzo(k)fluoranthene	ND		ug/l	5.0	--



**Project Name:** 100 BINNEY  
**Project Number:** 04-7590JD1

**Lab Number:** L1017449  
**Report Date:** 11/11/10

**Method Blank Analysis**  
**Batch Quality Control**

**Analytical Method:** 97,8270C  
**Analytical Date:** 11/07/10 19:46  
**Analyst:** JB

**Extraction Method:** EPA 3510C  
**Extraction Date:** 11/05/10 20:49

Parameter	Result	Qualifier	Units	RL	MDL
MCP Semivolatile Organics - Westborough Lab for sample(s): 03-04 Batch: WG441629-1					
Chrysene	ND		ug/l	5.0	--
Acenaphthylene	ND		ug/l	5.0	--
Anthracene	ND		ug/l	5.0	--
Benzo(ghi)perylene	ND		ug/l	5.0	--
Fluorene	ND		ug/l	5.0	--
Phenanthrene	ND		ug/l	5.0	--
Dibenzo(a,h)anthracene	ND		ug/l	5.0	--
Indeno(1,2,3-cd)Pyrene	ND		ug/l	5.0	--
Pyrene	ND		ug/l	5.0	--
Aniline	ND		ug/l	20	--
4-Chloroaniline	ND		ug/l	5.0	--
Dibenzofuran	ND		ug/l	5.0	--
2-Methylnaphthalene	ND		ug/l	5.0	--
Acetophenone	ND		ug/l	10	--
2,4,6-Trichlorophenol	ND		ug/l	5.0	--
2-Chlorophenol	ND		ug/l	6.0	--
2,4-Dichlorophenol	ND		ug/l	10	--
2,4-Dimethylphenol	ND		ug/l	5.0	--
2-Nitrophenol	ND		ug/l	20	--
4-Nitrophenol	ND		ug/l	10	--
2,4-Dinitrophenol	ND		ug/l	30	--
Pentachlorophenol	ND		ug/l	10	--
Phenol	ND		ug/l	7.0	--
2-Methylphenol	ND		ug/l	6.0	--
3-Methylphenol/4-Methylphenol	ND		ug/l	6.0	--
2,4,5-Trichlorophenol	ND		ug/l	5.0	--

Project Name: 100 BINNEY

Lab Number: L1017449

Project Number: 04-7590JD1

Report Date: 11/11/10

**Method Blank Analysis**  
**Batch Quality Control**

Analytical Method: 97,8270C  
 Analytical Date: 11/07/10 19:46  
 Analyst: JB

Extraction Method: EPA 3510C  
 Extraction Date: 11/05/10 20:49

Parameter	Result	Qualifier	Units	RL	MDL
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MCP Semivolatile Organics - Westborough Lab for sample(s): 03-04 Batch: WG441629-1

Surrogate	%Recovery	Qualifier	Acceptance Criteria
2-Fluorophenol	43		15-110
Phenol-d6	23		15-110
Nitrobenzene-d5	70		30-130
2-Fluorobiphenyl	71		30-130
2,4,6-Tribromophenol	84		15-110
4-Terphenyl-d14	83		30-130



## Lab Control Sample Analysis

### Batch Quality Control

Project Name: 100 BINNEY

Project Number: 04-7590JD1

Lab Number: L1017449

Report Date: 11/11/10

Parameter	LCS		LCSD		%Recovery Limits	RPD	Qual	RPD Limits
	%Recovery	Qual	%Recovery	Qual				
MCP Semivolatile Organics - Westborough Lab Associated sample(s): 03-04 Batch: WG441629-2 WG441629-3								
Acenaphthene	79		85		40-140	7		20
1,2,4-Trichlorobenzene	76		85		40-140	11		20
Hexachlorobenzene	90		96		40-140	6		20
Bis(2-chloroethyl)ether	69		79		40-140	14		20
2-Chloronaphthalene	73		81		40-140	10		20
1,2-Dichlorobenzene	68		77		40-140	12		20
1,3-Dichlorobenzene	70		79		40-140	12		20
1,4-Dichlorobenzene	68		77		40-140	12		20
3,3'-Dichlorobenzidine	29	Q	31	Q	40-140	7		20
2,4-Dinitrotoluene	94		100		40-140	6		20
2,6-Dinitrotoluene	82		92		40-140	11		20
Azobenzene	96		102		40-140	6		20
Fluoranthene	99		107		40-140	8		20
4-Bromophenyl phenyl ether	84		90		40-140	7		20
Bis(2-chloroisopropyl)ether	72		80		40-140	11		20
Bis(2-chloroethoxy)methane	70		80		40-140	13		20
Hexachlorobutadiene	78		90		40-140	14		20
Hexachloroethane	69		79		40-140	14		20
Isophorone	70		78		40-140	11		20
Naphthalene	75		85		40-140	13		20
Nitrobenzene	81		90		40-140	11		20

## Lab Control Sample Analysis

### Batch Quality Control

Project Name: 100 BINNEY

Lab Number: L1017449

Project Number: 04-7590JD1

Report Date: 11/11/10

Parameter	LCS		LCSD		%Recovery Limits	RPD	Qual	RPD Limits
	%Recovery	Qual	%Recovery	Qual				
MCP Semivolatile Organics - Westborough Lab Associated sample(s): 03-04 Batch: WG441629-2 WG441629-3								
Bis(2-Ethylhexyl)phthalate	99		107		40-140	8		20
Butyl benzyl phthalate	94		101		40-140	7		20
Di-n-butylphthalate	102		109		40-140	7		20
Di-n-octylphthalate	98		105		40-140	7		20
Diethyl phthalate	96		102		40-140	6		20
Dimethyl phthalate	92		98		40-140	6		20
Benzo(a)anthracene	91		99		40-140	8		20
Benzo(a)pyrene	88		96		40-140	9		20
Benzo(b)fluoranthene	83		93		40-140	11		20
Benzo(k)fluoranthene	103		112		40-140	8		20
Chrysene	100		106		40-140	6		20
Acenaphthylene	75		84		40-140	11		20
Anthracene	89		98		40-140	10		20
Benzo(ghi)perylene	87		94		40-140	8		20
Fluorene	86		93		40-140	8		20
Phenanthrene	89		98		40-140	10		20
Dibenzo(a,h)anthracene	88		95		40-140	8		20
Indeno(1,2,3-cd)Pyrene	86		94		40-140	9		20
Pyrene	93		101		40-140	8		20
Aniline	16	Q	19	Q	40-140	17		20
4-Chloroaniline	49		51		40-140	4		20

## Lab Control Sample Analysis

### Batch Quality Control

Project Name: 100 BINNEY

Project Number: 04-7590JD1

Lab Number: L1017449

Report Date: 11/11/10

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
MCP Semivolatile Organics - Westborough Lab Associated sample(s): 03-04 Batch: WG441629-2 WG441629-3								
Dibenzofuran	84		91		40-140	8		20
2-Methylnaphthalene	73		82		40-140	12		20
Acetophenone	39	Q	43		40-140	10		20
2,4,6-Trichlorophenol	82		90		30-130	9		20
2-Chlorophenol	72		80		30-130	11		20
2,4-Dichlorophenol	82		92		30-130	11		20
2,4-Dimethylphenol	43		46		30-130	7		20
2-Nitrophenol	74		83		30-130	11		20
4-Nitrophenol	39		41		30-130	5		20
2,4-Dinitrophenol	110		114		30-130	4		20
Pentachlorophenol	127		130		30-130	2		20
Phenol	28	Q	29	Q	30-130	4		20
2-Methylphenol	58		64		30-130	10		20
3-Methylphenol/4-Methylphenol	56		57		30-130	2		20
2,4,5-Trichlorophenol	86		94		30-130	9		20

## Lab Control Sample Analysis

### Batch Quality Control

Project Name: 100 BINNEY

Project Number: 04-7590JD1

Lab Number: L1017449

Report Date: 11/11/10

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
MCP Semivolatile Organics - Westborough Lab Associated sample(s): 03-04 Batch: WG441629-2 WG441629-3								

Surrogate	LCS %Recovery	Qual	LCSD %Recovery	Qual	Acceptance Criteria
2-Fluorophenol	37		48		15-110
Phenol-d6	21		28		15-110
Nitrobenzene-d5	60		79		30-130
2-Fluorobiphenyl	64		84		30-130
2,4,6-Tribromophenol	74		95		15-110
4-Terphenyl-d14	72		92		30-130

# PETROLEUM HYDROCARBONS

Project Name: 100 BINNEY

Lab Number: L1017449

Project Number: 04-7590JD1

Report Date: 11/11/10

**SAMPLE RESULTS**

Lab ID: L1017449-01  
 Client ID: ENV-19-GW  
 Sample Location: CAMBRIDGE, MA  
 Matrix: Water  
 Analytical Method: 98,EPH-04-1.1  
 Analytical Date: 11/11/10 00:47  
 Analyst: AS

Date Collected: 11/03/10 09:08  
 Date Received: 11/03/10  
 Field Prep: Not Specified  
 Extraction Method: EPA 3510C  
 Extraction Date: 11/07/10 17:40  
 Cleanup Method1: EPH-04-1  
 Cleanup Date1: 11/10/10

**Quality Control Information**

Condition of sample received: Satisfactory  
 Aqueous Preservative: Laboratory Provided Preserved Container  
 Sample Temperature upon receipt: Received on Ice  
 Sample Extraction method: Extracted Per the Method

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
<b>Extractable Petroleum Hydrocarbons - Westborough Lab</b>						
C9-C18 Aliphatics	ND		ug/l	100	--	1
C19-C36 Aliphatics	ND		ug/l	100	--	1
C11-C22 Aromatics	151		ug/l	100	--	1
C11-C22 Aromatics, Adjusted	151		ug/l	100	--	1
Naphthalene	ND		ug/l	10.0	--	1
2-Methylnaphthalene	ND		ug/l	10.0	--	1
Acenaphthylene	ND		ug/l	10.0	--	1
Acenaphthene	ND		ug/l	10.0	--	1
Fluorene	ND		ug/l	10.0	--	1
Phenanthrene	ND		ug/l	10.0	--	1
Anthracene	ND		ug/l	10.0	--	1
Fluoranthene	ND		ug/l	10.0	--	1
Pyrene	ND		ug/l	10.0	--	1
Benzo(a)anthracene	ND		ug/l	10.0	--	1
Chrysene	ND		ug/l	10.0	--	1
Benzo(b)fluoranthene	ND		ug/l	10.0	--	1
Benzo(k)fluoranthene	ND		ug/l	10.0	--	1
Benzo(a)pyrene	ND		ug/l	10.0	--	1
Indeno(1,2,3-cd)Pyrene	ND		ug/l	10.0	--	1
Dibenzo(a,h)anthracene	ND		ug/l	10.0	--	1
Benzo(ghi)perylene	ND		ug/l	10.0	--	1



Project Name: 100 BINNEY

Lab Number: L1017449

Project Number: 04-7590JD1

Report Date: 11/11/10

**SAMPLE RESULTS**

Lab ID: L1017449-01

Date Collected: 11/03/10 09:08

Client ID: ENV-19-GW

Date Received: 11/03/10

Sample Location: CAMBRIDGE, MA

Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
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**Extractable Petroleum Hydrocarbons - Westborough Lab**

Surrogate	% Recovery	Qualifier	Acceptance Criteria
Chloro-Octadecane	63		40-140
o-Terphenyl	83		40-140
2-Fluorobiphenyl	70		40-140
2-Bromonaphthalene	84		40-140

Project Name: 100 BINNEY

Lab Number: L1017449

Project Number: 04-7590JD1

Report Date: 11/11/10

**SAMPLE RESULTS**

Lab ID: L1017449-02  
 Client ID: ENV-17-GW  
 Sample Location: CAMBRIDGE, MA  
 Matrix: Water  
 Analytical Method: 98,EPH-04-1.1  
 Analytical Date: 11/11/10 01:17  
 Analyst: AS

Date Collected: 11/03/10 10:28  
 Date Received: 11/03/10  
 Field Prep: See Narrative  
 Extraction Method: EPA 3510C  
 Extraction Date: 11/07/10 17:40  
 Cleanup Method1: EPH-04-1  
 Cleanup Date1: 11/10/10

**Quality Control Information**

Condition of sample received: Satisfactory  
 Aqueous Preservative: Laboratory Provided Preserved  
 Sample Temperature upon receipt: Container Received on Ice  
 Sample Extraction method: Extracted Per the Method

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
<b>Extractable Petroleum Hydrocarbons - Westborough Lab</b>						
C9-C18 Aliphatics	ND		ug/l	100	--	1
C19-C36 Aliphatics	ND		ug/l	100	--	1
C11-C22 Aromatics	642		ug/l	100	--	1
C11-C22 Aromatics, Adjusted	393		ug/l	100	--	1
Naphthalene	144		ug/l	10.0	--	1
2-Methylnaphthalene	ND		ug/l	10.0	--	1
Acenaphthylene	ND		ug/l	10.0	--	1
Acenaphthene	56.8		ug/l	10.0	--	1
Fluorene	20.2		ug/l	10.0	--	1
Phenanthrene	27.5		ug/l	10.0	--	1
Anthracene	ND		ug/l	10.0	--	1
Fluoranthene	ND		ug/l	10.0	--	1
Pyrene	ND		ug/l	10.0	--	1
Benzo(a)anthracene	ND		ug/l	10.0	--	1
Chrysene	ND		ug/l	10.0	--	1
Benzo(b)fluoranthene	ND		ug/l	10.0	--	1
Benzo(k)fluoranthene	ND		ug/l	10.0	--	1
Benzo(a)pyrene	ND		ug/l	10.0	--	1
Indeno(1,2,3-cd)Pyrene	ND		ug/l	10.0	--	1
Dibenzo(a,h)anthracene	ND		ug/l	10.0	--	1
Benzo(ghi)perylene	ND		ug/l	10.0	--	1





Project Name: 100 BINNEY

Lab Number: L1017449

Project Number: 04-7590JD1

Report Date: 11/11/10

**SAMPLE RESULTS**

Lab ID: L1017449-02

Date Collected: 11/03/10 10:28

Client ID: ENV-17-GW

Date Received: 11/03/10

Sample Location: CAMBRIDGE, MA

Field Prep: See Narrative

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
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**Extractable Petroleum Hydrocarbons - Westborough Lab**

Surrogate	% Recovery	Qualifier	Acceptance Criteria
Chloro-Octadecane	75		40-140
o-Terphenyl	83		40-140
2-Fluorobiphenyl	70		40-140
2-Bromonaphthalene	74		40-140



**Project Name:** 100 BINNEY  
**Project Number:** 04-7590JD1

**Lab Number:** L1017449  
**Report Date:** 11/11/10

**Method Blank Analysis**  
**Batch Quality Control**

**Analytical Method:** 98,EPH-04-1.1  
**Analytical Date:** 11/08/10 12:19  
**Analyst:** AS

**Extraction Method:** EPA 3510C  
**Extraction Date:** 11/07/10 17:40  
**Cleanup Method1:** EPH-04-1  
**Cleanup Date1:** 11/09/10

Parameter	Result	Qualifier	Units	RL	MDL
Extractable Petroleum Hydrocarbons - Westborough Lab for sample(s): 01-02 Batch: WG441724-1					
C9-C18 Aliphatics	ND		ug/l	100	--
C19-C36 Aliphatics	ND		ug/l	100	--
C11-C22 Aromatics	ND		ug/l	100	--
C11-C22 Aromatics, Adjusted	ND		ug/l	100	--
Naphthalene	ND		ug/l	10.0	--
2-Methylnaphthalene	ND		ug/l	10.0	--
Acenaphthylene	ND		ug/l	10.0	--
Acenaphthene	ND		ug/l	10.0	--
Fluorene	ND		ug/l	10.0	--
Phenanthrene	ND		ug/l	10.0	--
Anthracene	ND		ug/l	10.0	--
Fluoranthene	ND		ug/l	10.0	--
Pyrene	ND		ug/l	10.0	--
Benzo(a)anthracene	ND		ug/l	10.0	--
Chrysene	ND		ug/l	10.0	--
Benzo(b)fluoranthene	ND		ug/l	10.0	--
Benzo(k)fluoranthene	ND		ug/l	10.0	--
Benzo(a)pyrene	ND		ug/l	10.0	--
Indeno(1,2,3-cd)Pyrene	ND		ug/l	10.0	--
Dibenzo(a,h)anthracene	ND		ug/l	10.0	--
Benzo(ghi)perylene	ND		ug/l	10.0	--

Surrogate	%Recovery	Qualifier	Acceptance Criteria
Chloro-Octadecane	76		40-140
o-Terphenyl	84		40-140
2-Fluorobiphenyl	79		40-140
2-Bromonaphthalene	88		40-140



## Lab Control Sample Analysis

### Batch Quality Control

Project Name: 100 BINNEY

Lab Number: L1017449

Project Number: 04-7590JD1

Report Date: 11/11/10

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Extractable Petroleum Hydrocarbons - Westborough Lab Associated sample(s): 01-02 Batch: WG441724-2 WG441724-3								
C9-C18 Aliphatics	60		55		40-140	9		25
C19-C36 Aliphatics	76		74		40-140	3		25
C11-C22 Aromatics	86		69		40-140	22		25
Naphthalene	76		63		40-140	19		25
2-Methylnaphthalene	81		68		40-140	17		25
Acenaphthylene	74		64		40-140	14		25
Acenaphthene	80		68		40-140	16		25
Fluorene	83		69		40-140	18		25
Phenanthrene	88		75		40-140	16		25
Anthracene	97		76		40-140	24		25
Fluoranthene	87		73		40-140	18		25
Pyrene	87		74		40-140	16		25
Benzo(a)anthracene	84		69		40-140	20		25
Chrysene	86		72		40-140	18		25
Benzo(b)fluoranthene	93		74		40-140	23		25
Benzo(k)fluoranthene	94		75		40-140	22		25
Benzo(a)pyrene	75		62		40-140	19		25
Indeno(1,2,3-cd)Pyrene	92		75		40-140	20		25
Dibenzo(a,h)anthracene	81		67		40-140	19		25
Benzo(ghi)perylene	84		70		40-140	18		25
Nonane (C9)	49		42		30-140	15		25

## Lab Control Sample Analysis

### Batch Quality Control

**Project Name:** 100 BINNEY  
**Project Number:** 04-7590JD1

**Lab Number:** L1017449  
**Report Date:** 11/11/10

Parameter	LCS		LCSD		%Recovery Limits	RPD	Qual	RPD Limits
	%Recovery	Qual	%Recovery	Qual				
Extractable Petroleum Hydrocarbons - Westborough Lab Associated sample(s): 01-02 Batch: WG441724-2 WG441724-3								
Decane (C10)	57		49		40-140	15		25
Dodecane (C12)	62		54		40-140	14		25
Tetradecane (C14)	68		63		40-140	8		25
Hexadecane (C16)	77		72		40-140	7		25
Octadecane (C18)	84		79		40-140	6		25
Nonadecane (C19)	87		82		40-140	6		25
Eicosane (C20)	87		82		40-140	6		25
Docosane (C22)	88		82		40-140	7		25
Tetracosane (C24)	86		81		40-140	6		25
Hexacosane (C26)	87		82		40-140	6		25
Octacosane (C28)	85		80		40-140	6		25
Triacontane (C30)	87		82		40-140	6		25
Hexatriacontane (C36)	87		82		40-140	6		25

Surrogate	LCS		LCSD		Acceptance Criteria
	%Recovery	Qual	%Recovery	Qual	
Chloro-Octadecane	29	Q	67		40-140
o-Terphenyl	120		90		40-140
2-Fluorobiphenyl	78		75		40-140
2-Bromonaphthalene	79		76		40-140
% Naphthalene Breakthrough	0		0		
% 2-Methylnaphthalene Breakthrough	0		0		



## METALS

Project Name: 100 BINNEY

Lab Number: L1017449

Project Number: 04-7590JD1

Report Date: 11/11/10

## SAMPLE RESULTS

Lab ID: L1017449-02  
 Client ID: ENV-17-GW  
 Sample Location: CAMBRIDGE, MA  
 Matrix: Water

Date Collected: 11/03/10 10:28  
 Date Received: 11/03/10  
 Field Prep: See Narrative

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Prep Method	Analytical Method	Analyst
<b>MCP Dissolved Metals - Westborough Lab</b>											
Antimony, Dissolved	ND		mg/l	0.050	--	1	11/08/10 14:20	11/09/10 18:31	EPA 3005A	97,6010B	TD
Arsenic, Dissolved	ND		mg/l	0.005	--	1	11/08/10 14:20	11/09/10 18:31	EPA 3005A	97,6010B	TD
Barium, Dissolved	0.061		mg/l	0.010	--	1	11/08/10 14:20	11/09/10 18:31	EPA 3005A	97,6010B	TD
Beryllium, Dissolved	ND		mg/l	0.004	--	1	11/08/10 14:20	11/09/10 18:31	EPA 3005A	97,6010B	TD
Cadmium, Dissolved	ND		mg/l	0.004	--	1	11/08/10 14:20	11/09/10 18:31	EPA 3005A	97,6010B	TD
Chromium, Dissolved	ND		mg/l	0.01	--	1	11/08/10 14:20	11/09/10 18:31	EPA 3005A	97,6010B	TD
Lead, Dissolved	ND		mg/l	0.010	--	1	11/08/10 14:20	11/09/10 18:31	EPA 3005A	97,6010B	TD
Mercury, Dissolved	ND		mg/l	0.0002	--	1	11/09/10 19:50	11/10/10 11:23	EPA 7470A	97,7470A	EZ
Nickel, Dissolved	ND		mg/l	0.025	--	1	11/08/10 14:20	11/09/10 18:31	EPA 3005A	97,6010B	TD
Selenium, Dissolved	ND		mg/l	0.010	--	1	11/08/10 14:20	11/09/10 18:31	EPA 3005A	97,6010B	TD
Silver, Dissolved	ND		mg/l	0.007	--	1	11/08/10 14:20	11/09/10 18:31	EPA 3005A	97,6010B	TD
Thallium, Dissolved	ND		mg/l	0.020	--	1	11/08/10 14:20	11/09/10 18:31	EPA 3005A	97,6010B	TD
Vanadium, Dissolved	ND		mg/l	0.010	--	1	11/08/10 14:20	11/09/10 18:31	EPA 3005A	97,6010B	TD
Zinc, Dissolved	ND		mg/l	0.050	--	1	11/08/10 14:20	11/09/10 18:31	EPA 3005A	97,6010B	TD



Project Name: 100 BINNEY

Lab Number: L1017449

Project Number: 04-7590JD1

Report Date: 11/11/10

## SAMPLE RESULTS

Lab ID: L1017449-05  
 Client ID: ENV-20-GW  
 Sample Location: CAMBRIDGE, MA  
 Matrix: Water

Date Collected: 11/03/10 14:58  
 Date Received: 11/03/10  
 Field Prep: See Narrative

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Prep Method	Analytical Method	Analyst
<b>MCP Dissolved Metals - Westborough Lab</b>											
Antimony, Dissolved	ND		mg/l	0.050	--	1	11/08/10 14:20	11/09/10 18:44	EPA 3005A	97,6010B	TD
Arsenic, Dissolved	ND		mg/l	0.005	--	1	11/08/10 14:20	11/09/10 18:44	EPA 3005A	97,6010B	TD
Barium, Dissolved	0.025		mg/l	0.010	--	1	11/08/10 14:20	11/09/10 18:44	EPA 3005A	97,6010B	TD
Beryllium, Dissolved	ND		mg/l	0.004	--	1	11/08/10 14:20	11/09/10 18:44	EPA 3005A	97,6010B	TD
Cadmium, Dissolved	ND		mg/l	0.004	--	1	11/08/10 14:20	11/09/10 18:44	EPA 3005A	97,6010B	TD
Chromium, Dissolved	ND		mg/l	0.01	--	1	11/08/10 14:20	11/09/10 18:44	EPA 3005A	97,6010B	TD
Lead, Dissolved	ND		mg/l	0.010	--	1	11/08/10 14:20	11/09/10 18:44	EPA 3005A	97,6010B	TD
Mercury, Dissolved	ND		mg/l	0.0002	--	1	11/09/10 19:50	11/10/10 11:25	EPA 7470A	97,7470A	EZ
Nickel, Dissolved	ND		mg/l	0.025	--	1	11/08/10 14:20	11/09/10 18:44	EPA 3005A	97,6010B	TD
Selenium, Dissolved	ND		mg/l	0.010	--	1	11/08/10 14:20	11/09/10 18:44	EPA 3005A	97,6010B	TD
Silver, Dissolved	ND		mg/l	0.007	--	1	11/08/10 14:20	11/09/10 18:44	EPA 3005A	97,6010B	TD
Thallium, Dissolved	ND		mg/l	0.020	--	1	11/08/10 14:20	11/09/10 18:44	EPA 3005A	97,6010B	TD
Vanadium, Dissolved	ND		mg/l	0.010	--	1	11/08/10 14:20	11/09/10 18:44	EPA 3005A	97,6010B	TD
Zinc, Dissolved	ND		mg/l	0.050	--	1	11/08/10 14:20	11/09/10 18:44	EPA 3005A	97,6010B	TD



**Project Name:** 100 BINNEY  
**Project Number:** 04-7590JD1

**Lab Number:** L1017449  
**Report Date:** 11/11/10

## Method Blank Analysis Batch Quality Control

Parameter	Result Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
MCP Dissolved Metals - Westborough Lab for sample(s): 02,05 Batch: WG441906-1									
Antimony, Dissolved	ND	mg/l	0.050	--	1	11/08/10 14:20	11/09/10 18:19	97,6010B	TD
Arsenic, Dissolved	ND	mg/l	0.005	--	1	11/08/10 14:20	11/09/10 18:19	97,6010B	TD
Barium, Dissolved	ND	mg/l	0.010	--	1	11/08/10 14:20	11/09/10 18:19	97,6010B	TD
Beryllium, Dissolved	ND	mg/l	0.004	--	1	11/08/10 14:20	11/09/10 18:19	97,6010B	TD
Cadmium, Dissolved	ND	mg/l	0.004	--	1	11/08/10 14:20	11/09/10 18:19	97,6010B	TD
Chromium, Dissolved	ND	mg/l	0.01	--	1	11/08/10 14:20	11/09/10 18:19	97,6010B	TD
Lead, Dissolved	ND	mg/l	0.010	--	1	11/08/10 14:20	11/09/10 18:19	97,6010B	TD
Nickel, Dissolved	ND	mg/l	0.025	--	1	11/08/10 14:20	11/09/10 18:19	97,6010B	TD
Selenium, Dissolved	ND	mg/l	0.010	--	1	11/08/10 14:20	11/09/10 18:19	97,6010B	TD
Silver, Dissolved	ND	mg/l	0.007	--	1	11/08/10 14:20	11/09/10 18:19	97,6010B	TD
Thallium, Dissolved	ND	mg/l	0.020	--	1	11/08/10 14:20	11/09/10 18:19	97,6010B	TD
Vanadium, Dissolved	ND	mg/l	0.010	--	1	11/08/10 14:20	11/09/10 18:19	97,6010B	TD
Zinc, Dissolved	ND	mg/l	0.050	--	1	11/08/10 14:20	11/09/10 18:19	97,6010B	TD

### Prep Information

Digestion Method: EPA 3005A

Parameter	Result Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
MCP Dissolved Metals - Westborough Lab for sample(s): 02,05 Batch: WG442132-1									
Mercury, Dissolved	ND	mg/l	0.0002	--	1	11/09/10 19:50	11/10/10 11:07	97,7470A	EZ

### Prep Information

Digestion Method: EPA 7470A





## Lab Control Sample Analysis

### Batch Quality Control

Project Name: 100 BINNEY

Project Number: 04-7590JD1

Lab Number: L1017449

Report Date: 11/11/10

Parameter	LCS		LCSD		%Recovery Limits	RPD	Qual	RPD Limits
	%Recovery	Qual	%Recovery	Qual				
MCP Dissolved Metals - Westborough Lab Associated sample(s): 02,05 Batch: WG441906-2 WG441906-3								
Antimony, Dissolved	106		105		80-120	1		20
Arsenic, Dissolved	111		108		80-120	3		20
Barium, Dissolved	101		100		80-120	1		20
Beryllium, Dissolved	102		101		80-120	1		20
Cadmium, Dissolved	109		108		80-120	1		20
Chromium, Dissolved	100		100		80-120	0		20
Lead, Dissolved	106		105		80-120	1		20
Nickel, Dissolved	99		99		80-120	0		20
Selenium, Dissolved	109		111		80-120	2		20
Silver, Dissolved	102		101		80-120	1		20
Thallium, Dissolved	100		101		80-120	1		20
Vanadium, Dissolved	101		100		80-120	1		20
Zinc, Dissolved	103		101		80-120	2		20
MCP Dissolved Metals - Westborough Lab Associated sample(s): 02,05 Batch: WG442132-2 WG442132-3								
Mercury, Dissolved	109		108		80-120	1		20

Project Name: 100 BINNEY

Lab Number: L1017449

Project Number: 04-7590JD1

Report Date: 11/11/10

## Sample Receipt and Container Information

Were project specific reporting limits specified? YES

Reagent H2O Preserved Vials Frozen on: NA

## Cooler Information Custody Seal

## Cooler

A Absent

## Container Information

Container ID	Container Type	Cooler	pH	Temp deg C	Pres	Seal	Analysis(*)
L1017449-01A	Amber 1000ml HCl preserved	A	<2	2	Y	Absent	EPH-DELUX-10(14)
L1017449-01B	Amber 1000ml HCl preserved	A	<2	2	Y	Absent	EPH-DELUX-10(14)
L1017449-02A	Amber 1000ml HCl preserved	A	<2	2	Y	Absent	EPH-DELUX-10(14)
L1017449-02B	Amber 1000ml HCl preserved	A	<2	2	Y	Absent	EPH-DELUX-10(14)
L1017449-02C	Clear Vial HCl preserved	A	N/A	2	Y	Absent	MCP-8260-10(14)
L1017449-02D	Clear Vial HCl preserved	A	N/A	2	Y	Absent	MCP-8260-10(14)
L1017449-02E	Plastic 500ml HNO3 preserved	A	<2	2	Y	Absent	MCP-CD-6010S-10(180),MCP-7470S-10(28),MCP-AG-6010S-10(180),MCP-TL-6010S-10(180),MCP-ZN-6010S-10(180),MCP-AS-6010S-10(180),MCP-CR-6010S-10(180),MCP-BA-6010S-10(180),MCP-BE-6010S-10(180),MCP-SB-6010S-10(180),MCP-PB-6010S-10(180),MCP-NI-6010S-10(180),MCP-SE-6010S-10(180),MCP-V-6010S-10(180)
L1017449-03A	Clear Vial HCl preserved	A	N/A	2	Y	Absent	MCP-8260-10(14)
L1017449-03B	Clear Vial HCl preserved	A	N/A	2	Y	Absent	MCP-8260-10(14)
L1017449-03C	Amber 1000ml unpreserved	A	7	2	Y	Absent	MCP-8270-10(7)
L1017449-03D	Amber 1000ml unpreserved	A	7	2	Y	Absent	MCP-8270-10(7)
L1017449-04A	Clear Vial HCl preserved	A	N/A	2	Y	Absent	MCP-8260-10(14)
L1017449-04B	Clear Vial HCl preserved	A	N/A	2	Y	Absent	MCP-8260-10(14)
L1017449-04C	Amber 1000ml unpreserved	A	7	2	Y	Absent	MCP-8270-10(7)
L1017449-04D	Amber 1000ml unpreserved	A	7	2	Y	Absent	MCP-8270-10(7)
L1017449-05A	Clear Vial HCl preserved	A	N/A	2	Y	Absent	MCP-8260-10(14)
L1017449-05B	Clear Vial HCl preserved	A	N/A	2	Y	Absent	MCP-8260-10(14)

\*Values in parentheses indicate holding time in days



Project Name: 100 BINNEY

Project Number: 04-7590JD1

Lab Number: L1017449

Report Date: 11/11/10

**Container Information**

Container ID	Container Type	Cooler	pH	Temp deg C	Pres	Seal	Analysis(*)
L1017449-05C	Plastic 500ml HNO3 preserved	A	<2	2	Y	Absent	MCP-CD-6010S-10(180),MCP-7470S-10(28),MCP-AG-6010S-10(180),MCP-TL-6010S-10(180),MCP-ZN-6010S-10(180),MCP-AS-6010S-10(180),MCP-CR-6010S-10(180),MCP-BA-6010S-10(180),MCP-BE-6010S-10(180),MCP-SB-6010S-10(180),MCP-PB-6010S-10(180),MCP-NI-6010S-10(180),MCP-SE-6010S-10(180),MCP-V-6010S-10(180)
L1017449-06A	Clear Vial HCl preserved	A	N/A	2	Y	Absent	MCP-8260-10(14)
L1017449-06B	Clear Vial HCl preserved	A	N/A	2	Y	Absent	MCP-8260-10(14)

**Container Comments**

L1017449-03C

L1017449-04C

\*Values in parentheses indicate holding time in days



**Project Name:** 100 BINNEY  
**Project Number:** 04-7590JD1

**Lab Number:** L1017449  
**Report Date:** 11/11/10

## GLOSSARY

### Acronyms

- EPA** - Environmental Protection Agency.
- LCS** - Laboratory Control Sample: A sample matrix, free from the analytes of interest, spiked with verified known amounts of analytes or a material containing known and verified amounts of analytes.
- LCSD** - Laboratory Control Sample Duplicate: Refer to LCS.
- 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.

### 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.
- 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.
- H** - The analysis of pH was performed beyond the regulatory-required holding time of 15 minutes from the time of sample collection.
- I** - The RPD between the results for the two columns exceeds the method-specified criteria; however, the lower value has been reported due to obvious interference.
- 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. 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.

Report Format: Data Usability Report



**Project Name:** 100 BINNEY  
**Project Number:** 04-7590JD1

**Lab Number:** L1017449  
**Report Date:** 11/11/10

*Data Qualifiers*

- 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:** 100 BINNEY  
**Project Number:** 04-7590JD1

**Lab Number:** L1017449  
**Report Date:** 11/11/10

## REFERENCES

- 97 EPA Test Methods (SW-846) with QC Requirements & Performance Standards for the Analysis of EPA SW-846 Methods under the Massachusetts Contingency Plan, WSC-CAM-IIA, IIB, IIIA, IIIB, IIIC, IIID, VA, VB, VC, VIA, VIB, VIIIA and VIIIB, July 2010.
- 98 Method for the Determination of Extractable Petroleum Hydrocarbons (EPH), MassDEP, May 2004, Revision 1.1 with QC Requirements & Performance Standards for the Analysis of EPH under the Massachusetts Contingency Plan, WSC-CAM-IVB, July 2010.

## LIMITATION OF LIABILITIES

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

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



## Certificate/Approval Program Summary

Last revised July 19, 2010 - Westboro Facility

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

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

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

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

*Solid Waste/Soil* (Inorganic Parameters: pH, Sulfide, Aluminum, Antimony, Arsenic, Barium, Beryllium, Boron, Cadmium, Calcium, Chromium, Hexavalent Chromium, Cobalt, Copper, Iron, Lead, Magnesium, Manganese, Mercury, Molybdenum, Nickel, Potassium, Selenium, Silver, Sodium, Thallium, Tin, Vanadium, Zinc, Total Cyanide, Ignitability, Phenolics, Corrosivity, TCLP Leach (1311), SPLP Leach (1312 metals only), Reactivity. Organic Parameters: PCBs, PCBs in Oil, Organochlorine Pesticides, Technical Chlordane, Toxaphene, Extractable Petroleum Hydrocarbons (ETPH), MA-EPH, MA-VPH, Dicamba, 2,4-D, 2,4,5-T, 2,4,5-TP(Silvex), Volatile Organics, Acid Extractables (Phenols), 3,3'-Dichlorobenzidine, Phthalates, Nitrosamines, Nitroaromatics & Cyclic Ketones, PAHs, Haloethers, Chlorinated Hydrocarbons. )

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

*Drinking Water* (Inorganic Parameters: SM9215B, 9222D, 9223B, EPA 180.1, 300.0, 353.2, SM2130B, 2320B, 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, Lachat 10-107-06-1-B, SM2320B, 2340B, 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, 4500NH3-H, 4500NO3-F, 4500P-B.5, 4500P-E, 5210B, 5220D, 5310C, EPA 200.7, 200.8, 245.1. Organic Parameters: 608, 624, ME DRO, ME GRO, MA EPH, MA VPH.)

*Solid Waste/Soil* (Organic Parameters: ME DRO, ME GRO, MA EPH, MA VPH.)

### 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)

353.2 for: Nitrate-N, Nitrite-N; SM4500NO3-F, 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), 314.0, 332.

Microbiology Parameters: SM9215B; ENZ. SUB. SM9223; 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,Cr,Co,Cu,Fe,Pb,Mn,Mo,Ni,Se,Ag,Sr,Ti,Tl, V,Zn,Ca,Mg,Na,K)

245.1, SM4500H,B, EPA 120.1, SM2510B, 2540C, 2540B, 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-B,C-Titr, 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, SM4500-CN-CE, SM2540D.

Organic Parameters: (EPA 624 for Volatile Halocarbons, Volatile Aromatics)

(608 for: Chlordane, Aldrin, Dieldrin, DDD, DDE, DDT, Heptachlor, Heptachlor Epoxide, PCBs-Water), EPA 625 for SVOC Acid Extractables and SVOC Base/Neutral Extractables, 600/4-81-045-PCB-Oil

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

*Drinking Water (Inorganic Parameters:* SM6215B, 9222B, 9223B Colilert, EPA 200.7, 200.8, 245.2, 120.1, 300.0, 314.0, SM4500CN-E, 4500H+B, 4500NO3-F, 2320B, 2510B, 2540C, 4500F-C, 5310C, 2120B, EPA 331.0. Organic Parameters: 504.1, 524.2, SM6251B.)

*Non-Potable Water (Inorganic Parameters:* SM9222D, 9221B, 9222B, 9221E-EC, EPA 200.7, 200.8, 245.1, 245.2, SW-846 6010B, 6020, 7196A, 7470A, SM3500-CR-D, EPA 120.1, 300.0, 350.1, 351.1, 353.2, 420.1, 1664A, SW-846 9010, 9030, 9040B, SM426C, SM2310B, 2540B, 2540D, 4500H+B, 4500NH3-H, 4500NH3-E, 4500NO2-B, 4500P-E, 4500-S2-D, 5210B, 2320B, 2540C, 4500F-C, 5310C, 5540C, LACHAT 10-117-07-1-B, LACHAT 10-107-06-1-B, LACHAT 10-107-04-1-C, LACHAT 10-107-04-1-J, LACHAT 10-117-07-1-A, SM4500CL-E, LACHAT 10-204-00-1-A, LACHAT 10-107-06-2-D. Organic Parameters: SW-846 3005A, 3015A, 3510C, 5030B, 8021B, 8260B, 8270C, 8330, EPA 624, 625, 608, SW-846 8082, 8081A.)

*Solid & Chemical Materials (Inorganic Parameters:* SW-846 6010B, 7196A, 7471A, 7.3.3.2, 7.3.4.2, 1010, 1030, 9010, 9012A, 9014, 9030B, 9040, 9045C, 9050C, 1311, 3005A, 3050B, 3051A. Organic Parameters: SW-846 3540C, 3545, 3580A, 5030B, 5035, 8021B, 8260B, 8270C, 8330, 8151A, 8082, 8081A.)

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

*Drinking Water (Inorganic Parameters:* SM9222B, 9221E, 9223B, 9215B, 4500NO3-F, 4500F-C, EPA 300.0, 200.7, 2540C, 2320B, 314.0, SM2120B, 2510B, 5310C, SM4500H-B, EPA 200.8, 245.2. Organic Parameters: 504.1, SM6251B, 524.2.)

*Non-Potable Water (Inorganic Parameters:* SM5210B, EPA 410.4, SM5220D, 4500CI-D, EPA 300.0, SM2120B, SM4500F-BC, EPA 200.7, 351.1, LACHAT 10-107-06-2-D, EPA 353.2, SM4500NO3-F, 4500NO2-B, EPA 1664A, SM5310B, C or D, 4500-PE, EPA 420.1, SM4500P-B5+E, 2540B, 2540C, 2540D, EPA 120.1, SM2510B, SM15 426C, SM9221CE, 9222D, 9221B, 9222B, 9215B, 2310B, 2320B, 4500NH3-H, 4500-S D, EPA 350.1, SM5210B, SW-846 3015, 6020, 7470A, 5540C, 4500H-B, EPA 200.8, SM3500Cr-D, EPA 245.1, 245.2, SW-846 9040B, 3005A, EPA 6010B, 7196A, SW-846 9010B, 9030B. Organic Parameters: SW-846 8260B, 8270C, 3510C, EPA 608, 624, 625, SW-846 5030B, 8021B, 8081A, 8082, 8151A, 8330, NJ OQA-QAM-025 Rev.7.)

*Solid & Chemical Materials (Inorganic Parameters:* SW-846 9040B, 3005A, 6010B, 7196A, 5030B, 9010B, 9030B, 1030, 1311, 3050B, 3051, 7471A, 9014, 9012A, 9045C, 9050A, 9065. Organic Parameters: SW-846 8021B, 8081A, 8082, 8151A, 8330, 8260B, 8270C, 1311, 1312, 3540C, 3545, 3550B, 3580A, 5035L, 5035H, NJ OQA-QAM-025 Rev.7.)

**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 314.0, 332.0, SM2320B, EPA 300.0, SM2120B, 4500CN-E, 4500F-C, 4500H-B, 4500NO3-F, 2540C, EPA 120.1, SM 2510B. Organic Parameters: EPA 524.2, 504.1.)

*Non-Potable Water (Inorganic Parameters:* SM9221E, 9222D, 9221B, 9222B, 9215B, 5210B, EPA 410.4, SM5220D, 2310B-4a, 2320B, EPA 200.7, 300.0, LACHAT 10-117-07-1A or B, SM4500CI-E, 4500F-C, SM15 426C, EPA 350.1, LACHAT 10-107-06-1-B, SM4500NH3-H, EPA 351.1, LACHAT 10-107-06-2, EPA 353.2, LACHAT 10-107-041-C, SM4500-NO3-F, 4500-NO2-B, 4500P-E, 2540C, 2540B, 2540D, EPA 200.8, EPA 6010B, 6020, EPA 7196A, SM3500Cr-D, EPA 245.1, 245.2, 7470A, SM2120B, SM4500-CN-E LACHAT 10-204-00-1-A, EPA 9040B, SM4500-HB, EPA 1664A, SM5310C, EPA 420.1, SM14 510C, EPA 120.1, SM2510B, SM4500S-D, SM5540C, EPA 3005A, 3015. Organic Parameters: EPA 624, 8260B, 8270C, 625, 608, 8081A, 8151A, 8330, 8082, EPA 3510C, 5030B, 9010B, 9030B.)

*Solid & Hazardous Waste (Inorganic Parameters:* 1010, 1030, SW-846 Ch 7 Sec 7.3, EPA 6010B, 7196A, 7471A, 9012A, 9014, 9040B, 9045C, 9065, 9050, EPA 1311, 1312, 3005A, 3050B, 9010B, 9030B. Organic Parameters: EPA 8260B, 8270C, 8081A, 8151A, 8330, 8082, 3540C, 3545, 3546, 3580, 5030B, 5035.)

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

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

*Non-Potable Water (Organic Parameters:* EPA 3510C, 5030B, 625, 624. 608, 8081A, 8082, 8151A, 8260B, 8270C, 8330)

*Solid & Hazardous Waste (Inorganic Parameters:* EPA 1010, 1030, 1311, 3050B, 3051, 6010B, EPA 7.3.3.2, EPA 7.3.4.2, 7196A, 7471A, 9010B, 9012A, 9014, 9040B, 9045C, 9050, 9065. Organic Parameters: 3540C, 3545, 3580A, 5035, 8021B, 8081A, 8082, 8151A, 8260B, 8270C, 8330)

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

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

Refer to NY-DOH Certificate for Potable and Non-Potable Water.



**Texas Commission on Environmental Quality Certificate/Lab ID: T104704476-09-1. *NELAP Accredited.***

*Non-Potable Water (Inorganic Parameters:* EPA 120.1, 1664, 200.7, 200.8, 245.1, 245.2, 300.0, 350.1, 351.1, 353.2, 376.2, 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.)

**Department of Defense Certificate/Lab ID: L2217.**

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

*Non-Potable Water (Inorganic Parameters:* EPA 200.7, 200.8, 6010B, 6020, 245.1, 245.2, 7470A, 9040B, 300.0, 9251, 9038, 350.1, 353.2, 351.1, 120.1, 9050A, 410.4, 9060, 1664, 420.1, LACHAT 10-107-06-1-B, SM 4500CN-E, 4500H-B, 4500CL-E, 4500F-BC, 4500SO<sub>4</sub>-E, 426C, 4500NH<sub>3</sub>-B, 4500NH<sub>3</sub>-H, 4500NO<sub>3</sub>-F, 4500NO<sub>2</sub>-B, 4500Norg-C, 4500PE, 2510B, 5540C, 5220D, 5310C, 2540B, 2540C, 2540D, 510C, 4500S<sub>2</sub>-AD, 3005A, 3015, 9010B, 9030B. *Organic Parameters:* EPA 8260B, 8270C, 8330, 625, 8082, 8151A, 8081A, 3510C, 5030B, MassDEP EPH, MassDEP VPH.)

*Solid & Hazardous Waste (Inorganic Parameters:* EPA 200.7, 6010B, 7471A, 9040B, 9045C, 9065, 420.1, 9012A, 6860, 1311, 1312, 3050B, 9030B, 3051, 9010B, 3540C, SM 510ABC, 4500CN-CE, 2540G, SW-846 7.3, *Organic Parameters:* EPA 8260B, 8270C, 8330, 8082, 8081A, 8151A, 3545, 3546, 3580, 5035, MassDEP EPH, MassDEP VPH.)

**Analytes Not Accredited by NELAP**

Certification is not available by NELAP for the following analytes: **EPA 8260B:** Freon-113, 1,2,4,5-Tetramethylbenzene, 4-Ethyltoluene. **EPA 8330A:** PETN, Picric Acid, Nitroglycerine, 2,6-DANT, 2,4-DANT. **EPA 8270C:** Methyl naphthalene, Dimethyl naphthalene, Total Methylnaphthalenes, Total Dimethylnaphthalenes, 1,4-Diphenylhydrazine (Azobenzene). **EPA 625:** 4-Chloroaniline. **EPA 350.1** for Ammonia in a Soil matrix.



# CHAIN OF CUSTODY

PAGE 1 OF 1

WESTBORO, MA  
 TEL: 508-896-9220  
 FAX: 508-896-9193

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

**Client Information**

Client: ENVIRON  
 Address: 8 HOURS ST  
 GASTON, MA 01450  
 Phone: 510-637-9549  
 Fax: \_\_\_\_\_  
 Email: [jyoung@environmental.com](mailto:jyoung@environmental.com)

These samples have been previously analyzed by Alpha

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

**Project Information**

Project Name: 100 BINDER  
 Project Location: CAMPBLEDGE MA  
 Project #: 04-7590 JD7  
 Project Manager: Jim Young  
 ALPHA Quote #: \_\_\_\_\_  
 Turn-Around Time

Standard  RUSH (only confirmed if pre-approved)  
 Date Due: 11/10/10 Time: \_\_\_\_\_

ALPHA Lab ID (Lab Use Only)	Sample ID	Collection		Sample Matrix	Sampler's Initials
		Date	Time		
7449.1	ENV-19-GW	11.3.10	0908	Water	MV
2	ENV-17-GW	11.3.10	1038	Water	MV
3	MW-59-GW	11.3.10	1214	Water	MV
4	ENV-23-GW	11.3.10	1339	Water	MV
5	ENV-20-GW	11.3.10	1458	Water	MV
6	B-201-GW	11.3.10	1543	Water	MV

Date Rec'd in Lab: 11/3/10

ALPHA Job #: 61017449

**Report Information - Data Deliverables**

FAX  EMAIL  
 PAPER  Add'l Deliverables

**Billing Information**

Same as Client info PO #: \_\_\_\_\_

**Regulatory Requirements/Report Limits**

State/Fed Program Criteria

**MA MCP PRESUMPTIVE CERTAINTY - CT REASONABLE CONFIDENCE PROTO**

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

**ANALYSIS**  
 VOCs (MCP 8200)  
 SVOCs (MCP 8270)  
 BPH  
 Metals (MCP 14)

**SAMPLE HANDLING**  
 Filtration \_\_\_\_\_  
 Done  
 Not needed  
 Lab to do  
 Preservation  
 Lab to do

Sample Specific Comments

Requester call  
 Manager @  
 510-637-9549

**PLEASE ANSWER QUESTIONS ABOVE!**

**IS YOUR PROJECT  
 MAMCP or CT RCP?**

Relinquished By: *[Signature]*

Date/Time: 11.3.10 1543

Container Type Preservative: MW -

Received By: *[Signature]*  
 Date/Time: 11/3/10 1544

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

7A  
VOLATILE CONTINUING CALIBRATION CHECK

Lab Name: Alpha Analytical Labs

SDG No.: L1017449

Instrument ID: Quimby.i      Calibration Date: 08-NOV-2010      Time: 07:09

Lab File ID: 1108A02      Init. Calib. Date(s): 28-OCT-2      28-OCT-2

Sample No: 8260 CCAL      Init. Calib. Times : 07:57      14:29

Compound	RRF	RRF	MIN RRF	%D	MAX %D
dichlorodifluoromethane	.42114	.33959	.1	19	20
chloromethane	.62163	.58315	.1	6	20
vinyl chloride	.4285	.41883	.1	2	20
bromomethane	.32572	.31631	.1	3	20
chloroethane	.35035	.34452	.1	2	20
trichlorofluoromethane	.6241	.61038	.1	2	20
ethyl ether	.13811	.13447	.05	3	20
acetone	100	101	.1	-1	20
1,1,-dichloroethene	.31495	.29477	.1	6	20
methylene chloride	.34246	.32529	.1	5	20
carbon disulfide	.90993	.86583	.1	5	20
methyl tert butyl ether	.48005	.43486	.1	9	20
trans-1,2-dichloroethene	.36264	.32039	.1	12	20
Diisopropyl Ether	1.1682	1.0778	.05	8	20
1,1-dichloroethane	.70419	.64201	.2	9	20
Ethyl-Tert-Butyl-Ether	.7286	.64005	.05	12	20
2-butanone	.06714	.06839	.1	-2	20
2,2-dichloropropane	.34238	.28663	.05	16	20
cis-1,2-dichloroethene	.37932	.35195	.1	7	20
chloroform	.61594	.57499	.2	7	20
bromochloromethane	.12887	.12076	.05	6	20
tetrahydrofuran	.04454	.04321	.05	3	20
1,1,1-trichloroethane	.49271	.41601	.1	16	20
1,1-dichloropropene	.52258	.48063	.05	8	20
carbontetrachloride	.35402	.30365	.1	14	20
Tertiary-Amyl Methyl Ether	.46697	.43045	.05	8	20
1,2-dichloroethane	.39579	.35093	.1	11	20
benzene	1.5397	1.4439	.5	6	20
trichloroethene	.37211	.33952	.2	9	20
1,2-dichloropropane	.35603	.33057	.1	7	20
bromodichloromethane	.35384	.30848	.2	13	20
1,4-dioxane	.00109	.00128	.05	-17	20
dibromomethane	.12703	.12959	.05	-2	20
4-methyl-2-pentanone	.04832	.04011	.1	17	20
cis-1,3-dichloropropene	.41611	.31431	.2	24	20
toluene	1.2794	1.1221	.4	12	20
trans-1,3-dichloropropene	.38217	.28116	.1	26	20
1,1,2-trichloroethane	.21745	.20836	.1	4	20

FORM VII MCP-8260-10

7A  
CONTINUING CALIBRATION CHECK

Lab Name: Alpha Analytical Labs

SDG No.: L1017449

Instrument ID: Quimby.i      Calibration Date: 08-NOV-2010      Time: 07:09

Lab File ID: 1108A02      Init. Calib. Date(s): 28-OCT-2      28-OCT-2

Sample No: 8260 CCAL      Init. Calib. Times : 07:57      14:29

Compound	RRF	RRF	MIN RRF	%D	MAX %D	
2-hexanone	.12616	.11207	.1	11	20	
1,3-dichloropropane	.48008	.43983	.05	8	20	
tetrachloroethene	.50656	.44561	.2	12	20	
chlorodibromomethane	.22898	.18245	.1	20	20	F
1,2-dibromoethane	.21845	.19539	.1	11	20	
chlorobenzene	1.3784	1.1715	.5	15	20	
1,1,1,2-tetrachloroethane	.33964	.26985	.05	21	20	F
ethyl benzene	2.6402	2.3912	.1	9	20	
p/m xylene	1.0415	.91865	.1	12	20	
o xylene	.99264	.89466	.3	10	20	
styrene	1.5901	1.3763	.31	13	20	
isopropylbenzene	2.7063	2.3839	.1	12	20	
bromoform	.16937	.14042	.1	17	20	
1,1,2,2,-tetrachloroethane	.4575	.44651	.3	2	20	
1,2,3-trichloropropane	.359	.34036	.05	5	20	
n-propylbenzene	5.3817	4.9583	.05	8	20	
bromobenzene	.8701	.74499	.05	14	20	
1,3,5-trimethylbenzene	3.7262	3.1865	.05	14	20	
2-chlorotoluene	3.6146	3.1770	.05	12	20	
4-chlorotoluene	3.3404	2.9452	.05	12	20	
tert-butylbenzene	3.0713	2.6570	.05	13	20	
1,2,4-trimethylbenzene	3.7510	3.3065	.05	12	20	
sec-butylbenzene	4.6047	4.1248	.05	10	20	
p-isopropyltoluene	3.5701	3.3115	.05	7	20	
1,3-dichlorobenzene	1.8745	1.6120	.6	14	20	
1,4-dichlorobenzene	1.7904	1.6058	.5	10	20	
n-butylbenzene	4.0323	3.0175	.05	25	20	F
1,2-dichlorobenzene	1.5779	1.3721	.4	13	20	
1,2-dibromo-3-chloropropane	100	86.757	.05	13	20	
1,2,4-trichlorobenzene	.80062	.62365	.2	22	20	F
hexachlorobutadiene	.39925	.33184	.05	17	20	
naphthalene	1.1650	.95389	.05	18	20	
1,2,3-trichlorobenzene	.59583	.47048	.05	21	20	F
dibromofluoromethane	.2204	.22819	.05	-4	20	
1,2-dichloroethane-d4	.22618	.22235	.05	2	20	
toluene-d8	1.2994	1.2853	.05	1	20	
4-bromofluorobenzene	.89239	.88513	.05	1	20	

FORM VII MCP-8260-10

7A  
CONTINUING CALIBRATION CHECK

Lab Name: Alpha Analytical Labs

SDG No.: L1017449

Instrument ID: Quimby.i      Calibration Date: 09-NOV-2010      Time: 07:03

Lab File ID: 1109A02      Init. Calib. Date(s): 28-OCT-2      28-OCT-2

Sample No: 8260 ccal      Init. Calib. Times : 07:57      14:29

Compound	RRF	RRF	MIN RRF	%D	MAX %D	
dichlorodifluoromethane	.42114	.33113	.1	21	20	F
chloromethane	.62163	.57395	.1	8	20	
vinyl chloride	.4285	.40042	.1	7	20	
bromomethane	.32572	.31484	.1	3	20	
chloroethane	.35035	.3374	.1	4	20	
trichlorofluoromethane	.6241	.61235	.1	2	20	
ethyl ether	.13811	.13869	.05	0	20	
acetone	100	96.956	.1	3	20	
1,1,-dichloroethene	.31495	.30687	.1	3	20	
methylene chloride	.34246	.33051	.1	3	20	
carbon disulfide	.90993	.87263	.1	4	20	
methyl tert butyl ether	.48005	.46157	.1	4	20	
trans-1,2-dichloroethene	.36264	.33402	.1	8	20	
Diisopropyl Ether	1.1682	1.1187	.05	4	20	
1,1-dichloroethane	.70419	.6742	.2	4	20	
Ethyl-Tert-Butyl-Ether	.7286	.67251	.05	8	20	
2-butanone	.06714	.0707	.1	-5	20	F
2,2-dichloropropane	.34238	.31131	.05	9	20	
cis-1,2-dichloroethene	.37932	.37051	.1	2	20	
chloroform	.61594	.59242	.2	4	20	
bromochloromethane	.12887	.11713	.05	9	20	
tetrahydrofuran	.04454	.04176	.05	6	20	F
1,1,1-trichloroethane	.49271	.42521	.1	14	20	
1,1-dichloropropene	.52258	.49519	.05	5	20	
carbontetrachloride	.35402	.30148	.1	15	20	
Tertiary-Amyl Methyl Ether	.46697	.45964	.05	2	20	
1,2-dichloroethane	.39579	.37146	.1	6	20	
benzene	1.5397	1.4757	.5	4	20	
trichloroethene	.37211	.34873	.2	6	20	
1,2-dichloropropane	.35603	.33764	.1	5	20	
bromodichloromethane	.35384	.31936	.2	10	20	
1,4-dioxane	.00109	.00119	.05	-9	20	F
dibromomethane	.12703	.1315	.05	-4	20	
4-methyl-2-pentanone	.04832	.04474	.1	7	20	F
cis-1,3-dichloropropene	.41611	.33948	.2	18	20	
toluene	1.2794	1.1664	.4	9	20	
trans-1,3-dichloropropene	.38217	.2933	.1	23	20	F
1,1,2-trichloroethane	.21745	.20936	.1	4	20	

FORM VII MCP-8260-10

7A  
CONTINUING CALIBRATION CHECK

Lab Name: Alpha Analytical Labs

SDG No.: L1017449

Instrument ID: Quimby.i      Calibration Date: 09-NOV-2010      Time: 07:03

Lab File ID: 1109A02      Init. Calib. Date(s): 28-OCT-2      28-OCT-2

Sample No: 8260 ccal      Init. Calib. Times : 07:57      14:29

Compound	RRF	RRF	MIN RRF	%D	MAX %D
2-hexanone	.12616	.12236	.1	3	20
1,3-dichloropropane	.48008	.4498	.05	6	20
tetrachloroethene	.50656	.4655	.2	8	20
chlorodibromomethane	.22898	.19214	.1	16	20
1,2-dibromoethane	.21845	.19935	.1	9	20
chlorobenzene	1.3784	1.2098	.5	12	20
1,1,1,2-tetrachloroethane	.33964	.26504	.05	22	20
ethyl benzene	2.6402	2.4084	.1	9	20
p/m xylene	1.0415	.94007	.1	10	20
o xylene	.99264	.92661	.3	7	20
styrene	1.5901	1.4619	.31	8	20
isopropylbenzene	2.7063	2.4414	.1	10	20
bromoform	.16937	.1421	.1	16	20
1,1,2,2,-tetrachloroethane	.4575	.44092	.3	4	20
1,2,3-trichloropropane	.359	.35684	.05	1	20
n-propylbenzene	5.3817	4.9987	.05	7	20
bromobenzene	.8701	.77569	.05	11	20
1,3,5-trimethylbenzene	3.7262	3.1881	.05	14	20
2-chlorotoluene	3.6146	3.2152	.05	11	20
4-chlorotoluene	3.3404	2.9666	.05	11	20
tert-butylbenzene	3.0713	2.7495	.05	10	20
1,2,4-trimethylbenzene	3.7510	3.4191	.05	9	20
sec-butylbenzene	4.6047	4.1831	.05	9	20
p-isopropyltoluene	3.5701	3.3674	.05	6	20
1,3-dichlorobenzene	1.8745	1.6549	.6	12	20
1,4-dichlorobenzene	1.7904	1.6515	.5	8	20
n-butylbenzene	4.0323	3.0078	.05	25	20
1,2-dichlorobenzene	1.5779	1.4222	.4	10	20
1,2-dibromo-3-chloropropane	100	85.958	.05	14	20
1,2,4-trichlorobenzene	.80062	.65085	.2	19	20
hexachlorobutadiene	.39925	.33942	.05	15	20
naphthalene	1.1650	1.0094	.05	13	20
1,2,3-trichlorobenzene	.59583	.50454	.05	15	20
dibromofluoromethane	.2204	.22398	.05	-2	20
1,2-dichloroethane-d4	.22618	.22563	.05	0	20
toluene-d8	1.2994	1.2907	.05	1	20
4-bromofluorobenzene	.89239	.88758	.05	1	20

FORM VII MCP-8260-10



## ANALYTICAL REPORT

Lab Number:	L1020041
Client:	Environ 8 Hollis Street Groton, MA 01450
ATTN:	Jim Young
Phone:	(978) 449-0325
Project Name:	300 THIRD STREET
Project Number:	04-7590GD2
Report Date:	12/23/10

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Certifications & Approvals: MA (M-MA086), NY NELAC (11148), CT (PH-0574), NH (2003), NJ (MA935), RI (LAO00065), ME (MA0086), PA (Registration #68-03671), USDA (Permit #S-72578), US Army Corps of Engineers, Naval FESC.

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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:** 300 THIRD STREET  
**Project Number:** 04-7590GD2

**Lab Number:** L1020041  
**Report Date:** 12/23/10

<b>Alpha Sample ID</b>	<b>Client ID</b>	<b>Sample Location</b>	<b>Collection Date/Time</b>
L1020041-01	ENV-1	CAMBRIDGE, MA	12/14/10 09:30
L1020041-02	ENV-2	CAMBRIDGE, MA	12/14/10 10:00
L1020041-03	ENV-3	CAMBRIDGE, MA	12/14/10 10:58
L1020041-04	ENV-4	CAMBRIDGE, MA	12/14/10 09:46
L1020041-05	ENV-8	CAMBRIDGE, MA	12/14/10 12:16
L1020041-06	ENV-9	CAMBRIDGE, MA	12/14/10 14:40
L1020041-07	ENV-10	CAMBRIDGE, MA	12/14/10 14:09
L1020041-08	MW-60	CAMBRIDGE, MA	12/14/10 12:21
L1020041-09	B2	CAMBRIDGE, MA	12/14/10 10:29
L1020041-10	B201	CAMBRIDGE, MA	12/14/10 09:20
L1020041-11	ENV-999	CAMBRIDGE, MA	12/14/10 14:40
L1020041-12	TRIP BLANK	CAMBRIDGE, MA	12/14/10 00:00



**Project Name:** 300 THIRD STREET  
**Project Number:** 04-7590GD2

**Lab Number:** L1020041  
**Report Date:** 12/23/10

### MADEP MCP Response Action Analytical Report Certification

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

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

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



**Project Name:** 300 THIRD STREET  
**Project Number:** 04-7590GD2

**Lab Number:** L1020041  
**Report Date:** 12/23/10

### Case Narrative

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

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

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

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

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#### MCP Related Narratives

##### Volatile Organics

L1020041-01, -04, -06 and -11 have elevated detection limits due to the dilutions required by the elevated concentrations of target compounds in the samples.

L1020041-12: The Trip Blank has a result for Chloroform present above the reporting limit. The sample vial was verified as being labeled correctly by the laboratory and the previous analysis showed there was no potential for carry over.

In reference to question G:

One or more of the target analytes did not achieve the requested CAM reporting limits.

In reference to question H:

The WG448335-1 LCS recovery, associated with L1020041-12, is below the acceptance criteria for 1,2-

**Project Name:** 300 THIRD STREET  
**Project Number:** 04-7590GD2

**Lab Number:** L1020041  
**Report Date:** 12/23/10

### Case Narrative (continued)

Dibromo-3-chloropropane (67%); however, it has been identified as a "difficult" analyte and is within the 40-160% acceptance limits. The results of the associated sample are reported; however, all results are considered to have a potentially low bias for this compound.

The WG448805-1 LCS recovery, associated with L1020041-01, -02, -03, -05, -06 and -11, is below the acceptance criteria for 1,2-Dibromo-3-chloropropane (68%); however, it has been identified as a "difficult" analyte and is within the 40-160% acceptance limits. The results of the associated samples are reported; however, all results are considered to have a potentially low bias for this compound.

The initial calibration, associated with L1020041-01 through -06, -11 and -12, did not meet the method required minimum response factor for Acetone (0.0405), 2-Butanone (0.0540), 4-Methyl-2-pentanone (0.0405), Tetrahydrofuran (0.0374), 2-Hexanone (0.0972), 1,2-Dibromo-3-chloropropane (0.0423) and 1,4-Dioxane (0.00101); and utilized a quadratic fit for trans-1,3-Dichloropropene, Bromoform, and Naphthalene. The continuing calibration standards, associated with L1020041-01 through -06, -11 and -12, are outside the acceptance criteria for several compounds; however, they are within overall method allowances. Copies of the continuing calibration standards are included as addenda to this report.

VPH

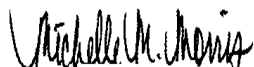
L1020041-06, -08, -10 and -11 have elevated detection limits due to the dilutions required by the elevated concentrations of target compounds in the samples.

In reference to question G:

L1020041-06, -08, -10 and -11: One or more of the target analytes did not achieve the requested CAM reporting limits.

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: 12/23/10

# ORGANICS

# VOLATILES

**Project Name:** 300 THIRD STREET  
**Project Number:** 04-7590GD2

**Lab Number:** L1020041  
**Report Date:** 12/23/10

**SAMPLE RESULTS**

**Lab ID:** L1020041-05  
**Client ID:** ENV-8  
**Sample Location:** CAMBRIDGE, MA  
**Matrix:** Water  
**Analytical Method:** 97,8260B  
**Analytical Date:** 12/21/10 10:05  
**Analyst:** MM

**Date Collected:** 12/14/10 12:16  
**Date Received:** 12/15/10  
**Field Prep:** Not Specified

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

Project Name: 300 THIRD STREET

Lab Number: L1020041

Project Number: 04-7590GD2

Report Date: 12/23/10

## SAMPLE RESULTS

Lab ID: L1020041-05  
 Client ID: ENV-8  
 Sample Location: CAMBRIDGE, MA

Date Collected: 12/14/10 12:16  
 Date Received: 12/15/10  
 Field Prep: Not Specified

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



**Project Name:** 300 THIRD STREET**Lab Number:** L1020041**Project Number:** 04-7590GD2**Report Date:** 12/23/10**SAMPLE RESULTS**

Lab ID: L1020041-05  
 Client ID: ENV-8  
 Sample Location: CAMBRIDGE, MA

Date Collected: 12/14/10 12:16  
 Date Received: 12/15/10  
 Field Prep: Not Specified

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

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	106		70-130
Toluene-d8	96		70-130
4-Bromofluorobenzene	97		70-130
Dibromofluoromethane	107		70-130



Project Name: 300 THIRD STREET

Lab Number: L1020041

Project Number: 04-7590GD2

Report Date: 12/23/10

## SAMPLE RESULTS

Lab ID: L1020041-06 D  
 Client ID: ENV-9  
 Sample Location: CAMBRIDGE, MA  
 Matrix: Water  
 Analytical Method: 97,8260B  
 Analytical Date: 12/21/10 07:59  
 Analyst: MM

Date Collected: 12/14/10 14:40  
 Date Received: 12/15/10  
 Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
<b>MCP Volatile Organics - Westborough Lab</b>						
Methylene chloride	ND		ug/l	800	--	400
1,1-Dichloroethane	ND		ug/l	400	--	400
Chloroform	ND		ug/l	400	--	400
Carbon tetrachloride	ND		ug/l	400	--	400
1,2-Dichloropropane	ND		ug/l	400	--	400
Dibromochloromethane	ND		ug/l	400	--	400
1,1,2-Trichloroethane	ND		ug/l	400	--	400
Tetrachloroethene	ND		ug/l	400	--	400
Chlorobenzene	ND		ug/l	400	--	400
Trichlorofluoromethane	ND		ug/l	800	--	400
1,2-Dichloroethane	ND		ug/l	400	--	400
1,1,1-Trichloroethane	ND		ug/l	400	--	400
Bromodichloromethane	ND		ug/l	400	--	400
trans-1,3-Dichloropropene	ND		ug/l	200	--	400
cis-1,3-Dichloropropene	ND		ug/l	200	--	400
1,1-Dichloropropene	ND		ug/l	800	--	400
Bromoform	ND		ug/l	800	--	400
1,1,2,2-Tetrachloroethane	ND		ug/l	400	--	400
Benzene	ND		ug/l	400	--	400
Toluene	3300		ug/l	400	--	400
Ethylbenzene	11000		ug/l	400	--	400
Chloromethane	ND		ug/l	800	--	400
Bromomethane	ND		ug/l	800	--	400
Vinyl chloride	ND		ug/l	400	--	400
Chloroethane	ND		ug/l	800	--	400
1,1-Dichloroethene	ND		ug/l	400	--	400
trans-1,2-Dichloroethene	ND		ug/l	400	--	400
Trichloroethene	ND		ug/l	400	--	400
1,2-Dichlorobenzene	ND		ug/l	400	--	400
1,3-Dichlorobenzene	ND		ug/l	400	--	400

Project Name: 300 THIRD STREET

Lab Number: L1020041

Project Number: 04-7590GD2

Report Date: 12/23/10

## SAMPLE RESULTS

Lab ID: L1020041-06 D Date Collected: 12/14/10 14:40  
 Client ID: ENV-9 Date Received: 12/15/10  
 Sample Location: CAMBRIDGE, MA Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
<b>MCP Volatile Organics - Westborough Lab</b>						
1,4-Dichlorobenzene	ND		ug/l	400	--	400
Methyl tert butyl ether	ND		ug/l	800	--	400
p/m-Xylene	46000		ug/l	800	--	400
o-Xylene	12000		ug/l	400	--	400
cis-1,2-Dichloroethene	ND		ug/l	400	--	400
Dibromomethane	ND		ug/l	800	--	400
1,2,3-Trichloropropane	ND		ug/l	800	--	400
Styrene	ND		ug/l	400	--	400
Dichlorodifluoromethane	ND		ug/l	800	--	400
Acetone	ND		ug/l	2000	--	400
Carbon disulfide	ND		ug/l	800	--	400
2-Butanone	ND		ug/l	2000	--	400
4-Methyl-2-pentanone	ND		ug/l	2000	--	400
2-Hexanone	ND		ug/l	2000	--	400
Bromochloromethane	ND		ug/l	800	--	400
Tetrahydrofuran	ND		ug/l	2000	--	400
2,2-Dichloropropane	ND		ug/l	800	--	400
1,2-Dibromoethane	ND		ug/l	800	--	400
1,3-Dichloropropane	ND		ug/l	800	--	400
1,1,1,2-Tetrachloroethane	ND		ug/l	400	--	400
Bromobenzene	ND		ug/l	800	--	400
n-Butylbenzene	ND		ug/l	800	--	400
sec-Butylbenzene	ND		ug/l	800	--	400
tert-Butylbenzene	ND		ug/l	800	--	400
o-Chlorotoluene	ND		ug/l	800	--	400
p-Chlorotoluene	ND		ug/l	800	--	400
1,2-Dibromo-3-chloropropane	ND		ug/l	800	--	400
Hexachlorobutadiene	ND		ug/l	240	--	400
Isopropylbenzene	ND		ug/l	800	--	400
p-Isopropyltoluene	ND		ug/l	800	--	400
Naphthalene	ND		ug/l	800	--	400
n-Propylbenzene	ND		ug/l	800	--	400
1,2,3-Trichlorobenzene	ND		ug/l	800	--	400
1,2,4-Trichlorobenzene	ND		ug/l	800	--	400
1,3,5-Trimethylbenzene	ND		ug/l	800	--	400
1,2,4-Trimethylbenzene	990		ug/l	800	--	400
Ethyl ether	ND		ug/l	800	--	400



Project Name: 300 THIRD STREET

Lab Number: L1020041

Project Number: 04-7590GD2

Report Date: 12/23/10

## SAMPLE RESULTS

Lab ID: L1020041-06 D

Date Collected: 12/14/10 14:40

Client ID: ENV-9

Date Received: 12/15/10

Sample Location: CAMBRIDGE, MA

Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
<b>MCP Volatile Organics - Westborough Lab</b>						
Isopropyl Ether	ND		ug/l	800	--	400
Ethyl-Tert-Butyl-Ether	ND		ug/l	800	--	400
Tertiary-Amyl Methyl Ether	ND		ug/l	800	--	400
1,4-Dioxane	ND		ug/l	100000	--	400

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	102		70-130
Toluene-d8	93		70-130
4-Bromofluorobenzene	100		70-130
Dibromofluoromethane	105		70-130

Project Name: 300 THIRD STREET

Lab Number: L1020041

Project Number: 04-7590GD2

Report Date: 12/23/10

## SAMPLE RESULTS

Lab ID: L1020041-11 D  
 Client ID: ENV-999  
 Sample Location: CAMBRIDGE, MA  
 Matrix: Water  
 Analytical Method: 97,8260B  
 Analytical Date: 12/21/10 08:31  
 Analyst: MM

Date Collected: 12/14/10 14:40  
 Date Received: 12/15/10  
 Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
<b>MCP Volatile Organics - Westborough Lab</b>						
Methylene chloride	ND		ug/l	800	--	400
1,1-Dichloroethane	ND		ug/l	400	--	400
Chloroform	ND		ug/l	400	--	400
Carbon tetrachloride	ND		ug/l	400	--	400
1,2-Dichloropropane	ND		ug/l	400	--	400
Dibromochloromethane	ND		ug/l	400	--	400
1,1,2-Trichloroethane	ND		ug/l	400	--	400
Tetrachloroethene	ND		ug/l	400	--	400
Chlorobenzene	ND		ug/l	400	--	400
Trichlorofluoromethane	ND		ug/l	800	--	400
1,2-Dichloroethane	ND		ug/l	400	--	400
1,1,1-Trichloroethane	ND		ug/l	400	--	400
Bromodichloromethane	ND		ug/l	400	--	400
trans-1,3-Dichloropropene	ND		ug/l	200	--	400
cis-1,3-Dichloropropene	ND		ug/l	200	--	400
1,1-Dichloropropene	ND		ug/l	800	--	400
Bromoform	ND		ug/l	800	--	400
1,1,2,2-Tetrachloroethane	ND		ug/l	400	--	400
Benzene	ND		ug/l	400	--	400
Toluene	2000		ug/l	400	--	400
Ethylbenzene	6800		ug/l	400	--	400
Chloromethane	ND		ug/l	800	--	400
Bromomethane	ND		ug/l	800	--	400
Vinyl chloride	ND		ug/l	400	--	400
Chloroethane	ND		ug/l	800	--	400
1,1-Dichloroethene	ND		ug/l	400	--	400
trans-1,2-Dichloroethene	ND		ug/l	400	--	400
Trichloroethene	ND		ug/l	400	--	400
1,2-Dichlorobenzene	ND		ug/l	400	--	400
1,3-Dichlorobenzene	ND		ug/l	400	--	400

Project Name: 300 THIRD STREET

Lab Number: L1020041

Project Number: 04-7590GD2

Report Date: 12/23/10

## SAMPLE RESULTS

Lab ID: L1020041-11      D      Date Collected: 12/14/10 14:40  
 Client ID: ENV-999      Date Received: 12/15/10  
 Sample Location: CAMBRIDGE, MA      Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
<b>MCP Volatile Organics - Westborough Lab</b>						
1,4-Dichlorobenzene	ND		ug/l	400	--	400
Methyl tert butyl ether	ND		ug/l	800	--	400
p/m-Xylene	28000		ug/l	800	--	400
o-Xylene	7300		ug/l	400	--	400
cis-1,2-Dichloroethene	ND		ug/l	400	--	400
Dibromomethane	ND		ug/l	800	--	400
1,2,3-Trichloropropane	ND		ug/l	800	--	400
Styrene	ND		ug/l	400	--	400
Dichlorodifluoromethane	ND		ug/l	800	--	400
Acetone	ND		ug/l	2000	--	400
Carbon disulfide	ND		ug/l	800	--	400
2-Butanone	ND		ug/l	2000	--	400
4-Methyl-2-pentanone	ND		ug/l	2000	--	400
2-Hexanone	ND		ug/l	2000	--	400
Bromochloromethane	ND		ug/l	800	--	400
Tetrahydrofuran	ND		ug/l	2000	--	400
2,2-Dichloropropane	ND		ug/l	800	--	400
1,2-Dibromoethane	ND		ug/l	800	--	400
1,3-Dichloropropane	ND		ug/l	800	--	400
1,1,1,2-Tetrachloroethane	ND		ug/l	400	--	400
Bromobenzene	ND		ug/l	800	--	400
n-Butylbenzene	ND		ug/l	800	--	400
sec-Butylbenzene	ND		ug/l	800	--	400
tert-Butylbenzene	ND		ug/l	800	--	400
o-Chlorotoluene	ND		ug/l	800	--	400
p-Chlorotoluene	ND		ug/l	800	--	400
1,2-Dibromo-3-chloropropane	ND		ug/l	800	--	400
Hexachlorobutadiene	ND		ug/l	240	--	400
Isopropylbenzene	ND		ug/l	800	--	400
p-Isopropyltoluene	ND		ug/l	800	--	400
Naphthalene	ND		ug/l	800	--	400
n-Propylbenzene	ND		ug/l	800	--	400
1,2,3-Trichlorobenzene	ND		ug/l	800	--	400
1,2,4-Trichlorobenzene	ND		ug/l	800	--	400
1,3,5-Trimethylbenzene	ND		ug/l	800	--	400
1,2,4-Trimethylbenzene	ND		ug/l	800	--	400
Ethyl ether	ND		ug/l	800	--	400



**Project Name:** 300 THIRD STREET**Lab Number:** L1020041**Project Number:** 04-7590GD2**Report Date:** 12/23/10**SAMPLE RESULTS**

Lab ID: L1020041-11 D

Date Collected: 12/14/10 14:40

Client ID: ENV-999

Date Received: 12/15/10

Sample Location: CAMBRIDGE, MA

Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
<b>MCP Volatile Organics - Westborough Lab</b>						
Isopropyl Ether	ND		ug/l	800	--	400
Ethyl-Tert-Butyl-Ether	ND		ug/l	800	--	400
Tertiary-Amyl Methyl Ether	ND		ug/l	800	--	400
1,4-Dioxane	ND		ug/l	100000	--	400

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	103		70-130
Toluene-d8	93		70-130
4-Bromofluorobenzene	103		70-130
Dibromofluoromethane	104		70-130

**Project Name:** 300 THIRD STREET**Lab Number:** L1020041**Project Number:** 04-7590GD2**Report Date:** 12/23/10**SAMPLE RESULTS**

**Lab ID:** L1020041-12  
**Client ID:** TRIP BLANK  
**Sample Location:** CAMBRIDGE, MA  
**Matrix:** Water  
**Analytical Method:** 97,8260B  
**Analytical Date:** 12/17/10 16:52  
**Analyst:** MM

**Date Collected:** 12/14/10 00:00  
**Date Received:** 12/15/10  
**Field Prep:** Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
<b>MCP Volatile Organics - Westborough Lab</b>						
Methylene chloride	ND		ug/l	2.0	--	1
1,1-Dichloroethane	ND		ug/l	1.0	--	1
Chloroform	1.5		ug/l	1.0	--	1
Carbon tetrachloride	ND		ug/l	1.0	--	1
1,2-Dichloropropane	ND		ug/l	1.0	--	1
Dibromochloromethane	ND		ug/l	1.0	--	1
1,1,2-Trichloroethane	ND		ug/l	1.0	--	1
Tetrachloroethene	ND		ug/l	1.0	--	1
Chlorobenzene	ND		ug/l	1.0	--	1
Trichlorofluoromethane	ND		ug/l	2.0	--	1
1,2-Dichloroethane	ND		ug/l	1.0	--	1
1,1,1-Trichloroethane	ND		ug/l	1.0	--	1
Bromodichloromethane	ND		ug/l	1.0	--	1
trans-1,3-Dichloropropene	ND		ug/l	0.50	--	1
cis-1,3-Dichloropropene	ND		ug/l	0.50	--	1
1,1-Dichloropropene	ND		ug/l	2.0	--	1
Bromoform	ND		ug/l	2.0	--	1
1,1,2,2-Tetrachloroethane	ND		ug/l	1.0	--	1
Benzene	ND		ug/l	1.0	--	1
Toluene	ND		ug/l	1.0	--	1
Ethylbenzene	ND		ug/l	1.0	--	1
Chloromethane	ND		ug/l	2.0	--	1
Bromomethane	ND		ug/l	2.0	--	1
Vinyl chloride	ND		ug/l	1.0	--	1
Chloroethane	ND		ug/l	2.0	--	1
1,1-Dichloroethene	ND		ug/l	1.0	--	1
trans-1,2-Dichloroethene	ND		ug/l	1.0	--	1
Trichloroethene	ND		ug/l	1.0	--	1
1,2-Dichlorobenzene	ND		ug/l	1.0	--	1
1,3-Dichlorobenzene	ND		ug/l	1.0	--	1

Project Name: 300 THIRD STREET

Lab Number: L1020041

Project Number: 04-7590GD2

Report Date: 12/23/10

## SAMPLE RESULTS

Lab ID: L1020041-12  
 Client ID: TRIP BLANK  
 Sample Location: CAMBRIDGE, MA

Date Collected: 12/14/10 00:00  
 Date Received: 12/15/10  
 Field Prep: Not Specified

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





**Project Name:** 300 THIRD STREET**Lab Number:** L1020041**Project Number:** 04-7590GD2**Report Date:** 12/23/10**SAMPLE RESULTS**

Lab ID: L1020041-12  
 Client ID: TRIP BLANK  
 Sample Location: CAMBRIDGE, MA

Date Collected: 12/14/10 00:00  
 Date Received: 12/15/10  
 Field Prep: Not Specified

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

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	107		70-130
Toluene-d8	98		70-130
4-Bromofluorobenzene	98		70-130
Dibromofluoromethane	114		70-130

**Project Name:** 300 THIRD STREET  
**Project Number:** 04-7590GD2

**Lab Number:** L1020041  
**Report Date:** 12/23/10

**Method Blank Analysis**  
**Batch Quality Control**

Analytical Method: 97,8260B  
Analytical Date: 12/17/10 07:57  
Analyst: MM

Parameter	Result	Qualifier	Units	RL	MDL
MCP Volatile Organics - Westborough Lab for sample(s): 12 Batch: WG448335-3					
Methylene chloride	ND		ug/l	2.0	--
1,1-Dichloroethane	ND		ug/l	1.0	--
Chloroform	ND		ug/l	1.0	--
Carbon tetrachloride	ND		ug/l	1.0	--
1,2-Dichloropropane	ND		ug/l	1.0	--
Dibromochloromethane	ND		ug/l	1.0	--
1,1,2-Trichloroethane	ND		ug/l	1.0	--
Tetrachloroethene	ND		ug/l	1.0	--
Chlorobenzene	ND		ug/l	1.0	--
Trichlorofluoromethane	ND		ug/l	2.0	--
1,2-Dichloroethane	ND		ug/l	1.0	--
1,1,1-Trichloroethane	ND		ug/l	1.0	--
Bromodichloromethane	ND		ug/l	1.0	--
trans-1,3-Dichloropropene	ND		ug/l	0.50	--
cis-1,3-Dichloropropene	ND		ug/l	0.50	--
1,1-Dichloropropene	ND		ug/l	2.0	--
Bromoform	ND		ug/l	2.0	--
1,1,2,2-Tetrachloroethane	ND		ug/l	1.0	--
Benzene	ND		ug/l	1.0	--
Toluene	ND		ug/l	1.0	--
Ethylbenzene	ND		ug/l	1.0	--
Chloromethane	ND		ug/l	2.0	--
Bromomethane	ND		ug/l	2.0	--
Vinyl chloride	ND		ug/l	1.0	--
Chloroethane	ND		ug/l	2.0	--
1,1-Dichloroethene	ND		ug/l	1.0	--
trans-1,2-Dichloroethene	ND		ug/l	1.0	--
Trichloroethene	ND		ug/l	1.0	--
1,2-Dichlorobenzene	ND		ug/l	1.0	--
1,3-Dichlorobenzene	ND		ug/l	1.0	--
1,4-Dichlorobenzene	ND		ug/l	1.0	--



**Project Name:** 300 THIRD STREET  
**Project Number:** 04-7590GD2

**Lab Number:** L1020041  
**Report Date:** 12/23/10

**Method Blank Analysis**  
**Batch Quality Control**

Analytical Method: 97,8260B  
Analytical Date: 12/17/10 07:57  
Analyst: MM

Parameter	Result	Qualifier	Units	RL	MDL
MCP Volatile Organics - Westborough Lab for sample(s): 12 Batch: WG448335-3					
Methyl tert butyl ether	ND		ug/l	2.0	--
p/m-Xylene	ND		ug/l	2.0	--
o-Xylene	ND		ug/l	1.0	--
cis-1,2-Dichloroethene	ND		ug/l	1.0	--
Dibromomethane	ND		ug/l	2.0	--
1,2,3-Trichloropropane	ND		ug/l	2.0	--
Styrene	ND		ug/l	1.0	--
Dichlorodifluoromethane	ND		ug/l	2.0	--
Acetone	ND		ug/l	5.0	--
Carbon disulfide	ND		ug/l	2.0	--
2-Butanone	ND		ug/l	5.0	--
4-Methyl-2-pentanone	ND		ug/l	5.0	--
2-Hexanone	ND		ug/l	5.0	--
Bromochloromethane	ND		ug/l	2.0	--
Tetrahydrofuran	ND		ug/l	5.0	--
2,2-Dichloropropane	ND		ug/l	2.0	--
1,2-Dibromoethane	ND		ug/l	2.0	--
1,3-Dichloropropane	ND		ug/l	2.0	--
1,1,1,2-Tetrachloroethane	ND		ug/l	1.0	--
Bromobenzene	ND		ug/l	2.0	--
n-Butylbenzene	ND		ug/l	2.0	--
sec-Butylbenzene	ND		ug/l	2.0	--
tert-Butylbenzene	ND		ug/l	2.0	--
o-Chlorotoluene	ND		ug/l	2.0	--
p-Chlorotoluene	ND		ug/l	2.0	--
1,2-Dibromo-3-chloropropane	ND		ug/l	2.0	--
Hexachlorobutadiene	ND		ug/l	0.60	--
Isopropylbenzene	ND		ug/l	2.0	--
p-Isopropyltoluene	ND		ug/l	2.0	--
Naphthalene	ND		ug/l	2.0	--
n-Propylbenzene	ND		ug/l	2.0	--



**Project Name:** 300 THIRD STREET  
**Project Number:** 04-7590GD2

**Lab Number:** L1020041  
**Report Date:** 12/23/10

**Method Blank Analysis  
 Batch Quality Control**

Analytical Method: 97,8260B  
 Analytical Date: 12/17/10 07:57  
 Analyst: MM

Parameter	Result	Qualifier	Units	RL	MDL
MCP Volatile Organics - Westborough Lab for sample(s): 12 Batch: WG448335-3					
1,2,3-Trichlorobenzene	ND		ug/l	2.0	--
1,2,4-Trichlorobenzene	ND		ug/l	2.0	--
1,3,5-Trimethylbenzene	ND		ug/l	2.0	--
1,2,4-Trimethylbenzene	ND		ug/l	2.0	--
Ethyl ether	ND		ug/l	2.0	--
Isopropyl Ether	ND		ug/l	2.0	--
Ethyl-Tert-Butyl-Ether	ND		ug/l	2.0	--
Tertiary-Amyl Methyl Ether	ND		ug/l	2.0	--
1,4-Dioxane	ND		ug/l	250	--

Surrogate	%Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	101		70-130
Toluene-d8	99		70-130
4-Bromofluorobenzene	97		70-130
Dibromofluoromethane	106		70-130

**Project Name:** 300 THIRD STREET  
**Project Number:** 04-7590GD2

**Lab Number:** L1020041  
**Report Date:** 12/23/10

**Method Blank Analysis**  
**Batch Quality Control**

Analytical Method: 97,8260B  
Analytical Date: 12/20/10 07:05  
Analyst: MM

Parameter	Result	Qualifier	Units	RL	MDL
MCP Volatile Organics - Westborough Lab for sample(s): 04 Batch: WG448619-3					
Methylene chloride	ND		ug/l	2.0	--
1,1-Dichloroethane	ND		ug/l	1.0	--
Chloroform	ND		ug/l	1.0	--
Carbon tetrachloride	ND		ug/l	1.0	--
1,2-Dichloropropane	ND		ug/l	1.0	--
Dibromochloromethane	ND		ug/l	1.0	--
1,1,2-Trichloroethane	ND		ug/l	1.0	--
Tetrachloroethene	ND		ug/l	1.0	--
Chlorobenzene	ND		ug/l	1.0	--
Trichlorofluoromethane	ND		ug/l	2.0	--
1,2-Dichloroethane	ND		ug/l	1.0	--
1,1,1-Trichloroethane	ND		ug/l	1.0	--
Bromodichloromethane	ND		ug/l	1.0	--
trans-1,3-Dichloropropene	ND		ug/l	0.50	--
cis-1,3-Dichloropropene	ND		ug/l	0.50	--
1,1-Dichloropropene	ND		ug/l	2.0	--
Bromoform	ND		ug/l	2.0	--
1,1,2,2-Tetrachloroethane	ND		ug/l	1.0	--
Benzene	ND		ug/l	1.0	--
Toluene	ND		ug/l	1.0	--
Ethylbenzene	ND		ug/l	1.0	--
Chloromethane	ND		ug/l	2.0	--
Bromomethane	ND		ug/l	2.0	--
Vinyl chloride	ND		ug/l	1.0	--
Chloroethane	ND		ug/l	2.0	--
1,1-Dichloroethene	ND		ug/l	1.0	--
trans-1,2-Dichloroethene	ND		ug/l	1.0	--
Trichloroethene	ND		ug/l	1.0	--
1,2-Dichlorobenzene	ND		ug/l	1.0	--
1,3-Dichlorobenzene	ND		ug/l	1.0	--
1,4-Dichlorobenzene	ND		ug/l	1.0	--



**Project Name:** 300 THIRD STREET  
**Project Number:** 04-7590GD2

**Lab Number:** L1020041  
**Report Date:** 12/23/10

**Method Blank Analysis**  
**Batch Quality Control**

Analytical Method: 97,8260B  
Analytical Date: 12/20/10 07:05  
Analyst: MM

Parameter	Result	Qualifier	Units	RL	MDL
MCP Volatile Organics - Westborough Lab for sample(s): 04 Batch: WG448619-3					
Methyl tert butyl ether	ND		ug/l	2.0	--
p/m-Xylene	ND		ug/l	2.0	--
o-Xylene	ND		ug/l	1.0	--
cis-1,2-Dichloroethene	ND		ug/l	1.0	--
Dibromomethane	ND		ug/l	2.0	--
1,2,3-Trichloropropane	ND		ug/l	2.0	--
Styrene	ND		ug/l	1.0	--
Dichlorodifluoromethane	ND		ug/l	2.0	--
Acetone	ND		ug/l	5.0	--
Carbon disulfide	ND		ug/l	2.0	--
2-Butanone	ND		ug/l	5.0	--
4-Methyl-2-pentanone	ND		ug/l	5.0	--
2-Hexanone	ND		ug/l	5.0	--
Bromochloromethane	ND		ug/l	2.0	--
Tetrahydrofuran	ND		ug/l	5.0	--
2,2-Dichloropropane	ND		ug/l	2.0	--
1,2-Dibromoethane	ND		ug/l	2.0	--
1,3-Dichloropropane	ND		ug/l	2.0	--
1,1,1,2-Tetrachloroethane	ND		ug/l	1.0	--
Bromobenzene	ND		ug/l	2.0	--
n-Butylbenzene	ND		ug/l	2.0	--
sec-Butylbenzene	ND		ug/l	2.0	--
tert-Butylbenzene	ND		ug/l	2.0	--
o-Chlorotoluene	ND		ug/l	2.0	--
p-Chlorotoluene	ND		ug/l	2.0	--
1,2-Dibromo-3-chloropropane	ND		ug/l	2.0	--
Hexachlorobutadiene	ND		ug/l	0.60	--
Isopropylbenzene	ND		ug/l	2.0	--
p-Isopropyltoluene	ND		ug/l	2.0	--
Naphthalene	ND		ug/l	2.0	--
n-Propylbenzene	ND		ug/l	2.0	--



**Project Name:** 300 THIRD STREET  
**Project Number:** 04-7590GD2

**Lab Number:** L1020041  
**Report Date:** 12/23/10

**Method Blank Analysis**  
**Batch Quality Control**

Analytical Method: 97,8260B  
 Analytical Date: 12/20/10 07:05  
 Analyst: MM

Parameter	Result	Qualifier	Units	RL	MDL
MCP Volatile Organics - Westborough Lab for sample(s): 04 Batch: WG448619-3					
1,2,3-Trichlorobenzene	ND		ug/l	2.0	--
1,2,4-Trichlorobenzene	ND		ug/l	2.0	--
1,3,5-Trimethylbenzene	ND		ug/l	2.0	--
1,2,4-Trimethylbenzene	ND		ug/l	2.0	--
Ethyl ether	ND		ug/l	2.0	--
Isopropyl Ether	ND		ug/l	2.0	--
Ethyl-Tert-Butyl-Ether	ND		ug/l	2.0	--
Tertiary-Amyl Methyl Ether	ND		ug/l	2.0	--
1,4-Dioxane	ND		ug/l	250	--

Surrogate	%Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	103		70-130
Toluene-d8	99		70-130
4-Bromofluorobenzene	102		70-130
Dibromofluoromethane	104		70-130

**Project Name:** 300 THIRD STREET  
**Project Number:** 04-7590GD2

**Lab Number:** L1020041  
**Report Date:** 12/23/10

**Method Blank Analysis**  
**Batch Quality Control**

Analytical Method: 97,8260B  
Analytical Date: 12/21/10 06:25  
Analyst: MM

Parameter	Result	Qualifier	Units	RL	MDL
MCP Volatile Organics - Westborough Lab for sample(s): 01-03,05-06,11 Batch: WG448805-3					
Methylene chloride	ND		ug/l	2.0	--
1,1-Dichloroethane	ND		ug/l	1.0	--
Chloroform	ND		ug/l	1.0	--
Carbon tetrachloride	ND		ug/l	1.0	--
1,2-Dichloropropane	ND		ug/l	1.0	--
Dibromochloromethane	ND		ug/l	1.0	--
1,1,2-Trichloroethane	ND		ug/l	1.0	--
Tetrachloroethene	ND		ug/l	1.0	--
Chlorobenzene	ND		ug/l	1.0	--
Trichlorofluoromethane	ND		ug/l	2.0	--
1,2-Dichloroethane	ND		ug/l	1.0	--
1,1,1-Trichloroethane	ND		ug/l	1.0	--
Bromodichloromethane	ND		ug/l	1.0	--
trans-1,3-Dichloropropene	ND		ug/l	0.50	--
cis-1,3-Dichloropropene	ND		ug/l	0.50	--
1,1-Dichloropropene	ND		ug/l	2.0	--
Bromoform	ND		ug/l	2.0	--
1,1,2,2-Tetrachloroethane	ND		ug/l	1.0	--
Benzene	ND		ug/l	1.0	--
Toluene	ND		ug/l	1.0	--
Ethylbenzene	ND		ug/l	1.0	--
Chloromethane	ND		ug/l	2.0	--
Bromomethane	ND		ug/l	2.0	--
Vinyl chloride	ND		ug/l	1.0	--
Chloroethane	ND		ug/l	2.0	--
1,1-Dichloroethene	ND		ug/l	1.0	--
trans-1,2-Dichloroethene	ND		ug/l	1.0	--
Trichloroethene	ND		ug/l	1.0	--
1,2-Dichlorobenzene	ND		ug/l	1.0	--
1,3-Dichlorobenzene	ND		ug/l	1.0	--
1,4-Dichlorobenzene	ND		ug/l	1.0	--





**Project Name:** 300 THIRD STREET  
**Project Number:** 04-7590GD2

**Lab Number:** L1020041  
**Report Date:** 12/23/10

**Method Blank Analysis  
Batch Quality Control**

Analytical Method: 97,8260B  
Analytical Date: 12/21/10 06:25  
Analyst: MM

Parameter	Result	Qualifier	Units	RL	MDL
MCP Volatile Organics - Westborough Lab for sample(s): 01-03,05-06,11 Batch: WG448805-3					
Methyl tert butyl ether	ND		ug/l	2.0	--
p/m-Xylene	ND		ug/l	2.0	--
o-Xylene	ND		ug/l	1.0	--
cis-1,2-Dichloroethene	ND		ug/l	1.0	--
Dibromomethane	ND		ug/l	2.0	--
1,2,3-Trichloropropane	ND		ug/l	2.0	--
Styrene	ND		ug/l	1.0	--
Dichlorodifluoromethane	ND		ug/l	2.0	--
Acetone	ND		ug/l	5.0	--
Carbon disulfide	ND		ug/l	2.0	--
2-Butanone	ND		ug/l	5.0	--
4-Methyl-2-pentanone	ND		ug/l	5.0	--
2-Hexanone	ND		ug/l	5.0	--
Bromochloromethane	ND		ug/l	2.0	--
Tetrahydrofuran	ND		ug/l	5.0	--
2,2-Dichloropropane	ND		ug/l	2.0	--
1,2-Dibromoethane	ND		ug/l	2.0	--
1,3-Dichloropropane	ND		ug/l	2.0	--
1,1,1,2-Tetrachloroethane	ND		ug/l	1.0	--
Bromobenzene	ND		ug/l	2.0	--
n-Butylbenzene	ND		ug/l	2.0	--
sec-Butylbenzene	ND		ug/l	2.0	--
tert-Butylbenzene	ND		ug/l	2.0	--
o-Chlorotoluene	ND		ug/l	2.0	--
p-Chlorotoluene	ND		ug/l	2.0	--
1,2-Dibromo-3-chloropropane	ND		ug/l	2.0	--
Hexachlorobutadiene	ND		ug/l	0.60	--
Isopropylbenzene	ND		ug/l	2.0	--
p-Isopropyltoluene	ND		ug/l	2.0	--
Naphthalene	ND		ug/l	2.0	--
n-Propylbenzene	ND		ug/l	2.0	--



**Project Name:** 300 THIRD STREET  
**Project Number:** 04-7590GD2

**Lab Number:** L1020041  
**Report Date:** 12/23/10

**Method Blank Analysis**  
**Batch Quality Control**

Analytical Method: 97,8260B  
 Analytical Date: 12/21/10 06:25  
 Analyst: MM

Parameter	Result	Qualifier	Units	RL	MDL
MCP Volatile Organics - Westborough Lab for sample(s): 01-03,05-06,11 Batch: WG448805-3					
1,2,3-Trichlorobenzene	ND		ug/l	2.0	--
1,2,4-Trichlorobenzene	ND		ug/l	2.0	--
1,3,5-Trimethylbenzene	ND		ug/l	2.0	--
1,2,4-Trimethylbenzene	ND		ug/l	2.0	--
Ethyl ether	ND		ug/l	2.0	--
Isopropyl Ether	ND		ug/l	2.0	--
Ethyl-Tert-Butyl-Ether	ND		ug/l	2.0	--
Tertiary-Amyl Methyl Ether	ND		ug/l	2.0	--
1,4-Dioxane	ND		ug/l	250	--

Surrogate	%Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	100		70-130
Toluene-d8	93		70-130
4-Bromofluorobenzene	97		70-130
Dibromofluoromethane	104		70-130

## Lab Control Sample Analysis

### Batch Quality Control

Project Name: 300 THIRD STREET

Lab Number: L1020041

Project Number: 04-7590GD2

Report Date: 12/23/10

Parameter	LCS		LCSD		%Recovery Limits	RPD	Qual	RPD Limits
	%Recovery	Qual	%Recovery	Qual				
MCP Volatile Organics - Westborough Lab Associated sample(s): 12 Batch: WG448335-1 WG448335-2								
Methylene chloride	100		102		70-130	2		20
1,1-Dichloroethane	98		98		70-130	0		20
Chloroform	97		98		70-130	1		20
Carbon tetrachloride	91		98		70-130	7		20
1,2-Dichloropropane	98		98		70-130	0		20
Dibromochloromethane	80		85		70-130	6		20
1,1,2-Trichloroethane	95		96		70-130	1		20
Tetrachloroethene	103		98		70-130	5		20
Chlorobenzene	94		91		70-130	3		20
Trichlorofluoromethane	107		113		70-130	5		20
1,2-Dichloroethane	100		97		70-130	3		20
1,1,1-Trichloroethane	95		98		70-130	3		20
Bromodichloromethane	88		92		70-130	4		20
trans-1,3-Dichloropropene	81		84		70-130	4		20
cis-1,3-Dichloropropene	81		86		70-130	6		20
1,1-Dichloropropene	94		98		70-130	4		20
Bromoform	75		84		70-130	11		20
1,1,2,2-Tetrachloroethane	85		86		70-130	1		20
Benzene	101		101		70-130	0		20
Toluene	95		90		70-130	5		20
Ethylbenzene	98		95		70-130	3		20

## Lab Control Sample Analysis

### Batch Quality Control

Project Name: 300 THIRD STREET

Project Number: 04-7590GD2

Lab Number: L1020041

Report Date: 12/23/10

Parameter	LCS		LCSD		%Recovery Limits	RPD	Qual	RPD Limits
	%Recovery	Qual	%Recovery	Qual				
MCP Volatile Organics - Westborough Lab Associated sample(s): 12 Batch: WG448335-1 WG448335-2								
Chloromethane	110		110		70-130	0		20
Bromomethane	101		104		70-130	3		20
Vinyl chloride	106		110		70-130	4		20
Chloroethane	105		105		70-130	0		20
1,1-Dichloroethene	97		100		70-130	3		20
trans-1,2-Dichloroethene	98		97		70-130	1		20
Trichloroethene	92		94		70-130	2		20
1,2-Dichlorobenzene	91		90		70-130	1		20
1,3-Dichlorobenzene	92		88		70-130	4		20
1,4-Dichlorobenzene	94		90		70-130	4		20
Methyl tert butyl ether	77		77		70-130	0		20
p/m-Xylene	102		98		70-130	4		20
o-Xylene	96		93		70-130	3		20
cis-1,2-Dichloroethene	102		104		70-130	2		20
Dibromomethane	99		104		70-130	5		20
1,2,3-Trichloropropane	82		85		70-130	4		20
Styrene	95		92		70-130	3		20
Dichlorodifluoromethane	113		112		70-130	1		20
Acetone	104		106		70-130	2		20
Carbon disulfide	88		94		70-130	7		20
2-Butanone	100		106		70-130	6		20

## Lab Control Sample Analysis

### Batch Quality Control

Project Name: 300 THIRD STREET

Lab Number: L1020041

Project Number: 04-7590GD2

Report Date: 12/23/10

Parameter	LCS		LCSD		%Recovery Limits	RPD	Qual	RPD Limits
	%Recovery	Qual	%Recovery	Qual				
MCP Volatile Organics - Westborough Lab Associated sample(s): 12 Batch: WG448335-1 WG448335-2								
4-Methyl-2-pentanone	93		97		70-130	4		20
2-Hexanone	84		88		70-130	5		20
Bromochloromethane	102		103		70-130	1		20
Tetrahydrofuran	72		74		70-130	3		20
2,2-Dichloropropane	91		99		70-130	8		20
1,2-Dibromoethane	92		92		70-130	0		20
1,3-Dichloropropane	94		89		70-130	5		20
1,1,1,2-Tetrachloroethane	94		93		70-130	1		20
Bromobenzene	90		90		70-130	0		20
n-Butylbenzene	99		92		70-130	7		20
sec-Butylbenzene	93		89		70-130	4		20
tert-Butylbenzene	89		88		70-130	1		20
o-Chlorotoluene	89		88		70-130	1		20
p-Chlorotoluene	89		88		70-130	1		20
1,2-Dibromo-3-chloropropane	67	Q	75		70-130	11		20
Hexachlorobutadiene	95		92		70-130	3		20
Isopropylbenzene	95		93		70-130	2		20
p-Isopropyltoluene	99		92		70-130	7		20
Naphthalene	71		74		70-130	4		20
n-Propylbenzene	91		88		70-130	3		20
1,2,3-Trichlorobenzene	77		80		70-130	4		20

## Lab Control Sample Analysis

### Batch Quality Control

Project Name: 300 THIRD STREET

Project Number: 04-7590GD2

Lab Number: L1020041

Report Date: 12/23/10

Parameter	LCS		LCSD		%Recovery Limits	RPD	Qual	RPD Limits
	%Recovery	Qual	%Recovery	Qual				
MCP Volatile Organics - Westborough Lab Associated sample(s): 12 Batch: WG448335-1 WG448335-2								
1,2,4-Trichlorobenzene	82		82		70-130	0		20
1,3,5-Trimethylbenzene	92		88		70-130	4		20
1,2,4-Trimethylbenzene	95		93		70-130	2		20
Ethyl ether	80		89		70-130	11		20
Isopropyl Ether	88		90		70-130	2		20
Ethyl-Tert-Butyl-Ether	81		85		70-130	5		20
Tertiary-Amyl Methyl Ether	84		88		70-130	5		20
1,4-Dioxane	100		90		70-130	11		20

Surrogate	LCS		LCSD		Acceptance Criteria
	%Recovery	Qual	%Recovery	Qual	
1,2-Dichloroethane-d4	94		103		70-130
Toluene-d8	101		97		70-130
4-Bromofluorobenzene	92		93		70-130
Dibromofluoromethane	103		104		70-130

## Lab Control Sample Analysis

### Batch Quality Control

Project Name: 300 THIRD STREET

Lab Number: L1020041

Project Number: 04-7590GD2

Report Date: 12/23/10

Parameter	LCS		LCSD		%Recovery Limits	RPD	Qual	RPD Limits
	%Recovery	Qual	%Recovery	Qual				
MCP Volatile Organics - Westborough Lab Associated sample(s): 04 Batch: WG448619-1 WG448619-2								
Methylene chloride	98		99		70-130	1		20
1,1-Dichloroethane	94		100		70-130	6		20
Chloroform	94		99		70-130	5		20
Carbon tetrachloride	92		100		70-130	8		20
1,2-Dichloropropane	96		101		70-130	5		20
Dibromochloromethane	82		90		70-130	9		20
1,1,2-Trichloroethane	93		99		70-130	6		20
Tetrachloroethene	95		98		70-130	3		20
Chlorobenzene	86		93		70-130	8		20
Trichlorofluoromethane	100		103		70-130	3		20
1,2-Dichloroethane	96		100		70-130	4		20
1,1,1-Trichloroethane	92		98		70-130	6		20
Bromodichloromethane	91		96		70-130	5		20
trans-1,3-Dichloropropene	86		93		70-130	8		20
cis-1,3-Dichloropropene	85		88		70-130	3		20
1,1-Dichloropropene	91		97		70-130	6		20
Bromoform	79		90		70-130	13		20
1,1,2,2-Tetrachloroethane	84		91		70-130	8		20
Benzene	96		98		70-130	2		20
Toluene	87		93		70-130	7		20
Ethylbenzene	93		98		70-130	5		20

## Lab Control Sample Analysis

### Batch Quality Control

Project Name: 300 THIRD STREET

Project Number: 04-7590GD2

Lab Number: L1020041

Report Date: 12/23/10

Parameter	LCS		LCSD		%Recovery Limits	RPD	Qual	RPD Limits
	%Recovery	Qual	%Recovery	Qual				
MCP Volatile Organics - Westborough Lab Associated sample(s): 04 Batch: WG448619-1 WG448619-2								
Chloromethane	105		106		70-130	1		20
Bromomethane	97		96		70-130	1		20
Vinyl chloride	100		107		70-130	7		20
Chloroethane	102		106		70-130	4		20
1,1-Dichloroethene	93		97		70-130	4		20
trans-1,2-Dichloroethene	91		96		70-130	5		20
Trichloroethene	87		93		70-130	7		20
1,2-Dichlorobenzene	88		96		70-130	9		20
1,3-Dichlorobenzene	88		92		70-130	4		20
1,4-Dichlorobenzene	90		94		70-130	4		20
Methyl tert butyl ether	80		81		70-130	1		20
p/m-Xylene	95		100		70-130	5		20
o-Xylene	89		94		70-130	5		20
cis-1,2-Dichloroethene	98		100		70-130	2		20
Dibromomethane	94		106		70-130	12		20
1,2,3-Trichloropropane	81		88		70-130	8		20
Styrene	88		93		70-130	6		20
Dichlorodifluoromethane	103		103		70-130	0		20
Acetone	105		106		70-130	1		20
Carbon disulfide	88		95		70-130	8		20
2-Butanone	106		114		70-130	7		20



## Lab Control Sample Analysis

### Batch Quality Control

Project Name: 300 THIRD STREET

Lab Number: L1020041

Project Number: 04-7590GD2

Report Date: 12/23/10

Parameter	LCS		LCSD		%Recovery Limits	RPD	Qual	RPD Limits
	%Recovery	Qual	%Recovery	Qual				
MCP Volatile Organics - Westborough Lab Associated sample(s): 04 Batch: WG448619-1 WG448619-2								
4-Methyl-2-pentanone	96		103		70-130	7		20
2-Hexanone	89		99		70-130	11		20
Bromochloromethane	94		100		70-130	6		20
Tetrahydrofuran	76		76		70-130	0		20
2,2-Dichloropropane	96		104		70-130	8		20
1,2-Dibromoethane	90		95		70-130	5		20
1,3-Dichloropropane	88		93		70-130	6		20
1,1,1,2-Tetrachloroethane	93		99		70-130	6		20
Bromobenzene	86		93		70-130	8		20
n-Butylbenzene	98		100		70-130	2		20
sec-Butylbenzene	91		95		70-130	4		20
tert-Butylbenzene	88		92		70-130	4		20
o-Chlorotoluene	86		92		70-130	7		20
p-Chlorotoluene	87		92		70-130	6		20
1,2-Dibromo-3-chloropropane	75		82		70-130	9		20
Hexachlorobutadiene	96		94		70-130	2		20
Isopropylbenzene	91		96		70-130	5		20
p-Isopropyltoluene	96		101		70-130	5		20
Naphthalene	75		80		70-130	6		20
n-Propylbenzene	88		94		70-130	7		20
1,2,3-Trichlorobenzene	81		88		70-130	8		20

## Lab Control Sample Analysis

### Batch Quality Control

Project Name: 300 THIRD STREET

Project Number: 04-7590GD2

Lab Number: L1020041

Report Date: 12/23/10

Parameter	LCS		LCSD		%Recovery Limits	RPD	Qual	RPD Limits
	%Recovery	Qual	%Recovery	Qual				
MCP Volatile Organics - Westborough Lab Associated sample(s): 04 Batch: WG448619-1 WG448619-2								
1,2,4-Trichlorobenzene	86		91		70-130	6		20
1,3,5-Trimethylbenzene	88		94		70-130	7		20
1,2,4-Trimethylbenzene	94		98		70-130	4		20
Ethyl ether	79		82		70-130	4		20
Isopropyl Ether	87		91		70-130	4		20
Ethyl-Tert-Butyl-Ether	82		86		70-130	5		20
Tertiary-Amyl Methyl Ether	90		92		70-130	2		20
1,4-Dioxane	100		100		70-130	0		20

Surrogate	LCS		LCSD		Acceptance Criteria
	%Recovery	Qual	%Recovery	Qual	
1,2-Dichloroethane-d4	104		98		70-130
Toluene-d8	99		100		70-130
4-Bromofluorobenzene	92		99		70-130
Dibromofluoromethane	103		106		70-130

## Lab Control Sample Analysis

### Batch Quality Control

Project Name: 300 THIRD STREET

Lab Number: L1020041

Project Number: 04-7590GD2

Report Date: 12/23/10

Parameter	LCS		LCSD		%Recovery Limits	RPD	Qual	RPD Limits
	%Recovery	Qual	%Recovery	Qual				
MCP Volatile Organics - Westborough Lab Associated sample(s): 01-03,05-06,11 Batch: WG448805-1 WG448805-2								
Methylene chloride	97		102		70-130	5		20
1,1-Dichloroethane	96		100		70-130	4		20
Chloroform	97		98		70-130	1		20
Carbon tetrachloride	91		100		70-130	9		20
1,2-Dichloropropane	100		102		70-130	2		20
Dibromochloromethane	81		87		70-130	7		20
1,1,2-Trichloroethane	94		98		70-130	4		20
Tetrachloroethene	98		97		70-130	1		20
Chlorobenzene	88		90		70-130	2		20
Trichlorofluoromethane	104		114		70-130	9		20
1,2-Dichloroethane	98		103		70-130	5		20
1,1,1-Trichloroethane	93		100		70-130	7		20
Bromodichloromethane	88		98		70-130	11		20
trans-1,3-Dichloropropene	84		89		70-130	6		20
cis-1,3-Dichloropropene	84		90		70-130	7		20
1,1-Dichloropropene	96		99		70-130	3		20
Bromoform	77		87		70-130	12		20
1,1,2,2-Tetrachloroethane	84		88		70-130	5		20
Benzene	97		101		70-130	4		20
Toluene	88		91		70-130	3		20
Ethylbenzene	92		96		70-130	4		20

## Lab Control Sample Analysis

### Batch Quality Control

Project Name: 300 THIRD STREET

Lab Number: L1020041

Project Number: 04-7590GD2

Report Date: 12/23/10

Parameter	LCS		LCSD		%Recovery Limits	RPD	Qual	RPD Limits
	%Recovery	Qual	%Recovery	Qual				
MCP Volatile Organics - Westborough Lab Associated sample(s): 01-03,05-06,11 Batch: WG448805-1 WG448805-2								
Chloromethane	106		106		70-130	0		20
Bromomethane	100		95		70-130	5		20
Vinyl chloride	100		107		70-130	7		20
Chloroethane	99		104		70-130	5		20
1,1-Dichloroethene	95		101		70-130	6		20
trans-1,2-Dichloroethene	95		97		70-130	2		20
Trichloroethene	90		93		70-130	3		20
1,2-Dichlorobenzene	89		90		70-130	1		20
1,3-Dichlorobenzene	88		88		70-130	0		20
1,4-Dichlorobenzene	89		91		70-130	2		20
Methyl tert butyl ether	84		86		70-130	2		20
p/m-Xylene	96		98		70-130	2		20
o-Xylene	90		92		70-130	2		20
cis-1,2-Dichloroethene	99		103		70-130	4		20
Dibromomethane	104		105		70-130	1		20
1,2,3-Trichloropropane	79		84		70-130	6		20
Styrene	89		92		70-130	3		20
Dichlorodifluoromethane	99		103		70-130	4		20
Acetone	110		98		70-130	12		20
Carbon disulfide	85		95		70-130	11		20
2-Butanone	101		105		70-130	4		20

## Lab Control Sample Analysis

### Batch Quality Control

Project Name: 300 THIRD STREET

Lab Number: L1020041

Project Number: 04-7590GD2

Report Date: 12/23/10

Parameter	LCS		LCSD		%Recovery Limits	RPD	Qual	RPD Limits
	%Recovery	Qual	%Recovery	Qual				
MCP Volatile Organics - Westborough Lab Associated sample(s): 01-03,05-06,11 Batch: WG448805-1 WG448805-2								
4-Methyl-2-pentanone	95		105		70-130	10		20
2-Hexanone	92		96		70-130	4		20
Bromochloromethane	99		106		70-130	7		20
Tetrahydrofuran	82		94		70-130	14		20
2,2-Dichloropropane	95		101		70-130	6		20
1,2-Dibromoethane	92		92		70-130	0		20
1,3-Dichloropropane	91		94		70-130	3		20
1,1,1,2-Tetrachloroethane	91		96		70-130	5		20
Bromobenzene	88		90		70-130	2		20
n-Butylbenzene	95		94		70-130	1		20
sec-Butylbenzene	90		89		70-130	1		20
tert-Butylbenzene	87		87		70-130	0		20
o-Chlorotoluene	85		84		70-130	1		20
p-Chlorotoluene	85		86		70-130	1		20
1,2-Dibromo-3-chloropropane	<b>68</b>	Q	74		70-130	8		20
Hexachlorobutadiene	92		88		70-130	4		20
Isopropylbenzene	91		91		70-130	0		20
p-Isopropyltoluene	96		94		70-130	2		20
Naphthalene	78		82		70-130	5		20
n-Propylbenzene	88		87		70-130	1		20
1,2,3-Trichlorobenzene	81		86		70-130	6		20

## Lab Control Sample Analysis

Batch Quality Control

**Project Name:** 300 THIRD STREET  
**Project Number:** 04-7590GD2

**Lab Number:** L1020041  
**Report Date:** 12/23/10

Parameter	LCS		LCSD		%Recovery Limits	RPD	Qual	RPD Limits
	%Recovery	Qual	%Recovery	Qual				
MCP Volatile Organics - Westborough Lab Associated sample(s): 01-03,05-06,11 Batch: WG448805-1 WG448805-2								
1,2,4-Trichlorobenzene	87		89		70-130	2		20
1,3,5-Trimethylbenzene	88		87		70-130	1		20
1,2,4-Trimethylbenzene	91		91		70-130	0		20
Ethyl ether	88		89		70-130	1		20
Isopropyl Ether	95		97		70-130	2		20
Ethyl-Tert-Butyl-Ether	89		92		70-130	3		20
Tertiary-Amyl Methyl Ether	93		99		70-130	6		20
1,4-Dioxane	116		114		70-130	2		20

Surrogate	LCS		LCSD		Acceptance Criteria
	%Recovery	Qual	%Recovery	Qual	
1,2-Dichloroethane-d4	95		98		70-130
Toluene-d8	98		95		70-130
4-Bromofluorobenzene	94		92		70-130
Dibromofluoromethane	102		102		70-130



# PETROLEUM HYDROCARBONS

**Project Name:** 300 THIRD STREET  
**Project Number:** 04-7590GD2

**Lab Number:** L1020041  
**Report Date:** 12/23/10

**SAMPLE RESULTS**

Lab ID: L1020041-05  
 Client ID: ENV-8  
 Sample Location: CAMBRIDGE, MA  
 Matrix: Water  
 Analytical Method: 100, VPH-04-1.1  
 Analytical Date: 12/17/10 18:02  
 Analyst: RC

Date Collected: 12/14/10 12:16  
 Date Received: 12/15/10  
 Field Prep: Not Specified

**Quality Control Information**

Condition of sample received: Satisfactory  
 Aqueous Preservative: Laboratory Provided Preserved Container  
 Sample Temperature upon receipt: Received on Ice

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
<b>Volatile Petroleum Hydrocarbons - Westborough Lab</b>						
C5-C8 Aliphatics	ND		ug/l	50.0	--	1
C9-C12 Aliphatics	ND		ug/l	50.0	--	1
C9-C10 Aromatics	ND		ug/l	50.0	--	1
C5-C8 Aliphatics, Adjusted	ND		ug/l	50.0	--	1
C9-C12 Aliphatics, Adjusted	ND		ug/l	50.0	--	1
Benzene	ND		ug/l	2.00	--	1
Toluene	ND		ug/l	2.00	--	1
Ethylbenzene	ND		ug/l	2.00	--	1
p/m-Xylene	ND		ug/l	2.00	--	1
o-Xylene	ND		ug/l	2.00	--	1
Methyl tert butyl ether	ND		ug/l	3.00	--	1
Naphthalene	ND		ug/l	4.00	--	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
2,5-Dibromotoluene-PID	101		70-130
2,5-Dibromotoluene-FID	104		70-130





**Project Name:** 300 THIRD STREET  
**Project Number:** 04-7590GD2

**Lab Number:** L1020041  
**Report Date:** 12/23/10

**SAMPLE RESULTS**

Lab ID: L1020041-06 D  
 Client ID: ENV-9  
 Sample Location: CAMBRIDGE, MA  
 Matrix: Water  
 Analytical Method: 100, VPH-04-1.1  
 Analytical Date: 12/21/10 18:11  
 Analyst: RC

Date Collected: 12/14/10 14:40  
 Date Received: 12/15/10  
 Field Prep: Not Specified

**Quality Control Information**

Condition of sample received: Satisfactory  
 Aqueous Preservative: Laboratory Provided Preserved Container  
 Sample Temperature upon receipt: Received on Ice

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
<b>Volatile Petroleum Hydrocarbons - Westborough Lab</b>						
C5-C8 Aliphatics	ND		ug/l	5000	--	100
C9-C12 Aliphatics	80900		ug/l	5000	--	100
C9-C10 Aromatics	ND		ug/l	5000	--	100
C5-C8 Aliphatics, Adjusted	ND		ug/l	5000	--	100
C9-C12 Aliphatics, Adjusted	40400		ug/l	5000	--	100
Benzene	ND		ug/l	200	--	100
Toluene	2110		ug/l	200	--	100
Ethylbenzene	7050		ug/l	200	--	100
p/m-Xylene	26000		ug/l	200	--	100
o-Xylene	7530		ug/l	200	--	100
Methyl tert butyl ether	ND		ug/l	300	--	100
Naphthalene	ND		ug/l	400	--	100

Surrogate	% Recovery	Qualifier	Acceptance Criteria
2,5-Dibromotoluene-PID	104		70-130
2,5-Dibromotoluene-FID	109		70-130



**Project Name:** 300 THIRD STREET  
**Project Number:** 04-7590GD2

**Lab Number:** L1020041  
**Report Date:** 12/23/10

**SAMPLE RESULTS**

Lab ID: L1020041-08 D  
 Client ID: MW-60  
 Sample Location: CAMBRIDGE, MA  
 Matrix: Water  
 Analytical Method: 100, VPH-04-1.1  
 Analytical Date: 12/21/10 01:42  
 Analyst: RC

Date Collected: 12/14/10 12:21  
 Date Received: 12/15/10  
 Field Prep: Not Specified

**Quality Control Information**

Condition of sample received: Satisfactory  
 Aqueous Preservative: Laboratory Provided Preserved Container  
 Sample Temperature upon receipt: Received on Ice

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
<b>Volatile Petroleum Hydrocarbons - Westborough Lab</b>						
C5-C8 Aliphatics	2930		ug/l	500	--	10
C9-C12 Aliphatics	774		ug/l	500	--	10
C9-C10 Aromatics	ND		ug/l	500	--	10
C5-C8 Aliphatics, Adjusted	1290		ug/l	500	--	10
C9-C12 Aliphatics, Adjusted	549		ug/l	500	--	10
Benzene	1640		ug/l	20.0	--	10
Toluene	ND		ug/l	20.0	--	10
Ethylbenzene	168		ug/l	20.0	--	10
p/m-Xylene	34.9		ug/l	20.0	--	10
o-Xylene	22.5		ug/l	20.0	--	10
Methyl tert butyl ether	ND		ug/l	30.0	--	10
Naphthalene	ND		ug/l	40.0	--	10

Surrogate	% Recovery	Qualifier	Acceptance Criteria
2,5-Dibromotoluene-PID	98		70-130
2,5-Dibromotoluene-FID	105		70-130



**Project Name:** 300 THIRD STREET  
**Project Number:** 04-7590GD2

**Lab Number:** L1020041  
**Report Date:** 12/23/10

**SAMPLE RESULTS**

Lab ID: L1020041-09  
 Client ID: B2  
 Sample Location: CAMBRIDGE, MA  
 Matrix: Water  
 Analytical Method: 100, VPH-04-1.1  
 Analytical Date: 12/17/10 20:32  
 Analyst: RC

Date Collected: 12/14/10 10:29  
 Date Received: 12/15/10  
 Field Prep: Not Specified

**Quality Control Information**

Condition of sample received: Satisfactory  
 Aqueous Preservative: Laboratory Provided Preserved Container  
 Sample Temperature upon receipt: Received on Ice

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
<b>Volatile Petroleum Hydrocarbons - Westborough Lab</b>						
C5-C8 Aliphatics	308		ug/l	50.0	--	1
C9-C12 Aliphatics	313		ug/l	50.0	--	1
C9-C10 Aromatics	ND		ug/l	50.0	--	1
C5-C8 Aliphatics, Adjusted	133		ug/l	50.0	--	1
C9-C12 Aliphatics, Adjusted	176		ug/l	50.0	--	1
Benzene	168		ug/l	2.00	--	1
Toluene	7.40		ug/l	2.00	--	1
Ethylbenzene	16.3		ug/l	2.00	--	1
p/m-Xylene	90.0		ug/l	2.00	--	1
o-Xylene	30.7		ug/l	2.00	--	1
Methyl tert butyl ether	ND		ug/l	3.00	--	1
Naphthalene	ND		ug/l	4.00	--	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
2,5-Dibromotoluene-PID	104		70-130
2,5-Dibromotoluene-FID	109		70-130



**Project Name:** 300 THIRD STREET  
**Project Number:** 04-7590GD2

**Lab Number:** L1020041  
**Report Date:** 12/23/10

**SAMPLE RESULTS**

Lab ID: L1020041-10 D  
 Client ID: B201  
 Sample Location: CAMBRIDGE, MA  
 Matrix: Water  
 Analytical Method: 100, VPH-04-1.1  
 Analytical Date: 12/21/10 19:02  
 Analyst: RC

Date Collected: 12/14/10 09:20  
 Date Received: 12/15/10  
 Field Prep: Not Specified

**Quality Control Information**

Condition of sample received: Satisfactory  
 Aqueous Preservative: Laboratory Provided Preserved Container  
 Sample Temperature upon receipt: Received on Ice

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
<b>Volatile Petroleum Hydrocarbons - Westborough Lab</b>						
C5-C8 Aliphatics	4040		ug/l	2500	--	50
C9-C12 Aliphatics	21200		ug/l	2500	--	50
C9-C10 Aromatics	ND		ug/l	2500	--	50
C5-C8 Aliphatics, Adjusted	ND		ug/l	2500	--	50
C9-C12 Aliphatics, Adjusted	11700		ug/l	2500	--	50
Benzene	1040		ug/l	100	--	50
Toluene	1170		ug/l	100	--	50
Ethylbenzene	1700		ug/l	100	--	50
p/m-Xylene	5670		ug/l	100	--	50
o-Xylene	2210		ug/l	100	--	50
Methyl tert butyl ether	ND		ug/l	150	--	50
Naphthalene	ND		ug/l	200	--	50

Surrogate	% Recovery	Qualifier	Acceptance Criteria
2,5-Dibromotoluene-PID	104		70-130
2,5-Dibromotoluene-FID	110		70-130



**Project Name:** 300 THIRD STREET  
**Project Number:** 04-7590GD2

**Lab Number:** L1020041  
**Report Date:** 12/23/10

**SAMPLE RESULTS**

Lab ID: L1020041-11 D  
 Client ID: ENV-999  
 Sample Location: CAMBRIDGE, MA  
 Matrix: Water  
 Analytical Method: 100, VPH-04-1.1  
 Analytical Date: 12/21/10 03:22  
 Analyst: RC

Date Collected: 12/14/10 14:40  
 Date Received: 12/15/10  
 Field Prep: Not Specified

**Quality Control Information**

Condition of sample received: Satisfactory  
 Aqueous Preservative: Laboratory Provided Preserved Container  
 Sample Temperature upon receipt: Received on Ice

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
<b>Volatile Petroleum Hydrocarbons - Westborough Lab</b>						
C5-C8 Aliphatics	5010		ug/l	5000	--	10
C9-C12 Aliphatics	95900		ug/l	5000	--	10
C9-C10 Aromatics	ND		ug/l	5000	--	10
C5-C8 Aliphatics, Adjusted	ND		ug/l	5000	--	10
C9-C12 Aliphatics, Adjusted	48000		ug/l	5000	--	10
Benzene	ND		ug/l	200	--	10
Toluene	2620		ug/l	200	--	10
Ethylbenzene	8050		ug/l	200	--	10
p/m-Xylene	30800		ug/l	200	--	10
o-Xylene	9050		ug/l	200	--	10
Methyl tert butyl ether	ND		ug/l	300	--	10
Naphthalene	ND		ug/l	400	--	10

Surrogate	% Recovery	Qualifier	Acceptance Criteria
2,5-Dibromotoluene-PID	105		70-130
2,5-Dibromotoluene-FID	110		70-130



**Project Name:** 300 THIRD STREET  
**Project Number:** 04-7590GD2

**Lab Number:** L1020041  
**Report Date:** 12/23/10

**Method Blank Analysis**  
**Batch Quality Control**

Analytical Method: 100, VPH-04-1.1  
 Analytical Date: 12/17/10 13:01  
 Analyst: RC

Parameter	Result	Qualifier	Units	RL	MDL
Volatile Petroleum Hydrocarbons - Westborough Lab for sample(s): 02,04-05,07,09 Batch: WG448175-3					
C5-C8 Aliphatics	ND		ug/l	50.0	--
C9-C12 Aliphatics	ND		ug/l	50.0	--
C9-C10 Aromatics	ND		ug/l	50.0	--
C5-C8 Aliphatics, Adjusted	ND		ug/l	50.0	--
C9-C12 Aliphatics, Adjusted	ND		ug/l	50.0	--
Benzene	ND		ug/l	2.00	--
Toluene	ND		ug/l	2.00	--
Ethylbenzene	ND		ug/l	2.00	--
p/m-Xylene	ND		ug/l	2.00	--
o-Xylene	ND		ug/l	2.00	--
Methyl tert butyl ether	ND		ug/l	3.00	--
Naphthalene	ND		ug/l	4.00	--

Surrogate	%Recovery	Qualifier	Acceptance Criteria
2,5-Dibromotoluene-PID	106		70-130
2,5-Dibromotoluene-FID	110		70-130

**Project Name:** 300 THIRD STREET  
**Project Number:** 04-7590GD2

**Lab Number:** L1020041  
**Report Date:** 12/23/10

**Method Blank Analysis**  
**Batch Quality Control**

Analytical Method: 100, VPH-04-1.1  
 Analytical Date: 12/20/10 12:54  
 Analyst: RC

Parameter	Result	Qualifier	Units	RL	MDL
Volatile Petroleum Hydrocarbons - Westborough Lab for sample(s): 08,11 Batch: WG448433-3					
C5-C8 Aliphatics	ND		ug/l	50.0	--
C9-C12 Aliphatics	ND		ug/l	50.0	--
C9-C10 Aromatics	ND		ug/l	50.0	--
C5-C8 Aliphatics, Adjusted	ND		ug/l	50.0	--
C9-C12 Aliphatics, Adjusted	ND		ug/l	50.0	--
Benzene	ND		ug/l	2.00	--
Toluene	ND		ug/l	2.00	--
Ethylbenzene	ND		ug/l	2.00	--
p/m-Xylene	ND		ug/l	2.00	--
o-Xylene	ND		ug/l	2.00	--
Methyl tert butyl ether	ND		ug/l	3.00	--
Naphthalene	ND		ug/l	4.00	--

Surrogate	%Recovery	Qualifier	Acceptance Criteria
2,5-Dibromotoluene-PID	105		70-130
2,5-Dibromotoluene-FID	111		70-130

**Project Name:** 300 THIRD STREET  
**Project Number:** 04-7590GD2

**Lab Number:** L1020041  
**Report Date:** 12/23/10

**Method Blank Analysis  
Batch Quality Control**

Analytical Method: 100, VPH-04-1.1  
Analytical Date: 12/21/10 11:36  
Analyst: RC

Parameter	Result	Qualifier	Units	RL	MDL
Volatile Petroleum Hydrocarbons - Westborough Lab for sample(s): 06,10 Batch: WG448708-3					
C5-C8 Aliphatics	ND		ug/l	50.0	--
C9-C12 Aliphatics	ND		ug/l	50.0	--
C9-C10 Aromatics	ND		ug/l	50.0	--
C5-C8 Aliphatics, Adjusted	ND		ug/l	50.0	--
C9-C12 Aliphatics, Adjusted	ND		ug/l	50.0	--
Benzene	ND		ug/l	2.00	--
Toluene	ND		ug/l	2.00	--
Ethylbenzene	ND		ug/l	2.00	--
p/m-Xylene	ND		ug/l	2.00	--
o-Xylene	ND		ug/l	2.00	--
Methyl tert butyl ether	ND		ug/l	3.00	--
Naphthalene	ND		ug/l	4.00	--

Surrogate	%Recovery	Qualifier	Acceptance Criteria
2,5-Dibromotoluene-PID	103		70-130
2,5-Dibromotoluene-FID	109		70-130



## Lab Control Sample Analysis

### Batch Quality Control

Project Name: 300 THIRD STREET

Project Number: 04-7590GD2

Lab Number: L1020041

Report Date: 12/23/10

Parameter	LCS		LCSD		%Recovery Limits	RPD	Qual	RPD Limits
	%Recovery	Qual	%Recovery	Qual				
Volatile Petroleum Hydrocarbons - Westborough Lab Associated sample(s): 02,04-05,07,09 Batch: WG448175-1 WG448175-2								
C5-C8 Aliphatics	110		101		70-130	9		25
C9-C12 Aliphatics	95		91		70-130	4		25
C9-C10 Aromatics	103		97		70-130	6		25
Benzene	105		97		70-130	8		25
Toluene	105		97		70-130	8		25
Ethylbenzene	104		97		70-130	7		25
p/m-Xylene	103		96		70-130	7		25
o-Xylene	105		99		70-130	6		25
Methyl tert butyl ether	107		99		70-130	8		25
Naphthalene	98		94		70-130	4		25
1,2,4-Trimethylbenzene	104		99		70-130	5		25
Pentane	109		97		70-130	12		25
2-Methylpentane	110		101		70-130	9		25
2,2,4-Trimethylpentane	110		102		70-130	8		25
n-Nonane	98		93		30-130	6		25
n-Decane	100		97		70-130	3		25
n-Butylcyclohexane	99		93		70-130	6		25

## Lab Control Sample Analysis

### Batch Quality Control

Project Name: 300 THIRD STREET

Lab Number: L1020041

Project Number: 04-7590GD2

Report Date: 12/23/10

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
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Volatile Petroleum Hydrocarbons - Westborough Lab Associated sample(s): 02,04-05,07,09 Batch: WG448175-1 WG448175-2

Surrogate	LCS %Recovery	Qual	LCSD %Recovery	Qual	Acceptance Criteria
2,5-Dibromotoluene-PID	98		93		70-130
2,5-Dibromotoluene-FID	100		95		70-130

Volatile Petroleum Hydrocarbons - Westborough Lab Associated sample(s): 08,11 Batch: WG448433-1 WG448433-2

C5-C8 Aliphatics	105		104		70-130	1	25
C9-C12 Aliphatics	94		93		70-130	2	25
C9-C10 Aromatics	97		99		70-130	2	25
Benzene	99		98		70-130	1	25
Toluene	99		100		70-130	1	25
Ethylbenzene	100		101		70-130	1	25
p/m-Xylene	99		99		70-130	1	25
o-Xylene	101		102		70-130	1	25
Methyl tert butyl ether	102		101		70-130	1	25

## Lab Control Sample Analysis

### Batch Quality Control

Project Name: 300 THIRD STREET

Lab Number: L1020041

Project Number: 04-7590GD2

Report Date: 12/23/10

Parameter	LCS		LCSD		%Recovery Limits	RPD	Qual	RPD Limits
	%Recovery	Qual	%Recovery	Qual				
Volatile Petroleum Hydrocarbons - Westborough Lab Associated sample(s): 08,11 Batch: WG448433-1 WG448433-2								
Naphthalene	95		97		70-130	2		25
1,2,4-Trimethylbenzene	99		100		70-130	1		25
Pentane	103		99		70-130	4		25
2-Methylpentane	107		105		70-130	2		25
2,2,4-Trimethylpentane	108		106		70-130	2		25
n-Nonane	98		95		30-130	3		25
n-Decane	101		98		70-130	3		25
n-Butylcyclohexane	98		93		70-130	4		25

Surrogate	LCS		LCSD		Acceptance Criteria
	%Recovery	Qual	%Recovery	Qual	
2,5-Dibromotoluene-PID	98		96		70-130
2,5-Dibromotoluene-FID	102		100		70-130

## Lab Control Sample Analysis

### Batch Quality Control

Project Name: 300 THIRD STREET

Project Number: 04-7590GD2

Lab Number: L1020041

Report Date: 12/23/10

Parameter	LCS		LCSD		%Recovery Limits	RPD	Qual	RPD Limits
	%Recovery	Qual	%Recovery	Qual				
Volatile Petroleum Hydrocarbons - Westborough Lab Associated sample(s): 06,10 Batch: WG448708-1 WG448708-2								
C5-C8 Aliphatics	103		98		70-130	5		25
C9-C12 Aliphatics	90		92		70-130	3		25
C9-C10 Aromatics	101		97		70-130	5		25
Benzene	104		94		70-130	10		25
Toluene	102		97		70-130	5		25
Ethylbenzene	102		98		70-130	4		25
p/m-Xylene	102		97		70-130	5		25
o-Xylene	103		99		70-130	4		25
Methyl tert butyl ether	104		96		70-130	9		25
Naphthalene	90		91		70-130	1		25
1,2,4-Trimethylbenzene	103		98		70-130	5		25
Pentane	95		88		70-130	8		25
2-Methylpentane	104		99		70-130	5		25
2,2,4-Trimethylpentane	107		103		70-130	4		25
n-Nonane	94		95		30-130	1		25
n-Decane	93		97		70-130	4		25
n-Butylcyclohexane	94		94		70-130	1		25

## Lab Control Sample Analysis

Batch Quality Control

**Project Name:** 300 THIRD STREET  
**Project Number:** 04-7590GD2

**Lab Number:** L1020041  
**Report Date:** 12/23/10

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
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Volatile Petroleum Hydrocarbons - Westborough Lab Associated sample(s): 06,10 Batch: WG448708-1 WG448708-2

Surrogate	LCS %Recovery	Qual	LCSD %Recovery	Qual	Acceptance Criteria
2,5-Dibromotoluene-PID	88		90		70-130
2,5-Dibromotoluene-FID	92		95		70-130

Project Name: 300 THIRD STREET

Lab Number: L1020041

Project Number: 04-7590GD2

Report Date: 12/23/10

## Sample Receipt and Container Information

Were project specific reporting limits specified? YES

Reagent H2O Preserved Vials Frozen on: NA

## Cooler Information Custody Seal

## Cooler

A Absent

## Container Information

Container ID	Container Type	Cooler	pH	Temp deg C	Pres	Seal	Analysis(*)
L1020041-01A	Vial HCl preserved	A	N/A	3	Y	Absent	MCP-8260-10(14)
L1020041-01B	Vial HCl preserved	A	N/A	3	Y	Absent	MCP-8260-10(14)
L1020041-02A	Vial HCl preserved	A	N/A	3	Y	Absent	MCP-8260-10(14)
L1020041-02B	Vial HCl preserved	A	N/A	3	Y	Absent	MCP-8260-10(14)
L1020041-02C	Vial HCl preserved	A	N/A	3	Y	Absent	VPH-DELUX-10(14)
L1020041-02D	Vial HCl preserved	A	N/A	3	Y	Absent	VPH-DELUX-10(14)
L1020041-03A	Vial HCl preserved	A	N/A	3	Y	Absent	MCP-8260-10(14)
L1020041-03B	Vial HCl preserved	A	N/A	3	Y	Absent	MCP-8260-10(14)
L1020041-04A	Vial HCl preserved	A	N/A	3	Y	Absent	MCP-8260-10(14)
L1020041-04B	Vial HCl preserved	A	N/A	3	Y	Absent	MCP-8260-10(14)
L1020041-04C	Vial HCl preserved	A	N/A	3	Y	Absent	VPH-DELUX-10(14)
L1020041-04D	Vial HCl preserved	A	N/A	3	Y	Absent	VPH-DELUX-10(14)
L1020041-05A	Vial HCl preserved	A	N/A	3	Y	Absent	MCP-8260-10(14)
L1020041-05B	Vial HCl preserved	A	N/A	3	Y	Absent	MCP-8260-10(14)
L1020041-05C	Vial HCl preserved	A	N/A	3	Y	Absent	VPH-DELUX-10(14)
L1020041-05D	Vial HCl preserved	A	N/A	3	Y	Absent	VPH-DELUX-10(14)
L1020041-06A	Vial HCl preserved	A	N/A	3	Y	Absent	MCP-8260-10(14)
L1020041-06B	Vial HCl preserved	A	N/A	3	Y	Absent	MCP-8260-10(14)
L1020041-06C	Vial HCl preserved	A	N/A	3	Y	Absent	VPH-DELUX-10(14)
L1020041-06D	Vial HCl preserved	A	N/A	3	Y	Absent	VPH-DELUX-10(14)
L1020041-07C	Vial HCl preserved	A	N/A	3	Y	Absent	VPH-DELUX-10(14)
L1020041-07D	Vial HCl preserved	A	N/A	3	Y	Absent	VPH-DELUX-10(14)
L1020041-08C	Vial HCl preserved	A	N/A	3	Y	Absent	VPH-DELUX-10(14)
L1020041-08D	Vial HCl preserved	A	N/A	3	Y	Absent	VPH-DELUX-10(14)
L1020041-09C	Vial HCl preserved	A	N/A	3	Y	Absent	VPH-DELUX-10(14)
L1020041-09D	Vial HCl preserved	A	N/A	3	Y	Absent	VPH-DELUX-10(14)
L1020041-10C	Vial HCl preserved	A	N/A	3	Y	Absent	VPH-DELUX-10(14)

\*Values in parentheses indicate holding time in days



**Project Name:** 300 THIRD STREET**Project Number:** 04-7590GD2**Lab Number:** L1020041**Report Date:** 12/23/10**Container Information**

<b>Container ID</b>	<b>Container Type</b>	<b>Cooler</b>	<b>pH</b>	<b>Temp deg C</b>	<b>Pres</b>	<b>Seal</b>	<b>Analysis(*)</b>
L1020041-10D	Vial HCl preserved	A	N/A	3	Y	Absent	VPH-DELUX-10(14)
L1020041-11A	Vial HCl preserved	A	N/A	3	Y	Absent	MCP-8260-10(14)
L1020041-11B	Vial HCl preserved	A	N/A	3	Y	Absent	MCP-8260-10(14)
L1020041-11C	Vial HCl preserved	A	N/A	3	Y	Absent	VPH-DELUX-10(14)
L1020041-11D	Vial HCl preserved	A	N/A	3	Y	Absent	VPH-DELUX-10(14)
L1020041-12A	Vial HCl preserved	A	N/A	3	Y	Absent	MCP-8260-10(14)

\*Values in parentheses indicate holding time in days



**Project Name:** 300 THIRD STREET  
**Project Number:** 04-7590GD2

**Lab Number:** L1020041  
**Report Date:** 12/23/10

## GLOSSARY

### Acronyms

- EPA** - Environmental Protection Agency.
- LCS** - Laboratory Control Sample: A sample matrix, free from the analytes of interest, spiked with verified known amounts of analytes or a material containing known and verified amounts of analytes.
- LCS D** - Laboratory Control Sample Duplicate: Refer to LCS.
- 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.
- MS D** - 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.

### 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.
- 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.
- H** - The analysis of pH was performed beyond the regulatory-required holding time of 15 minutes from the time of sample collection.
- I** - The RPD between the results for the two columns exceeds the method-specified criteria; however, the lower value has been reported due to obvious interference.
- 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. 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.

Report Format: Data Usability Report





**Project Name:** 300 THIRD STREET  
**Project Number:** 04-7590GD2

**Lab Number:** L1020041  
**Report Date:** 12/23/10

*Data Qualifiers*

- 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:** 300 THIRD STREET  
**Project Number:** 04-7590GD2

**Lab Number:** L1020041  
**Report Date:** 12/23/10

## REFERENCES

- 97 EPA Test Methods (SW-846) with QC Requirements & Performance Standards for the Analysis of EPA SW-846 Methods under the Massachusetts Contingency Plan, WSC-CAM-IIA, IIB, IIIA, IIIB, IIIC, IIID, VA, VB, VC, VIA, VIB, VIIIA and VIIIB, July 2010.
- 100 Method for the Determination of Volatile Petroleum Hydrocarbons (VPH), MassDEP, May 2004, Revision 1.1 with QC Requirements & Performance Standards for the Analysis of VPH under the Massachusetts Contingency Plan, WSC-CAM-IVA, July 2010.

## LIMITATION OF LIABILITIES

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

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



## Certificate/Approval Program Summary

Last revised July 19, 2010 - Westboro Facility

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

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

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

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

*Solid Waste/Soil* (Inorganic Parameters: pH, Sulfide, Aluminum, Antimony, Arsenic, Barium, Beryllium, Boron, Cadmium, Calcium, Chromium, Hexavalent Chromium, Cobalt, Copper, Iron, Lead, Magnesium, Manganese, Mercury, Molybdenum, Nickel, Potassium, Selenium, Silver, Sodium, Thallium, Tin, Vanadium, Zinc, Total Cyanide, Ignitability, Phenolics, Corrosivity, TCLP Leach (1311), SPLP Leach (1312 metals only), Reactivity. Organic Parameters: PCBs, PCBs in Oil, Organochlorine Pesticides, Technical Chlordane, Toxaphene, Extractable Petroleum Hydrocarbons (ETPH), MA-EPH, MA-VPH, Dicamba, 2,4-D, 2,4,5-T, 2,4,5-TP(Silvex), Volatile Organics, Acid Extractables (Phenols), 3,3'-Dichlorobenzidine, Phthalates, Nitrosamines, Nitroaromatics & Cyclic Ketones, PAHs, Haloethers, Chlorinated Hydrocarbons. )

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

*Drinking Water* (Inorganic Parameters: SM9215B, 9222D, 9223B, EPA 180.1, 300.0, 353.2, SM2130B, 2320B, 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, Lachat 10-107-06-1-B, SM2320B, 2340B, 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, 4500NH3-H, 4500NO3-F, 4500P-B.5, 4500P-E, 5210B, 5220D, 5310C, EPA 200.7, 200.8, 245.1. Organic Parameters: 608, 624, ME DRO, ME GRO, MA EPH, MA VPH.)

*Solid Waste/Soil* (Organic Parameters: ME DRO, ME GRO, MA EPH, MA VPH.)

### 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)

353.2 for: Nitrate-N, Nitrite-N; SM4500NO3-F, 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), 314.0, 332.

Microbiology Parameters: SM9215B; ENZ. SUB. SM9223; 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,Cr,Co,Cu,Fe,Pb,Mn,Mo,Ni,Se,Ag,Sr,Ti,Tl, V,Zn,Ca,Mg,Na,K)

245.1, SM4500H,B, EPA 120.1, SM2510B, 2540C, 2540B, 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-B,C-Titr, 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, SM4500-CN-CE, SM2540D.

Organic Parameters: (EPA 624 for Volatile Halocarbons, Volatile Aromatics)

(608 for: Chlordane, Aldrin, Dieldrin, DDD, DDE, DDT, Heptachlor, Heptachlor Epoxide, PCBs-Water), EPA 625 for SVOC Acid Extractables and SVOC Base/Neutral Extractables, 600/4-81-045-PCB-Oil

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

*Drinking Water (Inorganic Parameters:* SM6215B, 9222B, 9223B Colilert, EPA 200.7, 200.8, 245.2, 120.1, 300.0, 314.0, SM4500CN-E, 4500H+B, 4500NO3-F, 2320B, 2510B, 2540C, 4500F-C, 5310C, 2120B, EPA 331.0. Organic Parameters: 504.1, 524.2, SM6251B.)

*Non-Potable Water (Inorganic Parameters:* SM9222D, 9221B, 9222B, 9221E-EC, EPA 200.7, 200.8, 245.1, 245.2, SW-846 6010B, 6020, 7196A, 7470A, SM3500-CR-D, EPA 120.1, 300.0, 350.1, 351.1, 353.2, 420.1, 1664A, SW-846 9010, 9030, 9040B, SM426C, SM2310B, 2540B, 2540D, 4500H+B, 4500NH3-H, 4500NH3-E, 4500NO2-B, 4500P-E, 4500-S2-D, 5210B, 2320B, 2540C, 4500F-C, 5310C, 5540C, LACHAT 10-117-07-1-B, LACHAT 10-107-06-1-B, LACHAT 10-107-04-1-C, LACHAT 10-107-04-1-J, LACHAT 10-117-07-1-A, SM4500CL-E, LACHAT 10-204-00-1-A, LACHAT 10-107-06-2-D. Organic Parameters: SW-846 3005A, 3015A, 3510C, 5030B, 8021B, 8260B, 8270C, 8330, EPA 624, 625, 608, SW-846 8082, 8081A.)

*Solid & Chemical Materials (Inorganic Parameters:* SW-846 6010B, 7196A, 7471A, 7.3.3.2, 7.3.4.2, 1010, 1030, 9010, 9012A, 9014, 9030B, 9040, 9045C, 9050C, 1311, 3005A, 3050B, 3051A. Organic Parameters: SW-846 3540C, 3545, 3580A, 5030B, 5035, 8021B, 8260B, 8270C, 8330, 8151A, 8082, 8081A.)

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

*Drinking Water (Inorganic Parameters:* SM9222B, 9221E, 9223B, 9215B, 4500NO3-F, 4500F-C, EPA 300.0, 200.7, 2540C, 2320B, 314.0, SM2120B, 2510B, 5310C, SM4500H-B, EPA 200.8, 245.2. Organic Parameters: 504.1, SM6251B, 524.2.)

*Non-Potable Water (Inorganic Parameters:* SM5210B, EPA 410.4, SM5220D, 4500CI-D, EPA 300.0, SM2120B, SM4500F-BC, EPA 200.7, 351.1, LACHAT 10-107-06-2-D, EPA 353.2, SM4500NO3-F, 4500NO2-B, EPA 1664A, SM5310B, C or D, 4500-PE, EPA 420.1, SM4500P-B5+E, 2540B, 2540C, 2540D, EPA 120.1, SM2510B, SM15 426C, SM9221CE, 9222D, 9221B, 9222B, 9215B, 2310B, 2320B, 4500NH3-H, 4500-S D, EPA 350.1, SM5210B, SW-846 3015, 6020, 7470A, 5540C, 4500H-B, EPA 200.8, SM3500Cr-D, EPA 245.1, 245.2, SW-846 9040B, 3005A, EPA 6010B, 7196A, SW-846 9010B, 9030B. Organic Parameters: SW-846 8260B, 8270C, 3510C, EPA 608, 624, 625, SW-846 5030B, 8021B, 8081A, 8082, 8151A, 8330, NJ OQA-QAM-025 Rev.7.)

*Solid & Chemical Materials (Inorganic Parameters:* SW-846 9040B, 3005A, 6010B, 7196A, 5030B, 9010B, 9030B, 1030, 1311, 3050B, 3051, 7471A, 9014, 9012A, 9045C, 9050A, 9065. Organic Parameters: SW-846 8021B, 8081A, 8082, 8151A, 8330, 8260B, 8270C, 1311, 1312, 3540C, 3545, 3550B, 3580A, 5035L, 5035H, NJ OQA-QAM-025 Rev.7.)

**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 314.0, 332.0, SM2320B, EPA 300.0, SM2120B, 4500CN-E, 4500F-C, 4500H-B, 4500NO3-F, 2540C, EPA 120.1, SM 2510B. Organic Parameters: EPA 524.2, 504.1.)

*Non-Potable Water (Inorganic Parameters:* SM9221E, 9222D, 9221B, 9222B, 9215B, 5210B, EPA 410.4, SM5220D, 2310B-4a, 2320B, EPA 200.7, 300.0, LACHAT 10-117-07-1A or B, SM4500CI-E, 4500F-C, SM15 426C, EPA 350.1, LACHAT 10-107-06-1-B, SM4500NH3-H, EPA 351.1, LACHAT 10-107-06-2, EPA 353.2, LACHAT 10-107-041-C, SM4500-NO3-F, 4500-NO2-B, 4500P-E, 2540C, 2540B, 2540D, EPA 200.8, EPA 6010B, 6020, EPA 7196A, SM3500Cr-D, EPA 245.1, 245.2, 7470A, SM2120B, SM4500-CN-E LACHAT 10-204-00-1-A, EPA 9040B, SM4500-HB, EPA 1664A, SM5310C, EPA 420.1, SM14 510C, EPA 120.1, SM2510B, SM4500S-D, SM5540C, EPA 3005A, 3015. Organic Parameters: EPA 624, 8260B, 8270C, 625, 608, 8081A, 8151A, 8330, 8082, EPA 3510C, 5030B, 9010B, 9030B.)

*Solid & Hazardous Waste (Inorganic Parameters:* 1010, 1030, SW-846 Ch 7 Sec 7.3, EPA 6010B, 7196A, 7471A, 9012A, 9014, 9040B, 9045C, 9065, 9050, EPA 1311, 1312, 3005A, 3050B, 9010B, 9030B. Organic Parameters: EPA 8260B, 8270C, 8081A, 8151A, 8330, 8082, 3540C, 3545, 3546, 3580, 5030B, 5035.)

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

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

*Non-Potable Water (Organic Parameters:* EPA 3510C, 5030B, 625, 624. 608, 8081A, 8082, 8151A, 8260B, 8270C, 8330)

*Solid & Hazardous Waste (Inorganic Parameters:* EPA 1010, 1030, 1311, 3050B, 3051, 6010B, EPA 7.3.3.2, EPA 7.3.4.2, 7196A, 7471A, 9010B, 9012A, 9014, 9040B, 9045C, 9050, 9065. Organic Parameters: 3540C, 3545, 3580A, 5035, 8021B, 8081A, 8082, 8151A, 8260B, 8270C, 8330)

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

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

Refer to NY-DOH Certificate for Potable and Non-Potable Water.

**Texas Commission on Environmental Quality Certificate/Lab ID: T104704476-09-1. NELAP Accredited.**

*Non-Potable Water (Inorganic Parameters: EPA 120.1, 1664, 200.7, 200.8, 245.1, 245.2, 300.0, 350.1, 351.1, 353.2, 376.2, 410.4, 420.1, 6010, 6020, 7196, 7470, 9040, SM 2120B, 2310B, 2320B, 2510B, 2540B, 2540C, 2540D, 426C, 4500CL-E, 4500CN-E, 4500F-C, 4500H+B, 4500NH3-H, 4500NO2B, 4500P-E, 4500 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.)*

**Department of Defense Certificate/Lab ID: L2217.**

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

*Non-Potable Water (Inorganic Parameters: EPA 200.7, 200.8, 6010B, 6020, 245.1, 245.2, 7470A, 9040B, 300.0, 9251, 9038, 350.1, 353.2, 351.1, 120.1, 9050A, 410.4, 9060, 1664, 420.1, LACHAT 10-107-06-1-B, SM 4500CN-E, 4500H-B, 4500CL-E, 4500F-BC, 4500SO4-E, 426C, 4500NH3-B, 4500NH3-H, 4500NO3-F, 4500NO2-B, 4500Norg-C, 4500PE, 2510B, 5540C, 5220D, 5310C, 2540B, 2540C, 2540D, 510C, 4500S2-AD, 3005A, 3015, 9010B, 9030B. Organic Parameters: EPA 8260B, 8270C, 8330, 625, 8082, 8151A, 8081A, 3510C, 5030B, MassDEP EPH, MassDEP VPH.)*

*Solid & Hazardous Waste (Inorganic Parameters: EPA 200.7, 6010B, 7471A, 9040B, 9045C, 9065, 420.1, 9012A, 6860, 1311, 1312, 3050B, 9030B, 3051, 9010B, 3540C, SM 510ABC, 4500CN-CE, 2540G, SW-846 7.3, Organic Parameters: EPA 8260B, 8270C, 8330, 8082, 8081A, 8151A, 3545, 3546, 3580, 5035, MassDEP EPH, MassDEP VPH.)*

**Analytes Not Accredited by NELAP**

Certification is not available by NELAP for the following analytes: **EPA 8260B:** Freon-113, 1,2,4,5-Tetramethylbenzene, 4-Ethyltoluene. **EPA 8330A:** PETN, Picric Acid, Nitroglycerine, 2,6-DANT, 2,4-DANT. **EPA 8270C:** Methyl naphthalene, Dimethyl naphthalene, Total Methylnaphthalenes, Total Dimethylnaphthalenes, 1,4-Diphenylhydrazine (Azobenzene). **EPA 625:** 4-Chloroaniline. **EPA 350.1** for Ammonia in a Soil matrix.



# CHAIN OF CUSTODY

WESTBORO, MA  
 TEL: 508-899-9220  
 FAX: 508-899-9193

MANSHFIELD, MA  
 TEL: 508-822-9200  
 FAX: 508-822-3292

**Client Information**

Client: ENVIRON  
 Address: 8 Hollis Street  
Boston, MA 01450

Phone: 978-449-4325  
 Fax: 978-449-8225

Email: YoungEnvironmental.com

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

**Project Information**

Project Name: 300 Thruway Street  
 Project Location: Cambridge, MA  
 Project #: 04-75906D2  
 Project Manager: Tim Young  
 ALPHA Quote #:

**Turn-Around Time**

Standard  RUSH (only confirmed if pre-approved)  
 Date Due: \_\_\_\_\_ Time: \_\_\_\_\_

**Report Information - Data Deliverables**

Date Rec'd in Lab: 12/19/10  
 FAX  EMAIL  
 ADEx  Add'l Deliverables

**Billing Information**

ALPHA Job #: W020041  
 Same as Client info  PO #:

**Regulatory Requirements/Report Limits**

State/Fed Program Mass DEP Criteria  
**MA MCP PRESUMPTIVE CERTAINTY - CT REASONABLE CONFIDENCE PROTO**  
GW-112/3

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

ALPHA Lab ID (Lab Use Only)	Sample ID	Collection		Sample Matrix	Sampler's Initials
		Date	Time		

8041	ENV-1	12/14/10	0930	GW	NB	X
	ENV-2	12/14/10	1000	GW	NB	X
	ENV-3	12/14/10	1058	GW	NB	X
	ENV-4	12/14/10	0946	GW	NB	X
	ENV-8	12/14/10	1216	GW	NB	X
	ENV-9	12/14/10	1440	GW	NB	X
	ENV-10	12/14/10	1409	GW	MSC	X
	MAN-60	12/14/10	1221	GW	MSC	X
	B2	12/14/10	1029	GW	MSC	X
	B201	12/14/10	0920	GW	MSC	X

ANALYSIS	DATE	TIME	INITIALS
MCP-8260			VPH

**SAMPLE HANDLING**  
 Filtration \_\_\_\_\_  
 Done  
 Not needed  
 Lab to do  
 Preservation  
 Lab to do  
 (Please specify below)

PLEASE ANSWER QUESTIONS ABOVE!

IS YOUR PROJECT  
 MA MCP or CT RCP?

Requested By: \_\_\_\_\_  
 Date/Time: \_\_\_\_\_

Container Type \_\_\_\_\_  
 Preservative \_\_\_\_\_

Received By: \_\_\_\_\_  
 Date/Time: \_\_\_\_\_

Received By: \_\_\_\_\_  
 Date/Time: \_\_\_\_\_

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



# CHAIN OF CUSTODY

Page 2 of 2

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

MANSFIELD, MA  
TEL: 508-822-9200  
FAX: 508-822-3288

### Client Information

Client: ENVIRON  
Address: 8 Hollis Street  
Groton, MA 01450  
Phone: 978-449-0325  
Fax: 978-448-8825

Email: young@environcorp.com  
 These samples have been previously analyzed by Alpha

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

### Project Information

Project Name: 300 Third Street  
Project Location: Cambridge, MA  
Project #: 04-75905D2  
Project Manager: Tim Young  
ALPHA Quote #: \_\_\_\_\_  
Turn-Around Time \_\_\_\_\_

Standard  RUSH (only confirmed if pre-authorized)  
Date Due: \_\_\_\_\_ Time: \_\_\_\_\_

Date rec'd in Lab: 1/18/10

### Report Information - Data Deliverables

FAX  EMAIL  
 ADEX  Add'l Deliverables

### Regulatory Requirements/Report Limits

State/Fed Program Mass DEP Criteria 600-11/2/3

### MA MCP PRESUMPTIVE CERTAINTY ... CT REASONABLE CONFIDENCE PROTO

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

ALPHA Job #: U1020041

### Billing Information

Same as Client info PO #: \_\_\_\_\_

ALPHA Lab ID (Lab Use Only)	Sample ID	Collection		Sample Matrix	Sampler's Initials
		Date	Time		
<u>004 . 11</u>	<u>ENV-999</u>	<u>12/14/09</u>	<u>1400</u>	<u>GCW</u>	<u>NB</u>
<u>. 1A</u>	<u>Trip Blank</u>				

**ANALYSIS**  
MCP-8260  
VPH

**SAMPLE HANDLING**  
Filtration \_\_\_\_\_  
 Done  
 Not needed  
 Lab to do  
Preservation \_\_\_\_\_  
 Lab to do  
(Please specify below)  
Sample Specific Comments \_\_\_\_\_

### PLEASE ANSWER QUESTIONS ABOVE!

IS YOUR PROJECT  
MAMCP or CT RCP?

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

Relinquished By: _____	Date/Time: <u>12/15/09 11:00 AM</u>	Received By: _____	Date/Time: <u>12-15-09 11:00 AM</u>
Container Type: _____	Preservative: _____	Container Type: _____	Preservative: _____

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

7A  
VOLATILE CONTINUING CALIBRATION CHECK

Lab Name: Alpha Analytical Labs

SDG No.: L1020041

Instrument ID: Quimby.i      Calibration Date: 20-DEC-2010      Time: 06:02

Lab File ID: 1220A01      Init. Calib. Date(s): 29-NOV-2      29-NOV-2

Sample No: 8260 CCAL      Init. Calib. Times : 06:11      09:52

Compound	RRF	RRF	MIN RRF	%D	MAX %D	
=====	=====	=====	=====	=====	=====	
dichlorodifluoromethane	.33635	.34556	.1	-3	20	
chloromethane	.4498	.47301	.1	-5	20	
vinyl chloride	.32842	.32822	.1	0	20	
bromomethane	.2618	.25373	.1	3	20	
chloroethane	.26039	.26579	.1	-2	20	
trichlorofluoromethane	.53057	.53026	.1	0	20	
ethyl ether	.11539	.09068	.05	21	20	F
acrolin	.00521	.00701	.05	-35	20	F
freon-113	.2988	.28233	.1	6	20	
acetone	.04052	.04254	.1	-5	20	F
1,1,-dichloroethene	.28629	.26723	.1	7	20	
tert-butyl alcohol	.00516	.00497	.05	4	20	F
iodomethane	.37402	.34407	.05	8	20	
methylene chloride	.30757	.30197	.1	2	20	
carbon disulfide	.78949	.69692	.1	12	20	
acrylonitrile	.05421	.04647	.05	14	20	
methyl tert butyl ether	.38634	.30712	.1	21	20	F
Halothane	.21861	.18125	.05	17	20	
trans-1,2-dichloroethene	.32749	.29859	.1	9	20	
Diisopropyl Ether	.8809	.7673	.05	13	20	
vinyl acetate	.44952	.39313	.05	13	20	
1,1-dichloroethane	.59499	.5613	.2	6	20	
Ethyl-Tert-Butyl-Ether	.55277	.45609	.05	17	20	
2-butanone	.05397	.05743	.1	-6	20	F
2,2-dichloropropane	.3505	.33507	.05	4	20	
ethyl acetate	.13699	.12578	.05	8	20	
cis-1,2-dichloroethene	.35294	.34513	.1	2	20	
chloroform	.55513	.52214	.2	6	20	
bromochloromethane	.13022	.12204	.05	6	20	
tetrahydrofuran	.03742	.02838	.05	24	20	F
1,1,1-trichloroethane	.44884	.41341	.1	8	20	
1,1-dichloropropene	.44371	.4033	.05	9	20	
carbontetrachloride	.3695	.34125	.1	8	20	
Tertiary-Amyl Methyl Ether	.35765	.32021	.05	10	20	
1,2-dichloroethane	.32236	.31	.1	4	20	
benzene	1.3755	1.3197	.5	4	20	
trichloroethene	.35538	.3107	.2	13	20	
1,2-dichloropropane	.29749	.28486	.1	4	20	

FORM VII MCP-8260-10



7A  
CONTINUING CALIBRATION CHECK

Lab Name: Alpha Analytical Labs

SDG No.: L1020041

Instrument ID: Quimby.i      Calibration Date: 20-DEC-2010      Time: 06:02

Lab File ID: 1220A01      Init. Calib. Date(s): 29-NOV-2      29-NOV-2

Sample No: 8260 CCAL      Init. Calib. Times : 06:11      09:52

Compound	RRF	RRF	MIN RRF	%D	MAX %D	
=====	=====	=====	=====	=====	=====	
bromodichloromethane	.31579	.28653	.2	9	20	
1,4-dioxane	.00101	.00101	.05	0	20	F
dibromomethane	.1201	.11331	.05	6	20	
2-chloroethylvinyl ether	.08478	.07039	.05	17	20	
4-methyl-2-pentanone	.04053	.03884	.1	4	20	F
cis-1,3-dichloropropene	.3507	.29764	.2	15	20	
toluene	1.1592	1.0125	.4	13	20	
trans-1,3-dichloropropene	100	86.015	.1	14	20	
1,1,2-trichloroethane	.18721	.17394	.1	7	20	
2-hexanone	.09719	.08668	.1	11	20	F
1,3-dichloropropane	.40365	.35514	.05	12	20	
tetrachloroethene	.52863	.50134	.2	5	20	
chlorodibromomethane	.23194	.19054	.1	18	20	
1,2-dibromoethane	.20222	.18146	.1	10	20	
chlorobenzene	1.2741	1.101	.5	14	20	
1,1,1,2-tetrachloroethane	.33306	.31087	.05	7	20	
ethyl benzene	2.2828	2.1213	.1	7	20	
p/m xylene	.92639	.88078	.1	5	20	
o xylene	.88623	.7881	.3	11	20	
styrene	1.3904	1.2169	.31	12	20	
isopropylbenzene	2.4070	2.1866	.1	9	20	
trans-1,4-dichloro-2-butene	.04426	.03701	.05	16	20	F
bromoform	100	79.096	.1	21	20	F
1,1,2,2,-tetrachloroethane	.39202	.32942	.3	16	20	
1,2,3-trichloropropane	.3082	.24962	.05	19	20	
n-propylbenzene	4.4117	3.8838	.05	12	20	
bromobenzene	.84912	.73185	.05	14	20	
4-ethyltoluene	1.7912	1.8301	.05	-2	20	
1,3,5-trimethylbenzene	3.0947	2.7382	.05	12	20	
2-chlorotoluene	2.9635	2.5597	.05	14	20	
4-chlorotoluene	2.6913	2.3355	.05	13	20	
tert-butylbenzene	2.6420	2.3132	.05	12	20	
1,2,4-trimethylbenzene	3.0728	2.8771	.05	6	20	
sec-butylbenzene	3.8323	3.4978	.05	9	20	
p-isopropyltoluene	3.0348	2.9183	.05	4	20	
1,3-dichlorobenzene	1.7623	1.5489	.6	12	20	
1,4-dichlorobenzene	1.7106	1.5435	.5	10	20	
n-butylbenzene	3.0901	3.0231	.05	2	20	

FORM VII MCP-8260-10

7A  
CONTINUING CALIBRATION CHECK

Lab Name: Alpha Analytical Labs

SDG No.: L1020041

Instrument ID: Quimby.i Calibration Date: 20-DEC-2010 Time: 06:02

Lab File ID: 1220A01 Init. Calib. Date(s): 29-NOV-2 29-NOV-2

Sample No: 8260 CCAL Init. Calib. Times : 06:11 09:52

Compound	<u>RRF</u>	RRF	MIN RRF	%D	MAX %D	
=====	=====	=====	=====	=====	=====	
1,2,4,5-tetramethylbenzene	.87999	.97773	.05	-11	20	
1,2-dichlorobenzene	1.4701	1.2893	.4	12	20	
p-diethylbenzene	100	93.013	.05	7	20	
1,2-dibromo-3-chloropropane	.04255	.03202	.05	25	20	F
1,3,5-trichlorobenzene	.88638	.87009	.01	2	30	
1,2,4-trichlorobenzene	.69902	.59798	.2	14	20	
hexachlorobutadiene	.38351	.36722	.05	4	20	
naphthalene	100	74.617	.05	25	20	F
1,2,3-trichlorobenzene	.52089	.42138	.05	19	20	
=====	=====	=====	=====	=====	=====	
dibromofluoromethane	.22479	.23139	.05	-3	20	
1,2-dichloroethane-d4	.20346	.21238	.05	-4	20	
toluene-d8	1.2342	1.2260	.05	1	20	
4-bromofluorobenzene	.76826	.70565	.05	8	20	

FORM VII MCP-8260-10

7A  
CONTINUING CALIBRATION CHECK

Lab Name: Alpha Analytical Labs

SDG No.: L1020041

Instrument ID: Quimby.i      Calibration Date: 21-DEC-2010      Time: 05:22

Lab File ID: 1221A01      Init. Calib. Date(s): 29-NOV-2      29-NOV-2

Sample No: 8260 CCAL      Init. Calib. Times : 06:11      09:52

Compound	RRF	RRF	MIN RRF	%D	MAX %D	
=====	=====	=====	=====	=====	=====	
dichlorodifluoromethane	.33635	.33256	.1	1	20	
chloromethane	.4498	.47903	.1	-6	20	
vinyl chloride	.32842	.32954	.1	0	20	
bromomethane	.2618	.26183	.1	0	20	
chloroethane	.26039	.25848	.1	1	20	
trichlorofluoromethane	.53057	.55299	.1	-4	20	
ethyl ether	.11539	.10114	.05	12	20	
acrolin	.00521	.0087	.05	-67	20	F
freon-113	.2988	.29869	.1	0	20	
acetone	.04052	.04451	.1	-10	20	F
1,1,-dichloroethene	.28629	.27262	.1	5	20	
tert-butyl alcohol	.00516	.00561	.05	-9	20	F
iodomethane	.37402	.34512	.05	8	20	
methylene chloride	.30757	.29914	.1	3	20	
carbon disulfide	.78949	.66937	.1	15	20	
acrylonitrile	.05421	.04743	.05	13	20	
methyl tert butyl ether	.38634	.32505	.1	16	20	
Halothane	.21861	.1859	.05	15	20	
trans-1,2-dichloroethene	.32749	.31195	.1	5	20	
Diisopropyl Ether	.8809	.83718	.05	5	20	
vinyl acetate	.44952	.42197	.05	6	20	
1,1-dichloroethane	.59499	.57004	.2	4	20	
Ethyl-Tert-Butyl-Ether	.55277	.49156	.05	11	20	
2-butanone	.05397	.05454	.1	-1	20	F
2,2-dichloropropane	.3505	.33434	.05	5	20	
ethyl acetate	.13699	.13726	.05	0	20	
cis-1,2-dichloroethene	.35294	.35102	.1	1	20	
chloroform	.55513	.53684	.2	3	20	
bromochloromethane	.13022	.12885	.05	1	20	
tetrahydrofuran	.03742	.03087	.05	18	20	F
1,1,1-trichloroethane	.44884	.41752	.1	7	20	
1,1-dichloropropene	.44371	.42772	.05	4	20	
carbontetrachloride	.3695	.33511	.1	9	20	
Tertiary-Amyl Methyl Ether	.35765	.333	.05	7	20	
1,2-dichloroethane	.32236	.31441	.1	2	20	
benzene	1.3755	1.3395	.5	3	20	
trichloroethene	.35538	.32117	.2	10	20	
1,2-dichloropropane	.29749	.29752	.1	0	20	

FORM VII MCP-8260-10

7A  
CONTINUING CALIBRATION CHECK

Lab Name: Alpha Analytical Labs

SDG No.: L1020041

Instrument ID: Quimby.i      Calibration Date: 21-DEC-2010      Time: 05:22

Lab File ID: 1221A01      Init. Calib. Date(s): 29-NOV-2      29-NOV-2

Sample No: 8260 CCAL      Init. Calib. Times : 06:11      09:52

Compound	RRF	RRF	MIN RRF	%D	MAX %D	
=====	=====	=====	=====	=====	=====	
bromodichloromethane	.31579	.27774	.2	12	20	
1,4-dioxane	.00101	.00118	.05	-17	20	F
dibromomethane	.1201	.12458	.05	-4	20	
2-chloroethylvinyl ether	.08478	.07206	.05	15	20	
4-methyl-2-pentanone	.04053	.03864	.1	5	20	F
cis-1,3-dichloropropene	.3507	.29567	.2	16	20	
toluene	1.1592	1.0204	.4	12	20	
trans-1,3-dichloropropene	100	83.512	.1	16	20	
1,1,2-trichloroethane	.18721	.177	.1	5	20	
2-hexanone	.09719	.08964	.1	8	20	F
1,3-dichloropropane	.40365	.36819	.05	9	20	
tetrachloroethene	.52863	.51884	.2	2	20	
chlorodibromomethane	.23194	.18833	.1	19	20	
1,2-dibromoethane	.20222	.18627	.1	8	20	
chlorobenzene	1.2741	1.1168	.5	12	20	
1,1,1,2-tetrachloroethane	.33306	.30424	.05	9	20	
ethyl benzene	2.2828	2.1031	.1	8	20	
p/m xylene	.92639	.88643	.1	4	20	
o xylene	.88623	.80137	.3	10	20	
styrene	1.3904	1.2370	.31	11	20	
isopropylbenzene	2.4070	2.1805	.1	9	20	
trans-1,4-dichloro-2-butene	.04426	.0378	.05	15	20	F
bromoform	100	76.798	.1	23	20	F
1,1,2,2,-tetrachloroethane	.39202	.33006	.3	16	20	
1,2,3-trichloropropane	.3082	.24231	.05	21	20	F
n-propylbenzene	4.4117	3.8782	.05	12	20	
bromobenzene	.84912	.75002	.05	12	20	
4-ethyltoluene	1.7912	1.8530	.05	-3	20	
1,3,5-trimethylbenzene	3.0947	2.7204	.05	12	20	
2-chlorotoluene	2.9635	2.5238	.05	15	20	
4-chlorotoluene	2.6913	2.2978	.05	15	20	
tert-butylbenzene	2.6420	2.2967	.05	13	20	
1,2,4-trimethylbenzene	3.0728	2.7846	.05	9	20	
sec-butylbenzene	3.8323	3.4525	.05	10	20	
p-isopropyltoluene	3.0348	2.9016	.05	4	20	
1,3-dichlorobenzene	1.7623	1.5574	.6	12	20	
1,4-dichlorobenzene	1.7106	1.5278	.5	11	20	
n-butylbenzene	3.0901	2.9307	.05	5	20	

FORM VII MCP-8260-10

7A  
CONTINUING CALIBRATION CHECK

Lab Name: Alpha Analytical Labs

SDG No.: L1020041

Instrument ID: Quimby.i      Calibration Date: 21-DEC-2010      Time: 05:22

Lab File ID: 1221A01      Init. Calib. Date(s): 29-NOV-2      29-NOV-2

Sample No: 8260 CCAL      Init. Calib. Times : 06:11      09:52

Compound	RRF	RRF	MIN RRF	%D	MAX %D
1,2,4,5-tetramethylbenzene	.87999	1.0103	.05	-15	20
1,2-dichlorobenzene	1.4701	1.3033	.4	11	20
p-diethylbenzene	100	96.284	.05	4	20
1,2-dibromo-3-chloropropane	.04255	.02902	.05	32	20
1,3,5-trichlorobenzene	.88638	.91845	.01	-4	30
1,2,4-trichlorobenzene	.69902	.61092	.2	13	20
hexachlorobutadiene	.38351	.35325	.05	8	20
naphthalene	100	77.675	.05	22	20
1,2,3-trichlorobenzene	.52089	.42076	.05	19	20
dibromofluoromethane	.22479	.2296	.05	-2	20
1,2-dichloroethane-d4	.20346	.19319	.05	5	20
toluene-d8	1.2342	1.2042	.05	2	20
4-bromofluorobenzene	.76826	.71888	.05	6	20

F  
  
  
F

7A  
CONTINUING CALIBRATION CHECK

Lab Name: Alpha Analytical Labs

SDG No.: L1020041

Instrument ID: Quimby.i      Calibration Date: 17-DEC-2010      Time: 06:54

Lab File ID: 1217A01      Init. Calib. Date(s): 29-NOV-2      29-NOV-2

Sample No: 8260 CCAL      Init. Calib. Times : 06:11      09:52

Compound	RRF	RRF	MIN RRF	%D	MAX %D	
=====	=====	=====	=====	=====	=====	
dichlorodifluoromethane	.33635	.3793	.1	-13	20	
chloromethane	.4498	.49489	.1	-10	20	
vinyl chloride	.32842	.34792	.1	-6	20	
bromomethane	.2618	.26432	.1	-1	20	
chloroethane	.26039	.27347	.1	-5	20	
trichlorofluoromethane	.53057	.5673	.1	-7	20	
ethyl ether	.11539	.09273	.05	20	20	
acrolin	.00521	.00837	.05	-61	20	F
freon-113	.2988	.39461	.1	-32	20	F
acetone	.04052	.04217	.1	-4	20	F
1,1,-dichloroethene	.28629	.27846	.1	3	20	
tert-butyl alcohol	.00516	.00455	.05	12	20	F
iodomethane	.37402	.4048	.05	-8	20	
methylene chloride	.30757	.30832	.1	0	20	
carbon disulfide	.78949	.69147	.1	12	20	
acrylonitrile	.05421	.04416	.05	19	20	
methyl tert butyl ether	.38634	.29683	.1	23	20	F
Halothane	.21861	.18386	.05	16	20	
trans-1,2-dichloroethene	.32749	.32057	.1	2	20	
Diisopropyl Ether	.8809	.77175	.05	12	20	
vinyl acetate	.44952	.41732	.05	7	20	
1,1-dichloroethane	.59499	.58304	.2	2	20	
Ethyl-Tert-Butyl-Ether	.55277	.44843	.05	19	20	
2-butanone	.05397	.05374	.1	0	20	F
2,2-dichloropropane	.3505	.31895	.05	9	20	
ethyl acetate	.13699	.13649	.05	0	20	
cis-1,2-dichloroethene	.35294	.35844	.1	-2	20	
chloroform	.55513	.53957	.2	3	20	
bromochloromethane	.13022	.13358	.05	-3	20	
tetrahydrofuran	.03742	.0268	.05	28	20	F
1,1,1-trichloroethane	.44884	.42761	.1	5	20	
1,1-dichloropropene	.44371	.41601	.05	6	20	
carbontetrachloride	.3695	.33492	.1	9	20	
Tertiary-Amyl Methyl Ether	.35765	.30173	.05	16	20	
1,2-dichloroethane	.32236	.32351	.1	0	20	
benzene	1.3755	1.3902	.5	-1	20	
trichloroethene	.35538	.3285	.2	8	20	
1,2-dichloropropane	.29749	.29177	.1	2	20	

FORM VII MCP-8260-10

7A  
CONTINUING CALIBRATION CHECK

Lab Name: Alpha Analytical Labs

SDG No.: L1020041

Instrument ID: Quimby.i      Calibration Date: 17-DEC-2010      Time: 06:54

Lab File ID: 1217A01      Init. Calib. Date(s): 29-NOV-2      29-NOV-2

Sample No: 8260 CCAL      Init. Calib. Times : 06:11      09:52

Compound	RRF	RRF	MIN RRF	%D	MAX %D	
=====	=====	=====	=====	=====	=====	
bromodichloromethane	.31579	.27738	.2	12	20	
1,4-dioxane	.00101	.00101	.05	1	20	F
dibromomethane	.1201	.11837	.05	1	20	
2-chloroethylvinyl ether	.08478	.0683	.05	19	20	
4-methyl-2-pentanone	.04053	.03786	.1	7	20	F
cis-1,3-dichloropropene	.3507	.28255	.2	19	20	
toluene	1.1592	1.0969	.4	5	20	
trans-1,3-dichloropropene	100	81.217	.1	19	20	
1,1,2-trichloroethane	.18721	.17748	.1	5	20	
2-hexanone	.09719	.08215	.1	15	20	F
1,3-dichloropropane	.40365	.37993	.05	6	20	
tetrachloroethene	.52863	.54298	.2	-3	20	
chlorodibromomethane	.23194	.18468	.1	20	20	F
1,2-dibromoethane	.20222	.18528	.1	8	20	
chlorobenzene	1.2741	1.1968	.5	6	20	
1,1,1,2-tetrachloroethane	.33306	.31235	.05	6	20	
ethyl benzene	2.2828	2.2268	.1	2	20	
p/m xylene	.92639	.94746	.1	-2	20	
o xylene	.88623	.85469	.3	4	20	
styrene	1.3904	1.3213	.31	5	20	
isopropylbenzene	2.4070	2.2969	.1	5	20	
trans-1,4-dichloro-2-butene	.04426	.04433	.05	0	20	F
bromoform	100	74.631	.1	25	20	F
1,1,2,2,-tetrachloroethane	.39202	.33276	.3	15	20	
1,2,3-trichloropropane	.3082	.25403	.05	18	20	
n-propylbenzene	4.4117	4.0135	.05	9	20	
bromobenzene	.84912	.76791	.05	10	20	
4-ethyltoluene	1.7912	1.9060	.05	-6	20	
1,3,5-trimethylbenzene	3.0947	2.8530	.05	8	20	
2-chlorotoluene	2.9635	2.6435	.05	11	20	
4-chlorotoluene	2.6913	2.3973	.05	11	20	
tert-butylbenzene	2.6420	2.3571	.05	11	20	
1,2,4-trimethylbenzene	3.0728	2.9153	.05	5	20	
sec-butylbenzene	3.8323	3.5611	.05	7	20	
p-isopropyltoluene	3.0348	2.9981	.05	1	20	
1,3-dichlorobenzene	1.7623	1.6126	.6	8	20	
1,4-dichlorobenzene	1.7106	1.6138	.5	6	20	
n-butylbenzene	3.0901	3.0570	.05	1	20	

FORM VII MCP-8260-10

7A  
CONTINUING CALIBRATION CHECK

Lab Name: Alpha Analytical Labs

SDG No.: L1020041

Instrument ID: Quimby.i      Calibration Date: 17-DEC-2010      Time: 06:54

Lab File ID: 1217A01      Init. Calib. Date(s): 29-NOV-2      29-NOV-2

Sample No: 8260 CCAL      Init. Calib. Times : 06:11      09:52

Compound	RRF	RRF	MIN RRF	%D	MAX %D
1,2,4,5-tetramethylbenzene_____	.87999	1.0199	.05	-16	20
1,2-dichlorobenzene_____	1.4701	1.3397	.4	9	20
p-diethylbenzene_____	100	93.491	.05	7	20
1,2-dibromo-3-chloropropane_____	.04255	.02839	.05	33	20
1,3,5-trichlorobenzene_____	.88638	.90357	.01	-2	30
1,2,4-trichlorobenzene_____	.69902	.5729	.2	18	20
hexachlorobutadiene_____	.38351	.36563	.05	5	20
naphthalene_____	100	70.908	.05	29	20
1,2,3-trichlorobenzene_____	.52089	.40165	.05	23	20
dibromofluoromethane_____	.22479	.23255	.05	-3	20
1,2-dichloroethane-d4_____	.20346	.19214	.05	6	20
toluene-d8_____	1.2342	1.2438	.05	-1	20
4-bromofluorobenzene_____	.76826	.70371	.05	8	20





## ANALYTICAL REPORT

Lab Number:	L1100110
Client:	Environ 8 Hollis Street Groton, MA 01450
ATTN:	Jim Young
Phone:	(978) 449-0325
Project Name:	300 THIRD STREET
Project Number:	04-7590GD2
Report Date:	01/07/11

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Certifications & Approvals: MA (M-MA086), NY NELAC (11148), CT (PH-0574), NH (2003), NJ (MA935), RI (LAO00065), ME (MA0086), PA (Registration #68-03671), USDA (Permit #S-72578), US Army Corps of Engineers, Naval FESC.

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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:** 300 THIRD STREET  
**Project Number:** 04-7590GD2

**Lab Number:** L1100110  
**Report Date:** 01/07/11

<b>Alpha Sample ID</b>	<b>Client ID</b>	<b>Sample Location</b>	<b>Collection Date/Time</b>
L1100110-01	B-201	CAMBRIDGE, MA	01/04/11 12:48
L1100110-02	ENV-10	CAMBRIDGE, MA	01/04/11 14:53
L1100110-03	MW-58	CAMBRIDGE, MA	01/04/11 15:59
L1100110-04	MW-58 DUP	CAMBRIDGE, MA	01/04/11 15:59
L1100110-05	TB-20110104	CAMBRIDGE, MA	01/04/11 00:00

Project Name: 300 THIRD STREET

Lab Number: L1100110

Project Number: 04-7590GD2

Report Date: 01/07/11

**MADEP MCP Response Action Analytical Report Certification**

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

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

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



**Project Name:** 300 THIRD STREET  
**Project Number:** 04-7590GD2

**Lab Number:** L1100110  
**Report Date:** 01/07/11

### Case Narrative

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

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

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

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

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#### MCP Related Narratives

##### Sample Receipt

The project name was supplied by the client

##### Volatile Organics

L1100110-01, -03 and -04 have elevated detection limits due to the dilutions required by the elevated concentrations of target compounds in the samples.

In reference to question G:

One or more of the target analytes did not achieve the requested CAM reporting limits.

In reference to question H:

The WG450668-2 LCSD recovery, associated with L1100110-01, is below the individual acceptance criteria for Naphthalene (67%), but within the overall method allowances. The results of the associated sample are

**Project Name:** 300 THIRD STREET  
**Project Number:** 04-7590GD2

**Lab Number:** L1100110  
**Report Date:** 01/07/11

### Case Narrative (continued)

reported; however, all results are considered to have a potentially low bias for this compound.

The WG450668-1 LCS recovery, associated with L1100110-01, is above the acceptance criteria for 1,4-Dioxane (134%); however, it has been identified as a "difficult" analyte and is within the 40-160% acceptance limits. The results of the associated sample are reported; however, all positive detects are considered to have a potentially high bias for this compound.

The WG450669-1 LCS recovery, associated with L1100110-02 through -05, is below the individual acceptance criteria for Naphthalene (66%), but within the overall method allowances. The results of the associated samples are reported; however, all results are considered to have a potentially low bias for this compound.

The WG450669-2 LCSD recovery, associated with L1100110-02 through -05, is above the acceptance criteria for 1,4-Dioxane (136%); however, it has been identified as a "difficult" analyte and is within the 40-160% acceptance limits. The results of the associated samples are reported; however, all positive detects are considered to have a potentially high bias for this compound.

The initial calibration, associated with L1100110-01, did not meet the method required minimum response factor for 4-Methyl-2-pentanone (0.0921) and 1,4-Dioxane (0.00185); and utilized a quadratic fit for Chloroethane and Acetone.

The initial calibration, associated with L1100110-02 through -05, did not meet the method required minimum response factor for Acetone (0.0802) and 1,4-Dioxane (0.00214).

The continuing calibration standards, associated with L1100110-01 through -05, are outside the acceptance criteria for several compounds; however, they are within overall method allowances. Copies of the continuing calibration standards are included as an addendum to this report.

VPH

L1100110-01, -03 and -04 have elevated detection limits due to the dilutions required by the elevated concentrations of target compounds in the samples.

In reference to question G:

L1100110-01, -03 and -04: One or more of the target analytes did not achieve the requested CAM reporting limits.

**Project Name:** 300 THIRD STREET  
**Project Number:** 04-7590GD2

**Lab Number:** L1100110  
**Report Date:** 01/07/11

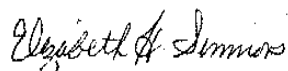
**Case Narrative (continued)**

In reference to question H:

The WG450383-1/-2 LCS/LCSD recoveries, associated with L1100110-01, -02 and -05, were outside the acceptance criteria for Pentane (66%/58%); however, the target Carbon ranges and analytes were within method criteria. The results of the original analysis are reported.

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

Authorized Signature:



Elizabeth Simmons

Title: Technical Director/Representative

Date: 01/07/11

# ORGANICS

# VOLATILES



Project Name: 300 THIRD STREET

Lab Number: L1100110

Project Number: 04-7590GD2

Report Date: 01/07/11

## SAMPLE RESULTS

Lab ID: L1100110-01 D  
 Client ID: B-201  
 Sample Location: CAMBRIDGE, MA  
 Matrix: Water  
 Analytical Method: 97,8260B  
 Analytical Date: 01/06/11 13:07  
 Analyst: MM

Date Collected: 01/04/11 12:48  
 Date Received: 01/05/11  
 Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
<b>MCP Volatile Organics - Westborough Lab</b>						
Methylene chloride	ND		ug/l	50	--	25
1,1-Dichloroethane	ND		ug/l	25	--	25
Chloroform	ND		ug/l	25	--	25
Carbon tetrachloride	ND		ug/l	25	--	25
1,2-Dichloropropane	ND		ug/l	25	--	25
Dibromochloromethane	ND		ug/l	25	--	25
1,1,2-Trichloroethane	ND		ug/l	25	--	25
Tetrachloroethene	ND		ug/l	25	--	25
Chlorobenzene	ND		ug/l	25	--	25
Trichlorofluoromethane	ND		ug/l	50	--	25
1,2-Dichloroethane	ND		ug/l	25	--	25
1,1,1-Trichloroethane	ND		ug/l	25	--	25
Bromodichloromethane	ND		ug/l	25	--	25
trans-1,3-Dichloropropene	ND		ug/l	12	--	25
cis-1,3-Dichloropropene	ND		ug/l	12	--	25
1,1-Dichloropropene	ND		ug/l	50	--	25
Bromoform	ND		ug/l	50	--	25
1,1,2,2-Tetrachloroethane	ND		ug/l	25	--	25
Benzene	780		ug/l	25	--	25
Toluene	730		ug/l	25	--	25
Ethylbenzene	1400		ug/l	25	--	25
Chloromethane	ND		ug/l	50	--	25
Bromomethane	ND		ug/l	50	--	25
Vinyl chloride	ND		ug/l	25	--	25
Chloroethane	ND		ug/l	50	--	25
1,1-Dichloroethene	ND		ug/l	25	--	25
trans-1,2-Dichloroethene	ND		ug/l	25	--	25
Trichloroethene	ND		ug/l	25	--	25
1,2-Dichlorobenzene	ND		ug/l	25	--	25
1,3-Dichlorobenzene	ND		ug/l	25	--	25

Project Name: 300 THIRD STREET

Lab Number: L1100110

Project Number: 04-7590GD2

Report Date: 01/07/11

## SAMPLE RESULTS

Lab ID: L1100110-01 D  
 Client ID: B-201  
 Sample Location: CAMBRIDGE, MA

Date Collected: 01/04/11 12:48  
 Date Received: 01/05/11  
 Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
<b>MCP Volatile Organics - Westborough Lab</b>						
1,4-Dichlorobenzene	ND		ug/l	25	--	25
Methyl tert butyl ether	ND		ug/l	50	--	25
p/m-Xylene	3600		ug/l	50	--	25
o-Xylene	1500		ug/l	25	--	25
cis-1,2-Dichloroethene	46		ug/l	25	--	25
Dibromomethane	ND		ug/l	50	--	25
1,2,3-Trichloropropane	ND		ug/l	50	--	25
Styrene	ND		ug/l	25	--	25
Dichlorodifluoromethane	ND		ug/l	50	--	25
Acetone	ND		ug/l	120	--	25
Carbon disulfide	ND		ug/l	50	--	25
2-Butanone	ND		ug/l	120	--	25
4-Methyl-2-pentanone	ND		ug/l	120	--	25
2-Hexanone	ND		ug/l	120	--	25
Bromochloromethane	ND		ug/l	50	--	25
Tetrahydrofuran	ND		ug/l	120	--	25
2,2-Dichloropropane	ND		ug/l	50	--	25
1,2-Dibromoethane	ND		ug/l	50	--	25
1,3-Dichloropropane	ND		ug/l	50	--	25
1,1,1,2-Tetrachloroethane	ND		ug/l	25	--	25
Bromobenzene	ND		ug/l	50	--	25
n-Butylbenzene	ND		ug/l	50	--	25
sec-Butylbenzene	ND		ug/l	50	--	25
tert-Butylbenzene	ND		ug/l	50	--	25
o-Chlorotoluene	ND		ug/l	50	--	25
p-Chlorotoluene	ND		ug/l	50	--	25
1,2-Dibromo-3-chloropropane	ND		ug/l	50	--	25
Hexachlorobutadiene	ND		ug/l	15	--	25
Isopropylbenzene	ND		ug/l	50	--	25
p-Isopropyltoluene	ND		ug/l	50	--	25
Naphthalene	ND		ug/l	50	--	25
n-Propylbenzene	ND		ug/l	50	--	25
1,2,3-Trichlorobenzene	ND		ug/l	50	--	25
1,2,4-Trichlorobenzene	ND		ug/l	50	--	25
1,3,5-Trimethylbenzene	64		ug/l	50	--	25
1,2,4-Trimethylbenzene	130		ug/l	50	--	25
Ethyl ether	ND		ug/l	50	--	25



**Project Name:** 300 THIRD STREET**Lab Number:** L1100110**Project Number:** 04-7590GD2**Report Date:** 01/07/11**SAMPLE RESULTS**

Lab ID: L1100110-01 D

Date Collected: 01/04/11 12:48

Client ID: B-201

Date Received: 01/05/11

Sample Location: CAMBRIDGE, MA

Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
<b>MCP Volatile Organics - Westborough Lab</b>						
Isopropyl Ether	ND		ug/l	50	--	25
Ethyl-Tert-Butyl-Ether	ND		ug/l	50	--	25
Tertiary-Amyl Methyl Ether	ND		ug/l	50	--	25
1,4-Dioxane	ND		ug/l	6200	--	25

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	98		70-130
Toluene-d8	95		70-130
4-Bromofluorobenzene	96		70-130
Dibromofluoromethane	96		70-130

**Project Name:** 300 THIRD STREET**Lab Number:** L1100110**Project Number:** 04-7590GD2**Report Date:** 01/07/11**SAMPLE RESULTS**

**Lab ID:** L1100110-03      D  
**Client ID:** MW-58  
**Sample Location:** CAMBRIDGE, MA  
**Matrix:** Water  
**Analytical Method:** 97,8260B  
**Analytical Date:** 01/06/11 10:09  
**Analyst:** MM

**Date Collected:** 01/04/11 15:59  
**Date Received:** 01/05/11  
**Field Prep:** Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
<b>MCP Volatile Organics - Westborough Lab</b>						
Methylene chloride	ND		ug/l	400	--	200
1,1-Dichloroethane	ND		ug/l	200	--	200
Chloroform	ND		ug/l	200	--	200
Carbon tetrachloride	ND		ug/l	200	--	200
1,2-Dichloropropane	ND		ug/l	200	--	200
Dibromochloromethane	ND		ug/l	200	--	200
1,1,2-Trichloroethane	ND		ug/l	200	--	200
Tetrachloroethene	ND		ug/l	200	--	200
Chlorobenzene	ND		ug/l	200	--	200
Trichlorofluoromethane	ND		ug/l	400	--	200
1,2-Dichloroethane	ND		ug/l	200	--	200
1,1,1-Trichloroethane	ND		ug/l	200	--	200
Bromodichloromethane	ND		ug/l	200	--	200
trans-1,3-Dichloropropene	ND		ug/l	100	--	200
cis-1,3-Dichloropropene	ND		ug/l	100	--	200
1,1-Dichloropropene	ND		ug/l	400	--	200
Bromoform	ND		ug/l	400	--	200
1,1,2,2-Tetrachloroethane	ND		ug/l	200	--	200
Benzene	8800		ug/l	200	--	200
Toluene	ND		ug/l	200	--	200
Ethylbenzene	1300		ug/l	200	--	200
Chloromethane	ND		ug/l	400	--	200
Bromomethane	ND		ug/l	400	--	200
Vinyl chloride	ND		ug/l	200	--	200
Chloroethane	ND		ug/l	400	--	200
1,1-Dichloroethene	ND		ug/l	200	--	200
trans-1,2-Dichloroethene	ND		ug/l	200	--	200
Trichloroethene	ND		ug/l	200	--	200
1,2-Dichlorobenzene	ND		ug/l	200	--	200
1,3-Dichlorobenzene	ND		ug/l	200	--	200

Project Name: 300 THIRD STREET

Lab Number: L1100110

Project Number: 04-7590GD2

Report Date: 01/07/11

## SAMPLE RESULTS

Lab ID: L1100110-03 D Date Collected: 01/04/11 15:59  
 Client ID: MW-58 Date Received: 01/05/11  
 Sample Location: CAMBRIDGE, MA Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
<b>MCP Volatile Organics - Westborough Lab</b>						
1,4-Dichlorobenzene	ND		ug/l	200	--	200
Methyl tert butyl ether	ND		ug/l	400	--	200
p/m-Xylene	ND		ug/l	400	--	200
o-Xylene	ND		ug/l	200	--	200
cis-1,2-Dichloroethene	ND		ug/l	200	--	200
Dibromomethane	ND		ug/l	400	--	200
1,2,3-Trichloropropane	ND		ug/l	400	--	200
Styrene	ND		ug/l	200	--	200
Dichlorodifluoromethane	ND		ug/l	400	--	200
Acetone	ND		ug/l	1000	--	200
Carbon disulfide	ND		ug/l	400	--	200
2-Butanone	ND		ug/l	1000	--	200
4-Methyl-2-pentanone	ND		ug/l	1000	--	200
2-Hexanone	ND		ug/l	1000	--	200
Bromochloromethane	ND		ug/l	400	--	200
Tetrahydrofuran	ND		ug/l	1000	--	200
2,2-Dichloropropane	ND		ug/l	400	--	200
1,2-Dibromoethane	ND		ug/l	400	--	200
1,3-Dichloropropane	ND		ug/l	400	--	200
1,1,1,2-Tetrachloroethane	ND		ug/l	200	--	200
Bromobenzene	ND		ug/l	400	--	200
n-Butylbenzene	ND		ug/l	400	--	200
sec-Butylbenzene	ND		ug/l	400	--	200
tert-Butylbenzene	ND		ug/l	400	--	200
o-Chlorotoluene	ND		ug/l	400	--	200
p-Chlorotoluene	ND		ug/l	400	--	200
1,2-Dibromo-3-chloropropane	ND		ug/l	400	--	200
Hexachlorobutadiene	ND		ug/l	120	--	200
Isopropylbenzene	ND		ug/l	400	--	200
p-Isopropyltoluene	ND		ug/l	400	--	200
Naphthalene	ND		ug/l	400	--	200
n-Propylbenzene	ND		ug/l	400	--	200
1,2,3-Trichlorobenzene	ND		ug/l	400	--	200
1,2,4-Trichlorobenzene	ND		ug/l	400	--	200
1,3,5-Trimethylbenzene	ND		ug/l	400	--	200
1,2,4-Trimethylbenzene	ND		ug/l	400	--	200
Ethyl ether	ND		ug/l	400	--	200



**Project Name:** 300 THIRD STREET**Lab Number:** L1100110**Project Number:** 04-7590GD2**Report Date:** 01/07/11**SAMPLE RESULTS**

Lab ID: L1100110-03 D

Date Collected: 01/04/11 15:59

Client ID: MW-58

Date Received: 01/05/11

Sample Location: CAMBRIDGE, MA

Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
<b>MCP Volatile Organics - Westborough Lab</b>						
Isopropyl Ether	ND		ug/l	400	--	200
Ethyl-Tert-Butyl-Ether	ND		ug/l	400	--	200
Tertiary-Amyl Methyl Ether	ND		ug/l	400	--	200
1,4-Dioxane	ND		ug/l	50000	--	200

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	101		70-130
Toluene-d8	94		70-130
4-Bromofluorobenzene	96		70-130
Dibromofluoromethane	99		70-130

Project Name: 300 THIRD STREET

Lab Number: L1100110

Project Number: 04-7590GD2

Report Date: 01/07/11

## SAMPLE RESULTS

Lab ID: L1100110-04 D  
 Client ID: MW-58 DUP  
 Sample Location: CAMBRIDGE, MA  
 Matrix: Water  
 Analytical Method: 97,8260B  
 Analytical Date: 01/06/11 10:42  
 Analyst: MM

Date Collected: 01/04/11 15:59  
 Date Received: 01/05/11  
 Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
<b>MCP Volatile Organics - Westborough Lab</b>						
Methylene chloride	ND		ug/l	400	--	200
1,1-Dichloroethane	ND		ug/l	200	--	200
Chloroform	ND		ug/l	200	--	200
Carbon tetrachloride	ND		ug/l	200	--	200
1,2-Dichloropropane	ND		ug/l	200	--	200
Dibromochloromethane	ND		ug/l	200	--	200
1,1,2-Trichloroethane	ND		ug/l	200	--	200
Tetrachloroethene	ND		ug/l	200	--	200
Chlorobenzene	ND		ug/l	200	--	200
Trichlorofluoromethane	ND		ug/l	400	--	200
1,2-Dichloroethane	ND		ug/l	200	--	200
1,1,1-Trichloroethane	ND		ug/l	200	--	200
Bromodichloromethane	ND		ug/l	200	--	200
trans-1,3-Dichloropropene	ND		ug/l	100	--	200
cis-1,3-Dichloropropene	ND		ug/l	100	--	200
1,1-Dichloropropene	ND		ug/l	400	--	200
Bromoform	ND		ug/l	400	--	200
1,1,2,2-Tetrachloroethane	ND		ug/l	200	--	200
Benzene	8800		ug/l	200	--	200
Toluene	ND		ug/l	200	--	200
Ethylbenzene	1300		ug/l	200	--	200
Chloromethane	ND		ug/l	400	--	200
Bromomethane	ND		ug/l	400	--	200
Vinyl chloride	ND		ug/l	200	--	200
Chloroethane	ND		ug/l	400	--	200
1,1-Dichloroethene	ND		ug/l	200	--	200
trans-1,2-Dichloroethene	ND		ug/l	200	--	200
Trichloroethene	ND		ug/l	200	--	200
1,2-Dichlorobenzene	ND		ug/l	200	--	200
1,3-Dichlorobenzene	ND		ug/l	200	--	200

Project Name: 300 THIRD STREET

Lab Number: L1100110

Project Number: 04-7590GD2

Report Date: 01/07/11

## SAMPLE RESULTS

Lab ID: L1100110-04 D  
 Client ID: MW-58 DUP  
 Sample Location: CAMBRIDGE, MA

Date Collected: 01/04/11 15:59  
 Date Received: 01/05/11  
 Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
<b>MCP Volatile Organics - Westborough Lab</b>						
1,4-Dichlorobenzene	ND		ug/l	200	--	200
Methyl tert butyl ether	ND		ug/l	400	--	200
p/m-Xylene	ND		ug/l	400	--	200
o-Xylene	ND		ug/l	200	--	200
cis-1,2-Dichloroethene	ND		ug/l	200	--	200
Dibromomethane	ND		ug/l	400	--	200
1,2,3-Trichloropropane	ND		ug/l	400	--	200
Styrene	ND		ug/l	200	--	200
Dichlorodifluoromethane	ND		ug/l	400	--	200
Acetone	ND		ug/l	1000	--	200
Carbon disulfide	ND		ug/l	400	--	200
2-Butanone	ND		ug/l	1000	--	200
4-Methyl-2-pentanone	ND		ug/l	1000	--	200
2-Hexanone	ND		ug/l	1000	--	200
Bromochloromethane	ND		ug/l	400	--	200
Tetrahydrofuran	ND		ug/l	1000	--	200
2,2-Dichloropropane	ND		ug/l	400	--	200
1,2-Dibromoethane	ND		ug/l	400	--	200
1,3-Dichloropropane	ND		ug/l	400	--	200
1,1,1,2-Tetrachloroethane	ND		ug/l	200	--	200
Bromobenzene	ND		ug/l	400	--	200
n-Butylbenzene	ND		ug/l	400	--	200
sec-Butylbenzene	ND		ug/l	400	--	200
tert-Butylbenzene	ND		ug/l	400	--	200
o-Chlorotoluene	ND		ug/l	400	--	200
p-Chlorotoluene	ND		ug/l	400	--	200
1,2-Dibromo-3-chloropropane	ND		ug/l	400	--	200
Hexachlorobutadiene	ND		ug/l	120	--	200
Isopropylbenzene	ND		ug/l	400	--	200
p-Isopropyltoluene	ND		ug/l	400	--	200
Naphthalene	ND		ug/l	400	--	200
n-Propylbenzene	ND		ug/l	400	--	200
1,2,3-Trichlorobenzene	ND		ug/l	400	--	200
1,2,4-Trichlorobenzene	ND		ug/l	400	--	200
1,3,5-Trimethylbenzene	ND		ug/l	400	--	200
1,2,4-Trimethylbenzene	ND		ug/l	400	--	200
Ethyl ether	ND		ug/l	400	--	200





**Project Name:** 300 THIRD STREET**Lab Number:** L1100110**Project Number:** 04-7590GD2**Report Date:** 01/07/11**SAMPLE RESULTS**

Lab ID: L1100110-04 D

Date Collected: 01/04/11 15:59

Client ID: MW-58 DUP

Date Received: 01/05/11

Sample Location: CAMBRIDGE, MA

Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
<b>MCP Volatile Organics - Westborough Lab</b>						
Isopropyl Ether	ND		ug/l	400	--	200
Ethyl-Tert-Butyl-Ether	ND		ug/l	400	--	200
Tertiary-Amyl Methyl Ether	ND		ug/l	400	--	200
1,4-Dioxane	ND		ug/l	50000	--	200

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	104		70-130
Toluene-d8	92		70-130
4-Bromofluorobenzene	99		70-130
Dibromofluoromethane	99		70-130

**Project Name:** 300 THIRD STREET  
**Project Number:** 04-7590GD2

**Lab Number:** L1100110  
**Report Date:** 01/07/11

### SAMPLE RESULTS

**Lab ID:** L1100110-05  
**Client ID:** TB-20110104  
**Sample Location:** CAMBRIDGE, MA  
**Matrix:** Water  
**Analytical Method:** 97,8260B  
**Analytical Date:** 01/06/11 08:33  
**Analyst:** MM

**Date Collected:** 01/04/11 00:00  
**Date Received:** 01/05/11  
**Field Prep:** Not Specified

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

Project Name: 300 THIRD STREET

Lab Number: L1100110

Project Number: 04-7590GD2

Report Date: 01/07/11

## SAMPLE RESULTS

Lab ID: L1100110-05  
 Client ID: TB-20110104  
 Sample Location: CAMBRIDGE, MA

Date Collected: 01/04/11 00:00  
 Date Received: 01/05/11  
 Field Prep: Not Specified

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



**Project Name:** 300 THIRD STREET**Lab Number:** L1100110**Project Number:** 04-7590GD2**Report Date:** 01/07/11**SAMPLE RESULTS**

Lab ID: L1100110-05  
 Client ID: TB-20110104  
 Sample Location: CAMBRIDGE, MA

Date Collected: 01/04/11 00:00  
 Date Received: 01/05/11  
 Field Prep: Not Specified

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

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	103		70-130
Toluene-d8	92		70-130
4-Bromofluorobenzene	103		70-130
Dibromofluoromethane	105		70-130

**Project Name:** 300 THIRD STREET  
**Project Number:** 04-7590GD2

**Lab Number:** L1100110  
**Report Date:** 01/07/11

**Method Blank Analysis**  
**Batch Quality Control**

Analytical Method: 97,8260B  
Analytical Date: 01/06/11 08:16  
Analyst: MM

Parameter	Result	Qualifier	Units	RL	MDL
MCP Volatile Organics - Westborough Lab for sample(s): 01 Batch: WG450668-3					
Methylene chloride	ND		ug/l	2.0	--
1,1-Dichloroethane	ND		ug/l	1.0	--
Chloroform	ND		ug/l	1.0	--
Carbon tetrachloride	ND		ug/l	1.0	--
1,2-Dichloropropane	ND		ug/l	1.0	--
Dibromochloromethane	ND		ug/l	1.0	--
1,1,2-Trichloroethane	ND		ug/l	1.0	--
Tetrachloroethene	ND		ug/l	1.0	--
Chlorobenzene	ND		ug/l	1.0	--
Trichlorofluoromethane	ND		ug/l	2.0	--
1,2-Dichloroethane	ND		ug/l	1.0	--
1,1,1-Trichloroethane	ND		ug/l	1.0	--
Bromodichloromethane	ND		ug/l	1.0	--
trans-1,3-Dichloropropene	ND		ug/l	0.50	--
cis-1,3-Dichloropropene	ND		ug/l	0.50	--
1,1-Dichloropropene	ND		ug/l	2.0	--
Bromoform	ND		ug/l	2.0	--
1,1,2,2-Tetrachloroethane	ND		ug/l	1.0	--
Benzene	ND		ug/l	1.0	--
Toluene	ND		ug/l	1.0	--
Ethylbenzene	ND		ug/l	1.0	--
Chloromethane	ND		ug/l	2.0	--
Bromomethane	ND		ug/l	2.0	--
Vinyl chloride	ND		ug/l	1.0	--
Chloroethane	ND		ug/l	2.0	--
1,1-Dichloroethene	ND		ug/l	1.0	--
trans-1,2-Dichloroethene	ND		ug/l	1.0	--
Trichloroethene	ND		ug/l	1.0	--
1,2-Dichlorobenzene	ND		ug/l	1.0	--
1,3-Dichlorobenzene	ND		ug/l	1.0	--
1,4-Dichlorobenzene	ND		ug/l	1.0	--



**Project Name:** 300 THIRD STREET  
**Project Number:** 04-7590GD2

**Lab Number:** L1100110  
**Report Date:** 01/07/11

**Method Blank Analysis**  
**Batch Quality Control**

Analytical Method: 97,8260B  
Analytical Date: 01/06/11 08:16  
Analyst: MM

Parameter	Result	Qualifier	Units	RL	MDL
MCP Volatile Organics - Westborough Lab for sample(s): 01 Batch: WG450668-3					
Methyl tert butyl ether	ND		ug/l	2.0	--
p/m-Xylene	ND		ug/l	2.0	--
o-Xylene	ND		ug/l	1.0	--
cis-1,2-Dichloroethene	ND		ug/l	1.0	--
Dibromomethane	ND		ug/l	2.0	--
1,2,3-Trichloropropane	ND		ug/l	2.0	--
Styrene	ND		ug/l	1.0	--
Dichlorodifluoromethane	ND		ug/l	2.0	--
Acetone	ND		ug/l	5.0	--
Carbon disulfide	ND		ug/l	2.0	--
2-Butanone	ND		ug/l	5.0	--
4-Methyl-2-pentanone	ND		ug/l	5.0	--
2-Hexanone	ND		ug/l	5.0	--
Bromochloromethane	ND		ug/l	2.0	--
Tetrahydrofuran	ND		ug/l	5.0	--
2,2-Dichloropropane	ND		ug/l	2.0	--
1,2-Dibromoethane	ND		ug/l	2.0	--
1,3-Dichloropropane	ND		ug/l	2.0	--
1,1,1,2-Tetrachloroethane	ND		ug/l	1.0	--
Bromobenzene	ND		ug/l	2.0	--
n-Butylbenzene	ND		ug/l	2.0	--
sec-Butylbenzene	ND		ug/l	2.0	--
tert-Butylbenzene	ND		ug/l	2.0	--
o-Chlorotoluene	ND		ug/l	2.0	--
p-Chlorotoluene	ND		ug/l	2.0	--
1,2-Dibromo-3-chloropropane	ND		ug/l	2.0	--
Hexachlorobutadiene	ND		ug/l	0.60	--
Isopropylbenzene	ND		ug/l	2.0	--
p-Isopropyltoluene	ND		ug/l	2.0	--
Naphthalene	ND		ug/l	2.0	--
n-Propylbenzene	ND		ug/l	2.0	--



**Project Name:** 300 THIRD STREET  
**Project Number:** 04-7590GD2

**Lab Number:** L1100110  
**Report Date:** 01/07/11

**Method Blank Analysis**  
**Batch Quality Control**

Analytical Method: 97,8260B  
 Analytical Date: 01/06/11 08:16  
 Analyst: MM

Parameter	Result	Qualifier	Units	RL	MDL
MCP Volatile Organics - Westborough Lab for sample(s): 01 Batch: WG450668-3					
1,2,3-Trichlorobenzene	ND		ug/l	2.0	--
1,2,4-Trichlorobenzene	ND		ug/l	2.0	--
1,3,5-Trimethylbenzene	ND		ug/l	2.0	--
1,2,4-Trimethylbenzene	ND		ug/l	2.0	--
Ethyl ether	ND		ug/l	2.0	--
Isopropyl Ether	ND		ug/l	2.0	--
Ethyl-Tert-Butyl-Ether	ND		ug/l	2.0	--
Tertiary-Amyl Methyl Ether	ND		ug/l	2.0	--
1,4-Dioxane	ND		ug/l	250	--

Surrogate	%Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	101		70-130
Toluene-d8	95		70-130
4-Bromofluorobenzene	101		70-130
Dibromofluoromethane	108		70-130

**Project Name:** 300 THIRD STREET  
**Project Number:** 04-7590GD2

**Lab Number:** L1100110  
**Report Date:** 01/07/11

**Method Blank Analysis**  
**Batch Quality Control**

Analytical Method: 97,8260B  
Analytical Date: 01/06/11 08:00  
Analyst: MM

Parameter	Result	Qualifier	Units	RL	MDL
MCP Volatile Organics - Westborough Lab for sample(s): 02-05 Batch: WG450669-3					
Methylene chloride	ND		ug/l	2.0	--
1,1-Dichloroethane	ND		ug/l	1.0	--
Chloroform	ND		ug/l	1.0	--
Carbon tetrachloride	ND		ug/l	1.0	--
1,2-Dichloropropane	ND		ug/l	1.0	--
Dibromochloromethane	ND		ug/l	1.0	--
1,1,2-Trichloroethane	ND		ug/l	1.0	--
Tetrachloroethene	ND		ug/l	1.0	--
Chlorobenzene	ND		ug/l	1.0	--
Trichlorofluoromethane	ND		ug/l	2.0	--
1,2-Dichloroethane	ND		ug/l	1.0	--
1,1,1-Trichloroethane	ND		ug/l	1.0	--
Bromodichloromethane	ND		ug/l	1.0	--
trans-1,3-Dichloropropene	ND		ug/l	0.50	--
cis-1,3-Dichloropropene	ND		ug/l	0.50	--
1,1-Dichloropropene	ND		ug/l	2.0	--
Bromoform	ND		ug/l	2.0	--
1,1,2,2-Tetrachloroethane	ND		ug/l	1.0	--
Benzene	ND		ug/l	1.0	--
Toluene	ND		ug/l	1.0	--
Ethylbenzene	ND		ug/l	1.0	--
Chloromethane	ND		ug/l	2.0	--
Bromomethane	ND		ug/l	2.0	--
Vinyl chloride	ND		ug/l	1.0	--
Chloroethane	ND		ug/l	2.0	--
1,1-Dichloroethene	ND		ug/l	1.0	--
trans-1,2-Dichloroethene	ND		ug/l	1.0	--
Trichloroethene	ND		ug/l	1.0	--
1,2-Dichlorobenzene	ND		ug/l	1.0	--
1,3-Dichlorobenzene	ND		ug/l	1.0	--
1,4-Dichlorobenzene	ND		ug/l	1.0	--





**Project Name:** 300 THIRD STREET  
**Project Number:** 04-7590GD2

**Lab Number:** L1100110  
**Report Date:** 01/07/11

**Method Blank Analysis**  
**Batch Quality Control**

Analytical Method: 97,8260B  
Analytical Date: 01/06/11 08:00  
Analyst: MM

Parameter	Result	Qualifier	Units	RL	MDL
MCP Volatile Organics - Westborough Lab for sample(s): 02-05 Batch: WG450669-3					
Methyl tert butyl ether	ND		ug/l	2.0	--
p/m-Xylene	ND		ug/l	2.0	--
o-Xylene	ND		ug/l	1.0	--
cis-1,2-Dichloroethene	ND		ug/l	1.0	--
Dibromomethane	ND		ug/l	2.0	--
1,2,3-Trichloropropane	ND		ug/l	2.0	--
Styrene	ND		ug/l	1.0	--
Dichlorodifluoromethane	ND		ug/l	2.0	--
Acetone	ND		ug/l	5.0	--
Carbon disulfide	ND		ug/l	2.0	--
2-Butanone	ND		ug/l	5.0	--
4-Methyl-2-pentanone	ND		ug/l	5.0	--
2-Hexanone	ND		ug/l	5.0	--
Bromochloromethane	ND		ug/l	2.0	--
Tetrahydrofuran	ND		ug/l	5.0	--
2,2-Dichloropropane	ND		ug/l	2.0	--
1,2-Dibromoethane	ND		ug/l	2.0	--
1,3-Dichloropropane	ND		ug/l	2.0	--
1,1,1,2-Tetrachloroethane	ND		ug/l	1.0	--
Bromobenzene	ND		ug/l	2.0	--
n-Butylbenzene	ND		ug/l	2.0	--
sec-Butylbenzene	ND		ug/l	2.0	--
tert-Butylbenzene	ND		ug/l	2.0	--
o-Chlorotoluene	ND		ug/l	2.0	--
p-Chlorotoluene	ND		ug/l	2.0	--
1,2-Dibromo-3-chloropropane	ND		ug/l	2.0	--
Hexachlorobutadiene	ND		ug/l	0.60	--
Isopropylbenzene	ND		ug/l	2.0	--
p-Isopropyltoluene	ND		ug/l	2.0	--
Naphthalene	ND		ug/l	2.0	--
n-Propylbenzene	ND		ug/l	2.0	--



**Project Name:** 300 THIRD STREET  
**Project Number:** 04-7590GD2

**Lab Number:** L1100110  
**Report Date:** 01/07/11

**Method Blank Analysis**  
**Batch Quality Control**

Analytical Method: 97,8260B  
 Analytical Date: 01/06/11 08:00  
 Analyst: MM

Parameter	Result	Qualifier	Units	RL	MDL
MCP Volatile Organics - Westborough Lab for sample(s): 02-05 Batch: WG450669-3					
1,2,3-Trichlorobenzene	ND		ug/l	2.0	--
1,2,4-Trichlorobenzene	ND		ug/l	2.0	--
1,3,5-Trimethylbenzene	ND		ug/l	2.0	--
1,2,4-Trimethylbenzene	ND		ug/l	2.0	--
Ethyl ether	ND		ug/l	2.0	--
Isopropyl Ether	ND		ug/l	2.0	--
Ethyl-Tert-Butyl-Ether	ND		ug/l	2.0	--
Tertiary-Amyl Methyl Ether	ND		ug/l	2.0	--
1,4-Dioxane	ND		ug/l	250	--

Surrogate	%Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	102		70-130
Toluene-d8	92		70-130
4-Bromofluorobenzene	102		70-130
Dibromofluoromethane	103		70-130

## Lab Control Sample Analysis

### Batch Quality Control

Project Name: 300 THIRD STREET

Project Number: 04-7590GD2

Lab Number: L1100110

Report Date: 01/07/11

Parameter	LCS		LCSD		%Recovery Limits	RPD	Qual	RPD Limits
	%Recovery	Qual	%Recovery	Qual				
MCP Volatile Organics - Westborough Lab Associated sample(s): 01 Batch: WG450668-1 WG450668-2								
Methylene chloride	92		91		70-130	1		20
1,1-Dichloroethane	89		90		70-130	1		20
Chloroform	93		93		70-130	0		20
Carbon tetrachloride	105		107		70-130	2		20
1,2-Dichloropropane	87		86		70-130	1		20
Dibromochloromethane	100		94		70-130	6		20
1,1,2-Trichloroethane	96		89		70-130	8		20
Tetrachloroethene	100		100		70-130	0		20
Chlorobenzene	91		91		70-130	0		20
Trichlorofluoromethane	106		106		70-130	0		20
1,2-Dichloroethane	97		94		70-130	3		20
1,1,1-Trichloroethane	99		100		70-130	1		20
Bromodichloromethane	95		94		70-130	1		20
trans-1,3-Dichloropropene	113		107		70-130	5		20
cis-1,3-Dichloropropene	96		92		70-130	4		20
1,1-Dichloropropene	94		94		70-130	0		20
Bromoform	115		104		70-130	10		20
1,1,2,2-Tetrachloroethane	92		89		70-130	3		20
Benzene	93		93		70-130	0		20
Toluene	91		93		70-130	2		20
Ethylbenzene	96		99		70-130	3		20

## Lab Control Sample Analysis

### Batch Quality Control

Project Name: 300 THIRD STREET

Project Number: 04-7590GD2

Lab Number: L1100110

Report Date: 01/07/11

Parameter	LCS		LCSD		%Recovery Limits	RPD	Qual	RPD Limits
	%Recovery	Qual	%Recovery	Qual				
MCP Volatile Organics - Westborough Lab Associated sample(s): 01 Batch: WG450668-1 WG450668-2								
Chloromethane	83		82		70-130	1		20
Bromomethane	82		90		70-130	9		20
Vinyl chloride	78		79		70-130	1		20
Chloroethane	96		98		70-130	2		20
1,1-Dichloroethene	100		103		70-130	3		20
trans-1,2-Dichloroethene	88		90		70-130	2		20
Trichloroethene	94		95		70-130	1		20
1,2-Dichlorobenzene	91		92		70-130	1		20
1,3-Dichlorobenzene	90		94		70-130	4		20
1,4-Dichlorobenzene	89		93		70-130	4		20
Methyl tert butyl ether	88		81		70-130	8		20
p/m-Xylene	99		99		70-130	0		20
o-Xylene	98		99		70-130	1		20
cis-1,2-Dichloroethene	92		93		70-130	1		20
Dibromomethane	97		93		70-130	4		20
1,2,3-Trichloropropane	94		88		70-130	7		20
Styrene	97		97		70-130	0		20
Dichlorodifluoromethane	75		76		70-130	1		20
Acetone	107		88		70-130	19		20
Carbon disulfide	100		104		70-130	4		20
2-Butanone	121		101		70-130	18		20

## Lab Control Sample Analysis

### Batch Quality Control

Project Name: 300 THIRD STREET

Project Number: 04-7590GD2

Lab Number: L1100110

Report Date: 01/07/11

Parameter	LCS		LCSD		%Recovery Limits	RPD	Qual	RPD Limits
	%Recovery	Qual	%Recovery	Qual				
MCP Volatile Organics - Westborough Lab Associated sample(s): 01 Batch: WG450668-1 WG450668-2								
4-Methyl-2-pentanone	107		99		70-130	8		20
2-Hexanone	102		92		70-130	10		20
Bromochloromethane	97		94		70-130	3		20
Tetrahydrofuran	90		83		70-130	8		20
2,2-Dichloropropane	110		110		70-130	0		20
1,2-Dibromoethane	99		92		70-130	7		20
1,3-Dichloropropane	97		91		70-130	6		20
1,1,1,2-Tetrachloroethane	104		103		70-130	1		20
Bromobenzene	91		92		70-130	1		20
n-Butylbenzene	88		91		70-130	3		20
sec-Butylbenzene	89		92		70-130	3		20
tert-Butylbenzene	90		92		70-130	2		20
o-Chlorotoluene	92		94		70-130	2		20
p-Chlorotoluene	88		102		70-130	15		20
1,2-Dibromo-3-chloropropane	104		88		70-130	17		20
Hexachlorobutadiene	84		94		70-130	11		20
Isopropylbenzene	96		96		70-130	0		20
p-Isopropyltoluene	94		96		70-130	2		20
Naphthalene	71		67	Q	70-130	6		20
n-Propylbenzene	91		94		70-130	3		20
1,2,3-Trichlorobenzene	80		81		70-130	1		20

### Lab Control Sample Analysis Batch Quality Control

**Project Name:** 300 THIRD STREET  
**Project Number:** 04-7590GD2

**Lab Number:** L1100110  
**Report Date:** 01/07/11

Parameter	LCS		LCSD		%Recovery Limits	RPD	Qual	RPD Limits
	%Recovery	Qual	%Recovery	Qual				
MCP Volatile Organics - Westborough Lab Associated sample(s): 01 Batch: WG450668-1 WG450668-2								
1,2,4-Trichlorobenzene	81		82		70-130	1		20
1,3,5-Trimethylbenzene	101		104		70-130	3		20
1,2,4-Trimethylbenzene	90		92		70-130	2		20
Ethyl ether	95		85		70-130	11		20
Isopropyl Ether	87		84		70-130	4		20
Ethyl-Tert-Butyl-Ether	92		85		70-130	8		20
Tertiary-Amyl Methyl Ether	100		94		70-130	6		20
1,4-Dioxane	<b>134</b>	Q	123		70-130	9		20

Surrogate	LCS		LCSD		Acceptance Criteria
	%Recovery	Qual	%Recovery	Qual	
1,2-Dichloroethane-d4	98		94		70-130
Toluene-d8	96		99		70-130
4-Bromofluorobenzene	93		96		70-130
Dibromofluoromethane	96		98		70-130



## Lab Control Sample Analysis

### Batch Quality Control

Project Name: 300 THIRD STREET

Lab Number: L1100110

Project Number: 04-7590GD2

Report Date: 01/07/11

Parameter	LCS		LCSD		%Recovery Limits	RPD	Qual	RPD Limits
	%Recovery	Qual	%Recovery	Qual				
MCP Volatile Organics - Westborough Lab Associated sample(s): 02-05 Batch: WG450669-1 WG450669-2								
Methylene chloride	93		96		70-130	3		20
1,1-Dichloroethane	86		87		70-130	1		20
Chloroform	88		90		70-130	2		20
Carbon tetrachloride	88		88		70-130	0		20
1,2-Dichloropropane	83		84		70-130	1		20
Dibromochloromethane	83		86		70-130	4		20
1,1,2-Trichloroethane	82		85		70-130	4		20
Tetrachloroethene	89		84		70-130	6		20
Chlorobenzene	86		86		70-130	0		20
Trichlorofluoromethane	110		110		70-130	0		20
1,2-Dichloroethane	88		92		70-130	4		20
1,1,1-Trichloroethane	87		86		70-130	1		20
Bromodichloromethane	89		88		70-130	1		20
trans-1,3-Dichloropropene	79		82		70-130	4		20
cis-1,3-Dichloropropene	82		88		70-130	7		20
1,1-Dichloropropene	84		82		70-130	2		20
Bromoform	88		94		70-130	7		20
1,1,2,2-Tetrachloroethane	81		87		70-130	7		20
Benzene	87		87		70-130	0		20
Toluene	83		84		70-130	1		20
Ethylbenzene	91		90		70-130	1		20

## Lab Control Sample Analysis

### Batch Quality Control

Project Name: 300 THIRD STREET

Project Number: 04-7590GD2

Lab Number: L1100110

Report Date: 01/07/11

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
MCP Volatile Organics - Westborough Lab Associated sample(s): 02-05 Batch: WG450669-1 WG450669-2								
Chloromethane	87		87		70-130	0		20
Bromomethane	104		99		70-130	5		20
Vinyl chloride	84		83		70-130	1		20
Chloroethane	99		95		70-130	4		20
1,1-Dichloroethene	94		96		70-130	2		20
trans-1,2-Dichloroethene	82		82		70-130	0		20
Trichloroethene	85		84		70-130	1		20
1,2-Dichlorobenzene	88		89		70-130	1		20
1,3-Dichlorobenzene	91		90		70-130	1		20
1,4-Dichlorobenzene	89		92		70-130	3		20
Methyl tert butyl ether	70		78		70-130	11		20
p/m-Xylene	94		93		70-130	1		20
o-Xylene	96		95		70-130	1		20
cis-1,2-Dichloroethene	89		90		70-130	1		20
Dibromomethane	90		96		70-130	6		20
1,2,3-Trichloropropane	80		88		70-130	10		20
Styrene	96		97		70-130	1		20
Dichlorodifluoromethane	87		87		70-130	0		20
Acetone	93		105		70-130	12		20
Carbon disulfide	98		94		70-130	4		20
2-Butanone	90		104		70-130	14		20



## Lab Control Sample Analysis

### Batch Quality Control

Project Name: 300 THIRD STREET

Lab Number: L1100110

Project Number: 04-7590GD2

Report Date: 01/07/11

Parameter	LCS		LCSD		%Recovery Limits	RPD	Qual	RPD Limits
	%Recovery	Qual	%Recovery	Qual				
MCP Volatile Organics - Westborough Lab Associated sample(s): 02-05 Batch: WG450669-1 WG450669-2								
4-Methyl-2-pentanone	87		104		70-130	18		20
2-Hexanone	75		88		70-130	16		20
Bromochloromethane	91		97		70-130	6		20
Tetrahydrofuran	72		83		70-130	14		20
2,2-Dichloropropane	88		86		70-130	2		20
1,2-Dibromoethane	82		87		70-130	6		20
1,3-Dichloropropane	80		85		70-130	6		20
1,1,1,2-Tetrachloroethane	90		91		70-130	1		20
Bromobenzene	90		89		70-130	1		20
n-Butylbenzene	87		84		70-130	4		20
sec-Butylbenzene	86		80		70-130	7		20
tert-Butylbenzene	84		82		70-130	2		20
o-Chlorotoluene	90		88		70-130	2		20
p-Chlorotoluene	89		86		70-130	3		20
1,2-Dibromo-3-chloropropane	83		89		70-130	7		20
Hexachlorobutadiene	92		87		70-130	6		20
Isopropylbenzene	88		88		70-130	0		20
p-Isopropyltoluene	90		86		70-130	5		20
Naphthalene	66	Q	73		70-130	10		20
n-Propylbenzene	88		83		70-130	6		20
1,2,3-Trichlorobenzene	75		82		70-130	9		20

## Lab Control Sample Analysis

Batch Quality Control

Project Name: 300 THIRD STREET

Lab Number: L1100110

Project Number: 04-7590GD2

Report Date: 01/07/11

Parameter	LCS		LCSD		%Recovery Limits	RPD	Qual	RPD Limits
	%Recovery	Qual	%Recovery	Qual				
MCP Volatile Organics - Westborough Lab Associated sample(s): 02-05 Batch: WG450669-1 WG450669-2								
1,2,4-Trichlorobenzene	82		85		70-130	4		20
1,3,5-Trimethylbenzene	86		83		70-130	4		20
1,2,4-Trimethylbenzene	92		89		70-130	3		20
Ethyl ether	73		80		70-130	9		20
Isopropyl Ether	79		85		70-130	7		20
Ethyl-Tert-Butyl-Ether	79		86		70-130	8		20
Tertiary-Amyl Methyl Ether	88		97		70-130	10		20
1,4-Dioxane	120		136	Q	70-130	13		20

Surrogate	LCS		LCSD		Acceptance Criteria
	%Recovery	Qual	%Recovery	Qual	
1,2-Dichloroethane-d4	98		98		70-130
Toluene-d8	97		97		70-130
4-Bromofluorobenzene	95		94		70-130
Dibromofluoromethane	103		105		70-130

# PETROLEUM HYDROCARBONS

**Project Name:** 300 THIRD STREET  
**Project Number:** 04-7590GD2

**Lab Number:** L1100110  
**Report Date:** 01/07/11

**SAMPLE RESULTS**

Lab ID: L1100110-01 D  
 Client ID: B-201  
 Sample Location: CAMBRIDGE, MA  
 Matrix: Water  
 Analytical Method: 100, VPH-04-1.1  
 Analytical Date: 01/07/11 00:47  
 Analyst: RC

Date Collected: 01/04/11 12:48  
 Date Received: 01/05/11  
 Field Prep: Not Specified

**Quality Control Information**

Condition of sample received: Satisfactory  
 Aqueous Preservative: Laboratory Provided Preserved Container  
 Sample Temperature upon receipt: Received on Ice

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
<b>Volatile Petroleum Hydrocarbons - Westborough Lab</b>						
C5-C8 Aliphatics	3340		ug/l	2500	--	50
C9-C12 Aliphatics	20200		ug/l	2500	--	50
C9-C10 Aromatics	ND		ug/l	2500	--	50
C5-C8 Aliphatics, Adjusted	ND		ug/l	2500	--	50
C9-C12 Aliphatics, Adjusted	11300		ug/l	2500	--	50
Benzene	1030		ug/l	100	--	50
Toluene	992		ug/l	100	--	50
Ethylbenzene	1890		ug/l	100	--	50
p/m-Xylene	5010		ug/l	100	--	50
o-Xylene	2000		ug/l	100	--	50
Methyl tert butyl ether	ND		ug/l	150	--	50
Naphthalene	ND		ug/l	200	--	50

Surrogate	% Recovery	Qualifier	Acceptance Criteria
2,5-Dibromotoluene-PID	106		70-130
2,5-Dibromotoluene-FID	114		70-130



**Project Name:** 300 THIRD STREET  
**Project Number:** 04-7590GD2

**Lab Number:** L1100110  
**Report Date:** 01/07/11

**SAMPLE RESULTS**

Lab ID: L1100110-03 D  
 Client ID: MW-58  
 Sample Location: CAMBRIDGE, MA  
 Matrix: Water  
 Analytical Method: 100, VPH-04-1.1  
 Analytical Date: 01/07/11 13:47  
 Analyst: RC

Date Collected: 01/04/11 15:59  
 Date Received: 01/05/11  
 Field Prep: Not Specified

**Quality Control Information**

Condition of sample received: Satisfactory  
 Aqueous Preservative: Laboratory Provided Preserved Container  
 Sample Temperature upon receipt: Received on Ice

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
<b>Volatile Petroleum Hydrocarbons - Westborough Lab</b>						
C5-C8 Aliphatics	12800		ug/l	2500	--	50
C9-C12 Aliphatics	4530		ug/l	2500	--	50
C9-C10 Aromatics	ND		ug/l	2500	--	50
C5-C8 Aliphatics, Adjusted	5690		ug/l	2500	--	50
C9-C12 Aliphatics, Adjusted	3120		ug/l	2500	--	50
Benzene	7070		ug/l	100	--	50
Toluene	ND		ug/l	100	--	50
Ethylbenzene	1130		ug/l	100	--	50
p/m-Xylene	159		ug/l	100	--	50
o-Xylene	113		ug/l	100	--	50
Methyl tert butyl ether	ND		ug/l	150	--	50
Naphthalene	520		ug/l	200	--	50

Surrogate	% Recovery	Qualifier	Acceptance Criteria
2,5-Dibromotoluene-PID	110		70-130
2,5-Dibromotoluene-FID	119		70-130



**Project Name:** 300 THIRD STREET  
**Project Number:** 04-7590GD2

**Lab Number:** L1100110  
**Report Date:** 01/07/11

**SAMPLE RESULTS**

Lab ID: L1100110-04 D  
 Client ID: MW-58 DUP  
 Sample Location: CAMBRIDGE, MA  
 Matrix: Water  
 Analytical Method: 100, VPH-04-1.1  
 Analytical Date: 01/07/11 14:37  
 Analyst: RC

Date Collected: 01/04/11 15:59  
 Date Received: 01/05/11  
 Field Prep: Not Specified

**Quality Control Information**

Condition of sample received: Satisfactory  
 Aqueous Preservative: Laboratory Provided Preserved Container  
 Sample Temperature upon receipt: Received on Ice

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
<b>Volatile Petroleum Hydrocarbons - Westborough Lab</b>						
C5-C8 Aliphatics	12600		ug/l	2500	--	50
C9-C12 Aliphatics	4510		ug/l	2500	--	50
C9-C10 Aromatics	ND		ug/l	2500	--	50
C5-C8 Aliphatics, Adjusted	5720		ug/l	2500	--	50
C9-C12 Aliphatics, Adjusted	3140		ug/l	2500	--	50
Benzene	6850		ug/l	100	--	50
Toluene	ND		ug/l	100	--	50
Ethylbenzene	1110		ug/l	100	--	50
p/m-Xylene	151		ug/l	100	--	50
o-Xylene	108		ug/l	100	--	50
Methyl tert butyl ether	ND		ug/l	150	--	50
Naphthalene	520		ug/l	200	--	50

Surrogate	% Recovery	Qualifier	Acceptance Criteria
2,5-Dibromotoluene-PID	109		70-130
2,5-Dibromotoluene-FID	118		70-130



**Project Name:** 300 THIRD STREET  
**Project Number:** 04-7590GD2

**Lab Number:** L1100110  
**Report Date:** 01/07/11

**SAMPLE RESULTS**

Lab ID: L1100110-05  
 Client ID: TB-20110104  
 Sample Location: CAMBRIDGE, MA  
 Matrix: Water  
 Analytical Method: 100, VPH-04-1.1  
 Analytical Date: 01/06/11 15:04  
 Analyst: RC

Date Collected: 01/04/11 00:00  
 Date Received: 01/05/11  
 Field Prep: Not Specified

**Quality Control Information**

Condition of sample received: Satisfactory  
 Aqueous Preservative: Laboratory Provided Preserved Container  
 Sample Temperature upon receipt: Received on Ice

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
<b>Volatile Petroleum Hydrocarbons - Westborough Lab</b>						
C5-C8 Aliphatics	ND		ug/l	50.0	--	1
C9-C12 Aliphatics	ND		ug/l	50.0	--	1
C9-C10 Aromatics	ND		ug/l	50.0	--	1
C5-C8 Aliphatics, Adjusted	ND		ug/l	50.0	--	1
C9-C12 Aliphatics, Adjusted	ND		ug/l	50.0	--	1
Benzene	ND		ug/l	2.00	--	1
Toluene	ND		ug/l	2.00	--	1
Ethylbenzene	ND		ug/l	2.00	--	1
p/m-Xylene	ND		ug/l	2.00	--	1
o-Xylene	ND		ug/l	2.00	--	1
Methyl tert butyl ether	ND		ug/l	3.00	--	1
Naphthalene	ND		ug/l	4.00	--	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
2,5-Dibromotoluene-PID	102		70-130
2,5-Dibromotoluene-FID	109		70-130



**Project Name:** 300 THIRD STREET  
**Project Number:** 04-7590GD2

**Lab Number:** L1100110  
**Report Date:** 01/07/11

**Method Blank Analysis**  
**Batch Quality Control**

Analytical Method: 100, VPH-04-1.1  
 Analytical Date: 01/06/11 13:41  
 Analyst: RC

Parameter	Result	Qualifier	Units	RL	MDL
Volatile Petroleum Hydrocarbons - Westborough Lab for sample(s): 01-02,05 Batch: WG450383-3					
C5-C8 Aliphatics	ND		ug/l	50.0	--
C9-C12 Aliphatics	ND		ug/l	50.0	--
C9-C10 Aromatics	ND		ug/l	50.0	--
C5-C8 Aliphatics, Adjusted	ND		ug/l	50.0	--
C9-C12 Aliphatics, Adjusted	ND		ug/l	50.0	--
Benzene	ND		ug/l	2.00	--
Toluene	ND		ug/l	2.00	--
Ethylbenzene	ND		ug/l	2.00	--
p/m-Xylene	ND		ug/l	2.00	--
o-Xylene	ND		ug/l	2.00	--
Methyl tert butyl ether	ND		ug/l	3.00	--
Naphthalene	ND		ug/l	4.00	--

Surrogate	%Recovery	Qualifier	Acceptance Criteria
2,5-Dibromotoluene-PID	107		70-130
2,5-Dibromotoluene-FID	115		70-130



**Project Name:** 300 THIRD STREET  
**Project Number:** 04-7590GD2

**Lab Number:** L1100110  
**Report Date:** 01/07/11

**Method Blank Analysis  
Batch Quality Control**

Analytical Method: 100, VPH-04-1.1  
Analytical Date: 01/07/11 12:57  
Analyst: RC

Parameter	Result	Qualifier	Units	RL	MDL
Volatile Petroleum Hydrocarbons - Westborough Lab for sample(s): 03-04 Batch: WG450564-3					
C5-C8 Aliphatics	ND		ug/l	50.0	--
C9-C12 Aliphatics	ND		ug/l	50.0	--
C9-C10 Aromatics	ND		ug/l	50.0	--
C5-C8 Aliphatics, Adjusted	ND		ug/l	50.0	--
C9-C12 Aliphatics, Adjusted	ND		ug/l	50.0	--
Benzene	ND		ug/l	2.00	--
Toluene	ND		ug/l	2.00	--
Ethylbenzene	ND		ug/l	2.00	--
p/m-Xylene	ND		ug/l	2.00	--
o-Xylene	ND		ug/l	2.00	--
Methyl tert butyl ether	ND		ug/l	3.00	--
Naphthalene	ND		ug/l	4.00	--

Surrogate	%Recovery	Qualifier	Acceptance Criteria
2,5-Dibromotoluene-PID	107		70-130
2,5-Dibromotoluene-FID	118		70-130

## Lab Control Sample Analysis

### Batch Quality Control

Project Name: 300 THIRD STREET

Project Number: 04-7590GD2

Lab Number: L1100110

Report Date: 01/07/11

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Volatile Petroleum Hydrocarbons - Westborough Lab Associated sample(s): 01-02,05 Batch: WG450383-1 WG450383-2								
C5-C8 Aliphatics	85		77		70-130	10		25
C9-C12 Aliphatics	93		85		70-130	9		25
C9-C10 Aromatics	99		91		70-130	9		25
Benzene	97		86		70-130	12		25
Toluene	100		91		70-130	9		25
Ethylbenzene	101		92		70-130	10		25
p/m-Xylene	99		90		70-130	9		25
o-Xylene	101		93		70-130	8		25
Methyl tert butyl ether	95		87		70-130	9		25
Naphthalene	93		88		70-130	5		25
1,2,4-Trimethylbenzene	100		92		70-130	9		25
Pentane	<b>66</b>	Q	<b>58</b>	Q	70-130	12		25
2-Methylpentane	84		77		70-130	9		25
2,2,4-Trimethylpentane	101		92		70-130	9		25
n-Nonane	96		87		30-130	10		25
n-Decane	96		88		70-130	8		25
n-Butylcyclohexane	97		89		70-130	9		25

## Lab Control Sample Analysis

### Batch Quality Control

**Project Name:** 300 THIRD STREET  
**Project Number:** 04-7590GD2

**Lab Number:** L1100110  
**Report Date:** 01/07/11

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Volatile Petroleum Hydrocarbons - Westborough Lab Associated sample(s): 01-02,05 Batch: WG450383-1 WG450383-2								

Surrogate	LCS %Recovery	Qual	LCSD %Recovery	Qual	Acceptance Criteria
2,5-Dibromotoluene-PID	93		87		70-130
2,5-Dibromotoluene-FID	100		92		70-130

Volatile Petroleum Hydrocarbons - Westborough Lab Associated sample(s): 03-04 Batch: WG450564-1 WG450564-2								
C5-C8 Aliphatics	109		112		70-130	3		25
C9-C12 Aliphatics	90		93		70-130	3		25
C9-C10 Aromatics	96		98		70-130	2		25
Benzene	99		100		70-130	1		25
Toluene	100		102		70-130	2		25
Ethylbenzene	99		99		70-130	0		25
p/m-Xylene	97		98		70-130	0		25
o-Xylene	100		100		70-130	0		25
Methyl tert butyl ether	100		101		70-130	1		25



## Lab Control Sample Analysis

### Batch Quality Control

Project Name: 300 THIRD STREET

Project Number: 04-7590GD2

Lab Number: L1100110

Report Date: 01/07/11

Parameter	LCS		LCSD		%Recovery Limits	RPD	Qual	RPD Limits
	%Recovery	Qual	%Recovery	Qual				
Volatile Petroleum Hydrocarbons - Westborough Lab Associated sample(s): 03-04 Batch: WG450564-1 WG450564-2								
Naphthalene	90		95		70-130	5		25
1,2,4-Trimethylbenzene	98		99		70-130	1		25
Pentane	110		110		70-130	0		25
2-Methylpentane	109		112		70-130	3		25
2,2,4-Trimethylpentane	108		112		70-130	4		25
n-Nonane	95		96		30-130	1		25
n-Decane	94		97		70-130	3		25
n-Butylcyclohexane	95		97		70-130	2		25

Surrogate	LCS		LCSD		Acceptance Criteria
	%Recovery	Qual	%Recovery	Qual	
2,5-Dibromotoluene-PID	90		94		70-130
2,5-Dibromotoluene-FID	97		101		70-130

Project Name: 300 THIRD STREET

Lab Number: L1100110

Project Number: 04-7590GD2

Report Date: 01/07/11

## Sample Receipt and Container Information

Were project specific reporting limits specified? YES

Reagent H2O Preserved Vials Frozen on: NA

## Cooler Information Custody Seal

## Cooler

A Absent

## Container Information

Container ID	Container Type	Cooler	pH	Temp deg C	Pres	Seal	Analysis(*)
L1100110-01A	Vial HCl preserved	A	N/A	3	Y	Absent	MCP-8260-10(14)
L1100110-01B	Vial HCl preserved	A	N/A	3	Y	Absent	MCP-8260-10(14)
L1100110-01C	Vial HCl preserved	A	N/A	3	Y	Absent	VPH-DELUX-10(14)
L1100110-01D	Vial HCl preserved	A	N/A	3	Y	Absent	VPH-DELUX-10(14)
L1100110-02A	Vial HCl preserved	A	N/A	3	Y	Absent	MCP-8260-10(14)
L1100110-02B	Vial HCl preserved	A	N/A	3	Y	Absent	MCP-8260-10(14)
L1100110-02C	Vial HCl preserved	A	N/A	3	Y	Absent	VPH-DELUX-10(14)
L1100110-02D	Vial HCl preserved	A	N/A	3	Y	Absent	VPH-DELUX-10(14)
L1100110-03A	Vial HCl preserved	A	N/A	3	Y	Absent	MCP-8260-10(14)
L1100110-03B	Vial HCl preserved	A	N/A	3	Y	Absent	MCP-8260-10(14)
L1100110-03C	Vial HCl preserved	A	N/A	3	Y	Absent	VPH-DELUX-10(14)
L1100110-03D	Vial HCl preserved	A	N/A	3	Y	Absent	VPH-DELUX-10(14)
L1100110-04A	Vial HCl preserved	A	N/A	3	Y	Absent	MCP-8260-10(14)
L1100110-04B	Vial HCl preserved	A	N/A	3	Y	Absent	MCP-8260-10(14)
L1100110-04C	Vial HCl preserved	A	N/A	3	Y	Absent	VPH-DELUX-10(14)
L1100110-04D	Vial HCl preserved	A	N/A	3	Y	Absent	VPH-DELUX-10(14)
L1100110-05A	Vial HCl preserved	A	N/A	3	Y	Absent	MCP-8260-10(14)
L1100110-05B	Vial HCl preserved	A	N/A	3	Y	Absent	VPH-DELUX-10(14)

\*Values in parentheses indicate holding time in days



**Project Name:** 300 THIRD STREET  
**Project Number:** 04-7590GD2

**Lab Number:** L1100110  
**Report Date:** 01/07/11

## GLOSSARY

### Acronyms

- EPA** - Environmental Protection Agency.
- LCS** - Laboratory Control Sample: A sample matrix, free from the analytes of interest, spiked with verified known amounts of analytes or a material containing known and verified amounts of analytes.
- LCSD** - Laboratory Control Sample Duplicate: Refer to LCS.
- 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.

### 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.
- 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.
- H** - The analysis of pH was performed beyond the regulatory-required holding time of 15 minutes from the time of sample collection.
- I** - The RPD between the results for the two columns exceeds the method-specified criteria; however, the lower value has been reported due to obvious interference.
- 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. 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.

Report Format: Data Usability Report



**Project Name:** 300 THIRD STREET  
**Project Number:** 04-7590GD2

**Lab Number:** L1100110  
**Report Date:** 01/07/11

*Data Qualifiers*

**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:** 300 THIRD STREET  
**Project Number:** 04-7590GD2

**Lab Number:** L1100110  
**Report Date:** 01/07/11

## REFERENCES

- 97 EPA Test Methods (SW-846) with QC Requirements & Performance Standards for the Analysis of EPA SW-846 Methods under the Massachusetts Contingency Plan, WSC-CAM-IIA, IIB, IIIA, IIIB, IIIC, IIID, VA, VB, VC, VIA, VIB, VIIIA and VIIIB, July 2010.
- 100 Method for the Determination of Volatile Petroleum Hydrocarbons (VPH), MassDEP, May 2004, Revision 1.1 with QC Requirements & Performance Standards for the Analysis of VPH under the Massachusetts Contingency Plan, WSC-CAM-IVA, July 2010.

## LIMITATION OF LIABILITIES

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

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





## Certificate/Approval Program Summary

Last revised July 19, 2010 - Westboro Facility

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

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

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

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

*Solid Waste/Soil* (Inorganic Parameters: pH, Sulfide, Aluminum, Antimony, Arsenic, Barium, Beryllium, Boron, Cadmium, Calcium, Chromium, Hexavalent Chromium, Cobalt, Copper, Iron, Lead, Magnesium, Manganese, Mercury, Molybdenum, Nickel, Potassium, Selenium, Silver, Sodium, Thallium, Tin, Vanadium, Zinc, Total Cyanide, Ignitability, Phenolics, Corrosivity, TCLP Leach (1311), SPLP Leach (1312 metals only), Reactivity. Organic Parameters: PCBs, PCBs in Oil, Organochlorine Pesticides, Technical Chlordane, Toxaphene, Extractable Petroleum Hydrocarbons (ETPH), MA-EPH, MA-VPH, Dicamba, 2,4-D, 2,4,5-T, 2,4,5-TP(Silvex), Volatile Organics, Acid Extractables (Phenols), 3,3'-Dichlorobenzidine, Phthalates, Nitrosamines, Nitroaromatics & Cyclic Ketones, PAHs, Haloethers, Chlorinated Hydrocarbons. )

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

*Drinking Water* (Inorganic Parameters: SM9215B, 9222D, 9223B, EPA 180.1, 300.0, 353.2, SM2130B, 2320B, 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, Lachat 10-107-06-1-B, SM2320B, 2340B, 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, 4500NH3-H, 4500NO3-F, 4500P-B.5, 4500P-E, 5210B, 5220D, 5310C, EPA 200.7, 200.8, 245.1. Organic Parameters: 608, 624, ME DRO, ME GRO, MA EPH, MA VPH.)

*Solid Waste/Soil* (Organic Parameters: ME DRO, ME GRO, MA EPH, MA VPH.)

### 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)

353.2 for: Nitrate-N, Nitrite-N; SM4500NO3-F, 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), 314.0, 332.

Microbiology Parameters: SM9215B; ENZ. SUB. SM9223; 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,Cr,Co,Cu,Fe,Pb,Mn,Mo,Ni,Se,Ag,Sr,Ti,Tl, V,Zn,Ca,Mg,Na,K)

245.1, SM4500H,B, EPA 120.1, SM2510B, 2540C, 2540B, 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-B,C-Titr, 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, SM4500-CN-CE, SM2540D.

Organic Parameters: (EPA 624 for Volatile Halocarbons, Volatile Aromatics)

(608 for: Chlordane, Aldrin, Dieldrin, DDD, DDE, DDT, Heptachlor, Heptachlor Epoxide, PCBs-Water), EPA 625 for SVOC Acid Extractables and SVOC Base/Neutral Extractables, 600/4-81-045-PCB-Oil

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

*Drinking Water (Inorganic Parameters:* SM6215B, 9222B, 9223B Colilert, EPA 200.7, 200.8, 245.2, 120.1, 300.0, 314.0, SM4500CN-E, 4500H+B, 4500NO3-F, 2320B, 2510B, 2540C, 4500F-C, 5310C, 2120B, EPA 331.0. Organic Parameters: 504.1, 524.2, SM6251B.)

*Non-Potable Water (Inorganic Parameters:* SM9222D, 9221B, 9222B, 9221E-EC, EPA 200.7, 200.8, 245.1, 245.2, SW-846 6010B, 6020, 7196A, 7470A, SM3500-CR-D, EPA 120.1, 300.0, 350.1, 351.1, 353.2, 420.1, 1664A, SW-846 9010, 9030, 9040B, SM426C, SM2310B, 2540B, 2540D, 4500H+B, 4500NH3-H, 4500NH3-E, 4500NO2-B, 4500P-E, 4500-S2-D, 5210B, 2320B, 2540C, 4500F-C, 5310C, 5540C, LACHAT 10-117-07-1-B, LACHAT 10-107-06-1-B, LACHAT 10-107-04-1-C, LACHAT 10-107-04-1-J, LACHAT 10-117-07-1-A, SM4500CL-E, LACHAT 10-204-00-1-A, LACHAT 10-107-06-2-D. Organic Parameters: SW-846 3005A, 3015A, 3510C, 5030B, 8021B, 8260B, 8270C, 8330, EPA 624, 625, 608, SW-846 8082, 8081A.)

*Solid & Chemical Materials (Inorganic Parameters:* SW-846 6010B, 7196A, 7471A, 7.3.3.2, 7.3.4.2, 1010, 1030, 9010, 9012A, 9014, 9030B, 9040, 9045C, 9050C, 1311, 3005A, 3050B, 3051A. Organic Parameters: SW-846 3540C, 3545, 3580A, 5030B, 5035, 8021B, 8260B, 8270C, 8330, 8151A, 8082, 8081A.)

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

*Drinking Water (Inorganic Parameters:* SM9222B, 9221E, 9223B, 9215B, 4500NO3-F, 4500F-C, EPA 300.0, 200.7, 2540C, 2320B, 314.0, SM2120B, 2510B, 5310C, SM4500H-B, EPA 200.8, 245.2. Organic Parameters: 504.1, SM6251B, 524.2.)

*Non-Potable Water (Inorganic Parameters:* SM5210B, EPA 410.4, SM5220D, 4500CI-D, EPA 300.0, SM2120B, SM4500F-BC, EPA 200.7, 351.1, LACHAT 10-107-06-2-D, EPA 353.2, SM4500NO3-F, 4500NO2-B, EPA 1664A, SM5310B, C or D, 4500-PE, EPA 420.1, SM4500P-B5+E, 2540B, 2540C, 2540D, EPA 120.1, SM2510B, SM15 426C, SM9221CE, 9222D, 9221B, 9222B, 9215B, 2310B, 2320B, 4500NH3-H, 4500-S D, EPA 350.1, SM5210B, SW-846 3015, 6020, 7470A, 5540C, 4500H-B, EPA 200.8, SM3500Cr-D, EPA 245.1, 245.2, SW-846 9040B, 3005A, EPA 6010B, 7196A, SW-846 9010B, 9030B. Organic Parameters: SW-846 8260B, 8270C, 3510C, EPA 608, 624, 625, SW-846 5030B, 8021B, 8081A, 8082, 8151A, 8330, NJ OQA-QAM-025 Rev.7.)

*Solid & Chemical Materials (Inorganic Parameters:* SW-846 9040B, 3005A, 6010B, 7196A, 5030B, 9010B, 9030B, 1030, 1311, 3050B, 3051, 7471A, 9014, 9012A, 9045C, 9050A, 9065. Organic Parameters: SW-846 8021B, 8081A, 8082, 8151A, 8330, 8260B, 8270C, 1311, 1312, 3540C, 3545, 3550B, 3580A, 5035L, 5035H, NJ OQA-QAM-025 Rev.7.)

**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 314.0, 332.0, SM2320B, EPA 300.0, SM2120B, 4500CN-E, 4500F-C, 4500H-B, 4500NO3-F, 2540C, EPA 120.1, SM 2510B. Organic Parameters: EPA 524.2, 504.1.)

*Non-Potable Water (Inorganic Parameters:* SM9221E, 9222D, 9221B, 9222B, 9215B, 5210B, EPA 410.4, SM5220D, 2310B-4a, 2320B, EPA 200.7, 300.0, LACHAT 10-117-07-1A or B, SM4500CI-E, 4500F-C, SM15 426C, EPA 350.1, LACHAT 10-107-06-1-B, SM4500NH3-H, EPA 351.1, LACHAT 10-107-06-2, EPA 353.2, LACHAT 10-107-041-C, SM4500-NO3-F, 4500-NO2-B, 4500P-E, 2540C, 2540B, 2540D, EPA 200.8, EPA 6010B, 6020, EPA 7196A, SM3500Cr-D, EPA 245.1, 245.2, 7470A, SM2120B, SM4500-CN-E LACHAT 10-204-00-1-A, EPA 9040B, SM4500-HB, EPA 1664A, SM5310C, EPA 420.1, SM14 510C, EPA 120.1, SM2510B, SM4500S-D, SM5540C, EPA 3005A, 3015. Organic Parameters: EPA 624, 8260B, 8270C, 625, 608, 8081A, 8151A, 8330, 8082, EPA 3510C, 5030B, 9010B, 9030B.)

*Solid & Hazardous Waste (Inorganic Parameters:* 1010, 1030, SW-846 Ch 7 Sec 7.3, EPA 6010B, 7196A, 7471A, 9012A, 9014, 9040B, 9045C, 9065, 9050, EPA 1311, 1312, 3005A, 3050B, 9010B, 9030B. Organic Parameters: EPA 8260B, 8270C, 8081A, 8151A, 8330, 8082, 3540C, 3545, 3546, 3580, 5030B, 5035.)

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

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

*Non-Potable Water (Organic Parameters:* EPA 3510C, 5030B, 625, 624. 608, 8081A, 8082, 8151A, 8260B, 8270C, 8330)

*Solid & Hazardous Waste (Inorganic Parameters:* EPA 1010, 1030, 1311, 3050B, 3051, 6010B, EPA 7.3.3.2, EPA 7.3.4.2, 7196A, 7471A, 9010B, 9012A, 9014, 9040B, 9045C, 9050, 9065. Organic Parameters: 3540C, 3545, 3580A, 5035, 8021B, 8081A, 8082, 8151A, 8260B, 8270C, 8330)

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

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

Refer to NY-DOH Certificate for Potable and Non-Potable Water.

**Texas Commission on Environmental Quality Certificate/Lab ID: T104704476-09-1. NELAP Accredited.**

*Non-Potable Water (Inorganic Parameters: EPA 120.1, 1664, 200.7, 200.8, 245.1, 245.2, 300.0, 350.1, 351.1, 353.2, 376.2, 410.4, 420.1, 6010, 6020, 7196, 7470, 9040, SM 2120B, 2310B, 2320B, 2510B, 2540B, 2540C, 2540D, 426C, 4500CL-E, 4500CN-E, 4500F-C, 4500H+B, 4500NH3-H, 4500NO2B, 4500P-E, 4500 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.)*

**Department of Defense Certificate/Lab ID: L2217.**

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

*Non-Potable Water (Inorganic Parameters: EPA 200.7, 200.8, 6010B, 6020, 245.1, 245.2, 7470A, 9040B, 300.0, 9251, 9038, 350.1, 353.2, 351.1, 120.1, 9050A, 410.4, 9060, 1664, 420.1, LACHAT 10-107-06-1-B, SM 4500CN-E, 4500H-B, 4500CL-E, 4500F-BC, 4500SO4-E, 426C, 4500NH3-B, 4500NH3-H, 4500NO3-F, 4500NO2-B, 4500Norg-C, 4500PE, 2510B, 5540C, 5220D, 5310C, 2540B, 2540C, 2540D, 510C, 4500S2-AD, 3005A, 3015, 9010B, 9030B. Organic Parameters: EPA 8260B, 8270C, 8330, 625, 8082, 8151A, 8081A, 3510C, 5030B, MassDEP EPH, MassDEP VPH.)*

*Solid & Hazardous Waste (Inorganic Parameters: EPA 200.7, 6010B, 7471A, 9040B, 9045C, 9065, 420.1, 9012A, 6860, 1311, 1312, 3050B, 9030B, 3051, 9010B, 3540C, SM 510ABC, 4500CN-CE, 2540G, SW-846 7.3, Organic Parameters: EPA 8260B, 8270C, 8330, 8082, 8081A, 8151A, 3545, 3546, 3580, 5035, MassDEP EPH, MassDEP VPH.)*

**Analytes Not Accredited by NELAP**

Certification is not available by NELAP for the following analytes: **EPA 8260B:** Freon-113, 1,2,4,5-Tetramethylbenzene, 4-Ethyltoluene. **EPA 8330A:** PETN, Picric Acid, Nitroglycerine, 2,6-DANT, 2,4-DANT. **EPA 8270C:** Methyl naphthalene, Dimethyl naphthalene, Total Methylnaphthalenes, Total Dimethylnaphthalenes, 1,4-Diphenylhydrazine (Azobenzene). **EPA 625:** 4-Chloroaniline. **EPA 350.1** for Ammonia in a Soil matrix.

# CHAIN OF CUSTODY

PAGE 1 OF 1

Date Rec'd in Lab: 1/5/11

ALPHA Job #: C1100110

Billing Information  
Same as Client Info PO #:



WESTBORO, MA  
TEL: 508-998-9220  
FAX: 508-998-9193

MANFIELD, MA  
TEL: 508-822-9300  
FAX: 508-822-9288

## Client Information

Client: Environ

Address: 8 Hollis St  
Grafton MA 01450

Phone: 978-449-0300

Fax: 978-448-0825

Email: jyung@environcorp.com

Serial No: 0107111644

## Project Information

Project Name: 100 Binney

Project Location: Cambridge MA

Project #: 04-7590GD2

Project Manager: Jim Young

ALPHA Quote #:

Turn-Around Time

Date Due: 1/7/11 Time: COB

Other Project Specific Requirements/Comments/Detection Limits:

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

and jrupp@environcorp.com

ALPHA Lab ID (Lab Use Only)	Sample ID	Collection		Sample Matrix	Sampler's Initials	Date	Time	Container Type	Preservative	Date/Time	Received By:	Date/Time	Sample Specific Comments
		Date	Time										
00110-1	B-201	1/4/11	1248	MW	JME			G	G	1/5/11 11:44	Patella	1/5/11 11:44	
	ENV-10		1453	MW	JME			B	B	1/5/11 12:30	Jarvis	1/5/11 12:30	
	3 MW-58		1559	MW	JME								
	4 MW-58 Dup		1559	MW	JME								
	5 TR-20110104												trip blank

## PLEASE ANSWER QUESTIONS ABOVE!

## IS YOUR PROJECT MAMCP or CT RCP?

Relinquished By:

Date/Time

Received By:

Date/Time

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

7A  
VOLATILE CONTINUING CALIBRATION CHECK

Lab Name: Alpha Analytical Labs

SDG No.: L1100110

Instrument ID: Jack.i                      Calibration Date: 06-JAN-2011    Time: 06:24

Lab File ID: 0106A01                      Init. Calib. Date(s): 29-NOV-2    29-NOV-2

Sample No: 8260 CCAL                      Init. Calib. Times    : 06:25                      10:11

Compound	RRF	RRF	MIN RRF	%D	MAX %D	
=====	=====	=====	=====	=====	=====	
dichlorodifluoromethane	.59257	.51662	.1	13	20	
chloromethane	.79246	.68624	.1	13	20	
vinyl chloride	.65451	.54987	.1	16	20	
bromomethane	.2802	.29022	.1	-4	20	
chloroethane	.26586	.26328	.1	1	20	
trichlorofluoromethane	.64039	.70454	.1	-10	20	
ethyl ether	.17865	.13049	.05	27	20	F
1,1,-dichloroethene	.38963	.36761	.1	6	20	
carbon disulfide	1.0639	1.0464	.1	2	20	
methylene chloride	.64676	.59987	.1	7	20	
acetone	.08018	.07421	.1	7	20	F
trans-1,2-dichloroethene	.65648	.53756	.1	18	20	
methyl tert butyl ether	1.1716	.82652	.1	29	20	F
Ethyl-Tert-Butyl-Ether	1.4236	1.1213	.05	21	20	F
Diisopropyl Ether	1.8059	1.4273	.01	21	20	F
1,1-dichloroethane	1.1604	.99847	.2	14	20	
cis-1,2-dichloroethene	.68626	.60929	.1	11	20	
2,2-dichloropropane	.81224	.7125	.05	12	20	
bromochloromethane	.27984	.25538	.05	9	20	
chloroform	1.0788	.95443	.2	12	20	
carbontetrachloride	.78379	.69209	.1	12	20	
tetrahydrofuran	.114	.08238	.05	28	20	F
1,1,1-trichloroethane	.92031	.80302	.1	13	20	
Tertiary-Amyl Methyl Ether	1.0980	.97099	.05	12	20	
1,1-dichloropropene	.92761	.78315	.05	16	20	
2-butanone	.13125	.11777	.1	10	20	
benzene	2.7435	2.3868	.5	13	20	
1,2-dichloroethane	.62502	.54918	.1	12	20	
trichloroethene	.69092	.58539	.2	15	20	
dibromomethane	.28051	.25135	.05	10	20	
1,2-dichloropropane	.67196	.55699	.1	17	20	
bromodichloromethane	.78928	.70314	.2	11	20	
1,4-dioxane	.00214	.00258	.05	-20	20	F
cis-1,3-dichloropropene	.89499	.73605	.2	18	20	
toluene	2.2810	1.8910	.4	17	20	
tetrachloroethene	.97535	.86398	.2	11	20	
4-methyl-2-pentanone	.11804	.10249	.1	13	20	
trans-1,3-dichloropropene	.88607	.69606	.1	21	20	F

FORM VII MCP-8260-10

7A  
CONTINUING CALIBRATION CHECK

Lab Name: Alpha Analytical Labs

SDG No.: L1100110

Instrument ID: Jack.i                      Calibration Date: 06-JAN-2011    Time: 06:24

Lab File ID: 0106A01                      Init. Calib. Date(s): 29-NOV-2    29-NOV-2

Sample No: 8260 CCAL                      Init. Calib. Times    : 06:25                      10:11

Compound	RRF	RRF	MIN RRF	%D	MAX %D
1,1,2-trichloroethane	.48068	.39449	.1	18	20
chlorodibromomethane	.6257	.51901	.1	17	20
1,3-dichloropropane	1.0091	.80971	.05	20	20
1,2-dibromoethane	.52613	.42923	.1	18	20
2-hexanone	.24914	.18633	.1	25	20
chlorobenzene	2.4044	2.0664	.5	14	20
ethyl benzene	4.1069	3.7369	.1	9	20
1,1,1,2-tetrachloroethane	.73548	.65971	.05	10	20
p/m xylene	1.5647	1.4638	.1	6	20
o xylene	1.4772	1.4182	.3	4	20
styrene	2.4064	2.3150	.3	4	20
bromoform	.61483	.54066	.1	12	20
isopropylbenzene	3.8613	3.4056	.1	12	20
bromobenzene	1.7919	1.6085	.05	10	20
n-propylbenzene	8.2501	7.2748	.05	12	20
1,1,2,2,-tetrachloroethane	1.1598	.94199	.3	19	20
2-chlorotoluene	5.6467	5.1089	.05	10	20
1,2,3-trichloropropane	.90634	.72237	.05	20	20
1,3,5-trimethylbenzene	5.7107	4.9068	.05	14	20
4-chorotoluene	5.2359	4.6618	.05	11	20
tert-butylbenzene	4.8401	4.0837	.05	16	20
1,2,4-trimethylbenzene	5.6215	5.1808	.05	8	20
sec-butylbenzene	6.6993	5.7272	.01	15	20
p-isopropyltoluene	5.3807	4.8496	.05	10	20
1,3-dichlorobenzene	3.3043	2.9923	.6	9	20
1,4-dichlorobenzene	3.3536	2.9926	.5	11	20
n-butylbenzene	4.5010	3.9304	.05	13	20
1,2-dichlorobenzene	2.9728	2.6136	.4	12	20
1,2-dibromo-3-chloropropane	.14496	.12012	.05	17	20
hexachlorobutadiene	.70963	.65247	.05	8	20
1,2,4-trichlorobenzene	1.6854	1.3814	.2	18	20
naphthalene	2.9808	1.9795	.05	34	20
1,2,3-trichlorobenzene	1.4212	1.0681	.05	25	20
dibromofluoromethane	.22675	.23302	.05	-3	20
1,2-dichloroethane-d4	.21878	.21394	.05	2	20
toluene-d8	1.3004	1.2582	.01	3	20
4-bromofluorobenzene	.88474	.84398	.05	5	20

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FORM VII MCP-8260-10

7A  
CONTINUING CALIBRATION CHECK

Lab Name: Alpha Analytical Labs

SDG No.: L1100110

Instrument ID: Jack.i                      Calibration Date: 06-JAN-2011    Time: 06:40

Lab File ID: 0106A02                      Init. Calib. Date(s): 21-NOV-2    21-NOV-2

Sample No: 8260 CCAL                      Init. Calib. Times    : 07:20                      12:43

Compound	RRF	RRF	MIN RRF	%D	MAX %D	
dichlorodifluoromethane	.62991	.47041	.1	25	20	F
chloromethane	.75295	.62713	.1	17	20	
vinyl chloride	.64793	.503	.1	22	20	F
bromomethane	.30313	.24788	.1	18	20	
chloroethane	100	95.860	.1	4	20	
trichlorofluoromethane	.65249	.68886	.1	-6	20	
ethyl ether	.15724	.14945	.05	5	20	
1,1,-dichloroethene	.38996	.38962	.1	0	20	
carbon disulfide	1.0398	1.0379	.05	0	20	
methylene chloride	.64771	.59307	.05	8	20	
acetone	100	107	.1	-7	20	
trans-1,2-dichloroethene	.66209	.58473	.1	12	20	
methyl tert butyl ether	.93223	.82439	.1	12	20	
Ethyl-Tert-Butyl-Ether	1.1019	1.0173	.05	8	20	
Diisopropyl Ether	1.4677	1.2750	.05	13	20	
1,1-dichloroethane	1.1648	1.0419	.2	11	20	
cis-1,2-dichloroethene	.69628	.64425	.1	7	20	
2,2-dichloropropane	.67519	.73998	.05	-10	20	
bromochloromethane	.28457	.27644	.05	3	20	
chloroform	1.0901	1.0137	.2	7	20	
carbontetrachloride	.67929	.71289	.1	-5	20	
tetrahydrofuran	.10507	.09511	.05	9	20	
1,1,1-trichloroethane	.8383	.82744	.1	1	20	
Tertiary-Amyl Methyl Ether	.8416	.84031	.05	0	20	
1,1-dichloropropene	.83584	.78552	.05	6	20	
2-butanone	.1097	.13318	.1	-21	20	F
benzene	2.4877	2.3059	.5	7	20	
1,2-dichloroethane	.62372	.60609	.1	3	20	
trichloroethene	.60611	.5729	.2	5	20	
dibromomethane	.28942	.27945	.05	3	20	
1,2-dichloropropane	.61145	.53175	.1	13	20	
bromodichloromethane	.74826	.7136	.2	5	20	
1,4-dioxane	.00185	.00246	.05	-34	20	F
cis-1,3-dichloropropene	.74493	.71473	.2	4	20	
toluene	2.0165	1.8291	.4	9	20	
tetrachloroethene	.85833	.85931	.2	0	20	
4-methyl-2-pentanone	.09211	.0987	.1	-7	20	F
trans-1,3-dichloropropene	.62596	.70658	.1	-13	20	

FORM VII MCP-8260-10

7A  
CONTINUING CALIBRATION CHECK

Lab Name: Alpha Analytical Labs

SDG No.: L1100110

Instrument ID: Jack.i                      Calibration Date: 06-JAN-2011    Time: 06:40

Lab File ID: 0106A02                      Init. Calib. Date(s): 21-NOV-2    21-NOV-2

Sample No: 8260 CCAL                      Init. Calib. Times    : 07:20                      12:43

Compound	RRF	RRF	MIN RRF	%D	MAX %D
1,1,2-trichloroethane	.41174	.39639	.1	4	20
chlorodibromomethane	.5237	.52378	.1	0	20
1,3-dichloropropane	.86161	.83623	.05	3	20
1,2-dibromoethane	.45829	.45386	.1	1	20
2-hexanone	.19053	.19442	.1	-2	20
chlorobenzene	2.1543	1.9540	.5	9	20
ethyl benzene	3.7465	3.6053	.1	4	20
1,1,1,2-tetrachloroethane	.57339	.59696	.05	-4	20
p/m xylene	1.4383	1.4236	.1	1	20
o xylene	1.3632	1.3389	.3	2	20
styrene	2.2452	2.1687	.3	3	20
bromoform	.47754	.54743	.1	-15	20
isopropylbenzene	3.5840	3.4359	.1	4	20
bromobenzene	1.5869	1.4440	.05	9	20
n-propylbenzene	7.5117	6.8537	.05	9	20
1,1,2,2,-tetrachloroethane	.98109	.9018	.3	8	20
2-chlorotoluene	5.0111	4.5906	.05	8	20
1,2,3-trichloropropane	.78023	.73049	.05	6	20
1,3,5-trimethylbenzene	5.7825	5.8580	.05	-1	20
4-chorotoluene	4.6273	4.0673	.05	12	20
tert-butylbenzene	4.4081	3.9436	.05	11	20
1,2,4-trimethylbenzene	5.0985	4.6155	.05	9	20
sec-butylbenzene	6.3141	5.6103	.05	11	20
p-isopropyltoluene	4.9959	4.6754	.05	6	20
1,3-dichlorobenzene	3.0219	2.7349	.6	9	20
1,4-dichlorobenzene	3.0831	2.7540	.5	11	20
n-butylbenzene	4.3730	3.8601	.05	12	20
1,2-dichlorobenzene	2.7409	2.4821	.4	9	20
1,2-dibromo-3-chloropropane	.12789	.13243	.05	-4	20
hexachlorobutadiene	.73224	.61289	.05	16	20
1,2,4-trichlorobenzene	1.7005	1.3800	.2	19	20
naphthalene	2.9306	2.0839	.05	29	20
1,2,3-trichlorobenzene	1.3936	1.1160	.05	20	20
dibromofluoromethane	.26329	.25236	.05	4	20
1,2-dichloroethane-d4	.25342	.24856	.05	2	20
toluene-d8	1.2667	1.2196	.05	4	20
4-bromofluorobenzene	.8428	.78466	.05	7	20

F

FORM VII MCP-8260-10





## ANALYTICAL REPORT

Lab Number:	L1105519
Client:	Environ 8 Hollis Street Groton, MA 01450
ATTN:	Jim Young
Phone:	(978) 449-0325
Project Name:	300 THIRD STREET
Project Number:	04-7590GD2
Report Date:	05/02/11

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Certifications & Approvals: MA (M-MA086), NY NELAC (11148), CT (PH-0574), NH (2003), NJ (MA935), RI (LAO00065), ME (MA0086), PA (Registration #68-03671), USDA (Permit #S-72578), US Army Corps of Engineers, Naval FESC.

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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:** 300 THIRD STREET  
**Project Number:** 04-7590GD2

**Lab Number:** L1105519  
**Report Date:** 05/02/11

<b>Alpha Sample ID</b>	<b>Client ID</b>	<b>Sample Location</b>	<b>Collection Date/Time</b>
L1105519-01	ENV-1	CAMBRIDGE, MA	04/21/11 13:30
L1105519-02	ENV-2	CAMBRIDGE, MA	04/21/11 14:00
L1105519-03	ENV-3	CAMBRIDGE, MA	04/21/11 13:45
L1105519-04	ENV-4	CAMBRIDGE, MA	04/21/11 14:30
L1105519-05	ENV-7	CAMBRIDGE, MA	04/21/11 11:10
L1105519-06	ENV-8	CAMBRIDGE, MA	04/21/11 09:55
L1105519-07	ENV-9	CAMBRIDGE, MA	04/21/11 12:48
L1105519-08	ENV-10	CAMBRIDGE, MA	04/21/11 11:13
L1105519-09	ENV-11	CAMBRIDGE, MA	04/21/11 10:43
L1105519-10	MW-60	CAMBRIDGE, MA	04/21/11 09:42
L1105519-11	HRB-2	CAMBRIDGE, MA	04/21/11 08:15
L1105519-12	B201	CAMBRIDGE, MA	04/21/11 08:27
L1105519-13	ENV-998	CAMBRIDGE, MA	04/21/11 13:30
L1105519-14	ENV-999	CAMBRIDGE, MA	04/21/11 14:00
L1105519-15	TRIP BLANK	CAMBRIDGE, MA	04/21/11 00:00

**Project Name:** 300 THIRD STREET  
**Project Number:** 04-7590GD2

**Lab Number:** L1105519  
**Report Date:** 05/02/11

### MADEP MCP Response Action Analytical Report Certification

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

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

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



**Project Name:** 300 THIRD STREET  
**Project Number:** 04-7590GD2

**Lab Number:** L1105519  
**Report Date:** 05/02/11

### Case Narrative

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

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

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

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

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#### MCP Related Narratives

##### Volatile Organics

L1105519-01, -04, -07, and -13 have elevated detection limits due to the dilutions required by the elevated concentrations of target compounds in the samples.

L1105519-02 was re-analyzed on dilution in order to quantitate the sample within the calibration range. The result should be considered estimated, and is qualified with an E flag, for any compound that exceeded the calibration on the initial analysis. The re-analysis was performed only for the compound that exceeded the calibration range.

L1105519-02: The original results are greater than the re-analysis results. The sample containers were verified as being labeled correctly by the laboratory. Both vials were confirmed and achieved similar results.

In reference to question G:

One or more of the target analytes did not achieve the requested CAM reporting limits.

**Project Name:** 300 THIRD STREET  
**Project Number:** 04-7590GD2

**Lab Number:** L1105519  
**Report Date:** 05/02/11

### Case Narrative (continued)

In reference to question H:

The initial calibration, associated with L1105519-01 through -07, -13, and -15, did not meet the method required minimum response factors on the lowest calibration standards for 1,4-Dioxane (0.0496), as well as the average response factor for 1,4-Dioxane.

The continuing calibration standards associated with L1105519-01 through -07, -13 and -15, are outside the acceptance criteria for several compounds; however, they are within overall method allowances. Copies of the continuing calibration standards are included as addenda to this report.

VPH

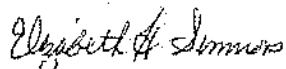
L1105519-07 and -12 have elevated detection limits due to the dilutions required by the elevated concentrations of target compounds in the samples.

In reference to question G:

L1105519-07 and -12: One or more of the target analytes did not achieve the requested CAM reporting limits.

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:



Elizabeth Simmons

Title: Technical Director/Representative

Date: 05/02/11

# ORGANICS

# VOLATILES

**Project Name:** 300 THIRD STREET**Lab Number:** L1105519**Project Number:** 04-7590GD2**Report Date:** 05/02/11**SAMPLE RESULTS**

Lab ID: L1105519-01 D  
 Client ID: ENV-1  
 Sample Location: CAMBRIDGE, MA  
 Matrix: Water  
 Analytical Method: 97,8260B  
 Analytical Date: 04/27/11 14:58  
 Analyst: MM

Date Collected: 04/21/11 13:30  
 Date Received: 04/22/11  
 Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
<b>MCP Volatile Organics - Westborough Lab</b>						
Methylene chloride	ND		ug/l	5.0	--	2.5
1,1-Dichloroethane	ND		ug/l	2.5	--	2.5
Chloroform	ND		ug/l	2.5	--	2.5
Carbon tetrachloride	ND		ug/l	2.5	--	2.5
1,2-Dichloropropane	ND		ug/l	2.5	--	2.5
Dibromochloromethane	ND		ug/l	2.5	--	2.5
1,1,2-Trichloroethane	ND		ug/l	2.5	--	2.5
Tetrachloroethene	ND		ug/l	2.5	--	2.5
Chlorobenzene	ND		ug/l	2.5	--	2.5
Trichlorofluoromethane	ND		ug/l	5.0	--	2.5
1,2-Dichloroethane	ND		ug/l	2.5	--	2.5
1,1,1-Trichloroethane	ND		ug/l	2.5	--	2.5
Bromodichloromethane	ND		ug/l	2.5	--	2.5
trans-1,3-Dichloropropene	ND		ug/l	1.2	--	2.5
cis-1,3-Dichloropropene	ND		ug/l	1.2	--	2.5
1,1-Dichloropropene	ND		ug/l	5.0	--	2.5
Bromoform	ND		ug/l	5.0	--	2.5
1,1,2,2-Tetrachloroethane	ND		ug/l	2.5	--	2.5
Benzene	280		ug/l	2.5	--	2.5
Toluene	ND		ug/l	2.5	--	2.5
Ethylbenzene	18		ug/l	2.5	--	2.5
Chloromethane	ND		ug/l	5.0	--	2.5
Bromomethane	ND		ug/l	5.0	--	2.5
Vinyl chloride	ND		ug/l	2.5	--	2.5
Chloroethane	ND		ug/l	5.0	--	2.5
1,1-Dichloroethene	ND		ug/l	2.5	--	2.5
trans-1,2-Dichloroethene	ND		ug/l	2.5	--	2.5
Trichloroethene	ND		ug/l	2.5	--	2.5
1,2-Dichlorobenzene	ND		ug/l	2.5	--	2.5
1,3-Dichlorobenzene	ND		ug/l	2.5	--	2.5
1,4-Dichlorobenzene	ND		ug/l	2.5	--	2.5



**Project Name:** 300 THIRD STREET**Lab Number:** L1105519**Project Number:** 04-7590GD2**Report Date:** 05/02/11**SAMPLE RESULTS**

Lab ID: L1105519-01 D  
 Client ID: ENV-1  
 Sample Location: CAMBRIDGE, MA

Date Collected: 04/21/11 13:30  
 Date Received: 04/22/11  
 Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
<b>MCP Volatile Organics - Westborough Lab</b>						
Methyl tert butyl ether	ND		ug/l	5.0	--	2.5
p/m-Xylene	ND		ug/l	5.0	--	2.5
o-Xylene	5.0		ug/l	2.5	--	2.5
cis-1,2-Dichloroethene	ND		ug/l	2.5	--	2.5
Dibromomethane	ND		ug/l	5.0	--	2.5
1,2,3-Trichloropropane	ND		ug/l	5.0	--	2.5
Styrene	ND		ug/l	2.5	--	2.5
Dichlorodifluoromethane	ND		ug/l	5.0	--	2.5
Acetone	ND		ug/l	12	--	2.5
Carbon disulfide	ND		ug/l	5.0	--	2.5
2-Butanone	ND		ug/l	12	--	2.5
4-Methyl-2-pentanone	ND		ug/l	12	--	2.5
2-Hexanone	ND		ug/l	12	--	2.5
Bromochloromethane	ND		ug/l	5.0	--	2.5
Tetrahydrofuran	ND		ug/l	12	--	2.5
2,2-Dichloropropane	ND		ug/l	5.0	--	2.5
1,2-Dibromoethane	ND		ug/l	5.0	--	2.5
1,3-Dichloropropane	ND		ug/l	5.0	--	2.5
1,1,1,2-Tetrachloroethane	ND		ug/l	2.5	--	2.5
Bromobenzene	ND		ug/l	5.0	--	2.5
n-Butylbenzene	ND		ug/l	5.0	--	2.5
sec-Butylbenzene	ND		ug/l	5.0	--	2.5
tert-Butylbenzene	ND		ug/l	5.0	--	2.5
o-Chlorotoluene	ND		ug/l	5.0	--	2.5
p-Chlorotoluene	ND		ug/l	5.0	--	2.5
1,2-Dibromo-3-chloropropane	ND		ug/l	5.0	--	2.5
Hexachlorobutadiene	ND		ug/l	1.5	--	2.5
Isopropylbenzene	ND		ug/l	5.0	--	2.5
p-Isopropyltoluene	ND		ug/l	5.0	--	2.5
Naphthalene	ND		ug/l	5.0	--	2.5
n-Propylbenzene	ND		ug/l	5.0	--	2.5
1,2,3-Trichlorobenzene	ND		ug/l	5.0	--	2.5
1,2,4-Trichlorobenzene	ND		ug/l	5.0	--	2.5
1,3,5-Trimethylbenzene	ND		ug/l	5.0	--	2.5
1,2,4-Trimethylbenzene	ND		ug/l	5.0	--	2.5
Ethyl ether	ND		ug/l	5.0	--	2.5
Isopropyl Ether	ND		ug/l	5.0	--	2.5
Ethyl-Tert-Butyl-Ether	ND		ug/l	5.0	--	2.5
Tertiary-Amyl Methyl Ether	ND		ug/l	5.0	--	2.5

**Project Name:** 300 THIRD STREET**Lab Number:** L1105519**Project Number:** 04-7590GD2**Report Date:** 05/02/11**SAMPLE RESULTS**

Lab ID: L1105519-01 D

Date Collected: 04/21/11 13:30

Client ID: ENV-1

Date Received: 04/22/11

Sample Location: CAMBRIDGE, MA

Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
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## MCP Volatile Organics - Westborough Lab

1,4-Dioxane	ND		ug/l	620	--	2.5
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Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	97		70-130
Toluene-d8	100		70-130
4-Bromofluorobenzene	104		70-130
Dibromofluoromethane	95		70-130

**Project Name:** 300 THIRD STREET**Lab Number:** L1105519**Project Number:** 04-7590GD2**Report Date:** 05/02/11**SAMPLE RESULTS**

Lab ID: L1105519-02  
 Client ID: ENV-2  
 Sample Location: CAMBRIDGE, MA  
 Matrix: Water  
 Analytical Method: 97,8260B  
 Analytical Date: 04/27/11 15:30  
 Analyst: MM

Date Collected: 04/21/11 14:00  
 Date Received: 04/22/11  
 Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
<b>MCP Volatile Organics - Westborough Lab</b>						
Methylene chloride	ND		ug/l	2.0	--	1
1,1-Dichloroethane	1.7		ug/l	1.0	--	1
Chloroform	ND		ug/l	1.0	--	1
Carbon tetrachloride	ND		ug/l	1.0	--	1
1,2-Dichloropropane	ND		ug/l	1.0	--	1
Dibromochloromethane	ND		ug/l	1.0	--	1
1,1,2-Trichloroethane	ND		ug/l	1.0	--	1
Tetrachloroethene	ND		ug/l	1.0	--	1
Chlorobenzene	ND		ug/l	1.0	--	1
Trichlorofluoromethane	ND		ug/l	2.0	--	1
1,2-Dichloroethane	ND		ug/l	1.0	--	1
1,1,1-Trichloroethane	ND		ug/l	1.0	--	1
Bromodichloromethane	ND		ug/l	1.0	--	1
trans-1,3-Dichloropropene	ND		ug/l	0.50	--	1
cis-1,3-Dichloropropene	ND		ug/l	0.50	--	1
1,1-Dichloropropene	ND		ug/l	2.0	--	1
Bromoform	ND		ug/l	2.0	--	1
1,1,2,2-Tetrachloroethane	ND		ug/l	1.0	--	1
Benzene	350	E	ug/l	1.0	--	1
Toluene	2.0		ug/l	1.0	--	1
Ethylbenzene	35		ug/l	1.0	--	1
Chloromethane	ND		ug/l	2.0	--	1
Bromomethane	ND		ug/l	2.0	--	1
Vinyl chloride	ND		ug/l	1.0	--	1
Chloroethane	ND		ug/l	2.0	--	1
1,1-Dichloroethene	ND		ug/l	1.0	--	1
trans-1,2-Dichloroethene	ND		ug/l	1.0	--	1
Trichloroethene	1.9		ug/l	1.0	--	1
1,2-Dichlorobenzene	ND		ug/l	1.0	--	1
1,3-Dichlorobenzene	ND		ug/l	1.0	--	1
1,4-Dichlorobenzene	ND		ug/l	1.0	--	1

**Project Name:** 300 THIRD STREET**Lab Number:** L1105519**Project Number:** 04-7590GD2**Report Date:** 05/02/11**SAMPLE RESULTS**

Lab ID: L1105519-02  
 Client ID: ENV-2  
 Sample Location: CAMBRIDGE, MA

Date Collected: 04/21/11 14:00  
 Date Received: 04/22/11  
 Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
<b>MCP Volatile Organics - Westborough Lab</b>						
Methyl tert butyl ether	ND		ug/l	2.0	--	1
p/m-Xylene	8.6		ug/l	2.0	--	1
o-Xylene	12		ug/l	1.0	--	1
cis-1,2-Dichloroethene	2.1		ug/l	1.0	--	1
Dibromomethane	ND		ug/l	2.0	--	1
1,2,3-Trichloropropane	ND		ug/l	2.0	--	1
Styrene	ND		ug/l	1.0	--	1
Dichlorodifluoromethane	ND		ug/l	2.0	--	1
Acetone	ND		ug/l	5.0	--	1
Carbon disulfide	ND		ug/l	2.0	--	1
2-Butanone	ND		ug/l	5.0	--	1
4-Methyl-2-pentanone	ND		ug/l	5.0	--	1
2-Hexanone	ND		ug/l	5.0	--	1
Bromochloromethane	ND		ug/l	2.0	--	1
Tetrahydrofuran	ND		ug/l	5.0	--	1
2,2-Dichloropropane	ND		ug/l	2.0	--	1
1,2-Dibromoethane	ND		ug/l	2.0	--	1
1,3-Dichloropropane	ND		ug/l	2.0	--	1
1,1,1,2-Tetrachloroethane	ND		ug/l	1.0	--	1
Bromobenzene	ND		ug/l	2.0	--	1
n-Butylbenzene	ND		ug/l	2.0	--	1
sec-Butylbenzene	ND		ug/l	2.0	--	1
tert-Butylbenzene	ND		ug/l	2.0	--	1
o-Chlorotoluene	ND		ug/l	2.0	--	1
p-Chlorotoluene	ND		ug/l	2.0	--	1
1,2-Dibromo-3-chloropropane	ND		ug/l	2.0	--	1
Hexachlorobutadiene	ND		ug/l	0.60	--	1
Isopropylbenzene	ND		ug/l	2.0	--	1
p-Isopropyltoluene	ND		ug/l	2.0	--	1
Naphthalene	ND		ug/l	2.0	--	1
n-Propylbenzene	ND		ug/l	2.0	--	1
1,2,3-Trichlorobenzene	ND		ug/l	2.0	--	1
1,2,4-Trichlorobenzene	ND		ug/l	2.0	--	1
1,3,5-Trimethylbenzene	ND		ug/l	2.0	--	1
1,2,4-Trimethylbenzene	ND		ug/l	2.0	--	1
Ethyl ether	ND		ug/l	2.0	--	1
Isopropyl Ether	ND		ug/l	2.0	--	1
Ethyl-Tert-Butyl-Ether	ND		ug/l	2.0	--	1
Tertiary-Amyl Methyl Ether	ND		ug/l	2.0	--	1

**Project Name:** 300 THIRD STREET**Lab Number:** L1105519**Project Number:** 04-7590GD2**Report Date:** 05/02/11**SAMPLE RESULTS**

Lab ID: L1105519-02  
 Client ID: ENV-2  
 Sample Location: CAMBRIDGE, MA

Date Collected: 04/21/11 14:00  
 Date Received: 04/22/11  
 Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
MCP Volatile Organics - Westborough Lab						
1,4-Dioxane	ND		ug/l	250	--	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	95		70-130
Toluene-d8	101		70-130
4-Bromofluorobenzene	108		70-130
Dibromofluoromethane	89		70-130

**Project Name:** 300 THIRD STREET**Lab Number:** L1105519**Project Number:** 04-7590GD2**Report Date:** 05/02/11**SAMPLE RESULTS**

Lab ID: L1105519-02 D  
 Client ID: ENV-2  
 Sample Location: CAMBRIDGE, MA  
 Matrix: Water  
 Analytical Method: 97,8260B  
 Analytical Date: 04/28/11 10:16  
 Analyst: MM

Date Collected: 04/21/11 14:00  
 Date Received: 04/22/11  
 Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
MCP Volatile Organics - Westborough Lab						
Benzene	110		ug/l	10	--	10

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	100		70-130
Toluene-d8	97		70-130
4-Bromofluorobenzene	109		70-130
Dibromofluoromethane	100		70-130

**Project Name:** 300 THIRD STREET**Lab Number:** L1105519**Project Number:** 04-7590GD2**Report Date:** 05/02/11**SAMPLE RESULTS**

Lab ID: L1105519-03  
 Client ID: ENV-3  
 Sample Location: CAMBRIDGE, MA  
 Matrix: Water  
 Analytical Method: 97,8260B  
 Analytical Date: 04/27/11 16:03  
 Analyst: MM

Date Collected: 04/21/11 13:45  
 Date Received: 04/22/11  
 Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
<b>MCP Volatile Organics - Westborough Lab</b>						
Methylene chloride	ND		ug/l	2.0	--	1
1,1-Dichloroethane	ND		ug/l	1.0	--	1
Chloroform	ND		ug/l	1.0	--	1
Carbon tetrachloride	ND		ug/l	1.0	--	1
1,2-Dichloropropane	ND		ug/l	1.0	--	1
Dibromochloromethane	ND		ug/l	1.0	--	1
1,1,2-Trichloroethane	ND		ug/l	1.0	--	1
Tetrachloroethene	ND		ug/l	1.0	--	1
Chlorobenzene	ND		ug/l	1.0	--	1
Trichlorofluoromethane	ND		ug/l	2.0	--	1
1,2-Dichloroethane	ND		ug/l	1.0	--	1
1,1,1-Trichloroethane	ND		ug/l	1.0	--	1
Bromodichloromethane	ND		ug/l	1.0	--	1
trans-1,3-Dichloropropene	ND		ug/l	0.50	--	1
cis-1,3-Dichloropropene	ND		ug/l	0.50	--	1
1,1-Dichloropropene	ND		ug/l	2.0	--	1
Bromoform	ND		ug/l	2.0	--	1
1,1,2,2-Tetrachloroethane	ND		ug/l	1.0	--	1
Benzene	ND		ug/l	1.0	--	1
Toluene	ND		ug/l	1.0	--	1
Ethylbenzene	2.4		ug/l	1.0	--	1
Chloromethane	ND		ug/l	2.0	--	1
Bromomethane	ND		ug/l	2.0	--	1
Vinyl chloride	8.2		ug/l	1.0	--	1
Chloroethane	ND		ug/l	2.0	--	1
1,1-Dichloroethene	ND		ug/l	1.0	--	1
trans-1,2-Dichloroethene	ND		ug/l	1.0	--	1
Trichloroethene	ND		ug/l	1.0	--	1
1,2-Dichlorobenzene	ND		ug/l	1.0	--	1
1,3-Dichlorobenzene	ND		ug/l	1.0	--	1
1,4-Dichlorobenzene	ND		ug/l	1.0	--	1

Project Name: 300 THIRD STREET

Lab Number: L1105519

Project Number: 04-7590GD2

Report Date: 05/02/11

## SAMPLE RESULTS

Lab ID: L1105519-03  
 Client ID: ENV-3  
 Sample Location: CAMBRIDGE, MA

Date Collected: 04/21/11 13:45  
 Date Received: 04/22/11  
 Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
MCP Volatile Organics - Westborough Lab						
Methyl tert butyl ether	ND		ug/l	2.0	--	1
p/m-Xylene	12		ug/l	2.0	--	1
o-Xylene	2.4		ug/l	1.0	--	1
cis-1,2-Dichloroethene	ND		ug/l	1.0	--	1
Dibromomethane	ND		ug/l	2.0	--	1
1,2,3-Trichloropropane	ND		ug/l	2.0	--	1
Styrene	ND		ug/l	1.0	--	1
Dichlorodifluoromethane	ND		ug/l	2.0	--	1
Acetone	ND		ug/l	5.0	--	1
Carbon disulfide	ND		ug/l	2.0	--	1
2-Butanone	ND		ug/l	5.0	--	1
4-Methyl-2-pentanone	ND		ug/l	5.0	--	1
2-Hexanone	ND		ug/l	5.0	--	1
Bromochloromethane	ND		ug/l	2.0	--	1
Tetrahydrofuran	ND		ug/l	5.0	--	1
2,2-Dichloropropane	ND		ug/l	2.0	--	1
1,2-Dibromoethane	ND		ug/l	2.0	--	1
1,3-Dichloropropane	ND		ug/l	2.0	--	1
1,1,1,2-Tetrachloroethane	ND		ug/l	1.0	--	1
Bromobenzene	ND		ug/l	2.0	--	1
n-Butylbenzene	ND		ug/l	2.0	--	1
sec-Butylbenzene	ND		ug/l	2.0	--	1
tert-Butylbenzene	ND		ug/l	2.0	--	1
o-Chlorotoluene	ND		ug/l	2.0	--	1
p-Chlorotoluene	ND		ug/l	2.0	--	1
1,2-Dibromo-3-chloropropane	ND		ug/l	2.0	--	1
Hexachlorobutadiene	ND		ug/l	0.60	--	1
Isopropylbenzene	ND		ug/l	2.0	--	1
p-Isopropyltoluene	ND		ug/l	2.0	--	1
Naphthalene	ND		ug/l	2.0	--	1
n-Propylbenzene	ND		ug/l	2.0	--	1
1,2,3-Trichlorobenzene	ND		ug/l	2.0	--	1
1,2,4-Trichlorobenzene	ND		ug/l	2.0	--	1
1,3,5-Trimethylbenzene	ND		ug/l	2.0	--	1
1,2,4-Trimethylbenzene	ND		ug/l	2.0	--	1
Ethyl ether	ND		ug/l	2.0	--	1
Isopropyl Ether	ND		ug/l	2.0	--	1
Ethyl-Tert-Butyl-Ether	ND		ug/l	2.0	--	1
Tertiary-Amyl Methyl Ether	ND		ug/l	2.0	--	1



**Project Name:** 300 THIRD STREET**Lab Number:** L1105519**Project Number:** 04-7590GD2**Report Date:** 05/02/11**SAMPLE RESULTS**

Lab ID: L1105519-03  
 Client ID: ENV-3  
 Sample Location: CAMBRIDGE, MA

Date Collected: 04/21/11 13:45  
 Date Received: 04/22/11  
 Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
MCP Volatile Organics - Westborough Lab						
1,4-Dioxane	ND		ug/l	250	--	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	101		70-130
Toluene-d8	99		70-130
4-Bromofluorobenzene	105		70-130
Dibromofluoromethane	98		70-130

**Project Name:** 300 THIRD STREET**Lab Number:** L1105519**Project Number:** 04-7590GD2**Report Date:** 05/02/11**SAMPLE RESULTS**

Lab ID: L1105519-04 D  
 Client ID: ENV-4  
 Sample Location: CAMBRIDGE, MA  
 Matrix: Water  
 Analytical Method: 97,8260B  
 Analytical Date: 04/28/11 10:48  
 Analyst: MM

Date Collected: 04/21/11 14:30  
 Date Received: 04/22/11  
 Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
<b>MCP Volatile Organics - Westborough Lab</b>						
Methylene chloride	ND		ug/l	5.0	--	2.5
1,1-Dichloroethane	20		ug/l	2.5	--	2.5
Chloroform	ND		ug/l	2.5	--	2.5
Carbon tetrachloride	ND		ug/l	2.5	--	2.5
1,2-Dichloropropane	ND		ug/l	2.5	--	2.5
Dibromochloromethane	ND		ug/l	2.5	--	2.5
1,1,2-Trichloroethane	ND		ug/l	2.5	--	2.5
Tetrachloroethene	ND		ug/l	2.5	--	2.5
Chlorobenzene	ND		ug/l	2.5	--	2.5
Trichlorofluoromethane	ND		ug/l	5.0	--	2.5
1,2-Dichloroethane	ND		ug/l	2.5	--	2.5
1,1,1-Trichloroethane	ND		ug/l	2.5	--	2.5
Bromodichloromethane	ND		ug/l	2.5	--	2.5
trans-1,3-Dichloropropene	ND		ug/l	1.2	--	2.5
cis-1,3-Dichloropropene	ND		ug/l	1.2	--	2.5
1,1-Dichloropropene	ND		ug/l	5.0	--	2.5
Bromoform	ND		ug/l	5.0	--	2.5
1,1,2,2-Tetrachloroethane	ND		ug/l	2.5	--	2.5
Benzene	48		ug/l	2.5	--	2.5
Toluene	5.3		ug/l	2.5	--	2.5
Ethylbenzene	18		ug/l	2.5	--	2.5
Chloromethane	ND		ug/l	5.0	--	2.5
Bromomethane	ND		ug/l	5.0	--	2.5
Vinyl chloride	13		ug/l	2.5	--	2.5
Chloroethane	ND		ug/l	5.0	--	2.5
1,1-Dichloroethene	ND		ug/l	2.5	--	2.5
trans-1,2-Dichloroethene	ND		ug/l	2.5	--	2.5
Trichloroethene	ND		ug/l	2.5	--	2.5
1,2-Dichlorobenzene	ND		ug/l	2.5	--	2.5
1,3-Dichlorobenzene	ND		ug/l	2.5	--	2.5
1,4-Dichlorobenzene	ND		ug/l	2.5	--	2.5

**Project Name:** 300 THIRD STREET**Lab Number:** L1105519**Project Number:** 04-7590GD2**Report Date:** 05/02/11**SAMPLE RESULTS**

Lab ID: L1105519-04 D  
 Client ID: ENV-4  
 Sample Location: CAMBRIDGE, MA

Date Collected: 04/21/11 14:30  
 Date Received: 04/22/11  
 Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
<b>MCP Volatile Organics - Westborough Lab</b>						
Methyl tert butyl ether	ND		ug/l	5.0	--	2.5
p/m-Xylene	84		ug/l	5.0	--	2.5
o-Xylene	17		ug/l	2.5	--	2.5
cis-1,2-Dichloroethene	140		ug/l	2.5	--	2.5
Dibromomethane	ND		ug/l	5.0	--	2.5
1,2,3-Trichloropropane	ND		ug/l	5.0	--	2.5
Styrene	ND		ug/l	2.5	--	2.5
Dichlorodifluoromethane	ND		ug/l	5.0	--	2.5
Acetone	ND		ug/l	12	--	2.5
Carbon disulfide	ND		ug/l	5.0	--	2.5
2-Butanone	ND		ug/l	12	--	2.5
4-Methyl-2-pentanone	ND		ug/l	12	--	2.5
2-Hexanone	ND		ug/l	12	--	2.5
Bromochloromethane	ND		ug/l	5.0	--	2.5
Tetrahydrofuran	ND		ug/l	12	--	2.5
2,2-Dichloropropane	ND		ug/l	5.0	--	2.5
1,2-Dibromoethane	ND		ug/l	5.0	--	2.5
1,3-Dichloropropane	ND		ug/l	5.0	--	2.5
1,1,1,2-Tetrachloroethane	ND		ug/l	2.5	--	2.5
Bromobenzene	ND		ug/l	5.0	--	2.5
n-Butylbenzene	ND		ug/l	5.0	--	2.5
sec-Butylbenzene	ND		ug/l	5.0	--	2.5
tert-Butylbenzene	ND		ug/l	5.0	--	2.5
o-Chlorotoluene	ND		ug/l	5.0	--	2.5
p-Chlorotoluene	ND		ug/l	5.0	--	2.5
1,2-Dibromo-3-chloropropane	ND		ug/l	5.0	--	2.5
Hexachlorobutadiene	ND		ug/l	1.5	--	2.5
Isopropylbenzene	ND		ug/l	5.0	--	2.5
p-Isopropyltoluene	ND		ug/l	5.0	--	2.5
Naphthalene	ND		ug/l	5.0	--	2.5
n-Propylbenzene	ND		ug/l	5.0	--	2.5
1,2,3-Trichlorobenzene	ND		ug/l	5.0	--	2.5
1,2,4-Trichlorobenzene	ND		ug/l	5.0	--	2.5
1,3,5-Trimethylbenzene	ND		ug/l	5.0	--	2.5
1,2,4-Trimethylbenzene	ND		ug/l	5.0	--	2.5
Ethyl ether	ND		ug/l	5.0	--	2.5
Isopropyl Ether	ND		ug/l	5.0	--	2.5
Ethyl-Tert-Butyl-Ether	ND		ug/l	5.0	--	2.5
Tertiary-Amyl Methyl Ether	ND		ug/l	5.0	--	2.5

**Project Name:** 300 THIRD STREET**Lab Number:** L1105519**Project Number:** 04-7590GD2**Report Date:** 05/02/11**SAMPLE RESULTS**

Lab ID: L1105519-04 D

Date Collected: 04/21/11 14:30

Client ID: ENV-4

Date Received: 04/22/11

Sample Location: CAMBRIDGE, MA

Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
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## MCP Volatile Organics - Westborough Lab

1,4-Dioxane	ND		ug/l	620	--	2.5
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Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	101		70-130
Toluene-d8	98		70-130
4-Bromofluorobenzene	108		70-130
Dibromofluoromethane	99		70-130

**Project Name:** 300 THIRD STREET**Lab Number:** L1105519**Project Number:** 04-7590GD2**Report Date:** 05/02/11**SAMPLE RESULTS**

Lab ID: L1105519-05  
 Client ID: ENV-7  
 Sample Location: CAMBRIDGE, MA  
 Matrix: Water  
 Analytical Method: 97,8260B  
 Analytical Date: 04/27/11 17:07  
 Analyst: MM

Date Collected: 04/21/11 11:10  
 Date Received: 04/22/11  
 Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
<b>MCP Volatile Organics - Westborough Lab</b>						
Methylene chloride	ND		ug/l	2.0	--	1
1,1-Dichloroethane	ND		ug/l	1.0	--	1
Chloroform	ND		ug/l	1.0	--	1
Carbon tetrachloride	ND		ug/l	1.0	--	1
1,2-Dichloropropane	ND		ug/l	1.0	--	1
Dibromochloromethane	ND		ug/l	1.0	--	1
1,1,2-Trichloroethane	ND		ug/l	1.0	--	1
Tetrachloroethene	ND		ug/l	1.0	--	1
Chlorobenzene	ND		ug/l	1.0	--	1
Trichlorofluoromethane	ND		ug/l	2.0	--	1
1,2-Dichloroethane	ND		ug/l	1.0	--	1
1,1,1-Trichloroethane	ND		ug/l	1.0	--	1
Bromodichloromethane	ND		ug/l	1.0	--	1
trans-1,3-Dichloropropene	ND		ug/l	0.50	--	1
cis-1,3-Dichloropropene	ND		ug/l	0.50	--	1
1,1-Dichloropropene	ND		ug/l	2.0	--	1
Bromoform	ND		ug/l	2.0	--	1
1,1,2,2-Tetrachloroethane	ND		ug/l	1.0	--	1
Benzene	ND		ug/l	1.0	--	1
Toluene	ND		ug/l	1.0	--	1
Ethylbenzene	ND		ug/l	1.0	--	1
Chloromethane	ND		ug/l	2.0	--	1
Bromomethane	ND		ug/l	2.0	--	1
Vinyl chloride	ND		ug/l	1.0	--	1
Chloroethane	ND		ug/l	2.0	--	1
1,1-Dichloroethene	ND		ug/l	1.0	--	1
trans-1,2-Dichloroethene	ND		ug/l	1.0	--	1
Trichloroethene	1.4		ug/l	1.0	--	1
1,2-Dichlorobenzene	ND		ug/l	1.0	--	1
1,3-Dichlorobenzene	ND		ug/l	1.0	--	1
1,4-Dichlorobenzene	ND		ug/l	1.0	--	1

**Project Name:** 300 THIRD STREET**Lab Number:** L1105519**Project Number:** 04-7590GD2**Report Date:** 05/02/11**SAMPLE RESULTS**

Lab ID: L1105519-05  
 Client ID: ENV-7  
 Sample Location: CAMBRIDGE, MA

Date Collected: 04/21/11 11:10  
 Date Received: 04/22/11  
 Field Prep: Not Specified

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

**Project Name:** 300 THIRD STREET**Lab Number:** L1105519**Project Number:** 04-7590GD2**Report Date:** 05/02/11**SAMPLE RESULTS**

Lab ID: L1105519-05  
 Client ID: ENV-7  
 Sample Location: CAMBRIDGE, MA

Date Collected: 04/21/11 11:10  
 Date Received: 04/22/11  
 Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
MCP Volatile Organics - Westborough Lab						
1,4-Dioxane	ND		ug/l	250	--	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	96		70-130
Toluene-d8	99		70-130
4-Bromofluorobenzene	118		70-130
Dibromofluoromethane	98		70-130

**Project Name:** 300 THIRD STREET**Lab Number:** L1105519**Project Number:** 04-7590GD2**Report Date:** 05/02/11**SAMPLE RESULTS**

**Lab ID:** L1105519-06  
**Client ID:** ENV-8  
**Sample Location:** CAMBRIDGE, MA  
**Matrix:** Water  
**Analytical Method:** 97,8260B  
**Analytical Date:** 04/27/11 17:40  
**Analyst:** MM

**Date Collected:** 04/21/11 09:55  
**Date Received:** 04/22/11  
**Field Prep:** Not Specified

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



Project Name: 300 THIRD STREET

Lab Number: L1105519

Project Number: 04-7590GD2

Report Date: 05/02/11

## SAMPLE RESULTS

Lab ID: L1105519-06  
 Client ID: ENV-8  
 Sample Location: CAMBRIDGE, MA

Date Collected: 04/21/11 09:55  
 Date Received: 04/22/11  
 Field Prep: Not Specified

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

**Project Name:** 300 THIRD STREET**Lab Number:** L1105519**Project Number:** 04-7590GD2**Report Date:** 05/02/11**SAMPLE RESULTS**

Lab ID: L1105519-06  
 Client ID: ENV-8  
 Sample Location: CAMBRIDGE, MA

Date Collected: 04/21/11 09:55  
 Date Received: 04/22/11  
 Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
MCP Volatile Organics - Westborough Lab						
1,4-Dioxane	ND		ug/l	250	--	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	100		70-130
Toluene-d8	100		70-130
4-Bromofluorobenzene	117		70-130
Dibromofluoromethane	106		70-130

**Project Name:** 300 THIRD STREET**Lab Number:** L1105519**Project Number:** 04-7590GD2**Report Date:** 05/02/11**SAMPLE RESULTS**

Lab ID: L1105519-07 D  
 Client ID: ENV-9  
 Sample Location: CAMBRIDGE, MA  
 Matrix: Water  
 Analytical Method: 97,8260B  
 Analytical Date: 04/27/11 18:12  
 Analyst: MM

Date Collected: 04/21/11 12:48  
 Date Received: 04/22/11  
 Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
<b>MCP Volatile Organics - Westborough Lab</b>						
Methylene chloride	ND		ug/l	800	--	400
1,1-Dichloroethane	ND		ug/l	400	--	400
Chloroform	ND		ug/l	400	--	400
Carbon tetrachloride	ND		ug/l	400	--	400
1,2-Dichloropropane	ND		ug/l	400	--	400
Dibromochloromethane	ND		ug/l	400	--	400
1,1,2-Trichloroethane	ND		ug/l	400	--	400
Tetrachloroethene	ND		ug/l	400	--	400
Chlorobenzene	ND		ug/l	400	--	400
Trichlorofluoromethane	ND		ug/l	800	--	400
1,2-Dichloroethane	ND		ug/l	400	--	400
1,1,1-Trichloroethane	ND		ug/l	400	--	400
Bromodichloromethane	ND		ug/l	400	--	400
trans-1,3-Dichloropropene	ND		ug/l	200	--	400
cis-1,3-Dichloropropene	ND		ug/l	200	--	400
1,1-Dichloropropene	ND		ug/l	800	--	400
Bromoform	ND		ug/l	800	--	400
1,1,2,2-Tetrachloroethane	ND		ug/l	400	--	400
Benzene	ND		ug/l	400	--	400
Toluene	4700		ug/l	400	--	400
Ethylbenzene	8500		ug/l	400	--	400
Chloromethane	ND		ug/l	800	--	400
Bromomethane	ND		ug/l	800	--	400
Vinyl chloride	ND		ug/l	400	--	400
Chloroethane	ND		ug/l	800	--	400
1,1-Dichloroethene	ND		ug/l	400	--	400
trans-1,2-Dichloroethene	ND		ug/l	400	--	400
Trichloroethene	ND		ug/l	400	--	400
1,2-Dichlorobenzene	ND		ug/l	400	--	400
1,3-Dichlorobenzene	ND		ug/l	400	--	400
1,4-Dichlorobenzene	ND		ug/l	400	--	400

**Project Name:** 300 THIRD STREET**Lab Number:** L1105519**Project Number:** 04-7590GD2**Report Date:** 05/02/11**SAMPLE RESULTS**

Lab ID: L1105519-07 D  
 Client ID: ENV-9  
 Sample Location: CAMBRIDGE, MA

Date Collected: 04/21/11 12:48  
 Date Received: 04/22/11  
 Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
<b>MCP Volatile Organics - Westborough Lab</b>						
Methyl tert butyl ether	ND		ug/l	800	--	400
p/m-Xylene	39000		ug/l	800	--	400
o-Xylene	10000		ug/l	400	--	400
cis-1,2-Dichloroethene	ND		ug/l	400	--	400
Dibromomethane	ND		ug/l	800	--	400
1,2,3-Trichloropropane	ND		ug/l	800	--	400
Styrene	ND		ug/l	400	--	400
Dichlorodifluoromethane	ND		ug/l	800	--	400
Acetone	ND		ug/l	2000	--	400
Carbon disulfide	ND		ug/l	800	--	400
2-Butanone	ND		ug/l	2000	--	400
4-Methyl-2-pentanone	ND		ug/l	2000	--	400
2-Hexanone	ND		ug/l	2000	--	400
Bromochloromethane	ND		ug/l	800	--	400
Tetrahydrofuran	ND		ug/l	2000	--	400
2,2-Dichloropropane	ND		ug/l	800	--	400
1,2-Dibromoethane	ND		ug/l	800	--	400
1,3-Dichloropropane	ND		ug/l	800	--	400
1,1,1,2-Tetrachloroethane	ND		ug/l	400	--	400
Bromobenzene	ND		ug/l	800	--	400
n-Butylbenzene	ND		ug/l	800	--	400
sec-Butylbenzene	ND		ug/l	800	--	400
tert-Butylbenzene	ND		ug/l	800	--	400
o-Chlorotoluene	ND		ug/l	800	--	400
p-Chlorotoluene	ND		ug/l	800	--	400
1,2-Dibromo-3-chloropropane	ND		ug/l	800	--	400
Hexachlorobutadiene	ND		ug/l	240	--	400
Isopropylbenzene	ND		ug/l	800	--	400
p-Isopropyltoluene	ND		ug/l	800	--	400
Naphthalene	ND		ug/l	800	--	400
n-Propylbenzene	ND		ug/l	800	--	400
1,2,3-Trichlorobenzene	ND		ug/l	800	--	400
1,2,4-Trichlorobenzene	ND		ug/l	800	--	400
1,3,5-Trimethylbenzene	ND		ug/l	800	--	400
1,2,4-Trimethylbenzene	ND		ug/l	800	--	400
Ethyl ether	ND		ug/l	800	--	400
Isopropyl Ether	ND		ug/l	800	--	400
Ethyl-Tert-Butyl-Ether	ND		ug/l	800	--	400
Tertiary-Amyl Methyl Ether	ND		ug/l	800	--	400

**Project Name:** 300 THIRD STREET**Lab Number:** L1105519**Project Number:** 04-7590GD2**Report Date:** 05/02/11**SAMPLE RESULTS**

Lab ID: L1105519-07 D

Date Collected: 04/21/11 12:48

Client ID: ENV-9

Date Received: 04/22/11

Sample Location: CAMBRIDGE, MA

Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
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## MCP Volatile Organics - Westborough Lab

1,4-Dioxane	ND		ug/l	100000	--	400
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Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	94		70-130
Toluene-d8	100		70-130
4-Bromofluorobenzene	107		70-130
Dibromofluoromethane	95		70-130

**Project Name:** 300 THIRD STREET**Lab Number:** L1105519**Project Number:** 04-7590GD2**Report Date:** 05/02/11**SAMPLE RESULTS**

Lab ID: L1105519-13 D  
 Client ID: ENV-998  
 Sample Location: CAMBRIDGE, MA  
 Matrix: Water  
 Analytical Method: 97,8260B  
 Analytical Date: 04/27/11 18:45  
 Analyst: MM

Date Collected: 04/21/11 13:30  
 Date Received: 04/22/11  
 Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
<b>MCP Volatile Organics - Westborough Lab</b>						
Methylene chloride	ND		ug/l	10	--	5
1,1-Dichloroethane	ND		ug/l	5.0	--	5
Chloroform	ND		ug/l	5.0	--	5
Carbon tetrachloride	ND		ug/l	5.0	--	5
1,2-Dichloropropane	ND		ug/l	5.0	--	5
Dibromochloromethane	ND		ug/l	5.0	--	5
1,1,2-Trichloroethane	ND		ug/l	5.0	--	5
Tetrachloroethene	ND		ug/l	5.0	--	5
Chlorobenzene	ND		ug/l	5.0	--	5
Trichlorofluoromethane	ND		ug/l	10	--	5
1,2-Dichloroethane	ND		ug/l	5.0	--	5
1,1,1-Trichloroethane	ND		ug/l	5.0	--	5
Bromodichloromethane	ND		ug/l	5.0	--	5
trans-1,3-Dichloropropene	ND		ug/l	2.5	--	5
cis-1,3-Dichloropropene	ND		ug/l	2.5	--	5
1,1-Dichloropropene	ND		ug/l	10	--	5
Bromoform	ND		ug/l	10	--	5
1,1,2,2-Tetrachloroethane	ND		ug/l	5.0	--	5
Benzene	290		ug/l	5.0	--	5
Toluene	ND		ug/l	5.0	--	5
Ethylbenzene	18		ug/l	5.0	--	5
Chloromethane	ND		ug/l	10	--	5
Bromomethane	ND		ug/l	10	--	5
Vinyl chloride	ND		ug/l	5.0	--	5
Chloroethane	ND		ug/l	10	--	5
1,1-Dichloroethene	ND		ug/l	5.0	--	5
trans-1,2-Dichloroethene	ND		ug/l	5.0	--	5
Trichloroethene	ND		ug/l	5.0	--	5
1,2-Dichlorobenzene	ND		ug/l	5.0	--	5
1,3-Dichlorobenzene	ND		ug/l	5.0	--	5
1,4-Dichlorobenzene	ND		ug/l	5.0	--	5

Project Name: 300 THIRD STREET

Lab Number: L1105519

Project Number: 04-7590GD2

Report Date: 05/02/11

## SAMPLE RESULTS

Lab ID: L1105519-13 D  
 Client ID: ENV-998  
 Sample Location: CAMBRIDGE, MA

Date Collected: 04/21/11 13:30  
 Date Received: 04/22/11  
 Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
MCP Volatile Organics - Westborough Lab						
Methyl tert butyl ether	ND		ug/l	10	--	5
p/m-Xylene	ND		ug/l	10	--	5
o-Xylene	5.5		ug/l	5.0	--	5
cis-1,2-Dichloroethene	ND		ug/l	5.0	--	5
Dibromomethane	ND		ug/l	10	--	5
1,2,3-Trichloropropane	ND		ug/l	10	--	5
Styrene	ND		ug/l	5.0	--	5
Dichlorodifluoromethane	ND		ug/l	10	--	5
Acetone	ND		ug/l	25	--	5
Carbon disulfide	ND		ug/l	10	--	5
2-Butanone	ND		ug/l	25	--	5
4-Methyl-2-pentanone	ND		ug/l	25	--	5
2-Hexanone	ND		ug/l	25	--	5
Bromochloromethane	ND		ug/l	10	--	5
Tetrahydrofuran	ND		ug/l	25	--	5
2,2-Dichloropropane	ND		ug/l	10	--	5
1,2-Dibromoethane	ND		ug/l	10	--	5
1,3-Dichloropropane	ND		ug/l	10	--	5
1,1,1,2-Tetrachloroethane	ND		ug/l	5.0	--	5
Bromobenzene	ND		ug/l	10	--	5
n-Butylbenzene	ND		ug/l	10	--	5
sec-Butylbenzene	ND		ug/l	10	--	5
tert-Butylbenzene	ND		ug/l	10	--	5
o-Chlorotoluene	ND		ug/l	10	--	5
p-Chlorotoluene	ND		ug/l	10	--	5
1,2-Dibromo-3-chloropropane	ND		ug/l	10	--	5
Hexachlorobutadiene	ND		ug/l	3.0	--	5
Isopropylbenzene	ND		ug/l	10	--	5
p-Isopropyltoluene	ND		ug/l	10	--	5
Naphthalene	ND		ug/l	10	--	5
n-Propylbenzene	ND		ug/l	10	--	5
1,2,3-Trichlorobenzene	ND		ug/l	10	--	5
1,2,4-Trichlorobenzene	ND		ug/l	10	--	5
1,3,5-Trimethylbenzene	ND		ug/l	10	--	5
1,2,4-Trimethylbenzene	ND		ug/l	10	--	5
Ethyl ether	ND		ug/l	10	--	5
Isopropyl Ether	ND		ug/l	10	--	5
Ethyl-Tert-Butyl-Ether	ND		ug/l	10	--	5
Tertiary-Amyl Methyl Ether	ND		ug/l	10	--	5

**Project Name:** 300 THIRD STREET**Lab Number:** L1105519**Project Number:** 04-7590GD2**Report Date:** 05/02/11**SAMPLE RESULTS**

Lab ID: L1105519-13 D

Date Collected: 04/21/11 13:30

Client ID: ENV-998

Date Received: 04/22/11

Sample Location: CAMBRIDGE, MA

Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
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## MCP Volatile Organics - Westborough Lab

1,4-Dioxane	ND		ug/l	1200	--	5
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Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	98		70-130
Toluene-d8	96		70-130
4-Bromofluorobenzene	107		70-130
Dibromofluoromethane	95		70-130



**Project Name:** 300 THIRD STREET**Lab Number:** L1105519**Project Number:** 04-7590GD2**Report Date:** 05/02/11**SAMPLE RESULTS**

Lab ID: L1105519-15  
 Client ID: TRIP BLANK  
 Sample Location: CAMBRIDGE, MA  
 Matrix: Water  
 Analytical Method: 97,8260B  
 Analytical Date: 04/27/11 14:25  
 Analyst: MM

Date Collected: 04/21/11 00:00  
 Date Received: 04/22/11  
 Field Prep: Not Specified

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

Project Name: 300 THIRD STREET

Lab Number: L1105519

Project Number: 04-7590GD2

Report Date: 05/02/11

## SAMPLE RESULTS

Lab ID: L1105519-15  
 Client ID: TRIP BLANK  
 Sample Location: CAMBRIDGE, MA

Date Collected: 04/21/11 00:00  
 Date Received: 04/22/11  
 Field Prep: Not Specified

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

**Project Name:** 300 THIRD STREET**Lab Number:** L1105519**Project Number:** 04-7590GD2**Report Date:** 05/02/11**SAMPLE RESULTS**

Lab ID: L1105519-15  
 Client ID: TRIP BLANK  
 Sample Location: CAMBRIDGE, MA

Date Collected: 04/21/11 00:00  
 Date Received: 04/22/11  
 Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
MCP Volatile Organics - Westborough Lab						
1,4-Dioxane	ND		ug/l	250	--	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	101		70-130
Toluene-d8	101		70-130
4-Bromofluorobenzene	113		70-130
Dibromofluoromethane	102		70-130

**Project Name:** 300 THIRD STREET  
**Project Number:** 04-7590GD2

**Lab Number:** L1105519  
**Report Date:** 05/02/11

**Method Blank Analysis**  
**Batch Quality Control**

Analytical Method: 97,8260B  
Analytical Date: 04/27/11 13:21  
Analyst: MM

Parameter	Result	Qualifier	Units	RL	MDL
MCP Volatile Organics - Westborough Lab for sample(s): 01-03,05-07,13,15 Batch: WG465107-3					
Methylene chloride	ND		ug/l	2.0	--
1,1-Dichloroethane	ND		ug/l	1.0	--
Chloroform	ND		ug/l	1.0	--
Carbon tetrachloride	ND		ug/l	1.0	--
1,2-Dichloropropane	ND		ug/l	1.0	--
Dibromochloromethane	ND		ug/l	1.0	--
1,1,2-Trichloroethane	ND		ug/l	1.0	--
Tetrachloroethene	ND		ug/l	1.0	--
Chlorobenzene	ND		ug/l	1.0	--
Trichlorofluoromethane	ND		ug/l	2.0	--
1,2-Dichloroethane	ND		ug/l	1.0	--
1,1,1-Trichloroethane	ND		ug/l	1.0	--
Bromodichloromethane	ND		ug/l	1.0	--
trans-1,3-Dichloropropene	ND		ug/l	0.50	--
cis-1,3-Dichloropropene	ND		ug/l	0.50	--
1,1-Dichloropropene	ND		ug/l	2.0	--
Bromoform	ND		ug/l	2.0	--
1,1,2,2-Tetrachloroethane	ND		ug/l	1.0	--
Benzene	ND		ug/l	1.0	--
Toluene	ND		ug/l	1.0	--
Ethylbenzene	ND		ug/l	1.0	--
Chloromethane	ND		ug/l	2.0	--
Bromomethane	ND		ug/l	2.0	--
Vinyl chloride	ND		ug/l	1.0	--
Chloroethane	ND		ug/l	2.0	--
1,1-Dichloroethene	ND		ug/l	1.0	--
trans-1,2-Dichloroethene	ND		ug/l	1.0	--
Trichloroethene	ND		ug/l	1.0	--
1,2-Dichlorobenzene	ND		ug/l	1.0	--
1,3-Dichlorobenzene	ND		ug/l	1.0	--
1,4-Dichlorobenzene	ND		ug/l	1.0	--



**Project Name:** 300 THIRD STREET  
**Project Number:** 04-7590GD2

**Lab Number:** L1105519  
**Report Date:** 05/02/11

**Method Blank Analysis**  
**Batch Quality Control**

Analytical Method: 97,8260B  
Analytical Date: 04/27/11 13:21  
Analyst: MM

Parameter	Result	Qualifier	Units	RL	MDL
MCP Volatile Organics - Westborough Lab for sample(s): 01-03,05-07,13,15 Batch: WG465107-3					
Methyl tert butyl ether	ND		ug/l	2.0	--
p/m-Xylene	ND		ug/l	2.0	--
o-Xylene	ND		ug/l	1.0	--
cis-1,2-Dichloroethene	ND		ug/l	1.0	--
Dibromomethane	ND		ug/l	2.0	--
1,2,3-Trichloropropane	ND		ug/l	2.0	--
Styrene	ND		ug/l	1.0	--
Dichlorodifluoromethane	ND		ug/l	2.0	--
Acetone	ND		ug/l	5.0	--
Carbon disulfide	ND		ug/l	2.0	--
2-Butanone	ND		ug/l	5.0	--
4-Methyl-2-pentanone	ND		ug/l	5.0	--
2-Hexanone	ND		ug/l	5.0	--
Bromochloromethane	ND		ug/l	2.0	--
Tetrahydrofuran	ND		ug/l	5.0	--
2,2-Dichloropropane	ND		ug/l	2.0	--
1,2-Dibromoethane	ND		ug/l	2.0	--
1,3-Dichloropropane	ND		ug/l	2.0	--
1,1,1,2-Tetrachloroethane	ND		ug/l	1.0	--
Bromobenzene	ND		ug/l	2.0	--
n-Butylbenzene	ND		ug/l	2.0	--
sec-Butylbenzene	ND		ug/l	2.0	--
tert-Butylbenzene	ND		ug/l	2.0	--
o-Chlorotoluene	ND		ug/l	2.0	--
p-Chlorotoluene	ND		ug/l	2.0	--
1,2-Dibromo-3-chloropropane	ND		ug/l	2.0	--
Hexachlorobutadiene	ND		ug/l	0.60	--
Isopropylbenzene	ND		ug/l	2.0	--
p-Isopropyltoluene	ND		ug/l	2.0	--
Naphthalene	ND		ug/l	2.0	--
n-Propylbenzene	ND		ug/l	2.0	--



**Project Name:** 300 THIRD STREET  
**Project Number:** 04-7590GD2

**Lab Number:** L1105519  
**Report Date:** 05/02/11

**Method Blank Analysis**  
**Batch Quality Control**

Analytical Method: 97,8260B  
 Analytical Date: 04/27/11 13:21  
 Analyst: MM

Parameter	Result	Qualifier	Units	RL	MDL
MCP Volatile Organics - Westborough Lab for sample(s): 01-03,05-07,13,15 Batch: WG465107-3					
1,2,3-Trichlorobenzene	ND		ug/l	2.0	--
1,2,4-Trichlorobenzene	ND		ug/l	2.0	--
1,3,5-Trimethylbenzene	ND		ug/l	2.0	--
1,2,4-Trimethylbenzene	ND		ug/l	2.0	--
Ethyl ether	ND		ug/l	2.0	--
Isopropyl Ether	ND		ug/l	2.0	--
Ethyl-Tert-Butyl-Ether	ND		ug/l	2.0	--
Tertiary-Amyl Methyl Ether	ND		ug/l	2.0	--
1,4-Dioxane	ND		ug/l	250	--

Surrogate	%Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	96		70-130
Toluene-d8	97		70-130
4-Bromofluorobenzene	113		70-130
Dibromofluoromethane	101		70-130

**Project Name:** 300 THIRD STREET  
**Project Number:** 04-7590GD2

**Lab Number:** L1105519  
**Report Date:** 05/02/11

**Method Blank Analysis**  
**Batch Quality Control**

Analytical Method: 97,8260B  
Analytical Date: 04/28/11 08:06  
Analyst: MM

Parameter	Result	Qualifier	Units	RL	MDL
MCP Volatile Organics - Westborough Lab for sample(s): 02,04 Batch: WG465107-6					
Methylene chloride	ND		ug/l	2.0	--
1,1-Dichloroethane	ND		ug/l	1.0	--
Chloroform	ND		ug/l	1.0	--
Carbon tetrachloride	ND		ug/l	1.0	--
1,2-Dichloropropane	ND		ug/l	1.0	--
Dibromochloromethane	ND		ug/l	1.0	--
1,1,2-Trichloroethane	ND		ug/l	1.0	--
Tetrachloroethene	ND		ug/l	1.0	--
Chlorobenzene	ND		ug/l	1.0	--
Trichlorofluoromethane	ND		ug/l	2.0	--
1,2-Dichloroethane	ND		ug/l	1.0	--
1,1,1-Trichloroethane	ND		ug/l	1.0	--
Bromodichloromethane	ND		ug/l	1.0	--
trans-1,3-Dichloropropene	ND		ug/l	0.50	--
cis-1,3-Dichloropropene	ND		ug/l	0.50	--
1,1-Dichloropropene	ND		ug/l	2.0	--
Bromoform	ND		ug/l	2.0	--
1,1,2,2-Tetrachloroethane	ND		ug/l	1.0	--
Benzene	ND		ug/l	1.0	--
Toluene	ND		ug/l	1.0	--
Ethylbenzene	ND		ug/l	1.0	--
Chloromethane	ND		ug/l	2.0	--
Bromomethane	ND		ug/l	2.0	--
Vinyl chloride	ND		ug/l	1.0	--
Chloroethane	ND		ug/l	2.0	--
1,1-Dichloroethene	ND		ug/l	1.0	--
trans-1,2-Dichloroethene	ND		ug/l	1.0	--
Trichloroethene	ND		ug/l	1.0	--
1,2-Dichlorobenzene	ND		ug/l	1.0	--
1,3-Dichlorobenzene	ND		ug/l	1.0	--
1,4-Dichlorobenzene	ND		ug/l	1.0	--



**Project Name:** 300 THIRD STREET  
**Project Number:** 04-7590GD2

**Lab Number:** L1105519  
**Report Date:** 05/02/11

**Method Blank Analysis**  
**Batch Quality Control**

Analytical Method: 97,8260B  
Analytical Date: 04/28/11 08:06  
Analyst: MM

Parameter	Result	Qualifier	Units	RL	MDL
MCP Volatile Organics - Westborough Lab for sample(s): 02,04 Batch: WG465107-6					
Methyl tert butyl ether	ND		ug/l	2.0	--
p/m-Xylene	ND		ug/l	2.0	--
o-Xylene	ND		ug/l	1.0	--
cis-1,2-Dichloroethene	ND		ug/l	1.0	--
Dibromomethane	ND		ug/l	2.0	--
1,2,3-Trichloropropane	ND		ug/l	2.0	--
Styrene	ND		ug/l	1.0	--
Dichlorodifluoromethane	ND		ug/l	2.0	--
Acetone	ND		ug/l	5.0	--
Carbon disulfide	ND		ug/l	2.0	--
2-Butanone	ND		ug/l	5.0	--
4-Methyl-2-pentanone	ND		ug/l	5.0	--
2-Hexanone	ND		ug/l	5.0	--
Bromochloromethane	ND		ug/l	2.0	--
Tetrahydrofuran	ND		ug/l	5.0	--
2,2-Dichloropropane	ND		ug/l	2.0	--
1,2-Dibromoethane	ND		ug/l	2.0	--
1,3-Dichloropropane	ND		ug/l	2.0	--
1,1,1,2-Tetrachloroethane	ND		ug/l	1.0	--
Bromobenzene	ND		ug/l	2.0	--
n-Butylbenzene	ND		ug/l	2.0	--
sec-Butylbenzene	ND		ug/l	2.0	--
tert-Butylbenzene	ND		ug/l	2.0	--
o-Chlorotoluene	ND		ug/l	2.0	--
p-Chlorotoluene	ND		ug/l	2.0	--
1,2-Dibromo-3-chloropropane	ND		ug/l	2.0	--
Hexachlorobutadiene	ND		ug/l	0.60	--
Isopropylbenzene	ND		ug/l	2.0	--
p-Isopropyltoluene	ND		ug/l	2.0	--
Naphthalene	ND		ug/l	2.0	--
n-Propylbenzene	ND		ug/l	2.0	--





**Project Name:** 300 THIRD STREET  
**Project Number:** 04-7590GD2

**Lab Number:** L1105519  
**Report Date:** 05/02/11

**Method Blank Analysis**  
**Batch Quality Control**

Analytical Method: 97,8260B  
Analytical Date: 04/28/11 08:06  
Analyst: MM

Parameter	Result	Qualifier	Units	RL	MDL
MCP Volatile Organics - Westborough Lab for sample(s): 02,04 Batch: WG465107-6					
1,2,3-Trichlorobenzene	ND		ug/l	2.0	--
1,2,4-Trichlorobenzene	ND		ug/l	2.0	--
1,3,5-Trimethylbenzene	ND		ug/l	2.0	--
1,2,4-Trimethylbenzene	ND		ug/l	2.0	--
Ethyl ether	ND		ug/l	2.0	--
Isopropyl Ether	ND		ug/l	2.0	--
Ethyl-Tert-Butyl-Ether	ND		ug/l	2.0	--
Tertiary-Amyl Methyl Ether	ND		ug/l	2.0	--
1,4-Dioxane	ND		ug/l	250	--

Surrogate	%Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	100		70-130
Toluene-d8	102		70-130
4-Bromofluorobenzene	118		70-130
Dibromofluoromethane	102		70-130

## Lab Control Sample Analysis

### Batch Quality Control

Project Name: 300 THIRD STREET

Lab Number: L1105519

Project Number: 04-7590GD2

Report Date: 05/02/11

Parameter	LCS		LCSD		%Recovery Limits	RPD	Qual	RPD Limits
	%Recovery	Qual	%Recovery	Qual				
MCP Volatile Organics - Westborough Lab Associated sample(s): 01-03,05-07,13,15 Batch: WG465107-1 WG465107-2								
Methylene chloride	93		97		70-130	4		20
1,1-Dichloroethane	91		94		70-130	3		20
Chloroform	90		94		70-130	4		20
Carbon tetrachloride	87		91		70-130	4		20
1,2-Dichloropropane	94		94		70-130	0		20
Dibromochloromethane	90		87		70-130	3		20
1,1,2-Trichloroethane	96		92		70-130	4		20
Tetrachloroethene	94		96		70-130	2		20
Chlorobenzene	89		89		70-130	0		20
Trichlorofluoromethane	94		98		70-130	4		20
1,2-Dichloroethane	92		95		70-130	3		20
1,1,1-Trichloroethane	90		93		70-130	3		20
Bromodichloromethane	92		89		70-130	3		20
trans-1,3-Dichloropropene	90		85		70-130	6		20
cis-1,3-Dichloropropene	90		88		70-130	2		20
1,1-Dichloropropene	91		95		70-130	4		20
Bromoform	92		88		70-130	4		20
1,1,2,2-Tetrachloroethane	100		92		70-130	8		20
Benzene	94		96		70-130	2		20
Toluene	88		90		70-130	2		20
Ethylbenzene	91		92		70-130	1		20

## Lab Control Sample Analysis

### Batch Quality Control

Project Name: 300 THIRD STREET

Project Number: 04-7590GD2

Lab Number: L1105519

Report Date: 05/02/11

Parameter	LCS		LCSD		%Recovery Limits	RPD	Qual	RPD Limits
	%Recovery	Qual	%Recovery	Qual				
MCP Volatile Organics - Westborough Lab Associated sample(s): 01-03,05-07,13,15 Batch: WG465107-1 WG465107-2								
Chloromethane	81		85		70-130	5		20
Bromomethane	80		87		70-130	8		20
Vinyl chloride	91		97		70-130	6		20
Chloroethane	87		89		70-130	2		20
1,1-Dichloroethene	92		96		70-130	4		20
trans-1,2-Dichloroethene	90		95		70-130	5		20
Trichloroethene	94		96		70-130	2		20
1,2-Dichlorobenzene	98		91		70-130	7		20
1,3-Dichlorobenzene	98		92		70-130	6		20
1,4-Dichlorobenzene	98		92		70-130	6		20
Methyl tert butyl ether	100		92		70-130	8		20
p/m-Xylene	92		92		70-130	0		20
o-Xylene	91		93		70-130	2		20
cis-1,2-Dichloroethene	93		95		70-130	2		20
Dibromomethane	98		99		70-130	1		20
1,2,3-Trichloropropane	105		90		70-130	15		20
Styrene	96		96		70-130	0		20
Dichlorodifluoromethane	86		89		70-130	3		20
Acetone	110		92		70-130	18		20
Carbon disulfide	77		79		70-130	3		20
2-Butanone	106		96		70-130	10		20

## Lab Control Sample Analysis

### Batch Quality Control

Project Name: 300 THIRD STREET

Project Number: 04-7590GD2

Lab Number: L1105519

Report Date: 05/02/11

Parameter	LCS		LCSD		%Recovery Limits	RPD	Qual	RPD Limits
	%Recovery	Qual	%Recovery	Qual				
MCP Volatile Organics - Westborough Lab Associated sample(s): 01-03,05-07,13,15 Batch: WG465107-1 WG465107-2								
4-Methyl-2-pentanone	98		86		70-130	13		20
2-Hexanone	97		82		70-130	17		20
Bromochloromethane	98		98		70-130	0		20
Tetrahydrofuran	118		103		70-130	14		20
2,2-Dichloropropane	88		92		70-130	4		20
1,2-Dibromoethane	94		91		70-130	3		20
1,3-Dichloropropane	96		92		70-130	4		20
1,1,1,2-Tetrachloroethane	89		89		70-130	0		20
Bromobenzene	96		94		70-130	2		20
n-Butylbenzene	105		93		70-130	12		20
sec-Butylbenzene	97		90		70-130	7		20
tert-Butylbenzene	96		90		70-130	6		20
o-Chlorotoluene	98		94		70-130	4		20
p-Chlorotoluene	108		103		70-130	5		20
1,2-Dibromo-3-chloropropane	97		83		70-130	16		20
Hexachlorobutadiene	98		87		70-130	12		20
Isopropylbenzene	91		90		70-130	1		20
p-Isopropyltoluene	102		94		70-130	8		20
Naphthalene	91		81		70-130	12		20
n-Propylbenzene	99		93		70-130	6		20
1,2,3-Trichlorobenzene	96		83		70-130	15		20

## Lab Control Sample Analysis

### Batch Quality Control

Project Name: 300 THIRD STREET

Lab Number: L1105519

Project Number: 04-7590GD2

Report Date: 05/02/11

Parameter	LCS		LCSD		%Recovery Limits	RPD	Qual	RPD Limits
	%Recovery	Qual	%Recovery	Qual				
MCP Volatile Organics - Westborough Lab Associated sample(s): 01-03,05-07,13,15 Batch: WG465107-1 WG465107-2								
1,2,4-Trichlorobenzene	93		85		70-130	9		20
1,3,5-Trimethylbenzene	95		90		70-130	5		20
1,2,4-Trimethylbenzene	99		93		70-130	6		20
Ethyl ether	109		103		70-130	6		20
Isopropyl Ether	109		104		70-130	5		20
Ethyl-Tert-Butyl-Ether	108		101		70-130	7		20
Tertiary-Amyl Methyl Ether	114		105		70-130	8		20
1,4-Dioxane	109		98		70-130	11		20

Surrogate	LCS		LCSD		Acceptance Criteria
	%Recovery	Qual	%Recovery	Qual	
1,2-Dichloroethane-d4	100		96		70-130
Toluene-d8	98		96		70-130
4-Bromofluorobenzene	99		97		70-130
Dibromofluoromethane	97		96		70-130

## Lab Control Sample Analysis

### Batch Quality Control

Project Name: 300 THIRD STREET

Project Number: 04-7590GD2

Lab Number: L1105519

Report Date: 05/02/11

Parameter	LCS		LCSD		%Recovery Limits	RPD	Qual	RPD Limits
	%Recovery	Qual	%Recovery	Qual				
MCP Volatile Organics - Westborough Lab Associated sample(s): 02,04 Batch: WG465107-4 WG465107-5								
Methylene chloride	100		100		70-130	0		20
1,1-Dichloroethane	98		99		70-130	1		20
Chloroform	99		99		70-130	0		20
Carbon tetrachloride	91		94		70-130	3		20
1,2-Dichloropropane	96		99		70-130	3		20
Dibromochloromethane	92		85		70-130	8		20
1,1,2-Trichloroethane	100		90		70-130	11		20
Tetrachloroethene	96		97		70-130	1		20
Chlorobenzene	92		92		70-130	0		20
Trichlorofluoromethane	104		102		70-130	2		20
1,2-Dichloroethane	101		98		70-130	3		20
1,1,1-Trichloroethane	94		96		70-130	2		20
Bromodichloromethane	95		93		70-130	2		20
trans-1,3-Dichloropropene	89		86		70-130	3		20
cis-1,3-Dichloropropene	93		89		70-130	4		20
1,1-Dichloropropene	99		101		70-130	2		20
Bromoform	91		82		70-130	10		20
1,1,2,2-Tetrachloroethane	104		91		70-130	13		20
Benzene	100		101		70-130	1		20
Toluene	97		96		70-130	1		20
Ethylbenzene	96		96		70-130	0		20

## Lab Control Sample Analysis

### Batch Quality Control

Project Name: 300 THIRD STREET

Lab Number: L1105519

Project Number: 04-7590GD2

Report Date: 05/02/11

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
MCP Volatile Organics - Westborough Lab Associated sample(s): 02,04 Batch: WG465107-4 WG465107-5								
Chloromethane	85		87		70-130	2		20
Bromomethane	91		98		70-130	7		20
Vinyl chloride	96		98		70-130	2		20
Chloroethane	95		94		70-130	1		20
1,1-Dichloroethene	101		103		70-130	2		20
trans-1,2-Dichloroethene	98		102		70-130	4		20
Trichloroethene	100		99		70-130	1		20
1,2-Dichlorobenzene	95		91		70-130	4		20
1,3-Dichlorobenzene	97		93		70-130	4		20
1,4-Dichlorobenzene	98		95		70-130	3		20
Methyl tert butyl ether	102		94		70-130	8		20
p/m-Xylene	96		96		70-130	0		20
o-Xylene	96		95		70-130	1		20
cis-1,2-Dichloroethene	98		101		70-130	3		20
Dibromomethane	103		100		70-130	3		20
1,2,3-Trichloropropane	108		96		70-130	12		20
Styrene	97		95		70-130	2		20
Dichlorodifluoromethane	84		85		70-130	1		20
Acetone	107		95		70-130	12		20
Carbon disulfide	78		81		70-130	4		20
2-Butanone	107		91		70-130	16		20

## Lab Control Sample Analysis

### Batch Quality Control

Project Name: 300 THIRD STREET

Lab Number: L1105519

Project Number: 04-7590GD2

Report Date: 05/02/11

Parameter	LCS		LCSD		%Recovery Limits	RPD	Qual	RPD Limits
	%Recovery	Qual	%Recovery	Qual				
MCP Volatile Organics - Westborough Lab Associated sample(s): 02,04 Batch: WG465107-4 WG465107-5								
4-Methyl-2-pentanone	97		81		70-130	18		20
2-Hexanone	92		77		70-130	18		20
Bromochloromethane	104		98		70-130	6		20
Tetrahydrofuran	122		100		70-130	20		20
2,2-Dichloropropane	93		95		70-130	2		20
1,2-Dibromoethane	99		91		70-130	8		20
1,3-Dichloropropane	100		95		70-130	5		20
1,1,1,2-Tetrachloroethane	91		90		70-130	1		20
Bromobenzene	96		95		70-130	1		20
n-Butylbenzene	102		98		70-130	4		20
sec-Butylbenzene	98		95		70-130	3		20
tert-Butylbenzene	98		95		70-130	3		20
o-Chlorotoluene	99		99		70-130	0		20
p-Chlorotoluene	97		91		70-130	6		20
1,2-Dibromo-3-chloropropane	92		76		70-130	19		20
Hexachlorobutadiene	97		94		70-130	3		20
Isopropylbenzene	95		92		70-130	3		20
p-Isopropyltoluene	101		98		70-130	3		20
Naphthalene	90		79		70-130	13		20
n-Propylbenzene	99		97		70-130	2		20
1,2,3-Trichlorobenzene	96		87		70-130	10		20



## Lab Control Sample Analysis

### Batch Quality Control

Project Name: 300 THIRD STREET

Lab Number: L1105519

Project Number: 04-7590GD2

Report Date: 05/02/11

Parameter	LCS		LCSD		%Recovery Limits	RPD	Qual	RPD Limits
	%Recovery	Qual	%Recovery	Qual				
MCP Volatile Organics - Westborough Lab Associated sample(s): 02,04 Batch: WG465107-4 WG465107-5								
1,2,4-Trichlorobenzene	91		86		70-130	6		20
1,3,5-Trimethylbenzene	103		101		70-130	2		20
1,2,4-Trimethylbenzene	100		96		70-130	4		20
Ethyl ether	118		107		70-130	10		20
Isopropyl Ether	108		105		70-130	3		20
Ethyl-Tert-Butyl-Ether	108		101		70-130	7		20
Tertiary-Amyl Methyl Ether	114		105		70-130	8		20
1,4-Dioxane	104		92		70-130	12		20

Surrogate	LCS		LCSD		Acceptance Criteria
	%Recovery	Qual	%Recovery	Qual	
1,2-Dichloroethane-d4	100		95		70-130
Toluene-d8	97		99		70-130
4-Bromofluorobenzene	102		98		70-130
Dibromofluoromethane	101		99		70-130

# PETROLEUM HYDROCARBONS

**Project Name:** 300 THIRD STREET  
**Project Number:** 04-7590GD2

**Lab Number:** L1105519  
**Report Date:** 05/02/11

**SAMPLE RESULTS**

Lab ID: L1105519-02  
 Client ID: ENV-2  
 Sample Location: CAMBRIDGE, MA  
 Matrix: Water  
 Analytical Method: 100, VPH-04-1.1  
 Analytical Date: 04/29/11 04:12  
 Analyst: TT

Date Collected: 04/21/11 14:00  
 Date Received: 04/22/11  
 Field Prep: Not Specified

**Quality Control Information**

Condition of sample received: Satisfactory  
 Aqueous Preservative: Laboratory Provided Preserved Container  
 Sample Temperature upon receipt: Received on Ice

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
<b>Volatile Petroleum Hydrocarbons - Westborough Lab</b>						
C5-C8 Aliphatics	231		ug/l	50.0	--	1
C9-C12 Aliphatics	71.3		ug/l	50.0	--	1
C9-C10 Aromatics	ND		ug/l	50.0	--	1
C5-C8 Aliphatics, Adjusted	104		ug/l	50.0	--	1
C9-C12 Aliphatics, Adjusted	50.5		ug/l	50.0	--	1
Benzene	127		ug/l	2.00	--	1
Toluene	ND		ug/l	2.00	--	1
Ethylbenzene	12.2		ug/l	2.00	--	1
p/m-Xylene	3.68		ug/l	2.00	--	1
o-Xylene	4.94		ug/l	2.00	--	1
Methyl tert butyl ether	ND		ug/l	3.00	--	1
Naphthalene	ND		ug/l	4.00	--	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
2,5-Dibromotoluene-PID	97		70-130
2,5-Dibromotoluene-FID	93		70-130

**Project Name:** 300 THIRD STREET  
**Project Number:** 04-7590GD2

**Lab Number:** L1105519  
**Report Date:** 05/02/11

**SAMPLE RESULTS**

Lab ID: L1105519-04  
 Client ID: ENV-4  
 Sample Location: CAMBRIDGE, MA  
 Matrix: Water  
 Analytical Method: 100, VPH-04-1.1  
 Analytical Date: 04/29/11 21:39  
 Analyst: TT

Date Collected: 04/21/11 14:30  
 Date Received: 04/22/11  
 Field Prep: Not Specified

**Quality Control Information**

Condition of sample received: Satisfactory  
 Aqueous Preservative: Laboratory Provided Preserved Container  
 Sample Temperature upon receipt: Received on Ice

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
<b>Volatile Petroleum Hydrocarbons - Westborough Lab</b>						
C5-C8 Aliphatics	118		ug/l	50.0	--	1
C9-C12 Aliphatics	266		ug/l	50.0	--	1
C9-C10 Aromatics	68.6		ug/l	50.0	--	1
C5-C8 Aliphatics, Adjusted	67.3		ug/l	50.0	--	1
C9-C12 Aliphatics, Adjusted	ND		ug/l	50.0	--	1
Benzene	41.4		ug/l	2.00	--	1
Toluene	8.97		ug/l	2.00	--	1
Ethylbenzene	25.4		ug/l	2.00	--	1
p/m-Xylene	112		ug/l	2.00	--	1
o-Xylene	24.5		ug/l	2.00	--	1
Methyl tert butyl ether	ND		ug/l	3.00	--	1
Naphthalene	ND		ug/l	4.00	--	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
2,5-Dibromotoluene-PID	105		70-130
2,5-Dibromotoluene-FID	100		70-130

**Project Name:** 300 THIRD STREET  
**Project Number:** 04-7590GD2

**Lab Number:** L1105519  
**Report Date:** 05/02/11

**SAMPLE RESULTS**

Lab ID: L1105519-05  
 Client ID: ENV-7  
 Sample Location: CAMBRIDGE, MA  
 Matrix: Water  
 Analytical Method: 100, VPH-04-1.1  
 Analytical Date: 04/29/11 17:21  
 Analyst: TT

Date Collected: 04/21/11 11:10  
 Date Received: 04/22/11  
 Field Prep: Not Specified

**Quality Control Information**

Condition of sample received: Satisfactory  
 Aqueous Preservative: Laboratory Provided Preserved Container  
 Sample Temperature upon receipt: Received on Ice

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
<b>Volatile Petroleum Hydrocarbons - Westborough Lab</b>						
C5-C8 Aliphatics	ND		ug/l	50.0	--	1
C9-C12 Aliphatics	ND		ug/l	50.0	--	1
C9-C10 Aromatics	ND		ug/l	50.0	--	1
C5-C8 Aliphatics, Adjusted	ND		ug/l	50.0	--	1
C9-C12 Aliphatics, Adjusted	ND		ug/l	50.0	--	1
Benzene	ND		ug/l	2.00	--	1
Toluene	ND		ug/l	2.00	--	1
Ethylbenzene	ND		ug/l	2.00	--	1
p/m-Xylene	ND		ug/l	2.00	--	1
o-Xylene	ND		ug/l	2.00	--	1
Methyl tert butyl ether	ND		ug/l	3.00	--	1
Naphthalene	ND		ug/l	4.00	--	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
2,5-Dibromotoluene-PID	104		70-130
2,5-Dibromotoluene-FID	103		70-130

**Project Name:** 300 THIRD STREET  
**Project Number:** 04-7590GD2

**Lab Number:** L1105519  
**Report Date:** 05/02/11

**SAMPLE RESULTS**

Lab ID: L1105519-06  
 Client ID: ENV-8  
 Sample Location: CAMBRIDGE, MA  
 Matrix: Water  
 Analytical Method: 100, VPH-04-1.1  
 Analytical Date: 04/29/11 18:13  
 Analyst: TT

Date Collected: 04/21/11 09:55  
 Date Received: 04/22/11  
 Field Prep: Not Specified

**Quality Control Information**

Condition of sample received: Satisfactory  
 Aqueous Preservative: Laboratory Provided Preserved Container  
 Sample Temperature upon receipt: Received on Ice

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
<b>Volatile Petroleum Hydrocarbons - Westborough Lab</b>						
C5-C8 Aliphatics	ND		ug/l	50.0	--	1
C9-C12 Aliphatics	ND		ug/l	50.0	--	1
C9-C10 Aromatics	ND		ug/l	50.0	--	1
C5-C8 Aliphatics, Adjusted	ND		ug/l	50.0	--	1
C9-C12 Aliphatics, Adjusted	ND		ug/l	50.0	--	1
Benzene	ND		ug/l	2.00	--	1
Toluene	ND		ug/l	2.00	--	1
Ethylbenzene	ND		ug/l	2.00	--	1
p/m-Xylene	ND		ug/l	2.00	--	1
o-Xylene	ND		ug/l	2.00	--	1
Methyl tert butyl ether	ND		ug/l	3.00	--	1
Naphthalene	ND		ug/l	4.00	--	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
2,5-Dibromotoluene-PID	107		70-130
2,5-Dibromotoluene-FID	104		70-130

**Project Name:** 300 THIRD STREET  
**Project Number:** 04-7590GD2

**Lab Number:** L1105519  
**Report Date:** 05/02/11

**SAMPLE RESULTS**

Lab ID: L1105519-07 D  
 Client ID: ENV-9  
 Sample Location: CAMBRIDGE, MA  
 Matrix: Water  
 Analytical Method: 100, VPH-04-1.1  
 Analytical Date: 04/30/11 13:48  
 Analyst: TB

Date Collected: 04/21/11 12:48  
 Date Received: 04/22/11  
 Field Prep: Not Specified

**Quality Control Information**

Condition of sample received: Satisfactory  
 Aqueous Preservative: Laboratory Provided Preserved Container  
 Sample Temperature upon receipt: Received on Ice

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
<b>Volatile Petroleum Hydrocarbons - Westborough Lab</b>						
C5-C8 Aliphatics	ND		ug/l	10000	--	200
C9-C12 Aliphatics	60700		ug/l	10000	--	200
C9-C10 Aromatics	ND		ug/l	10000	--	200
C5-C8 Aliphatics, Adjusted	ND		ug/l	10000	--	200
C9-C12 Aliphatics, Adjusted	16900		ug/l	10000	--	200
Benzene	ND		ug/l	400	--	200
Toluene	3540		ug/l	400	--	200
Ethylbenzene	6300		ug/l	400	--	200
p/m-Xylene	29200		ug/l	400	--	200
o-Xylene	8180		ug/l	400	--	200
Methyl tert butyl ether	ND		ug/l	600	--	200
Naphthalene	ND		ug/l	800	--	200

Surrogate	% Recovery	Qualifier	Acceptance Criteria
2,5-Dibromotoluene-PID	93		70-130
2,5-Dibromotoluene-FID	103		70-130

**Project Name:** 300 THIRD STREET  
**Project Number:** 04-7590GD2

**Lab Number:** L1105519  
**Report Date:** 05/02/11

**SAMPLE RESULTS**

Lab ID: L1105519-08  
 Client ID: ENV-10  
 Sample Location: CAMBRIDGE, MA  
 Matrix: Water  
 Analytical Method: 100, VPH-04-1.1  
 Analytical Date: 04/29/11 19:56  
 Analyst: TT

Date Collected: 04/21/11 11:13  
 Date Received: 04/22/11  
 Field Prep: Not Specified

**Quality Control Information**

Condition of sample received: Satisfactory  
 Aqueous Preservative: Laboratory Provided Preserved Container  
 Sample Temperature upon receipt: Received on Ice

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
<b>Volatile Petroleum Hydrocarbons - Westborough Lab</b>						
C5-C8 Aliphatics	ND		ug/l	50.0	--	1
C9-C12 Aliphatics	ND		ug/l	50.0	--	1
C9-C10 Aromatics	ND		ug/l	50.0	--	1
C5-C8 Aliphatics, Adjusted	ND		ug/l	50.0	--	1
C9-C12 Aliphatics, Adjusted	ND		ug/l	50.0	--	1
Benzene	ND		ug/l	2.00	--	1
Toluene	ND		ug/l	2.00	--	1
Ethylbenzene	ND		ug/l	2.00	--	1
p/m-Xylene	ND		ug/l	2.00	--	1
o-Xylene	ND		ug/l	2.00	--	1
Methyl tert butyl ether	ND		ug/l	3.00	--	1
Naphthalene	ND		ug/l	4.00	--	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
2,5-Dibromotoluene-PID	93		70-130
2,5-Dibromotoluene-FID	90		70-130



**Project Name:** 300 THIRD STREET  
**Project Number:** 04-7590GD2

**Lab Number:** L1105519  
**Report Date:** 05/02/11

**SAMPLE RESULTS**

Lab ID: L1105519-09  
 Client ID: ENV-11  
 Sample Location: CAMBRIDGE, MA  
 Matrix: Water  
 Analytical Method: 100, VPH-04-1.1  
 Analytical Date: 04/30/11 09:16  
 Analyst: TT

Date Collected: 04/21/11 10:43  
 Date Received: 04/22/11  
 Field Prep: Not Specified

**Quality Control Information**

Condition of sample received: Satisfactory  
 Aqueous Preservative: Laboratory Provided Preserved Container  
 Sample Temperature upon receipt: Received on Ice

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
<b>Volatile Petroleum Hydrocarbons - Westborough Lab</b>						
C5-C8 Aliphatics	53.5		ug/l	50.0	--	1
C9-C12 Aliphatics	79.3		ug/l	50.0	--	1
C9-C10 Aromatics	62.1		ug/l	50.0	--	1
C5-C8 Aliphatics, Adjusted	51.3		ug/l	50.0	--	1
C9-C12 Aliphatics, Adjusted	ND		ug/l	50.0	--	1
Benzene	2.20		ug/l	2.00	--	1
Toluene	ND		ug/l	2.00	--	1
Ethylbenzene	ND		ug/l	2.00	--	1
p/m-Xylene	ND		ug/l	2.00	--	1
o-Xylene	ND		ug/l	2.00	--	1
Methyl tert butyl ether	ND		ug/l	3.00	--	1
Naphthalene	ND		ug/l	4.00	--	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
2,5-Dibromotoluene-PID	102		70-130
2,5-Dibromotoluene-FID	97		70-130

**Project Name:** 300 THIRD STREET  
**Project Number:** 04-7590GD2

**Lab Number:** L1105519  
**Report Date:** 05/02/11

**SAMPLE RESULTS**

Lab ID: L1105519-10  
 Client ID: MW-60  
 Sample Location: CAMBRIDGE, MA  
 Matrix: Water  
 Analytical Method: 100, VPH-04-1.1  
 Analytical Date: 04/30/11 10:08  
 Analyst: TT

Date Collected: 04/21/11 09:42  
 Date Received: 04/22/11  
 Field Prep: Not Specified

**Quality Control Information**

Condition of sample received: Satisfactory  
 Aqueous Preservative: Laboratory Provided Preserved Container  
 Sample Temperature upon receipt: Received on Ice

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
<b>Volatile Petroleum Hydrocarbons - Westborough Lab</b>						
C5-C8 Aliphatics	189		ug/l	50.0	--	1
C9-C12 Aliphatics	50.5		ug/l	50.0	--	1
C9-C10 Aromatics	ND		ug/l	50.0	--	1
C5-C8 Aliphatics, Adjusted	104		ug/l	50.0	--	1
C9-C12 Aliphatics, Adjusted	50.5		ug/l	50.0	--	1
Benzene	85.6		ug/l	2.00	--	1
Toluene	ND		ug/l	2.00	--	1
Ethylbenzene	ND		ug/l	2.00	--	1
p/m-Xylene	ND		ug/l	2.00	--	1
o-Xylene	ND		ug/l	2.00	--	1
Methyl tert butyl ether	ND		ug/l	3.00	--	1
Naphthalene	ND		ug/l	4.00	--	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
2,5-Dibromotoluene-PID	105		70-130
2,5-Dibromotoluene-FID	101		70-130

**Project Name:** 300 THIRD STREET  
**Project Number:** 04-7590GD2

**Lab Number:** L1105519  
**Report Date:** 05/02/11

**SAMPLE RESULTS**

Lab ID: L1105519-11  
 Client ID: HRB-2  
 Sample Location: CAMBRIDGE, MA  
 Matrix: Water  
 Analytical Method: 100, VPH-04-1.1  
 Analytical Date: 04/29/11 23:22  
 Analyst: TT

Date Collected: 04/21/11 08:15  
 Date Received: 04/22/11  
 Field Prep: Not Specified

**Quality Control Information**

Condition of sample received: Satisfactory  
 Aqueous Preservative: Laboratory Provided Preserved Container  
 Sample Temperature upon receipt: Received on Ice

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
<b>Volatile Petroleum Hydrocarbons - Westborough Lab</b>						
C5-C8 Aliphatics	ND		ug/l	50.0	--	1
C9-C12 Aliphatics	ND		ug/l	50.0	--	1
C9-C10 Aromatics	ND		ug/l	50.0	--	1
C5-C8 Aliphatics, Adjusted	ND		ug/l	50.0	--	1
C9-C12 Aliphatics, Adjusted	ND		ug/l	50.0	--	1
Benzene	2.31		ug/l	2.00	--	1
Toluene	ND		ug/l	2.00	--	1
Ethylbenzene	ND		ug/l	2.00	--	1
p/m-Xylene	ND		ug/l	2.00	--	1
o-Xylene	ND		ug/l	2.00	--	1
Methyl tert butyl ether	ND		ug/l	3.00	--	1
Naphthalene	ND		ug/l	4.00	--	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
2,5-Dibromotoluene-PID	84		70-130
2,5-Dibromotoluene-FID	79		70-130

**Project Name:** 300 THIRD STREET  
**Project Number:** 04-7590GD2

**Lab Number:** L1105519  
**Report Date:** 05/02/11

**SAMPLE RESULTS**

Lab ID: L1105519-12 D  
 Client ID: B201  
 Sample Location: CAMBRIDGE, MA  
 Matrix: Water  
 Analytical Method: 100, VPH-04-1.1  
 Analytical Date: 04/30/11 12:57  
 Analyst: TB

Date Collected: 04/21/11 08:27  
 Date Received: 04/22/11  
 Field Prep: Not Specified

**Quality Control Information**

Condition of sample received: Satisfactory  
 Aqueous Preservative: Laboratory Provided Preserved Container  
 Sample Temperature upon receipt: Received on Ice

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
<b>Volatile Petroleum Hydrocarbons - Westborough Lab</b>						
C5-C8 Aliphatics	ND		ug/l	5000	--	100
C9-C12 Aliphatics	21800		ug/l	5000	--	100
C9-C10 Aromatics	ND		ug/l	5000	--	100
C5-C8 Aliphatics, Adjusted	ND		ug/l	5000	--	100
C9-C12 Aliphatics, Adjusted	5900		ug/l	5000	--	100
Benzene	ND		ug/l	200	--	100
Toluene	1650		ug/l	200	--	100
Ethylbenzene	2490		ug/l	200	--	100
p/m-Xylene	9980		ug/l	200	--	100
o-Xylene	3440		ug/l	200	--	100
Methyl tert butyl ether	ND		ug/l	300	--	100
Naphthalene	ND		ug/l	400	--	100

Surrogate	% Recovery	Qualifier	Acceptance Criteria
2,5-Dibromotoluene-PID	85		70-130
2,5-Dibromotoluene-FID	93		70-130

**Project Name:** 300 THIRD STREET  
**Project Number:** 04-7590GD2

**Lab Number:** L1105519  
**Report Date:** 05/02/11

### SAMPLE RESULTS

Lab ID: L1105519-14  
 Client ID: ENV-999  
 Sample Location: CAMBRIDGE, MA  
 Matrix: Water  
 Analytical Method: 100, VPH-04-1.1  
 Analytical Date: 04/30/11 10:59  
 Analyst: TT

Date Collected: 04/21/11 14:00  
 Date Received: 04/22/11  
 Field Prep: Not Specified

### Quality Control Information

Condition of sample received: Satisfactory  
 Aqueous Preservative: Laboratory Provided Preserved Container  
 Sample Temperature upon receipt: Received on Ice

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
<b>Volatile Petroleum Hydrocarbons - Westborough Lab</b>						
C5-C8 Aliphatics	383		ug/l	50.0	--	1
C9-C12 Aliphatics	107		ug/l	50.0	--	1
C9-C10 Aromatics	ND		ug/l	50.0	--	1
C5-C8 Aliphatics, Adjusted	153		ug/l	50.0	--	1
C9-C12 Aliphatics, Adjusted	53.5		ug/l	50.0	--	1
Benzene	230		ug/l	2.00	--	1
Toluene	ND		ug/l	2.00	--	1
Ethylbenzene	31.5		ug/l	2.00	--	1
p/m-Xylene	9.04		ug/l	2.00	--	1
o-Xylene	13.1		ug/l	2.00	--	1
Methyl tert butyl ether	ND		ug/l	3.00	--	1
Naphthalene	ND		ug/l	4.00	--	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
2,5-Dibromotoluene-PID	114		70-130
2,5-Dibromotoluene-FID	106		70-130

**Project Name:** 300 THIRD STREET  
**Project Number:** 04-7590GD2

**Lab Number:** L1105519  
**Report Date:** 05/02/11

**Method Blank Analysis**  
**Batch Quality Control**

Analytical Method: 100, VPH-04-1.1  
 Analytical Date: 04/28/11 11:33  
 Analyst: TT

Parameter	Result	Qualifier	Units	RL	MDL
Volatile Petroleum Hydrocarbons - Westborough Lab for sample(s): 02 Batch: WG465092-3					
C5-C8 Aliphatics	ND		ug/l	50.0	--
C9-C12 Aliphatics	ND		ug/l	50.0	--
C9-C10 Aromatics	ND		ug/l	50.0	--
C5-C8 Aliphatics, Adjusted	ND		ug/l	50.0	--
C9-C12 Aliphatics, Adjusted	ND		ug/l	50.0	--
Benzene	ND		ug/l	2.00	--
Toluene	ND		ug/l	2.00	--
Ethylbenzene	ND		ug/l	2.00	--
p/m-Xylene	ND		ug/l	2.00	--
o-Xylene	ND		ug/l	2.00	--
Methyl tert butyl ether	ND		ug/l	3.00	--
Naphthalene	ND		ug/l	4.00	--

Surrogate	%Recovery	Qualifier	Acceptance Criteria
2,5-Dibromotoluene-PID	105		70-130
2,5-Dibromotoluene-FID	99		70-130

**Project Name:** 300 THIRD STREET  
**Project Number:** 04-7590GD2

**Lab Number:** L1105519  
**Report Date:** 05/02/11

**Method Blank Analysis**  
**Batch Quality Control**

Analytical Method: 100, VPH-04-1.1  
 Analytical Date: 04/29/11 12:07  
 Analyst: TT

Parameter	Result	Qualifier	Units	RL	MDL
Volatile Petroleum Hydrocarbons - Westborough Lab for sample(s): 04-06,08-11,14 Batch: WG465326-3					
C5-C8 Aliphatics	ND		ug/l	50.0	--
C9-C12 Aliphatics	ND		ug/l	50.0	--
C9-C10 Aromatics	ND		ug/l	50.0	--
C5-C8 Aliphatics, Adjusted	ND		ug/l	50.0	--
C9-C12 Aliphatics, Adjusted	ND		ug/l	50.0	--
Benzene	ND		ug/l	2.00	--
Toluene	ND		ug/l	2.00	--
Ethylbenzene	ND		ug/l	2.00	--
p/m-Xylene	ND		ug/l	2.00	--
o-Xylene	ND		ug/l	2.00	--
Methyl tert butyl ether	ND		ug/l	3.00	--
Naphthalene	ND		ug/l	4.00	--

Surrogate	%Recovery	Qualifier	Acceptance Criteria
2,5-Dibromotoluene-PID	106		70-130
2,5-Dibromotoluene-FID	102		70-130

**Project Name:** 300 THIRD STREET  
**Project Number:** 04-7590GD2

**Lab Number:** L1105519  
**Report Date:** 05/02/11

**Method Blank Analysis  
Batch Quality Control**

Analytical Method: 100, VPH-04-1.1  
Analytical Date: 04/30/11 10:21  
Analyst: TB

Parameter	Result	Qualifier	Units	RL	MDL
Volatile Petroleum Hydrocarbons - Westborough Lab for sample(s): 07,12 Batch: WG465496-3					
C5-C8 Aliphatics	ND		ug/l	50.0	--
C9-C12 Aliphatics	ND		ug/l	50.0	--
C9-C10 Aromatics	ND		ug/l	50.0	--
C5-C8 Aliphatics, Adjusted	ND		ug/l	50.0	--
C9-C12 Aliphatics, Adjusted	ND		ug/l	50.0	--
Benzene	ND		ug/l	2.00	--
Toluene	ND		ug/l	2.00	--
Ethylbenzene	ND		ug/l	2.00	--
p/m-Xylene	ND		ug/l	2.00	--
o-Xylene	ND		ug/l	2.00	--
Methyl tert butyl ether	ND		ug/l	3.00	--
Naphthalene	ND		ug/l	4.00	--

Surrogate	%Recovery	Qualifier	Acceptance Criteria
2,5-Dibromotoluene-PID	73		70-130
2,5-Dibromotoluene-FID	87		70-130



## Lab Control Sample Analysis

### Batch Quality Control

Project Name: 300 THIRD STREET

Project Number: 04-7590GD2

Lab Number: L1105519

Report Date: 05/02/11

Parameter	LCS		LCSD		%Recovery Limits	RPD	Qual	RPD Limits
	%Recovery	Qual	%Recovery	Qual				
Volatile Petroleum Hydrocarbons - Westborough Lab Associated sample(s): 02 Batch: WG465092-1 WG465092-2								
C5-C8 Aliphatics	85		83		70-130	2		25
C9-C12 Aliphatics	94		78		70-130	19		25
C9-C10 Aromatics	104		104		70-130	0		25
Benzene	95		97		70-130	1		25
Toluene	98		99		70-130	1		25
Ethylbenzene	101		102		70-130	1		25
p/m-Xylene	102		103		70-130	1		25
o-Xylene	99		99		70-130	1		25
Methyl tert butyl ether	84		90		70-130	7		25
Naphthalene	98		105		70-130	7		25
1,2,4-Trimethylbenzene	103		103		70-130	0		25
Pentane	80		79		70-130	2		25
2-Methylpentane	83		85		70-130	1		25
2,2,4-Trimethylpentane	95		96		70-130	1		25
n-Nonane	97		86		30-130	12		25
n-Decane	90		70		70-130	25		25
n-Butylcyclohexane	96		85		70-130	13		25

## Lab Control Sample Analysis

### Batch Quality Control

Project Name: 300 THIRD STREET

Lab Number: L1105519

Project Number: 04-7590GD2

Report Date: 05/02/11

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
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Volatile Petroleum Hydrocarbons - Westborough Lab Associated sample(s): 02 Batch: WG465092-1 WG465092-2

Surrogate	LCS %Recovery	Qual	LCSD %Recovery	Qual	Acceptance Criteria
2,5-Dibromotoluene-PID	98		97		70-130
2,5-Dibromotoluene-FID	93		91		70-130

Volatile Petroleum Hydrocarbons - Westborough Lab Associated sample(s): 04-06,08-11,14 Batch: WG465326-1 WG465326-2

C5-C8 Aliphatics	103		102		70-130	1	25
C9-C12 Aliphatics	101		93		70-130	8	25
C9-C10 Aromatics	110		112		70-130	2	25
Benzene	102		105		70-130	3	25
Toluene	104		107		70-130	3	25
Ethylbenzene	107		110		70-130	3	25
p/m-Xylene	110		112		70-130	2	25
o-Xylene	106		108		70-130	2	25
Methyl tert butyl ether	90		99		70-130	9	25

## Lab Control Sample Analysis

Batch Quality Control

Project Name: 300 THIRD STREET

Lab Number: L1105519

Project Number: 04-7590GD2

Report Date: 05/02/11

Parameter	LCS		LCSD		%Recovery Limits	RPD	Qual	RPD Limits
	%Recovery	Qual	%Recovery	Qual				
Volatile Petroleum Hydrocarbons - Westborough Lab Associated sample(s): 04-06,08-11,14 Batch: WG465326-1 WG465326-2								
Naphthalene	110		121		70-130	10		25
1,2,4-Trimethylbenzene	110		111		70-130	1		25
Pentane	112		98		70-130	14		25
2-Methylpentane	104		107		70-130	3		25
2,2,4-Trimethylpentane	101		106		70-130	5		25
n-Nonane	104		100		30-130	4		25
n-Decane	99		87		70-130	13		25
n-Butylcyclohexane	102		98		70-130	4		25

Surrogate	LCS		LCSD		Acceptance Criteria
	%Recovery	Qual	%Recovery	Qual	
2,5-Dibromotoluene-PID	103		107		70-130
2,5-Dibromotoluene-FID	95		102		70-130

## Lab Control Sample Analysis

### Batch Quality Control

Project Name: 300 THIRD STREET

Project Number: 04-7590GD2

Lab Number: L1105519

Report Date: 05/02/11

Parameter	LCS		LCSD		%Recovery Limits	RPD	Qual	RPD Limits
	%Recovery	Qual	%Recovery	Qual				
Volatile Petroleum Hydrocarbons - Westborough Lab Associated sample(s): 07,12 Batch: WG465496-1 WG465496-2								
C5-C8 Aliphatics	95		103		70-130	8		25
C9-C12 Aliphatics	90		93		70-130	3		25
C9-C10 Aromatics	84		89		70-130	6		25
Benzene	85		88		70-130	3		25
Toluene	85		88		70-130	3		25
Ethylbenzene	82		86		70-130	5		25
p/m-Xylene	85		89		70-130	5		25
o-Xylene	83		87		70-130	5		25
Methyl tert butyl ether	90		100		70-130	10		25
Naphthalene	89		100		70-130	11		25
1,2,4-Trimethylbenzene	84		89		70-130	5		25
Pentane	100		107		70-130	7		25
2-Methylpentane	95		104		70-130	9		25
2,2,4-Trimethylpentane	90		101		70-130	12		25
n-Nonane	89		96		30-130	8		25
n-Decane	89		89		70-130	0		25
n-Butylcyclohexane	89		96		70-130	8		25

## Lab Control Sample Analysis

Batch Quality Control

**Project Name:** 300 THIRD STREET  
**Project Number:** 04-7590GD2

**Lab Number:** L1105519  
**Report Date:** 05/02/11

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Volatile Petroleum Hydrocarbons - Westborough Lab Associated sample(s): 07,12 Batch: WG465496-1 WG465496-2								

Surrogate	LCS %Recovery	Qual	LCSD %Recovery	Qual	Acceptance Criteria
2,5-Dibromotoluene-PID	81		91		70-130
2,5-Dibromotoluene-FID	94		109		70-130

Project Name: 300 THIRD STREET

Lab Number: L1105519

Project Number: 04-7590GD2

Report Date: 05/02/11

## Sample Receipt and Container Information

Were project specific reporting limits specified? YES

Reagent H2O Preserved Vials Frozen on: NA

## Cooler Information Custody Seal

## Cooler

A Absent

## Container Information

Container ID	Container Type	Cooler	pH	Temp deg C	Pres	Seal	Analysis(*)
L1105519-01A	Vial HCl preserved	A	N/A	5.9	Y	Absent	MCP-8260-10(14)
L1105519-01B	Vial HCl preserved	A	N/A	5.9	Y	Absent	MCP-8260-10(14)
L1105519-02A	Vial HCl preserved	A	N/A	5.9	Y	Absent	MCP-8260-10(14)
L1105519-02B	Vial HCl preserved	A	N/A	5.9	Y	Absent	MCP-8260-10(14)
L1105519-02C	Vial HCl preserved	A	N/A	5.9	Y	Absent	VPH-DELUX-10(14)
L1105519-02D	Vial HCl preserved	A	N/A	5.9	Y	Absent	VPH-DELUX-10(14)
L1105519-03A	Vial HCl preserved	A	N/A	5.9	Y	Absent	MCP-8260-10(14)
L1105519-03B	Vial HCl preserved	A	N/A	5.9	Y	Absent	MCP-8260-10(14)
L1105519-04A	Vial HCl preserved	A	N/A	5.9	Y	Absent	MCP-8260-10(14)
L1105519-04B	Vial HCl preserved	A	N/A	5.9	Y	Absent	MCP-8260-10(14)
L1105519-04C	Vial HCl preserved	A	N/A	5.9	Y	Absent	VPH-DELUX-10(14)
L1105519-04D	Vial HCl preserved	A	N/A	5.9	Y	Absent	VPH-DELUX-10(14)
L1105519-05A	Vial HCl preserved	A	N/A	5.9	Y	Absent	MCP-8260-10(14)
L1105519-05B	Vial HCl preserved	A	N/A	5.9	Y	Absent	MCP-8260-10(14)
L1105519-05C	Vial HCl preserved	A	N/A	5.9	Y	Absent	VPH-DELUX-10(14)
L1105519-05D	Vial HCl preserved	A	N/A	5.9	Y	Absent	VPH-DELUX-10(14)
L1105519-06A	Vial HCl preserved	A	N/A	5.9	Y	Absent	MCP-8260-10(14)
L1105519-06B	Vial HCl preserved	A	N/A	5.9	Y	Absent	MCP-8260-10(14)
L1105519-06C	Vial HCl preserved	A	N/A	5.9	Y	Absent	VPH-DELUX-10(14)
L1105519-06D	Vial HCl preserved	A	N/A	5.9	Y	Absent	VPH-DELUX-10(14)
L1105519-07A	Vial HCl preserved	A	N/A	5.9	Y	Absent	MCP-8260-10(14)
L1105519-07B	Vial HCl preserved	A	N/A	5.9	Y	Absent	MCP-8260-10(14)
L1105519-07C	Vial HCl preserved	A	N/A	5.9	Y	Absent	VPH-DELUX-10(14)
L1105519-07D	Vial HCl preserved	A	N/A	5.9	Y	Absent	VPH-DELUX-10(14)
L1105519-08A	Vial HCl preserved	A	N/A	5.9	Y	Absent	VPH-DELUX-10(14)
L1105519-08B	Vial HCl preserved	A	N/A	5.9	Y	Absent	VPH-DELUX-10(14)
L1105519-09A	Vial HCl preserved	A	N/A	5.9	Y	Absent	VPH-DELUX-10(14)

\*Values in parentheses indicate holding time in days

**Project Name:** 300 THIRD STREET**Project Number:** 04-7590GD2**Lab Number:** L1105519**Report Date:** 05/02/11**Container Information**

Container ID	Container Type	Cooler	pH	Temp deg C	Pres	Seal	Analysis(*)
L1105519-09B	Vial HCl preserved	A	N/A	5.9	Y	Absent	VPH-DELUX-10(14)
L1105519-10A	Vial HCl preserved	A	N/A	5.9	Y	Absent	VPH-DELUX-10(14)
L1105519-10B	Vial HCl preserved	A	N/A	5.9	Y	Absent	VPH-DELUX-10(14)
L1105519-11A	Vial HCl preserved	A	N/A	5.9	Y	Absent	VPH-DELUX-10(14)
L1105519-11B	Vial HCl preserved	A	N/A	5.9	Y	Absent	VPH-DELUX-10(14)
L1105519-12A	Vial HCl preserved	A	N/A	5.9	Y	Absent	VPH-DELUX-10(14)
L1105519-12B	Vial HCl preserved	A	N/A	5.9	Y	Absent	VPH-DELUX-10(14)
L1105519-13A	Vial HCl preserved	A	N/A	5.9	Y	Absent	MCP-8260-10(14)
L1105519-13B	Vial HCl preserved	A	N/A	5.9	Y	Absent	MCP-8260-10(14)
L1105519-14A	Vial HCl preserved	A	N/A	5.9	Y	Absent	VPH-DELUX-10(14)
L1105519-14B	Vial HCl preserved	A	N/A	5.9	Y	Absent	VPH-DELUX-10(14)
L1105519-15A	Vial HCl preserved	A	N/A	5.9	Y	Absent	MCP-8260-10(14)

**Container Comments**

L1105519-07D

L1105519-12B

\*Values in parentheses indicate holding time in days



**Project Name:** 300 THIRD STREET  
**Project Number:** 04-7590GD2

**Lab Number:** L1105519  
**Report Date:** 05/02/11

## GLOSSARY

### Acronyms

- EPA** - Environmental Protection Agency.
- LCS** - Laboratory Control Sample: A sample matrix, free from the analytes of interest, spiked with verified known amounts of analytes or a material containing known and verified amounts of analytes.
- LCS D** - Laboratory Control Sample Duplicate: Refer to LCS.
- 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.
- MS D** - 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.

### 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.
- D** - Concentration of analyte was quantified from diluted analysis. Flag only applies to field samples that have detectable concentrations of the analyte.
- E** - Concentration of analyte exceeds the range of the calibration curve and/or linear range of the instrument.
- G** - The concentration may be biased high due to matrix interferences (i.e, co-elution) with non-target compound(s). The result should be considered estimated.
- H** - The analysis of pH was performed beyond the regulatory-required holding time of 15 minutes from the time of sample collection.
- I** - The RPD between the results for the two columns exceeds the method-specified criteria; however, the lower value has been reported due to obvious interference.
- 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. 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

Report Format: Data Usability Report





**Project Name:** 300 THIRD STREET  
**Project Number:** 04-7590GD2

**Lab Number:** L1105519  
**Report Date:** 05/02/11

*Data Qualifiers*

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:** 300 THIRD STREET  
**Project Number:** 04-7590GD2

**Lab Number:** L1105519  
**Report Date:** 05/02/11

## REFERENCES

- 97 EPA Test Methods (SW-846) with QC Requirements & Performance Standards for the Analysis of EPA SW-846 Methods under the Massachusetts Contingency Plan, WSC-CAM-IIA, IIB, IIIA, IIIB, IIIC, IIID, VA, VB, VC, VIA, VIB, VIIIA and VIIIB, July 2010.
- 100 Method for the Determination of Volatile Petroleum Hydrocarbons (VPH), MassDEP, May 2004, Revision 1.1 with QC Requirements & Performance Standards for the Analysis of VPH under the Massachusetts Contingency Plan, WSC-CAM-IVA, July 2010.

## LIMITATION OF LIABILITIES

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

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



## Certificate/Approval Program Summary

Last revised February 23, 2011 - Westboro Facility

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

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

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

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

*Solid Waste/Soil* (Inorganic Parameters: pH, Sulfide, Aluminum, Antimony, Arsenic, Barium, Beryllium, Boron, Cadmium, Calcium, Chromium, Hexavalent Chromium, Cobalt, Copper, Iron, Lead, Magnesium, Manganese, Mercury, Molybdenum, Nickel, Potassium, Selenium, Silver, Sodium, Thallium, Tin, Vanadium, Zinc, Total Cyanide, Ignitability, Phenolics, Corrosivity, TCLP Leach (1311), SPLP Leach (1312 metals only), Reactivity. Organic Parameters: PCBs, PCBs in Oil, Organochlorine Pesticides, Technical Chlordane, Toxaphene, Extractable Petroleum Hydrocarbons (ETPH), MA-EPH, MA-VPH, Dicamba, 2,4-D, 2,4,5-T, 2,4,5-TP(Silvex), Volatile Organics, Acid Extractables (Phenols), 3,3'-Dichlorobenzidine, Phthalates, Nitrosamines, Nitroaromatics & Cyclic Ketones, PAHs, Haloethers, Chlorinated Hydrocarbons.)

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

*Drinking Water* (Inorganic Parameters: SM9215B, 9222D, 9223B, EPA 180.1, 353.2, SM2130B, 2320B, 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, 4500NH3-H, 4500NO3-F, 4500P-B, 4500P-E, 5210B, 5220D, 5310C, EPA 200.7, 200.8, 245.1. Organic Parameters: 608, 624, ME-DRO, ME-GRO, MA-EPH, MA-VPH.)

*Solid Waste/Soil* (Organic Parameters: ME-DRO, ME-GRO, MA-EPH, MA-VPH.)

### 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; ColilertQT SM9223B; MF-SM9222D.)

*Non-Potable Water* (Inorganic Parameters:, (EPA 200.8 for: Al,Sb,As,Be,Cd,Cr,Cu,Pb,Mn,Ni,Se,Ag,Tl,Zn); (EPA 200.7 for: Al,Sb,As,Be,Cd,Ca,Cr,Co,Cu,Fe,Pb,Mg,Mn,Mo,Ni,K,Se,Ag,Na,Sr,Ti,Tl, V,Zn); 245.1, SM4500H,B, EPA 120.1, SM2510B, 2540C, 2340B, 2320B, 4500CL-E, 4500F-BC, 426C, SM4500NH3-BH, (EPA 350.1 for: Ammonia-N), LCHAT 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, Aldrin, Dieldrin, DDD, DDE, DDT, Heptachlor, Heptachlor Epoxide, PCBs-Water), (EPA 625 for SVOC Acid Extractables and SVOC Base/Neutral Extractables), 600/4-81-045-PCB-Oil. Microbiology Parameters: (ColilertQT SM9223B;Enterolert-QT: SM9222D-MF.)

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

*Drinking Water* (Inorganic Parameters: SM 9222B, 9223B, 9215B, EPA 200.7, 200.8, 245.2, 300.0, SM4500CN-E, 4500H+B, 4500NO3-F, 2320B, 2510B, 2540C, 4500F-C, 5310C, 2120B, EPA 332.0. Organic Parameters: 504.1, 524.2.)

*Non-Potable Water* (Inorganic Parameters: SM9222D, 9221B, 9222B, 9221E-EC, EPA 3005A, 200.7, 200.8, 245.1, 245.2, SW-846 6010B, 6020, 7196A, 7470A, SM3500-CR-D, EPA 120.1, 300.0, 350.1, 351.1, 353.2, 410.4, 420.1, 1664A, SW-846 9010, 9030, 9040B, 9050A, SM426C, SM2120B, 2310B, 2320B, 2540B, 2540D, 4500H+B, 4500CL-E, 4500CN-E, 4500NH3-H, 4500NO3-F, 4500NO2-B, 4500P-E, 4500-S2-D, 5210B, 5220D, 2510B, 2540C, 4500F-C, 5310C, 5540C, LACHAT 10-204-00-1-A, LACHAT 10-107-06-2-D. Organic Parameters: SW-846 3510C, 5030B, 8260B, 8270C, 8330, EPA 624, 625, 608, SW-846 8082, 8081A, 8151A.)

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

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

*Drinking Water* (Inorganic Parameters: SM9222B, 9221E, 9223B, 9215B, 4500CN-CE, 4500NO3-F, 4500F-C, EPA 300.0, 200.7, 200.8, 245.2, 2540C, SM2120B, 2320B, 2510B, 5310C, SM4500H-B. Organic Parameters: EPA 332, 504.1, 524.2.)

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

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

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

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

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

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

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

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

*Drinking Water* (Organic Parameters: EPA 524.2)

*Non-Potable Water* (Inorganic Parameters: EPA 1312. Organic Parameters: EPA 3510C, 5030B, 625, 624, 608, 8081A, 8082, 8151A, 8260B, 8270C, 8330)

*Solid & Hazardous Waste* (Inorganic Parameters: EPA 350.1, 1010, 1030, 1311, 1312, 3050B, 6010B, 7196A, 7471A, 9010B, 9012A, 9014, 9040B, 9045C, 9050, 9065, SM 4500NH3-H. Organic Parameters: 3540C, 3545, 3546, 3550B,

3580A, 3630C, 5035, 8015B, 8081A, 8082, 8151A, 8260B, 8270C, 8330)

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

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

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

**Texas Commission on Environmental Quality Certificate/Lab ID: T104704476-09-1. *NELAP Accredited.***

*Non-Potable Water (Inorganic Parameters: EPA 120.1, 1664, 200.7, 200.8, 245.1, 245.2, 300.0, 350.1, 351.1, 353.2, 376.2, 410.4, 420.1, 6010, 6020, 7196, 7470, 9040, SM 2120B, 2310B, 2320B, 2510B, 2540B, 2540C, 2540D, 426C, 4500CL-E, 4500CN-E, 4500F-C, 4500H+B, 4500NH3-H, 4500NO2B, 4500P-E, 4500 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.)*

**Department of Defense Certificate/Lab ID: L2217.**

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

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

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

**Analytes Not Accredited by NELAP**

Certification is not available by NELAP for the following analytes: **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. **EPA 350.1** for Ammonia in a Soil matrix.



WESTBORO, MA  
 TEL: 508-698-9220  
 FAX: 508-896-9193

MASSFIELD, MA  
 TEL: 508-922-9300  
 FAX: 508-922-3266

# CHAIN OF CUSTODY

**Project Information**  
 Project Name: 300 Third Street  
 Project Location: Cambridge, MA  
 Project #: 04-759066D 2  
 Project Manager: Tim Young  
 ALPHA Quote #:

**Client Information**  
 Client: ENVIRON  
 Address: 8 Hollis Street  
 Phone: 978-449-0325  
 Fax: 978-448-8825  
 Email: [Vyoung@environmental.com](mailto:Vyoung@environmental.com)

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

**Date Rec'd in Lab:** 4/22/11  
**Report Information - Data Deliverables**  
 FAX  
 EMAIL  
 Add'l Deliverables  
**Regulatory Requirements/Report Limits**  
 State/Fed Program: Mass DEP Criteria: GW-1/2/3  
**MA MCP PRESUMPTIVE CERTAINTY - CT REASONABLE CONFIDENCE PROTO**

**ANALYSIS**  
 MCP-5260  
 UPH

ALPHA Lab ID (Lab Use Only)	Sample ID	Collection		Sample Matrix	Sampler's Initials	Date	Time	Container Type	Preservative	Relinquished By:	Date/Time	Received By:	Date/Time	Sample Specific Comments
		Date	Time											
05519.1	ENV-1	4/21/11	1330	GW	MSC			V		4/21/11	1330	4/22/11	1130	
2	ENV-2	4/21/11	1400	GW	MSC			V		4/21/11	1400	4/22/11	1130	
3	ENV-3	4/21/11	1345	GW	MU			B		4/21/11	1345	4/22/11	1130	
4	ENV-4	4/21/11	1430	GW	MU			B		4/21/11	1430	4/22/11	1130	
5	ENV-7	4/21/11	1110	GW	MSC			V		4/21/11	1110	4/22/11	1130	
6	ENV-8	4/21/11	0955	GW	MSC			V		4/21/11	0955	4/22/11	1130	
7	ENV-9	4/21/11	1248	GW	MU			V		4/21/11	1248	4/22/11	1130	
8	ENV-10	4/21/11	1113	GW	MU			V		4/21/11	1113	4/22/11	1130	
9	ENV-11	4/21/11	1043	GW	MU			V		4/21/11	1043	4/22/11	1130	
16	MW-60	4/21/11	0942	GW	MU			V		4/21/11	0942	4/22/11	1130	

**PLEASE ANSWER QUESTIONS ABOVE!**

**IS YOUR PROJECT MA MCP or CT RCP?**

**Relinquished By:** [Signature] **Date/Time:** 4/22/11

**Received By:** [Signature] **Date/Time:** 4/22/11

**Container Type:** V V  
**Preservative:** B B

**ANALYSIS:** MCP-5260 UPH

**REPORTING:** FAX [ ], EMAIL [X], Add'l Deliverables [ ]

**REGULATORY:** State/Fed Program: Mass DEP, Criteria: GW-1/2/3

**CONFIDENCE:** MA MCP PRESUMPTIVE CERTAINTY - CT REASONABLE CONFIDENCE PROTO

**QUESTIONS:** Are MCP Analytical Methods Required? [X] Yes, [ ] No  
 Is Matrix Spike (MS) Required on this SDG? (If yes see note in Comments) [ ] Yes, [X] No  
 Are CT RCP (Reasonable Confidence Protocols) Required? [ ] Yes, [X] No

**SAMPLE HANDLING:** Filtration: [ ] Done, [ ] Not needed  
 Lab to do Preservation: [ ] Lab to do, [ ] Lab to do

**PLEASE PRINT CLEARLY, legibly and completely. Samples can not be toggled in and turnaround time clock will not start until any ambiguities are resolved. Alpha's Terms and Conditions. See reverse side.**



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

MANSFIELD, MA  
TEL: 508-622-9300  
FAX: 508-622-9299

# CHAIN OF CUSTODY

PAGE 2 OF 2

**Client Information**

Client: ENVIRON  
Address: 8 Hollis Street  
Bedford, MA 01450  
Phone: 978-449-0325  
Fax: 978-448-8825  
Email: young@environmentalcorp.com

**Project Information**

Project Name: 300 Third Street  
Project Location: Cambridge, MA  
Project #: 04-7590GD2  
Project Manager: Vin Young  
ALPHA Quote #:  
Turn-Around Time  
 Standard  RUSH (only confirmed if pre-approved)  
Date Due: 4/21/11 Time:

**Report Information - Data Deliverables**

Date Rec'd in Lab: 4/22/11  
 FAX  EMAIL  
 Add'l Deliverables

**Billing Information**

ALPHA Job #: L1105519  
Same as Client Info  PO #:

State / Fed Program MA-SDRP Criteria GLD-1/2/3  
**MA MCP PRESUMPTIVE CERTAINTY - CT REASONABLE CONFIDENCE PROTO**

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

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

ALPHA Lab ID (Lab Use Only)	Sample ID	Collection		Sample Matrix	Sampler's Initials	ANALYSIS	SAMPLE HANDLING	Sample Specific Comments
		Date	Time					
055T9.11	HRB-2	4/21/11	0815	GLD	MU	X		
12	B201	4/21/11	0827	GLD	MSC	X		
13	ENV-998	4/21/11	1330	GLD	MSC	X		
14	ENV-999	4/21/11	1400	GLD	MSC	X		
15	Trip Blank	4/21/11			RR	X		

PLEASE ANSWER QUESTIONS ABOVE!

**IS YOUR PROJECT MA MCP or CT RCP?**

Relinquished By: Wendy Lemay / Amy Jackson  
Date/Time: 4/21/11 11:30

Container Type: V V  
Preservative: B B

Received By: Joe Caproni  
Date/Time: 4/22/11 17:30

Received By: Kate Ward  
Date/Time: 4/22/11 17:30

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

7A  
VOLATILE CONTINUING CALIBRATION CHECK

Lab Name: Alpha Analytical Labs

SDG No.: L1105519

Instrument ID: Jack.i                      Calibration Date: 27-APR-2011    Time: 11:43

Lab File ID: 0427A02                      Init. Calib. Date(s): 25-APR-2      25-APR-2

Sample No: 8260 CCAL                      Init. Calib. Times    : 06:08                      09:55

Compound	RRF	RRF	MIN RRF	%D	MAX %D
dichlorodifluoromethane	.59927	.51564	.1	14	20
chloromethane	.80529	.65312	.1	19	20
vinyl chloride	.72026	.65564	.1	9	20
bromomethane	.50777	.407	.1	20	20
chloroethane	.4638	.40277	.1	13	20
trichlorofluoromethane	1.0448	.98303	.1	6	20
ethyl ether	.31792	.34744	.05	-9	20
1,1,-dichloroethene	.62459	.57614	.1	8	20
carbon disulfide	1.9218	1.4734	.05	23	20
methylene chloride	.67588	.62961	.05	7	20
acetone	100	110	.1	-10	20
trans-1,2-dichloroethene	.67661	.60651	.1	10	20
methyl tert butyl ether	1.5294	1.5258	.1	0	20
Ethyl-Tert-Butyl-Ether	1.6917	1.8334	.05	-8	20
Diisopropyl Ether	1.7761	1.9357	.05	-9	20
1,1-dichloroethane	1.2543	1.1384	.2	9	20
cis-1,2-dichloroethene	.75374	.70424	.1	7	20
2,2-dichloropropane	1.1358	.99595	.05	12	20
bromochloromethane	.33874	.332	.05	2	20
chloroform	1.2690	1.1465	.2	10	20
carbontetrachloride	.98442	.85249	.1	13	20
tetrahydrofuran	.13015	.15405	.05	-18	20
1,1,1-trichloroethane	1.1202	1.0050	.1	10	20
Tertiary-Amyl Methyl Ether	1.383	1.5767	.05	-14	20
1,1-dichloropropene	.98934	.90259	.05	9	20
2-butanone	.19283	.20439	.1	-6	20
benzene	2.8126	2.6329	.5	6	20
1,2-dichloroethane	.89615	.82212	.1	8	20
trichloroethene	.73259	.69073	.2	6	20
dibromomethane	.37072	.36374	.05	2	20
1,2-dichloropropane	.69691	.65232	.1	6	20
bromodichloromethane	1.0031	.9209	.2	8	20
1,4-dioxane	.00417	.00456	.05	-9	20
cis-1,3-dichloropropene	1.0916	.97703	.2	11	20
toluene	2.2856	2.0176	.4	12	20
tetrachloroethene	1.0324	.96624	.2	6	20
4-methyl-2-pentanone	.15674	.153	.1	2	20
trans-1,3-dichloropropene	1.2172	1.0966	.1	10	20

F

F

FORM VII MCP-8260-10



7A  
CONTINUING CALIBRATION CHECK

Lab Name: Alpha Analytical Labs

SDG No.: L1105519

Instrument ID: Jack.i                      Calibration Date: 27-APR-2011    Time: 11:43

Lab File ID: 0427A02                      Init. Calib. Date(s): 25-APR-2        25-APR-2

Sample No: 8260 CCAL                      Init. Calib. Times    : 06:08                      09:55

Compound	RRF	RRF	MIN RRF	%D	MAX %D
1,1,2-trichloroethane	.56271	.54047	.1	4	20
chlorodibromomethane	.80458	.72602	.1	10	20
1,3-dichloropropane	1.1612	1.1148	.05	4	20
1,2-dibromoethane	.66941	.62958	.1	6	20
2-hexanone	.35682	.34466	.1	3	20
chlorobenzene	2.5648	2.2811	.5	11	20
ethyl benzene	4.5883	4.1558	.1	9	20
1,1,1,2-tetrachloroethane	.90148	.79849	.05	11	20
p/m xylene	1.7612	1.6227	.1	8	20
o xylene	1.6855	1.5405	.3	9	20
styrene	2.7907	2.6674	.3	4	20
bromoform	.82659	.76048	.1	8	20
isopropylbenzene	4.5492	4.1569	.1	9	20
bromobenzene	1.8321	1.7687	.05	3	20
n-propylbenzene	8.6193	8.5399	.05	1	20
1,1,2,2,-tetrachloroethane	1.3016	1.3068	.3	0	20
2-chlorotoluene	5.7744	5.6729	.05	2	20
1,2,3-trichloropropane	1.0513	1.1060	.05	-5	20
1,3,5-trimethylbenzene	6.5196	6.1647	.05	5	20
4-chlorotoluene	5.2671	5.6693	.05	-8	20
tert-butylbenzene	5.0884	4.8746	.05	4	20
1,2,4-trimethylbenzene	5.9750	5.9237	.05	1	20
sec-butylbenzene	7.2570	7.0318	.05	3	20
p-isopropyltoluene	5.8417	5.9795	.05	-2	20
1,3-dichlorobenzene	3.4152	3.3642	.6	1	20
1,4-dichlorobenzene	3.4346	3.3665	.5	2	20
n-butylbenzene	4.9357	5.1847	.05	-5	20
1,2-dichlorobenzene	3.1389	3.0844	.4	2	20
1,2-dibromo-3-chloropropane	.20386	.19698	.05	3	20
hexachlorobutadiene	.7415	.725	.05	2	20
1,2,4-trichlorobenzene	1.6286	1.5153	.2	7	20
naphthalene	3.0351	2.7677	.05	9	20
1,2,3-trichlorobenzene	1.2807	1.2243	.05	4	20
dibromofluoromethane	.28153	.27392	.05	3	20
1,2-dichloroethane-d4	.32878	.32881	.05	0	20
toluene-d8	1.3542	1.3312	.05	2	20
4-bromofluorobenzene	.90168	.89613	.05	1	20

FORM VII MCP-8260-10

7A  
CONTINUING CALIBRATION CHECK

Lab Name: Alpha Analytical Labs

SDG No.: L1105519

Instrument ID: Jack.i                      Calibration Date: 28-APR-2011    Time: 06:29

Lab File ID: 0428A02                      Init. Calib. Date(s): 25-APR-2        25-APR-2

Sample No: 8260 CCAL                      Init. Calib. Times    : 06:08                      09:55

Compound	RRF	RRF	MIN RRF	%D	MAX %D	
=====	=====	=====	=====	=====	=====	
dichlorodifluoromethane	.59927	.5048	.1	16	20	
chloromethane	.80529	.68748	.1	15	20	
vinyl chloride	.72026	.69407	.1	4	20	
bromomethane	.50777	.46096	.1	9	20	
chloroethane	.4638	.43898	.1	5	20	
trichlorofluoromethane	1.0448	1.0825	.1	-4	20	
ethyl ether	.31792	.37446	.05	-18	20	
1,1,-dichloroethene	.62459	.63375	.1	-1	20	
carbon disulfide	1.9218	1.5020	.05	22	20	F
freon-113	.67224	.62591	.1	7	20	
iodomethane	.97941	.87621	.05	11	20	
acrolie	.02775	.08608	.05	-210	20	F
methylene chloride	.67588	.67864	.05	0	20	
acetone	100	107	.1	-7	20	
trans-1,2-dichloroethene	.67661	.66596	.1	2	20	
methyl acetate	.36876	.36171	.1	2	20	
methyl tert butyl ether	1.5294	1.5655	.1	-2	20	
Diisopropyl Ether	1.7761	1.9200	.05	-8	20	
tert butyl alcohol	.04091	.04357	.05	-6	20	F
1,1-dichloroethane	1.2543	1.2269	.2	2	20	
acrylonitrile	.15463	.15975	.05	-3	20	
halothane	.49805	.37512	.05	25	20	F
Ethyl-Tert-Butyl-Ether	1.6917	1.8287	.05	-8	20	
vinyl acetate	.99576	1.1553	.05	-16	20	
cis-1,2-dichloroethene	.75374	.74073	.1	2	20	
2,2-dichloropropane	1.1358	1.0591	.05	7	20	
cyclohexane	1.0879	1.1332	.01	-4	30	
bromochloromethane	.33874	.35112	.05	-4	20	
chloroform	1.2690	1.2533	.2	1	20	
carbontetrachloride	.98442	.8926	.1	9	20	
ethyl acetate	.24559	.44974	.05	-83	20	F
tetrahydrofuran	.13015	.15902	.05	-22	20	F
1,1,1-trichloroethane	1.1202	1.0589	.1	5	20	
1,1-dichloropropene	.98934	.98358	.05	1	20	
2-butanone	.19283	.2062	.1	-7	20	
benzene	2.8126	2.7991	.5	0	20	
Tertiary-Amyl Methyl Ether	1.383	1.5819	.05	-14	20	
1,2-dichloroethane	.89615	.90667	.1	-1	20	

FORM VII MCP-8260-10

7A  
CONTINUING CALIBRATION CHECK

Lab Name: Alpha Analytical Labs

SDG No.: L1105519

Instrument ID: Jack.i                      Calibration Date: 28-APR-2011    Time: 06:29

Lab File ID: 0428A02                      Init. Calib. Date(s): 25-APR-2        25-APR-2

Sample No: 8260 CCAL                      Init. Calib. Times    : 06:08                      09:55

Compound	RRF	RRF	MIN RRF	%D	MAX %D
methy1 cyclohexane	1.0971	1.1263	.01	-3	30
trichloroethene	.73259	.73	.2	0	20
dibromomethane	.37072	.38128	.05	-3	20
1,2-dichloropropane	.69691	.66767	.1	4	20
bromodichloromethane	1.0031	.95021	.2	5	20
1,4-dioxane	.00417	.00435	.05	-4	20
2-chloroethylvinyl ether	.25626	.24664	.05	4	20
cis-1,3-dichloropropene	1.0916	1.0129	.2	7	20
toluene	2.2856	2.2103	.4	3	20
tetrachloroethene	1.0324	.99393	.2	4	20
4-methyl-2-pentanone	.15674	.15145	.1	3	20
trans-1,3-dichloropropene	1.2172	1.0879	.1	11	20
1,1,2-trichloroethane	.56271	.56168	.1	0	20
ethyl-methacrylate	.81098	.83781	.01	-3	30
chlorodibromomethane	.80458	.74109	.1	8	20
1,3-dichloropropane	1.1612	1.1671	.05	-1	20
1,2-dibromoethane	.66941	.66395	.1	1	20
2-hexanone	.35682	.32898	.1	8	20
chlorobenzene	2.5648	2.3732	.5	7	20
ethyl benzene	4.5883	4.412	.1	4	20
1,1,1,2-tetrachloroethane	.90148	.82025	.05	9	20
p/m xylene	1.7612	1.6967	.1	4	20
o xylene	1.6855	1.6195	.3	4	20
bromoform	.82659	.75493	.1	9	20
styrene	2.7907	2.7013	.3	3	20
isopropylbenzene	4.5492	4.3140	.1	5	20
bromobenzene	1.8321	1.7587	.05	4	20
n-propylbenzene	8.6193	8.5577	.05	1	20
1,4-dichloro-2-butane	1.7900	1.8761	.01	-5	20
1,1,2,2,-tetrachloroethane	1.3016	1.3474	.3	-4	20
4-ethyltoluene	6.5453	6.7016	.05	-2	20
2-chlorotoluene	5.7744	5.7398	.05	1	20
1,2,3-trichloropropane	1.0513	1.1378	.05	-8	20
1,3,5-trimethylbenzene	6.5196	6.7016	.05	-3	20
trans-1,4-dichloro-2-butene	.37737	.37912	.05	0	20
4-chlorotoluene	5.2671	5.1007	.05	3	20
tert-butylbenzene	5.0884	4.9834	.05	2	20
1,2,4-trimethylbenzene	5.9750	5.9493	.05	0	20

F

FORM VII MCP-8260-10

7A  
CONTINUING CALIBRATION CHECK

Lab Name: Alpha Analytical Labs

SDG No.: L1105519

Instrument ID: Jack.i Calibration Date: 28-APR-2011 Time: 06:29

Lab File ID: 0428A02 Init. Calib. Date(s): 25-APR-2 25-APR-2

Sample No: 8260 CCAL Init. Calib. Times : 06:08 09:55

Compound	RRF	RRF	MIN RRF	%D	MAX %D
sec-butylbenzene	7.2570	7.1329	.05	2	20
p-isopropyltoluene	5.8417	5.9036	.05	-1	20
1,3-dichlorobenzene	3.4152	3.3033	.6	3	20
1,4-dichlorobenzene	3.4346	3.3692	.5	2	20
p-diethylbenzene	2.9401	3.3041	.05	-12	20
n-butylbenzene	4.9357	5.0346	.05	-2	20
1,2-dichlorobenzene	3.1389	2.9801	.4	5	20
1,2,4,5-tetramethylbenzene	4.1364	4.3748	.05	-6	20
1,2-dibromo-3-chloropropane	.20386	.18797	.05	8	20
1,3,5-trichlorobenzene	2.0819	1.8232	.05	12	20
1,2,4-trichlorobenzene	1.6286	1.4878	.2	9	20
hexachlorobutadiene	.7415	.72185	.05	3	20
naphthalene	3.0351	2.7251	.05	10	20
1,2,3-trichlorobenzene	1.2807	1.2237	.05	4	20
dibromofluoromethane	.28153	.2844	.05	-1	20
1,2-dichloroethane-d4	.32878	.32806	.05	0	20
toluene-d8	1.3542	1.3161	.05	3	20
4-bromofluorobenzene	.90168	.92305	.05	-2	20

FORM VII MCP-8260-10



## ANALYTICAL REPORT

Lab Number:	L1110813
Client:	Environ 8 Hollis Street Groton, MA 01450
ATTN:	Doug Lindsay
Phone:	(617) 946-6100
Project Name:	300 3RD ST
Project Number:	04-7590GD2
Report Date:	07/26/11

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 NELAC (11148), CT (PH-0574), NH (2003), NJ (MA935), RI (LAO00065), ME (MA0086), PA (Registration #68-03671), USDA (Permit #S-72578), US Army Corps of Engineers, Naval FESC.

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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:** 300 3RD ST  
**Project Number:** 04-7590GD2

**Lab Number:** L1110813  
**Report Date:** 07/26/11

<b>Alpha Sample ID</b>	<b>Client ID</b>	<b>Sample Location</b>	<b>Collection Date/Time</b>
L1110813-01	ENV-1	CAMBRIDGE	07/18/11 13:23
L1110813-02	ENV-2	CAMBRIDGE	07/18/11 13:55
L1110813-03	ENV-3	CAMBRIDGE	07/18/11 14:40
L1110813-04	ENV-4	CAMBRIDGE	07/18/11 15:22
L1110813-05	ENV-8	CAMBRIDGE	07/19/11 11:55
L1110813-06	ENV-9	CAMBRIDGE	07/19/11 09:42
L1110813-07	ENV-10	CAMBRIDGE	07/18/11 11:05
L1110813-08	ENV-11	CAMBRIDGE	07/18/11 10:24
L1110813-09	MW-60	CAMBRIDGE	07/19/11 08:25
L1110813-10	B-201	CAMBRIDGE	07/18/11 08:55
L1110813-11	ENV-999	CAMBRIDGE	07/18/11 08:55
L1110813-12	ENV-998	CAMBRIDGE	07/18/11 14:40
L1110813-13	TRIP BLANK	CAMBRIDGE	07/18/11 00:00

**Project Name:** 300 3RD ST  
**Project Number:** 04-7590GD2

**Lab Number:** L1110813  
**Report Date:** 07/26/11

### MADEP MCP Response Action Analytical Report Certification

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

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

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



**Project Name:** 300 3RD ST  
**Project Number:** 04-7590GD2

**Lab Number:** L1110813  
**Report Date:** 07/26/11

### Case Narrative

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

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

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

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

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#### MCP Related Narratives

##### Volatile Organics

L1110813-01 and -06 have elevated detection limits due to the dilutions required by the elevated concentrations of target compounds in the samples.

In reference to question G:

One or more of the target analytes did not achieve the requested CAM reporting limits.

In reference to question H:

The WG480054-1/-2 LCS/LCSD RPDs, associated with L1110813-01, -03, -05, -06 and -13, are above the acceptance criteria for 1,2,4-Trichlorobenzene (21%) and 1,3,5-Trimethylbenzene (30%); however, the individual LCS/LCSD recoveries are within method limits.

The WG480584-1/-2 LCS/LCSD recoveries, associated with L1110813-02, -04 and -12, are below the acceptance criteria for Bromomethane (63%/65%), Acetone (LCS at 65%) and 1,2-Dibromo-3-chloropropane



**Project Name:** 300 3RD ST  
**Project Number:** 04-7590GD2

**Lab Number:** L1110813  
**Report Date:** 07/26/11

### Case Narrative (continued)

(LCSD at 69%); however, they have been identified as "difficult" analytes and are within the 40-160% acceptance limits. The results of the associated samples are reported; however, all results are considered to have a potentially low bias for these compounds.

The WG480584-1/-2 LCS/LCSD RPD, associated with L1110813-02, -04, and -12, are above the acceptance criteria for trans-1,2-Dichloroethene (23%); however, the individual LCS/LCSD recoveries are within method limits.

The initial calibration, associated with L1110813-01, -03, -05, and -06, and -13, did not meet the method required minimum response factors on the lowest calibration standards for 1,4-Dioxane (0.00290), as well as the average response factor for 1,4-Dioxane. In addition, a quadratic fit was utilized for Chloroethane, Acetone, and 4-Methyl-2-Pentanone.

The initial calibration, associated with L1110813-02, -04, and -12, did not meet the method required minimum response factors on the lowest calibration standards for 2-Butanone (0.08579), 4-Methyl-2-pentanone (0.06091), and 1,4-Dioxane (0.00108), as well as the average response factor for 2-Butanone, 4-Methyl-2-pentanone, and 1,4-Dioxane. In addition, a quadratic fit was utilized for Acetone and Hexachlorobutadiene.

The continuing calibration standards, associated with L1110813-01 through -06, -12 and -13, are outside the acceptance criteria for several compounds; however, they are within overall method allowances. Copies of the continuing calibration standards are included as addenda to this report.

VPH

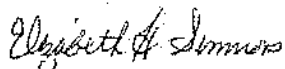
L1110813-06 and -08 through -11 have elevated detection limits due to the dilutions required by the elevated concentrations of target compounds in the samples.

In reference to question G:

L1110813-06 and -08 through -11: One or more of the target analytes did not achieve the requested CAM reporting limits.

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:



Elizabeth Simmons

Title: Technical Director/Representative

Date: 07/26/11

# ORGANICS

# VOLATILES

Project Name: 300 3RD ST

Lab Number: L1110813

Project Number: 04-7590GD2

Report Date: 07/26/11

## SAMPLE RESULTS

Lab ID: L1110813-01 D  
 Client ID: ENV-1  
 Sample Location: CAMBRIDGE  
 Matrix: Water  
 Analytical Method: 97,8260B  
 Analytical Date: 07/20/11 10:51  
 Analyst: MM

Date Collected: 07/18/11 13:23  
 Date Received: 07/19/11  
 Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
MCP Volatile Organics - Westborough Lab						
Methylene chloride	ND		ug/l	5.0	--	2.5
1,1-Dichloroethane	ND		ug/l	2.5	--	2.5
Chloroform	ND		ug/l	2.5	--	2.5
Carbon tetrachloride	ND		ug/l	2.5	--	2.5
1,2-Dichloropropane	ND		ug/l	2.5	--	2.5
Dibromochloromethane	ND		ug/l	2.5	--	2.5
1,1,2-Trichloroethane	ND		ug/l	2.5	--	2.5
Tetrachloroethene	ND		ug/l	2.5	--	2.5
Chlorobenzene	ND		ug/l	2.5	--	2.5
Trichlorofluoromethane	ND		ug/l	5.0	--	2.5
1,2-Dichloroethane	ND		ug/l	2.5	--	2.5
1,1,1-Trichloroethane	ND		ug/l	2.5	--	2.5
Bromodichloromethane	ND		ug/l	2.5	--	2.5
trans-1,3-Dichloropropene	ND		ug/l	1.2	--	2.5
cis-1,3-Dichloropropene	ND		ug/l	1.2	--	2.5
1,1-Dichloropropene	ND		ug/l	5.0	--	2.5
Bromoform	ND		ug/l	5.0	--	2.5
1,1,2,2-Tetrachloroethane	ND		ug/l	2.5	--	2.5
Benzene	64		ug/l	1.2	--	2.5
Toluene	ND		ug/l	2.5	--	2.5
Ethylbenzene	ND		ug/l	2.5	--	2.5
Chloromethane	ND		ug/l	5.0	--	2.5
Bromomethane	ND		ug/l	5.0	--	2.5
Vinyl chloride	80		ug/l	2.5	--	2.5
Chloroethane	ND		ug/l	5.0	--	2.5
1,1-Dichloroethene	ND		ug/l	2.5	--	2.5
trans-1,2-Dichloroethene	ND		ug/l	2.5	--	2.5
Trichloroethene	11		ug/l	2.5	--	2.5
1,2-Dichlorobenzene	ND		ug/l	2.5	--	2.5
1,3-Dichlorobenzene	ND		ug/l	2.5	--	2.5
1,4-Dichlorobenzene	ND		ug/l	2.5	--	2.5

Project Name: 300 3RD ST

Lab Number: L1110813

Project Number: 04-7590GD2

Report Date: 07/26/11

## SAMPLE RESULTS

Lab ID: L1110813-01 D  
 Client ID: ENV-1  
 Sample Location: CAMBRIDGE

Date Collected: 07/18/11 13:23  
 Date Received: 07/19/11  
 Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
MCP Volatile Organics - Westborough Lab						
Methyl tert butyl ether	ND		ug/l	5.0	--	2.5
p/m-Xylene	ND		ug/l	5.0	--	2.5
o-Xylene	ND		ug/l	2.5	--	2.5
cis-1,2-Dichloroethene	82		ug/l	2.5	--	2.5
Dibromomethane	ND		ug/l	5.0	--	2.5
1,2,3-Trichloropropane	ND		ug/l	5.0	--	2.5
Styrene	ND		ug/l	2.5	--	2.5
Dichlorodifluoromethane	ND		ug/l	5.0	--	2.5
Acetone	ND		ug/l	12	--	2.5
Carbon disulfide	ND		ug/l	5.0	--	2.5
2-Butanone	ND		ug/l	12	--	2.5
4-Methyl-2-pentanone	ND		ug/l	12	--	2.5
2-Hexanone	ND		ug/l	12	--	2.5
Bromochloromethane	ND		ug/l	5.0	--	2.5
Tetrahydrofuran	ND		ug/l	12	--	2.5
2,2-Dichloropropane	ND		ug/l	5.0	--	2.5
1,2-Dibromoethane	ND		ug/l	5.0	--	2.5
1,3-Dichloropropane	ND		ug/l	5.0	--	2.5
1,1,1,2-Tetrachloroethane	ND		ug/l	2.5	--	2.5
Bromobenzene	ND		ug/l	5.0	--	2.5
n-Butylbenzene	ND		ug/l	5.0	--	2.5
sec-Butylbenzene	ND		ug/l	5.0	--	2.5
tert-Butylbenzene	ND		ug/l	5.0	--	2.5
o-Chlorotoluene	ND		ug/l	5.0	--	2.5
p-Chlorotoluene	ND		ug/l	5.0	--	2.5
1,2-Dibromo-3-chloropropane	ND		ug/l	5.0	--	2.5
Hexachlorobutadiene	ND		ug/l	1.5	--	2.5
Isopropylbenzene	ND		ug/l	5.0	--	2.5
p-Isopropyltoluene	ND		ug/l	5.0	--	2.5
Naphthalene	ND		ug/l	5.0	--	2.5
n-Propylbenzene	ND		ug/l	5.0	--	2.5
1,2,3-Trichlorobenzene	ND		ug/l	5.0	--	2.5
1,2,4-Trichlorobenzene	ND		ug/l	5.0	--	2.5
1,3,5-Trimethylbenzene	ND		ug/l	5.0	--	2.5
1,2,4-Trimethylbenzene	ND		ug/l	5.0	--	2.5
Ethyl ether	ND		ug/l	5.0	--	2.5
Isopropyl Ether	ND		ug/l	5.0	--	2.5
Ethyl-Tert-Butyl-Ether	ND		ug/l	5.0	--	2.5
Tertiary-Amyl Methyl Ether	ND		ug/l	5.0	--	2.5

Project Name: 300 3RD ST

Lab Number: L1110813

Project Number: 04-7590GD2

Report Date: 07/26/11

## SAMPLE RESULTS

Lab ID: L1110813-01 D

Date Collected: 07/18/11 13:23

Client ID: ENV-1

Date Received: 07/19/11

Sample Location: CAMBRIDGE

Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
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## MCP Volatile Organics - Westborough Lab

1,4-Dioxane	ND		ug/l	620	--	2.5
-------------	----	--	------	-----	----	-----

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	102		70-130
Toluene-d8	94		70-130
4-Bromofluorobenzene	99		70-130
Dibromofluoromethane	117		70-130

Project Name: 300 3RD ST

Lab Number: L1110813

Project Number: 04-7590GD2

Report Date: 07/26/11

## SAMPLE RESULTS

Lab ID: L1110813-02  
 Client ID: ENV-2  
 Sample Location: CAMBRIDGE  
 Matrix: Water  
 Analytical Method: 97,8260B  
 Analytical Date: 07/21/11 13:32  
 Analyst: KL

Date Collected: 07/18/11 13:55  
 Date Received: 07/19/11  
 Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
MCP Volatile Organics - Westborough Lab						
Methylene chloride	ND		ug/l	2.0	--	1
1,1-Dichloroethane	1.5		ug/l	1.0	--	1
Chloroform	ND		ug/l	1.0	--	1
Carbon tetrachloride	ND		ug/l	1.0	--	1
1,2-Dichloropropane	ND		ug/l	1.0	--	1
Dibromochloromethane	ND		ug/l	1.0	--	1
1,1,2-Trichloroethane	ND		ug/l	1.0	--	1
Tetrachloroethene	ND		ug/l	1.0	--	1
Chlorobenzene	ND		ug/l	1.0	--	1
Trichlorofluoromethane	ND		ug/l	2.0	--	1
1,2-Dichloroethane	ND		ug/l	1.0	--	1
1,1,1-Trichloroethane	ND		ug/l	1.0	--	1
Bromodichloromethane	ND		ug/l	1.0	--	1
trans-1,3-Dichloropropene	ND		ug/l	0.50	--	1
cis-1,3-Dichloropropene	ND		ug/l	0.50	--	1
1,1-Dichloropropene	ND		ug/l	2.0	--	1
Bromoform	ND		ug/l	2.0	--	1
1,1,2,2-Tetrachloroethane	ND		ug/l	1.0	--	1
Benzene	11		ug/l	0.50	--	1
Toluene	ND		ug/l	1.0	--	1
Ethylbenzene	ND		ug/l	1.0	--	1
Chloromethane	ND		ug/l	2.0	--	1
Bromomethane	ND		ug/l	2.0	--	1
Vinyl chloride	1.4		ug/l	1.0	--	1
Chloroethane	ND		ug/l	2.0	--	1
1,1-Dichloroethene	ND		ug/l	1.0	--	1
trans-1,2-Dichloroethene	ND		ug/l	1.0	--	1
Trichloroethene	2.1		ug/l	1.0	--	1
1,2-Dichlorobenzene	ND		ug/l	1.0	--	1
1,3-Dichlorobenzene	ND		ug/l	1.0	--	1
1,4-Dichlorobenzene	ND		ug/l	1.0	--	1

Project Name: 300 3RD ST

Lab Number: L1110813

Project Number: 04-7590GD2

Report Date: 07/26/11

## SAMPLE RESULTS

Lab ID: L1110813-02  
 Client ID: ENV-2  
 Sample Location: CAMBRIDGE

Date Collected: 07/18/11 13:55  
 Date Received: 07/19/11  
 Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
MCP Volatile Organics - Westborough Lab						
Methyl tert butyl ether	ND		ug/l	2.0	--	1
p/m-Xylene	ND		ug/l	2.0	--	1
o-Xylene	ND		ug/l	1.0	--	1
cis-1,2-Dichloroethene	2.2		ug/l	1.0	--	1
Dibromomethane	ND		ug/l	2.0	--	1
1,2,3-Trichloropropane	ND		ug/l	2.0	--	1
Styrene	ND		ug/l	1.0	--	1
Dichlorodifluoromethane	ND		ug/l	2.0	--	1
Acetone	ND		ug/l	5.0	--	1
Carbon disulfide	ND		ug/l	2.0	--	1
2-Butanone	ND		ug/l	5.0	--	1
4-Methyl-2-pentanone	ND		ug/l	5.0	--	1
2-Hexanone	ND		ug/l	5.0	--	1
Bromochloromethane	ND		ug/l	2.0	--	1
Tetrahydrofuran	ND		ug/l	5.0	--	1
2,2-Dichloropropane	ND		ug/l	2.0	--	1
1,2-Dibromoethane	ND		ug/l	2.0	--	1
1,3-Dichloropropane	ND		ug/l	2.0	--	1
1,1,1,2-Tetrachloroethane	ND		ug/l	1.0	--	1
Bromobenzene	ND		ug/l	2.0	--	1
n-Butylbenzene	ND		ug/l	2.0	--	1
sec-Butylbenzene	ND		ug/l	2.0	--	1
tert-Butylbenzene	ND		ug/l	2.0	--	1
o-Chlorotoluene	ND		ug/l	2.0	--	1
p-Chlorotoluene	ND		ug/l	2.0	--	1
1,2-Dibromo-3-chloropropane	ND		ug/l	2.0	--	1
Hexachlorobutadiene	ND		ug/l	0.60	--	1
Isopropylbenzene	ND		ug/l	2.0	--	1
p-Isopropyltoluene	ND		ug/l	2.0	--	1
Naphthalene	ND		ug/l	2.0	--	1
n-Propylbenzene	ND		ug/l	2.0	--	1
1,2,3-Trichlorobenzene	ND		ug/l	2.0	--	1
1,2,4-Trichlorobenzene	ND		ug/l	2.0	--	1
1,3,5-Trimethylbenzene	ND		ug/l	2.0	--	1
1,2,4-Trimethylbenzene	ND		ug/l	2.0	--	1
Ethyl ether	ND		ug/l	2.0	--	1
Isopropyl Ether	ND		ug/l	2.0	--	1
Ethyl-Tert-Butyl-Ether	ND		ug/l	2.0	--	1
Tertiary-Amyl Methyl Ether	ND		ug/l	2.0	--	1



Project Name: 300 3RD ST

Lab Number: L1110813

Project Number: 04-7590GD2

Report Date: 07/26/11

## SAMPLE RESULTS

Lab ID: L1110813-02

Date Collected: 07/18/11 13:55

Client ID: ENV-2

Date Received: 07/19/11

Sample Location: CAMBRIDGE

Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
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## MCP Volatile Organics - Westborough Lab

1,4-Dioxane	ND		ug/l	250	--	1
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Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	112		70-130
Toluene-d8	91		70-130
4-Bromofluorobenzene	99		70-130
Dibromofluoromethane	112		70-130

Project Name: 300 3RD ST

Lab Number: L1110813

Project Number: 04-7590GD2

Report Date: 07/26/11

## SAMPLE RESULTS

Lab ID: L1110813-03  
 Client ID: ENV-3  
 Sample Location: CAMBRIDGE  
 Matrix: Water  
 Analytical Method: 97,8260B  
 Analytical Date: 07/20/11 11:56  
 Analyst: MM

Date Collected: 07/18/11 14:40  
 Date Received: 07/19/11  
 Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
MCP Volatile Organics - Westborough Lab						
Methylene chloride	ND		ug/l	2.0	--	1
1,1-Dichloroethane	ND		ug/l	1.0	--	1
Chloroform	ND		ug/l	1.0	--	1
Carbon tetrachloride	ND		ug/l	1.0	--	1
1,2-Dichloropropane	ND		ug/l	1.0	--	1
Dibromochloromethane	ND		ug/l	1.0	--	1
1,1,2-Trichloroethane	ND		ug/l	1.0	--	1
Tetrachloroethene	ND		ug/l	1.0	--	1
Chlorobenzene	ND		ug/l	1.0	--	1
Trichlorofluoromethane	ND		ug/l	2.0	--	1
1,2-Dichloroethane	ND		ug/l	1.0	--	1
1,1,1-Trichloroethane	ND		ug/l	1.0	--	1
Bromodichloromethane	ND		ug/l	1.0	--	1
trans-1,3-Dichloropropene	ND		ug/l	0.50	--	1
cis-1,3-Dichloropropene	ND		ug/l	0.50	--	1
1,1-Dichloropropene	ND		ug/l	2.0	--	1
Bromoform	ND		ug/l	2.0	--	1
1,1,2,2-Tetrachloroethane	ND		ug/l	1.0	--	1
Benzene	ND		ug/l	0.50	--	1
Toluene	ND		ug/l	1.0	--	1
Ethylbenzene	ND		ug/l	1.0	--	1
Chloromethane	ND		ug/l	2.0	--	1
Bromomethane	ND		ug/l	2.0	--	1
Vinyl chloride	1.5		ug/l	1.0	--	1
Chloroethane	ND		ug/l	2.0	--	1
1,1-Dichloroethene	ND		ug/l	1.0	--	1
trans-1,2-Dichloroethene	ND		ug/l	1.0	--	1
Trichloroethene	ND		ug/l	1.0	--	1
1,2-Dichlorobenzene	ND		ug/l	1.0	--	1
1,3-Dichlorobenzene	ND		ug/l	1.0	--	1
1,4-Dichlorobenzene	ND		ug/l	1.0	--	1

Project Name: 300 3RD ST

Lab Number: L1110813

Project Number: 04-7590GD2

Report Date: 07/26/11

## SAMPLE RESULTS

Lab ID: L1110813-03  
 Client ID: ENV-3  
 Sample Location: CAMBRIDGE

Date Collected: 07/18/11 14:40  
 Date Received: 07/19/11  
 Field Prep: Not Specified

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

Project Name: 300 3RD ST

Lab Number: L1110813

Project Number: 04-7590GD2

Report Date: 07/26/11

## SAMPLE RESULTS

Lab ID: L1110813-03

Date Collected: 07/18/11 14:40

Client ID: ENV-3

Date Received: 07/19/11

Sample Location: CAMBRIDGE

Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
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## MCP Volatile Organics - Westborough Lab

1,4-Dioxane	ND		ug/l	250	--	1
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Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	104		70-130
Toluene-d8	91		70-130
4-Bromofluorobenzene	99		70-130
Dibromofluoromethane	115		70-130

Project Name: 300 3RD ST

Lab Number: L1110813

Project Number: 04-7590GD2

Report Date: 07/26/11

## SAMPLE RESULTS

Lab ID: L1110813-04  
 Client ID: ENV-4  
 Sample Location: CAMBRIDGE  
 Matrix: Water  
 Analytical Method: 97,8260B  
 Analytical Date: 07/21/11 14:37  
 Analyst: KL

Date Collected: 07/18/11 15:22  
 Date Received: 07/19/11  
 Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
MCP Volatile Organics - Westborough Lab						
Methylene chloride	ND		ug/l	2.0	--	1
1,1-Dichloroethane	15		ug/l	1.0	--	1
Chloroform	ND		ug/l	1.0	--	1
Carbon tetrachloride	ND		ug/l	1.0	--	1
1,2-Dichloropropane	ND		ug/l	1.0	--	1
Dibromochloromethane	ND		ug/l	1.0	--	1
1,1,2-Trichloroethane	ND		ug/l	1.0	--	1
Tetrachloroethene	ND		ug/l	1.0	--	1
Chlorobenzene	ND		ug/l	1.0	--	1
Trichlorofluoromethane	ND		ug/l	2.0	--	1
1,2-Dichloroethane	ND		ug/l	1.0	--	1
1,1,1-Trichloroethane	ND		ug/l	1.0	--	1
Bromodichloromethane	ND		ug/l	1.0	--	1
trans-1,3-Dichloropropene	ND		ug/l	0.50	--	1
cis-1,3-Dichloropropene	ND		ug/l	0.50	--	1
1,1-Dichloropropene	ND		ug/l	2.0	--	1
Bromoform	ND		ug/l	2.0	--	1
1,1,2,2-Tetrachloroethane	ND		ug/l	1.0	--	1
Benzene	38		ug/l	0.50	--	1
Toluene	ND		ug/l	1.0	--	1
Ethylbenzene	ND		ug/l	1.0	--	1
Chloromethane	ND		ug/l	2.0	--	1
Bromomethane	ND		ug/l	2.0	--	1
Vinyl chloride	4.3		ug/l	1.0	--	1
Chloroethane	ND		ug/l	2.0	--	1
1,1-Dichloroethene	ND		ug/l	1.0	--	1
trans-1,2-Dichloroethene	1.3		ug/l	1.0	--	1
Trichloroethene	ND		ug/l	1.0	--	1
1,2-Dichlorobenzene	ND		ug/l	1.0	--	1
1,3-Dichlorobenzene	ND		ug/l	1.0	--	1
1,4-Dichlorobenzene	ND		ug/l	1.0	--	1

Project Name: 300 3RD ST

Lab Number: L1110813

Project Number: 04-7590GD2

Report Date: 07/26/11

## SAMPLE RESULTS

Lab ID: L1110813-04  
 Client ID: ENV-4  
 Sample Location: CAMBRIDGE

Date Collected: 07/18/11 15:22  
 Date Received: 07/19/11  
 Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
MCP Volatile Organics - Westborough Lab						
Methyl tert butyl ether	ND		ug/l	2.0	--	1
p/m-Xylene	ND		ug/l	2.0	--	1
o-Xylene	ND		ug/l	1.0	--	1
cis-1,2-Dichloroethene	87		ug/l	1.0	--	1
Dibromomethane	ND		ug/l	2.0	--	1
1,2,3-Trichloropropane	ND		ug/l	2.0	--	1
Styrene	ND		ug/l	1.0	--	1
Dichlorodifluoromethane	ND		ug/l	2.0	--	1
Acetone	ND		ug/l	5.0	--	1
Carbon disulfide	ND		ug/l	2.0	--	1
2-Butanone	ND		ug/l	5.0	--	1
4-Methyl-2-pentanone	ND		ug/l	5.0	--	1
2-Hexanone	ND		ug/l	5.0	--	1
Bromochloromethane	ND		ug/l	2.0	--	1
Tetrahydrofuran	ND		ug/l	5.0	--	1
2,2-Dichloropropane	ND		ug/l	2.0	--	1
1,2-Dibromoethane	ND		ug/l	2.0	--	1
1,3-Dichloropropane	ND		ug/l	2.0	--	1
1,1,1,2-Tetrachloroethane	ND		ug/l	1.0	--	1
Bromobenzene	ND		ug/l	2.0	--	1
n-Butylbenzene	ND		ug/l	2.0	--	1
sec-Butylbenzene	ND		ug/l	2.0	--	1
tert-Butylbenzene	ND		ug/l	2.0	--	1
o-Chlorotoluene	ND		ug/l	2.0	--	1
p-Chlorotoluene	ND		ug/l	2.0	--	1
1,2-Dibromo-3-chloropropane	ND		ug/l	2.0	--	1
Hexachlorobutadiene	ND		ug/l	0.60	--	1
Isopropylbenzene	ND		ug/l	2.0	--	1
p-Isopropyltoluene	ND		ug/l	2.0	--	1
Naphthalene	ND		ug/l	2.0	--	1
n-Propylbenzene	ND		ug/l	2.0	--	1
1,2,3-Trichlorobenzene	ND		ug/l	2.0	--	1
1,2,4-Trichlorobenzene	ND		ug/l	2.0	--	1
1,3,5-Trimethylbenzene	ND		ug/l	2.0	--	1
1,2,4-Trimethylbenzene	ND		ug/l	2.0	--	1
Ethyl ether	ND		ug/l	2.0	--	1
Isopropyl Ether	ND		ug/l	2.0	--	1
Ethyl-Tert-Butyl-Ether	ND		ug/l	2.0	--	1
Tertiary-Amyl Methyl Ether	ND		ug/l	2.0	--	1

Project Name: 300 3RD ST

Lab Number: L1110813

Project Number: 04-7590GD2

Report Date: 07/26/11

## SAMPLE RESULTS

Lab ID: L1110813-04

Date Collected: 07/18/11 15:22

Client ID: ENV-4

Date Received: 07/19/11

Sample Location: CAMBRIDGE

Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
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## MCP Volatile Organics - Westborough Lab

1,4-Dioxane	ND		ug/l	250	--	1
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Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	117		70-130
Toluene-d8	91		70-130
4-Bromofluorobenzene	95		70-130
Dibromofluoromethane	112		70-130

Project Name: 300 3RD ST

Lab Number: L1110813

Project Number: 04-7590GD2

Report Date: 07/26/11

## SAMPLE RESULTS

Lab ID: L1110813-05  
 Client ID: ENV-8  
 Sample Location: CAMBRIDGE  
 Matrix: Water  
 Analytical Method: 97,8260B  
 Analytical Date: 07/20/11 13:01  
 Analyst: MM

Date Collected: 07/19/11 11:55  
 Date Received: 07/19/11  
 Field Prep: Not Specified

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



Project Name: 300 3RD ST

Lab Number: L1110813

Project Number: 04-7590GD2

Report Date: 07/26/11

## SAMPLE RESULTS

Lab ID: L1110813-05  
 Client ID: ENV-8  
 Sample Location: CAMBRIDGE

Date Collected: 07/19/11 11:55  
 Date Received: 07/19/11  
 Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
MCP Volatile Organics - Westborough Lab						
Methyl tert butyl ether	ND		ug/l	2.0	--	1
p/m-Xylene	ND		ug/l	2.0	--	1
o-Xylene	ND		ug/l	1.0	--	1
cis-1,2-Dichloroethene	1.5		ug/l	1.0	--	1
Dibromomethane	ND		ug/l	2.0	--	1
1,2,3-Trichloropropane	ND		ug/l	2.0	--	1
Styrene	ND		ug/l	1.0	--	1
Dichlorodifluoromethane	ND		ug/l	2.0	--	1
Acetone	ND		ug/l	5.0	--	1
Carbon disulfide	ND		ug/l	2.0	--	1
2-Butanone	ND		ug/l	5.0	--	1
4-Methyl-2-pentanone	ND		ug/l	5.0	--	1
2-Hexanone	ND		ug/l	5.0	--	1
Bromochloromethane	ND		ug/l	2.0	--	1
Tetrahydrofuran	ND		ug/l	5.0	--	1
2,2-Dichloropropane	ND		ug/l	2.0	--	1
1,2-Dibromoethane	ND		ug/l	2.0	--	1
1,3-Dichloropropane	ND		ug/l	2.0	--	1
1,1,1,2-Tetrachloroethane	ND		ug/l	1.0	--	1
Bromobenzene	ND		ug/l	2.0	--	1
n-Butylbenzene	ND		ug/l	2.0	--	1
sec-Butylbenzene	ND		ug/l	2.0	--	1
tert-Butylbenzene	ND		ug/l	2.0	--	1
o-Chlorotoluene	ND		ug/l	2.0	--	1
p-Chlorotoluene	ND		ug/l	2.0	--	1
1,2-Dibromo-3-chloropropane	ND		ug/l	2.0	--	1
Hexachlorobutadiene	ND		ug/l	0.60	--	1
Isopropylbenzene	ND		ug/l	2.0	--	1
p-Isopropyltoluene	ND		ug/l	2.0	--	1
Naphthalene	ND		ug/l	2.0	--	1
n-Propylbenzene	ND		ug/l	2.0	--	1
1,2,3-Trichlorobenzene	ND		ug/l	2.0	--	1
1,2,4-Trichlorobenzene	ND		ug/l	2.0	--	1
1,3,5-Trimethylbenzene	ND		ug/l	2.0	--	1
1,2,4-Trimethylbenzene	ND		ug/l	2.0	--	1
Ethyl ether	ND		ug/l	2.0	--	1
Isopropyl Ether	ND		ug/l	2.0	--	1
Ethyl-Tert-Butyl-Ether	ND		ug/l	2.0	--	1
Tertiary-Amyl Methyl Ether	ND		ug/l	2.0	--	1

Project Name: 300 3RD ST

Lab Number: L1110813

Project Number: 04-7590GD2

Report Date: 07/26/11

## SAMPLE RESULTS

Lab ID: L1110813-05

Date Collected: 07/19/11 11:55

Client ID: ENV-8

Date Received: 07/19/11

Sample Location: CAMBRIDGE

Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
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## MCP Volatile Organics - Westborough Lab

1,4-Dioxane	ND		ug/l	250	--	1
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Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	104		70-130
Toluene-d8	89		70-130
4-Bromofluorobenzene	95		70-130
Dibromofluoromethane	117		70-130

Project Name: 300 3RD ST

Lab Number: L1110813

Project Number: 04-7590GD2

Report Date: 07/26/11

## SAMPLE RESULTS

Lab ID: L1110813-06 D  
 Client ID: ENV-9  
 Sample Location: CAMBRIDGE  
 Matrix: Water  
 Analytical Method: 97,8260B  
 Analytical Date: 07/20/11 13:33  
 Analyst: MM

Date Collected: 07/19/11 09:42  
 Date Received: 07/19/11  
 Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
MCP Volatile Organics - Westborough Lab						
Methylene chloride	ND		ug/l	800	--	400
1,1-Dichloroethane	ND		ug/l	400	--	400
Chloroform	ND		ug/l	400	--	400
Carbon tetrachloride	ND		ug/l	400	--	400
1,2-Dichloropropane	ND		ug/l	400	--	400
Dibromochloromethane	ND		ug/l	400	--	400
1,1,2-Trichloroethane	ND		ug/l	400	--	400
Tetrachloroethene	ND		ug/l	400	--	400
Chlorobenzene	ND		ug/l	400	--	400
Trichlorofluoromethane	ND		ug/l	800	--	400
1,2-Dichloroethane	ND		ug/l	400	--	400
1,1,1-Trichloroethane	ND		ug/l	400	--	400
Bromodichloromethane	ND		ug/l	400	--	400
trans-1,3-Dichloropropene	ND		ug/l	200	--	400
cis-1,3-Dichloropropene	ND		ug/l	200	--	400
1,1-Dichloropropene	ND		ug/l	800	--	400
Bromoform	ND		ug/l	800	--	400
1,1,2,2-Tetrachloroethane	ND		ug/l	400	--	400
Benzene	ND		ug/l	200	--	400
Toluene	5900		ug/l	400	--	400
Ethylbenzene	10000		ug/l	400	--	400
Chloromethane	ND		ug/l	800	--	400
Bromomethane	ND		ug/l	800	--	400
Vinyl chloride	ND		ug/l	400	--	400
Chloroethane	ND		ug/l	800	--	400
1,1-Dichloroethene	ND		ug/l	400	--	400
trans-1,2-Dichloroethene	ND		ug/l	400	--	400
Trichloroethene	ND		ug/l	400	--	400
1,2-Dichlorobenzene	ND		ug/l	400	--	400
1,3-Dichlorobenzene	ND		ug/l	400	--	400
1,4-Dichlorobenzene	ND		ug/l	400	--	400

Project Name: 300 3RD ST

Lab Number: L1110813

Project Number: 04-7590GD2

Report Date: 07/26/11

## SAMPLE RESULTS

Lab ID: L1110813-06 D  
 Client ID: ENV-9  
 Sample Location: CAMBRIDGE

Date Collected: 07/19/11 09:42  
 Date Received: 07/19/11  
 Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
<b>MCP Volatile Organics - Westborough Lab</b>						
Methyl tert butyl ether	ND		ug/l	800	--	400
p/m-Xylene	44000		ug/l	800	--	400
o-Xylene	12000		ug/l	400	--	400
cis-1,2-Dichloroethene	ND		ug/l	400	--	400
Dibromomethane	ND		ug/l	800	--	400
1,2,3-Trichloropropane	ND		ug/l	800	--	400
Styrene	ND		ug/l	400	--	400
Dichlorodifluoromethane	ND		ug/l	800	--	400
Acetone	ND		ug/l	2000	--	400
Carbon disulfide	ND		ug/l	800	--	400
2-Butanone	ND		ug/l	2000	--	400
4-Methyl-2-pentanone	ND		ug/l	2000	--	400
2-Hexanone	ND		ug/l	2000	--	400
Bromochloromethane	ND		ug/l	800	--	400
Tetrahydrofuran	ND		ug/l	2000	--	400
2,2-Dichloropropane	ND		ug/l	800	--	400
1,2-Dibromoethane	ND		ug/l	800	--	400
1,3-Dichloropropane	ND		ug/l	800	--	400
1,1,1,2-Tetrachloroethane	ND		ug/l	400	--	400
Bromobenzene	ND		ug/l	800	--	400
n-Butylbenzene	ND		ug/l	800	--	400
sec-Butylbenzene	ND		ug/l	800	--	400
tert-Butylbenzene	ND		ug/l	800	--	400
o-Chlorotoluene	ND		ug/l	800	--	400
p-Chlorotoluene	ND		ug/l	800	--	400
1,2-Dibromo-3-chloropropane	ND		ug/l	800	--	400
Hexachlorobutadiene	ND		ug/l	240	--	400
Isopropylbenzene	ND		ug/l	800	--	400
p-Isopropyltoluene	ND		ug/l	800	--	400
Naphthalene	ND		ug/l	800	--	400
n-Propylbenzene	ND		ug/l	800	--	400
1,2,3-Trichlorobenzene	ND		ug/l	800	--	400
1,2,4-Trichlorobenzene	ND		ug/l	800	--	400
1,3,5-Trimethylbenzene	ND		ug/l	800	--	400
1,2,4-Trimethylbenzene	810		ug/l	800	--	400
Ethyl ether	ND		ug/l	800	--	400
Isopropyl Ether	ND		ug/l	800	--	400
Ethyl-Tert-Butyl-Ether	ND		ug/l	800	--	400
Tertiary-Amyl Methyl Ether	ND		ug/l	800	--	400

Project Name: 300 3RD ST

Lab Number: L1110813

Project Number: 04-7590GD2

Report Date: 07/26/11

## SAMPLE RESULTS

Lab ID: L1110813-06 D

Date Collected: 07/19/11 09:42

Client ID: ENV-9

Date Received: 07/19/11

Sample Location: CAMBRIDGE

Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
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## MCP Volatile Organics - Westborough Lab

1,4-Dioxane	ND		ug/l	100000	--	400
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Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	101		70-130
Toluene-d8	91		70-130
4-Bromofluorobenzene	98		70-130
Dibromofluoromethane	109		70-130

Project Name: 300 3RD ST

Lab Number: L1110813

Project Number: 04-7590GD2

Report Date: 07/26/11

## SAMPLE RESULTS

Lab ID: L1110813-12  
 Client ID: ENV-998  
 Sample Location: CAMBRIDGE  
 Matrix: Water  
 Analytical Method: 97,8260B  
 Analytical Date: 07/21/11 15:10  
 Analyst: KL

Date Collected: 07/18/11 14:40  
 Date Received: 07/19/11  
 Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
MCP Volatile Organics - Westborough Lab						
Methylene chloride	ND		ug/l	2.0	--	1
1,1-Dichloroethane	ND		ug/l	1.0	--	1
Chloroform	ND		ug/l	1.0	--	1
Carbon tetrachloride	ND		ug/l	1.0	--	1
1,2-Dichloropropane	ND		ug/l	1.0	--	1
Dibromochloromethane	ND		ug/l	1.0	--	1
1,1,2-Trichloroethane	ND		ug/l	1.0	--	1
Tetrachloroethene	ND		ug/l	1.0	--	1
Chlorobenzene	ND		ug/l	1.0	--	1
Trichlorofluoromethane	ND		ug/l	2.0	--	1
1,2-Dichloroethane	ND		ug/l	1.0	--	1
1,1,1-Trichloroethane	ND		ug/l	1.0	--	1
Bromodichloromethane	ND		ug/l	1.0	--	1
trans-1,3-Dichloropropene	ND		ug/l	0.50	--	1
cis-1,3-Dichloropropene	ND		ug/l	0.50	--	1
1,1-Dichloropropene	ND		ug/l	2.0	--	1
Bromoform	ND		ug/l	2.0	--	1
1,1,2,2-Tetrachloroethane	ND		ug/l	1.0	--	1
Benzene	ND		ug/l	0.50	--	1
Toluene	ND		ug/l	1.0	--	1
Ethylbenzene	ND		ug/l	1.0	--	1
Chloromethane	ND		ug/l	2.0	--	1
Bromomethane	ND		ug/l	2.0	--	1
Vinyl chloride	1.2		ug/l	1.0	--	1
Chloroethane	3.1		ug/l	2.0	--	1
1,1-Dichloroethene	ND		ug/l	1.0	--	1
trans-1,2-Dichloroethene	ND		ug/l	1.0	--	1
Trichloroethene	ND		ug/l	1.0	--	1
1,2-Dichlorobenzene	ND		ug/l	1.0	--	1
1,3-Dichlorobenzene	ND		ug/l	1.0	--	1
1,4-Dichlorobenzene	ND		ug/l	1.0	--	1

Project Name: 300 3RD ST

Lab Number: L1110813

Project Number: 04-7590GD2

Report Date: 07/26/11

## SAMPLE RESULTS

Lab ID: L1110813-12  
 Client ID: ENV-998  
 Sample Location: CAMBRIDGE

Date Collected: 07/18/11 14:40  
 Date Received: 07/19/11  
 Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
<b>MCP Volatile Organics - Westborough Lab</b>						
Methyl tert butyl ether	ND		ug/l	2.0	--	1
p/m-Xylene	ND		ug/l	2.0	--	1
o-Xylene	ND		ug/l	1.0	--	1
cis-1,2-Dichloroethene	1.5		ug/l	1.0	--	1
Dibromomethane	ND		ug/l	2.0	--	1
1,2,3-Trichloropropane	ND		ug/l	2.0	--	1
Styrene	ND		ug/l	1.0	--	1
Dichlorodifluoromethane	ND		ug/l	2.0	--	1
Acetone	ND		ug/l	5.0	--	1
Carbon disulfide	ND		ug/l	2.0	--	1
2-Butanone	ND		ug/l	5.0	--	1
4-Methyl-2-pentanone	ND		ug/l	5.0	--	1
2-Hexanone	ND		ug/l	5.0	--	1
Bromochloromethane	ND		ug/l	2.0	--	1
Tetrahydrofuran	ND		ug/l	5.0	--	1
2,2-Dichloropropane	ND		ug/l	2.0	--	1
1,2-Dibromoethane	ND		ug/l	2.0	--	1
1,3-Dichloropropane	ND		ug/l	2.0	--	1
1,1,1,2-Tetrachloroethane	ND		ug/l	1.0	--	1
Bromobenzene	ND		ug/l	2.0	--	1
n-Butylbenzene	ND		ug/l	2.0	--	1
sec-Butylbenzene	ND		ug/l	2.0	--	1
tert-Butylbenzene	ND		ug/l	2.0	--	1
o-Chlorotoluene	ND		ug/l	2.0	--	1
p-Chlorotoluene	ND		ug/l	2.0	--	1
1,2-Dibromo-3-chloropropane	ND		ug/l	2.0	--	1
Hexachlorobutadiene	ND		ug/l	0.60	--	1
Isopropylbenzene	ND		ug/l	2.0	--	1
p-Isopropyltoluene	ND		ug/l	2.0	--	1
Naphthalene	ND		ug/l	2.0	--	1
n-Propylbenzene	ND		ug/l	2.0	--	1
1,2,3-Trichlorobenzene	ND		ug/l	2.0	--	1
1,2,4-Trichlorobenzene	ND		ug/l	2.0	--	1
1,3,5-Trimethylbenzene	ND		ug/l	2.0	--	1
1,2,4-Trimethylbenzene	ND		ug/l	2.0	--	1
Ethyl ether	ND		ug/l	2.0	--	1
Isopropyl Ether	ND		ug/l	2.0	--	1
Ethyl-Tert-Butyl-Ether	ND		ug/l	2.0	--	1
Tertiary-Amyl Methyl Ether	ND		ug/l	2.0	--	1

**Project Name:** 300 3RD ST**Lab Number:** L1110813**Project Number:** 04-7590GD2**Report Date:** 07/26/11**SAMPLE RESULTS**

Lab ID: L1110813-12

Date Collected: 07/18/11 14:40

Client ID: ENV-998

Date Received: 07/19/11

Sample Location: CAMBRIDGE

Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
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## MCP Volatile Organics - Westborough Lab

1,4-Dioxane	ND		ug/l	250	--	1
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Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	121		70-130
Toluene-d8	90		70-130
4-Bromofluorobenzene	95		70-130
Dibromofluoromethane	114		70-130



Project Name: 300 3RD ST

Lab Number: L1110813

Project Number: 04-7590GD2

Report Date: 07/26/11

## SAMPLE RESULTS

Lab ID: L1110813-13  
 Client ID: TRIP BLANK  
 Sample Location: CAMBRIDGE  
 Matrix: Water  
 Analytical Method: 97,8260B  
 Analytical Date: 07/20/11 08:41  
 Analyst: MM

Date Collected: 07/18/11 00:00  
 Date Received: 07/19/11  
 Field Prep: Not Specified

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

Project Name: 300 3RD ST

Lab Number: L1110813

Project Number: 04-7590GD2

Report Date: 07/26/11

## SAMPLE RESULTS

Lab ID: L1110813-13

Date Collected: 07/18/11 00:00

Client ID: TRIP BLANK

Date Received: 07/19/11

Sample Location: CAMBRIDGE

Field Prep: Not Specified

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

Project Name: 300 3RD ST

Lab Number: L1110813

Project Number: 04-7590GD2

Report Date: 07/26/11

## SAMPLE RESULTS

Lab ID: L1110813-13

Date Collected: 07/18/11 00:00

Client ID: TRIP BLANK

Date Received: 07/19/11

Sample Location: CAMBRIDGE

Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
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## MCP Volatile Organics - Westborough Lab

1,4-Dioxane	ND		ug/l	250	--	1
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Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	99		70-130
Toluene-d8	87		70-130
4-Bromofluorobenzene	98		70-130
Dibromofluoromethane	122		70-130

**Project Name:** 300 3RD ST  
**Project Number:** 04-7590GD2

**Lab Number:** L1110813  
**Report Date:** 07/26/11

**Method Blank Analysis**  
**Batch Quality Control**

Analytical Method: 97,8260B  
Analytical Date: 07/20/11 08:09  
Analyst: MM

Parameter	Result	Qualifier	Units	RL	MDL
MCP Volatile Organics - Westborough Lab for sample(s): 01,03,05-06,13 Batch: WG480054-3					
Methylene chloride	ND		ug/l	2.0	--
1,1-Dichloroethane	ND		ug/l	1.0	--
Chloroform	ND		ug/l	1.0	--
Carbon tetrachloride	ND		ug/l	1.0	--
1,2-Dichloropropane	ND		ug/l	1.0	--
Dibromochloromethane	ND		ug/l	1.0	--
1,1,2-Trichloroethane	ND		ug/l	1.0	--
Tetrachloroethene	ND		ug/l	1.0	--
Chlorobenzene	ND		ug/l	1.0	--
Trichlorofluoromethane	ND		ug/l	2.0	--
1,2-Dichloroethane	ND		ug/l	1.0	--
1,1,1-Trichloroethane	ND		ug/l	1.0	--
Bromodichloromethane	ND		ug/l	1.0	--
trans-1,3-Dichloropropene	ND		ug/l	0.50	--
cis-1,3-Dichloropropene	ND		ug/l	0.50	--
1,1-Dichloropropene	ND		ug/l	2.0	--
Bromoform	ND		ug/l	2.0	--
1,1,2,2-Tetrachloroethane	ND		ug/l	1.0	--
Benzene	ND		ug/l	0.50	--
Toluene	ND		ug/l	1.0	--
Ethylbenzene	ND		ug/l	1.0	--
Chloromethane	ND		ug/l	2.0	--
Bromomethane	ND		ug/l	2.0	--
Vinyl chloride	ND		ug/l	1.0	--
Chloroethane	ND		ug/l	2.0	--
1,1-Dichloroethene	ND		ug/l	1.0	--
trans-1,2-Dichloroethene	ND		ug/l	1.0	--
Trichloroethene	ND		ug/l	1.0	--
1,2-Dichlorobenzene	ND		ug/l	1.0	--
1,3-Dichlorobenzene	ND		ug/l	1.0	--
1,4-Dichlorobenzene	ND		ug/l	1.0	--



**Project Name:** 300 3RD ST  
**Project Number:** 04-7590GD2

**Lab Number:** L1110813  
**Report Date:** 07/26/11

**Method Blank Analysis**  
**Batch Quality Control**

Analytical Method: 97,8260B  
Analytical Date: 07/20/11 08:09  
Analyst: MM

Parameter	Result	Qualifier	Units	RL	MDL
MCP Volatile Organics - Westborough Lab for sample(s): 01,03,05-06,13 Batch: WG480054-3					
Methyl tert butyl ether	ND		ug/l	2.0	--
p/m-Xylene	ND		ug/l	2.0	--
o-Xylene	ND		ug/l	1.0	--
cis-1,2-Dichloroethene	ND		ug/l	1.0	--
Dibromomethane	ND		ug/l	2.0	--
1,2,3-Trichloropropane	ND		ug/l	2.0	--
Styrene	ND		ug/l	1.0	--
Dichlorodifluoromethane	ND		ug/l	2.0	--
Acetone	ND		ug/l	5.0	--
Carbon disulfide	ND		ug/l	2.0	--
2-Butanone	ND		ug/l	5.0	--
4-Methyl-2-pentanone	ND		ug/l	5.0	--
2-Hexanone	ND		ug/l	5.0	--
Bromochloromethane	ND		ug/l	2.0	--
Tetrahydrofuran	ND		ug/l	5.0	--
2,2-Dichloropropane	ND		ug/l	2.0	--
1,2-Dibromoethane	ND		ug/l	2.0	--
1,3-Dichloropropane	ND		ug/l	2.0	--
1,1,1,2-Tetrachloroethane	ND		ug/l	1.0	--
Bromobenzene	ND		ug/l	2.0	--
n-Butylbenzene	ND		ug/l	2.0	--
sec-Butylbenzene	ND		ug/l	2.0	--
tert-Butylbenzene	ND		ug/l	2.0	--
o-Chlorotoluene	ND		ug/l	2.0	--
p-Chlorotoluene	ND		ug/l	2.0	--
1,2-Dibromo-3-chloropropane	ND		ug/l	2.0	--
Hexachlorobutadiene	ND		ug/l	0.60	--
Isopropylbenzene	ND		ug/l	2.0	--
p-Isopropyltoluene	ND		ug/l	2.0	--
Naphthalene	ND		ug/l	2.0	--
n-Propylbenzene	ND		ug/l	2.0	--



**Project Name:** 300 3RD ST  
**Project Number:** 04-7590GD2

**Lab Number:** L1110813  
**Report Date:** 07/26/11

**Method Blank Analysis**  
**Batch Quality Control**

Analytical Method: 97,8260B  
 Analytical Date: 07/20/11 08:09  
 Analyst: MM

Parameter	Result	Qualifier	Units	RL	MDL
MCP Volatile Organics - Westborough Lab for sample(s): 01,03,05-06,13 Batch: WG480054-3					
1,2,3-Trichlorobenzene	ND		ug/l	2.0	--
1,2,4-Trichlorobenzene	ND		ug/l	2.0	--
1,3,5-Trimethylbenzene	ND		ug/l	2.0	--
1,2,4-Trimethylbenzene	ND		ug/l	2.0	--
Ethyl ether	ND		ug/l	2.0	--
Isopropyl Ether	ND		ug/l	2.0	--
Ethyl-Tert-Butyl-Ether	ND		ug/l	2.0	--
Tertiary-Amyl Methyl Ether	ND		ug/l	2.0	--
1,4-Dioxane	ND		ug/l	250	--

Surrogate	%Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	104		70-130
Toluene-d8	94		70-130
4-Bromofluorobenzene	95		70-130
Dibromofluoromethane	115		70-130

**Project Name:** 300 3RD ST  
**Project Number:** 04-7590GD2

**Lab Number:** L1110813  
**Report Date:** 07/26/11

**Method Blank Analysis**  
**Batch Quality Control**

Analytical Method: 97,8260B  
Analytical Date: 07/21/11 10:51  
Analyst: KL

Parameter	Result	Qualifier	Units	RL	MDL
MCP Volatile Organics - Westborough Lab for sample(s): 02,04,12 Batch: WG480584-3					
Methylene chloride	ND		ug/l	2.0	--
1,1-Dichloroethane	ND		ug/l	1.0	--
Chloroform	ND		ug/l	1.0	--
Carbon tetrachloride	ND		ug/l	1.0	--
1,2-Dichloropropane	ND		ug/l	1.0	--
Dibromochloromethane	ND		ug/l	1.0	--
1,1,2-Trichloroethane	ND		ug/l	1.0	--
Tetrachloroethene	ND		ug/l	1.0	--
Chlorobenzene	ND		ug/l	1.0	--
Trichlorofluoromethane	ND		ug/l	2.0	--
1,2-Dichloroethane	ND		ug/l	1.0	--
1,1,1-Trichloroethane	ND		ug/l	1.0	--
Bromodichloromethane	ND		ug/l	1.0	--
trans-1,3-Dichloropropene	ND		ug/l	0.50	--
cis-1,3-Dichloropropene	ND		ug/l	0.50	--
1,1-Dichloropropene	ND		ug/l	2.0	--
Bromoform	ND		ug/l	2.0	--
1,1,2,2-Tetrachloroethane	ND		ug/l	1.0	--
Benzene	ND		ug/l	0.50	--
Toluene	ND		ug/l	1.0	--
Ethylbenzene	ND		ug/l	1.0	--
Chloromethane	ND		ug/l	2.0	--
Bromomethane	ND		ug/l	2.0	--
Vinyl chloride	ND		ug/l	1.0	--
Chloroethane	ND		ug/l	2.0	--
1,1-Dichloroethene	ND		ug/l	1.0	--
trans-1,2-Dichloroethene	ND		ug/l	1.0	--
Trichloroethene	ND		ug/l	1.0	--
1,2-Dichlorobenzene	ND		ug/l	1.0	--
1,3-Dichlorobenzene	ND		ug/l	1.0	--
1,4-Dichlorobenzene	ND		ug/l	1.0	--



**Project Name:** 300 3RD ST  
**Project Number:** 04-7590GD2

**Lab Number:** L1110813  
**Report Date:** 07/26/11

**Method Blank Analysis**  
**Batch Quality Control**

Analytical Method: 97,8260B  
Analytical Date: 07/21/11 10:51  
Analyst: KL

Parameter	Result	Qualifier	Units	RL	MDL
MCP Volatile Organics - Westborough Lab for sample(s): 02,04,12 Batch: WG480584-3					
Methyl tert butyl ether	ND		ug/l	2.0	--
p/m-Xylene	ND		ug/l	2.0	--
o-Xylene	ND		ug/l	1.0	--
cis-1,2-Dichloroethene	ND		ug/l	1.0	--
Dibromomethane	ND		ug/l	2.0	--
1,2,3-Trichloropropane	ND		ug/l	2.0	--
Styrene	ND		ug/l	1.0	--
Dichlorodifluoromethane	ND		ug/l	2.0	--
Acetone	ND		ug/l	5.0	--
Carbon disulfide	ND		ug/l	2.0	--
2-Butanone	ND		ug/l	5.0	--
4-Methyl-2-pentanone	ND		ug/l	5.0	--
2-Hexanone	ND		ug/l	5.0	--
Bromochloromethane	ND		ug/l	2.0	--
Tetrahydrofuran	ND		ug/l	5.0	--
2,2-Dichloropropane	ND		ug/l	2.0	--
1,2-Dibromoethane	ND		ug/l	2.0	--
1,3-Dichloropropane	ND		ug/l	2.0	--
1,1,1,2-Tetrachloroethane	ND		ug/l	1.0	--
Bromobenzene	ND		ug/l	2.0	--
n-Butylbenzene	ND		ug/l	2.0	--
sec-Butylbenzene	ND		ug/l	2.0	--
tert-Butylbenzene	ND		ug/l	2.0	--
o-Chlorotoluene	ND		ug/l	2.0	--
p-Chlorotoluene	ND		ug/l	2.0	--
1,2-Dibromo-3-chloropropane	ND		ug/l	2.0	--
Hexachlorobutadiene	ND		ug/l	0.60	--
Isopropylbenzene	ND		ug/l	2.0	--
p-Isopropyltoluene	ND		ug/l	2.0	--
Naphthalene	ND		ug/l	2.0	--
n-Propylbenzene	ND		ug/l	2.0	--





**Project Name:** 300 3RD ST  
**Project Number:** 04-7590GD2

**Lab Number:** L1110813  
**Report Date:** 07/26/11

**Method Blank Analysis**  
**Batch Quality Control**

Analytical Method: 97,8260B  
 Analytical Date: 07/21/11 10:51  
 Analyst: KL

Parameter	Result	Qualifier	Units	RL	MDL
MCP Volatile Organics - Westborough Lab for sample(s): 02,04,12 Batch: WG480584-3					
1,2,3-Trichlorobenzene	ND		ug/l	2.0	--
1,2,4-Trichlorobenzene	ND		ug/l	2.0	--
1,3,5-Trimethylbenzene	ND		ug/l	2.0	--
1,2,4-Trimethylbenzene	ND		ug/l	2.0	--
Ethyl ether	ND		ug/l	2.0	--
Isopropyl Ether	ND		ug/l	2.0	--
Ethyl-Tert-Butyl-Ether	ND		ug/l	2.0	--
Tertiary-Amyl Methyl Ether	ND		ug/l	2.0	--
1,4-Dioxane	ND		ug/l	250	--

Surrogate	%Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	100		70-130
Toluene-d8	92		70-130
4-Bromofluorobenzene	100		70-130
Dibromofluoromethane	110		70-130

## Lab Control Sample Analysis

### Batch Quality Control

**Project Name:** 300 3RD ST  
**Project Number:** 04-7590GD2

**Lab Number:** L1110813  
**Report Date:** 07/26/11

Parameter	LCS		LCSD		%Recovery Limits	RPD	Qual	RPD Limits
	%Recovery	Qual	%Recovery	Qual				
MCP Volatile Organics - Westborough Lab Associated sample(s): 01,03,05-06,13 Batch: WG480054-1 WG480054-2								
Methylene chloride	108		109		70-130	1		20
1,1-Dichloroethane	105		111		70-130	6		20
Chloroform	107		114		70-130	6		20
Carbon tetrachloride	105		112		70-130	6		20
1,2-Dichloropropane	94		99		70-130	5		20
Dibromochloromethane	88		84		70-130	5		20
1,1,2-Trichloroethane	85		79		70-130	7		20
Tetrachloroethene	100		101		70-130	1		20
Chlorobenzene	91		93		70-130	2		20
Trichlorofluoromethane	116		126		70-130	8		20
1,2-Dichloroethane	108		108		70-130	0		20
1,1,1-Trichloroethane	114		121		70-130	6		20
Bromodichloromethane	103		106		70-130	3		20
trans-1,3-Dichloropropene	87		83		70-130	5		20
cis-1,3-Dichloropropene	91		97		70-130	6		20
1,1-Dichloropropene	96		106		70-130	10		20
Bromoform	87		86		70-130	1		20
1,1,2,2-Tetrachloroethane	85		89		70-130	5		20
Benzene	99		104		70-130	5		20
Toluene	90		90		70-130	0		20
Ethylbenzene	95		93		70-130	2		20

## Lab Control Sample Analysis

### Batch Quality Control

Project Name: 300 3RD ST

Project Number: 04-7590GD2

Lab Number: L1110813

Report Date: 07/26/11

Parameter	LCS		LCSD		%Recovery Limits	RPD	Qual	RPD Limits
	%Recovery	Qual	%Recovery	Qual				
MCP Volatile Organics - Westborough Lab Associated sample(s): 01,03,05-06,13 Batch: WG480054-1 WG480054-2								
Chloromethane	90		96		70-130	6		20
Bromomethane	87		95		70-130	9		20
Vinyl chloride	92		99		70-130	7		20
Chloroethane	98		100		70-130	2		20
1,1-Dichloroethene	102		107		70-130	5		20
trans-1,2-Dichloroethene	106		114		70-130	7		20
Trichloroethene	100		108		70-130	8		20
1,2-Dichlorobenzene	86		92		70-130	7		20
1,3-Dichlorobenzene	89		93		70-130	4		20
1,4-Dichlorobenzene	91		96		70-130	5		20
Methyl tert butyl ether	99		98		70-130	1		20
p/m-Xylene	95		96		70-130	1		20
o-Xylene	99		96		70-130	3		20
cis-1,2-Dichloroethene	114		117		70-130	3		20
Dibromomethane	115		119		70-130	3		20
1,2,3-Trichloropropane	88		86		70-130	2		20
Styrene	98		95		70-130	3		20
Dichlorodifluoromethane	97		100		70-130	3		20
Acetone	120		100		70-130	18		20
Carbon disulfide	110		119		70-130	8		20
2-Butanone	98		91		70-130	7		20

## Lab Control Sample Analysis

### Batch Quality Control

Project Name: 300 3RD ST

Project Number: 04-7590GD2

Lab Number: L1110813

Report Date: 07/26/11

Parameter	LCS		LCSD		%Recovery Limits	RPD	Qual	RPD Limits
	%Recovery	Qual	%Recovery	Qual				
MCP Volatile Organics - Westborough Lab Associated sample(s): 01,03,05-06,13 Batch: WG480054-1 WG480054-2								
4-Methyl-2-pentanone	117		106		70-130	10		20
2-Hexanone	101		85		70-130	17		20
Bromochloromethane	124		126		70-130	2		20
Tetrahydrofuran	109		96		70-130	13		20
2,2-Dichloropropane	113		116		70-130	3		20
1,2-Dibromoethane	96		90		70-130	6		20
1,3-Dichloropropane	87		82		70-130	6		20
1,1,1,2-Tetrachloroethane	94		91		70-130	3		20
Bromobenzene	90		98		70-130	9		20
n-Butylbenzene	89		88		70-130	1		20
sec-Butylbenzene	85		86		70-130	1		20
tert-Butylbenzene	88		90		70-130	2		20
o-Chlorotoluene	85		88		70-130	3		20
p-Chlorotoluene	81		86		70-130	6		20
1,2-Dibromo-3-chloropropane	80		89		70-130	11		20
Hexachlorobutadiene	88		106		70-130	19		20
Isopropylbenzene	98		95		70-130	3		20
p-Isopropyltoluene	90		92		70-130	2		20
Naphthalene	83		96		70-130	15		20
n-Propylbenzene	84		89		70-130	6		20
1,2,3-Trichlorobenzene	89		92		70-130	3		20

## Lab Control Sample Analysis

Batch Quality Control

**Project Name:** 300 3RD ST  
**Project Number:** 04-7590GD2

**Lab Number:** L1110813  
**Report Date:** 07/26/11

Parameter	LCS		LCSD		%Recovery Limits	RPD	Qual	RPD Limits
	%Recovery	Qual	%Recovery	Qual				
MCP Volatile Organics - Westborough Lab Associated sample(s): 01,03,05-06,13 Batch: WG480054-1 WG480054-2								
1,2,4-Trichlorobenzene	84		104		70-130	21	Q	20
1,3,5-Trimethylbenzene	85		115		70-130	30	Q	20
1,2,4-Trimethylbenzene	86		94		70-130	9		20
Ethyl ether	116		121		70-130	4		20
Isopropyl Ether	93		94		70-130	1		20
Ethyl-Tert-Butyl-Ether	94		97		70-130	3		20
Tertiary-Amyl Methyl Ether	103		101		70-130	2		20
1,4-Dioxane	109		100		70-130	9		20

Surrogate	LCS		LCSD		Acceptance Criteria
	%Recovery	Qual	%Recovery	Qual	
1,2-Dichloroethane-d4	102		104		70-130
Toluene-d8	92		93		70-130
4-Bromofluorobenzene	88		94		70-130
Dibromofluoromethane	109		112		70-130



## Lab Control Sample Analysis

### Batch Quality Control

**Project Name:** 300 3RD ST  
**Project Number:** 04-7590GD2

**Lab Number:** L1110813  
**Report Date:** 07/26/11

Parameter	LCS		LCSD		%Recovery Limits	RPD	Qual	RPD Limits
	%Recovery	Qual	%Recovery	Qual				
MCP Volatile Organics - Westborough Lab Associated sample(s): 02,04,12 Batch: WG480584-1 WG480584-2								
Methylene chloride	100		98		70-130	2		20
1,1-Dichloroethane	88		88		70-130	0		20
Chloroform	91		90		70-130	1		20
Carbon tetrachloride	91		96		70-130	5		20
1,2-Dichloropropane	86		88		70-130	2		20
Dibromochloromethane	83		88		70-130	6		20
1,1,2-Trichloroethane	87		89		70-130	2		20
Tetrachloroethene	98		95		70-130	3		20
Chlorobenzene	83		79		70-130	5		20
Trichlorofluoromethane	105		105		70-130	0		20
1,2-Dichloroethane	87		87		70-130	0		20
1,1,1-Trichloroethane	89		91		70-130	2		20
Bromodichloromethane	86		90		70-130	5		20
trans-1,3-Dichloropropene	80		82		70-130	2		20
cis-1,3-Dichloropropene	81		85		70-130	5		20
1,1-Dichloropropene	90		88		70-130	2		20
Bromoform	82		85		70-130	4		20
1,1,2,2-Tetrachloroethane	85		85		70-130	0		20
Benzene	91		91		70-130	0		20
Toluene	84		80		70-130	5		20
Ethylbenzene	84		82		70-130	2		20

## Lab Control Sample Analysis

### Batch Quality Control

Project Name: 300 3RD ST

Project Number: 04-7590GD2

Lab Number: L1110813

Report Date: 07/26/11

Parameter	LCS		LCSD		%Recovery Limits	RPD	Qual	RPD Limits
	%Recovery	Qual	%Recovery	Qual				
MCP Volatile Organics - Westborough Lab Associated sample(s): 02,04,12 Batch: WG480584-1 WG480584-2								
Chloromethane	93		88		70-130	6		20
Bromomethane	63	Q	65	Q	70-130	3		20
Vinyl chloride	95		94		70-130	1		20
Chloroethane	105		100		70-130	5		20
1,1-Dichloroethene	99		99		70-130	0		20
trans-1,2-Dichloroethene	81		102		70-130	23	Q	20
Trichloroethene	90		90		70-130	0		20
1,2-Dichlorobenzene	82		81		70-130	1		20
1,3-Dichlorobenzene	81		79		70-130	3		20
1,4-Dichlorobenzene	82		78		70-130	5		20
Methyl tert butyl ether	92		94		70-130	2		20
p/m-Xylene	84		80		70-130	5		20
o-Xylene	79		76		70-130	4		20
cis-1,2-Dichloroethene	90		89		70-130	1		20
Dibromomethane	97		98		70-130	1		20
1,2,3-Trichloropropane	86		86		70-130	0		20
Styrene	76		74		70-130	3		20
Dichlorodifluoromethane	104		98		70-130	6		20
Acetone	65	Q	74		70-130	13		20
Carbon disulfide	84		84		70-130	0		20
2-Butanone	91		91		70-130	0		20

## Lab Control Sample Analysis

### Batch Quality Control

Project Name: 300 3RD ST

Project Number: 04-7590GD2

Lab Number: L1110813

Report Date: 07/26/11

Parameter	LCS		LCSD		%Recovery Limits	RPD	Qual	RPD Limits
	%Recovery	Qual	%Recovery	Qual				
MCP Volatile Organics - Westborough Lab Associated sample(s): 02,04,12 Batch: WG480584-1 WG480584-2								
4-Methyl-2-pentanone	91		95		70-130	4		20
2-Hexanone	76		80		70-130	5		20
Bromochloromethane	99		101		70-130	2		20
Tetrahydrofuran	81		82		70-130	1		20
2,2-Dichloropropane	94		99		70-130	5		20
1,2-Dibromoethane	89		89		70-130	0		20
1,3-Dichloropropane	87		87		70-130	0		20
1,1,1,2-Tetrachloroethane	92		92		70-130	0		20
Bromobenzene	81		81		70-130	0		20
n-Butylbenzene	80		76		70-130	5		20
sec-Butylbenzene	86		81		70-130	6		20
tert-Butylbenzene	85		80		70-130	6		20
o-Chlorotoluene	78		75		70-130	4		20
p-Chlorotoluene	78		75		70-130	4		20
1,2-Dibromo-3-chloropropane	70		69	Q	70-130	1		20
Hexachlorobutadiene	91		85		70-130	7		20
Isopropylbenzene	86		83		70-130	4		20
p-Isopropyltoluene	86		81		70-130	6		20
Naphthalene	79		80		70-130	1		20
n-Propylbenzene	78		75		70-130	4		20
1,2,3-Trichlorobenzene	87		88		70-130	1		20



## Lab Control Sample Analysis

### Batch Quality Control

**Project Name:** 300 3RD ST  
**Project Number:** 04-7590GD2

**Lab Number:** L1110813  
**Report Date:** 07/26/11

Parameter	LCS		LCSD		%Recovery Limits	RPD	Qual	RPD Limits
	%Recovery	Qual	%Recovery	Qual				
MCP Volatile Organics - Westborough Lab Associated sample(s): 02,04,12 Batch: WG480584-1 WG480584-2								
1,2,4-Trichlorobenzene	84		83		70-130	1		20
1,3,5-Trimethylbenzene	77		74		70-130	4		20
1,2,4-Trimethylbenzene	80		77		70-130	4		20
Ethyl ether	104		105		70-130	1		20
Isopropyl Ether	79		85		70-130	7		20
Ethyl-Tert-Butyl-Ether	81		85		70-130	5		20
Tertiary-Amyl Methyl Ether	80		84		70-130	5		20
1,4-Dioxane	113		117		70-130	3		20

Surrogate	LCS		LCSD		Acceptance Criteria
	%Recovery	Qual	%Recovery	Qual	
1,2-Dichloroethane-d4	95		99		70-130
Toluene-d8	95		94		70-130
4-Bromofluorobenzene	91		90		70-130
Dibromofluoromethane	104		106		70-130

# PETROLEUM HYDROCARBONS

**Project Name:** 300 3RD ST  
**Project Number:** 04-7590GD2

**Lab Number:** L1110813  
**Report Date:** 07/26/11

**SAMPLE RESULTS**

Lab ID: L1110813-02  
 Client ID: ENV-2  
 Sample Location: CAMBRIDGE  
 Matrix: Water  
 Analytical Method: 100, VPH-04-1.1  
 Analytical Date: 07/20/11 15:31  
 Analyst: TT

Date Collected: 07/18/11 13:55  
 Date Received: 07/19/11  
 Field Prep: Not Specified

**Quality Control Information**

Condition of sample received: Satisfactory  
 Aqueous Preservative: Laboratory Provided Preserved Container  
 Sample Temperature upon receipt: Received on Ice

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
<b>Volatile Petroleum Hydrocarbons - Westborough Lab</b>						
C5-C8 Aliphatics	70.8		ug/l	50.0	--	1
C9-C12 Aliphatics	ND		ug/l	50.0	--	1
C9-C10 Aromatics	ND		ug/l	50.0	--	1
C5-C8 Aliphatics, Adjusted	54.3		ug/l	50.0	--	1
C9-C12 Aliphatics, Adjusted	ND		ug/l	50.0	--	1
Benzene	16.5		ug/l	2.00	--	1
Toluene	ND		ug/l	2.00	--	1
Ethylbenzene	ND		ug/l	2.00	--	1
p/m-Xylene	ND		ug/l	2.00	--	1
o-Xylene	ND		ug/l	2.00	--	1
Methyl tert butyl ether	ND		ug/l	3.00	--	1
Naphthalene	ND		ug/l	4.00	--	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
2,5-Dibromotoluene-PID	86		70-130
2,5-Dibromotoluene-FID	95		70-130

**Project Name:** 300 3RD ST  
**Project Number:** 04-7590GD2

**Lab Number:** L1110813  
**Report Date:** 07/26/11

**SAMPLE RESULTS**

Lab ID: L1110813-04  
 Client ID: ENV-4  
 Sample Location: CAMBRIDGE  
 Matrix: Water  
 Analytical Method: 100,VPH-04-1.1  
 Analytical Date: 07/20/11 16:37  
 Analyst: TT

Date Collected: 07/18/11 15:22  
 Date Received: 07/19/11  
 Field Prep: Not Specified

**Quality Control Information**

Condition of sample received: Satisfactory  
 Aqueous Preservative: Laboratory Provided Preserved Container  
 Sample Temperature upon receipt: Received on Ice

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
<b>Volatile Petroleum Hydrocarbons - Westborough Lab</b>						
C5-C8 Aliphatics	265		ug/l	50.0	--	1
C9-C12 Aliphatics	87.3		ug/l	50.0	--	1
C9-C10 Aromatics	ND		ug/l	50.0	--	1
C5-C8 Aliphatics, Adjusted	221		ug/l	50.0	--	1
C9-C12 Aliphatics, Adjusted	87.3		ug/l	50.0	--	1
Benzene	44.2		ug/l	2.00	--	1
Toluene	ND		ug/l	2.00	--	1
Ethylbenzene	ND		ug/l	2.00	--	1
p/m-Xylene	ND		ug/l	2.00	--	1
o-Xylene	ND		ug/l	2.00	--	1
Methyl tert butyl ether	ND		ug/l	3.00	--	1
Naphthalene	ND		ug/l	4.00	--	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
2,5-Dibromotoluene-PID	88		70-130
2,5-Dibromotoluene-FID	97		70-130

**Project Name:** 300 3RD ST  
**Project Number:** 04-7590GD2

**Lab Number:** L1110813  
**Report Date:** 07/26/11

### SAMPLE RESULTS

Lab ID: L1110813-05  
 Client ID: ENV-8  
 Sample Location: CAMBRIDGE  
 Matrix: Water  
 Analytical Method: 100, VPH-04-1.1  
 Analytical Date: 07/20/11 17:28  
 Analyst: TT

Date Collected: 07/19/11 11:55  
 Date Received: 07/19/11  
 Field Prep: Not Specified

### Quality Control Information

Condition of sample received: Satisfactory  
 Aqueous Preservative: Laboratory Provided Preserved Container  
 Sample Temperature upon receipt: Received on Ice

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
<b>Volatile Petroleum Hydrocarbons - Westborough Lab</b>						
C5-C8 Aliphatics	ND		ug/l	50.0	--	1
C9-C12 Aliphatics	ND		ug/l	50.0	--	1
C9-C10 Aromatics	ND		ug/l	50.0	--	1
C5-C8 Aliphatics, Adjusted	ND		ug/l	50.0	--	1
C9-C12 Aliphatics, Adjusted	ND		ug/l	50.0	--	1
Benzene	ND		ug/l	2.00	--	1
Toluene	ND		ug/l	2.00	--	1
Ethylbenzene	ND		ug/l	2.00	--	1
p/m-Xylene	ND		ug/l	2.00	--	1
o-Xylene	ND		ug/l	2.00	--	1
Methyl tert butyl ether	ND		ug/l	3.00	--	1
Naphthalene	ND		ug/l	4.00	--	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
2,5-Dibromotoluene-PID	81		70-130
2,5-Dibromotoluene-FID	89		70-130

**Project Name:** 300 3RD ST  
**Project Number:** 04-7590GD2

**Lab Number:** L1110813  
**Report Date:** 07/26/11

**SAMPLE RESULTS**

Lab ID: L1110813-06 D  
 Client ID: ENV-9  
 Sample Location: CAMBRIDGE  
 Matrix: Water  
 Analytical Method: 100, VPH-04-1.1  
 Analytical Date: 07/26/11 07:27  
 Analyst: TT

Date Collected: 07/19/11 09:42  
 Date Received: 07/19/11  
 Field Prep: Not Specified

**Quality Control Information**

Condition of sample received: Satisfactory  
 Aqueous Preservative: Laboratory Provided Preserved Container  
 Sample Temperature upon receipt: Received on Ice

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
<b>Volatile Petroleum Hydrocarbons - Westborough Lab</b>						
C5-C8 Aliphatics	ND		ug/l	12500	--	250
C9-C12 Aliphatics	64400		ug/l	12500	--	250
C9-C10 Aromatics	12900		ug/l	12500	--	250
C5-C8 Aliphatics, Adjusted	ND		ug/l	12500	--	250
C9-C12 Aliphatics, Adjusted	25400		ug/l	12500	--	250
Benzene	ND		ug/l	500	--	250
Toluene	2380		ug/l	500	--	250
Ethylbenzene	3610		ug/l	500	--	250
p/m-Xylene	16800		ug/l	500	--	250
o-Xylene	5760		ug/l	500	--	250
Methyl tert butyl ether	ND		ug/l	750	--	250
Naphthalene	ND		ug/l	1000	--	250

Surrogate	% Recovery	Qualifier	Acceptance Criteria
2,5-Dibromotoluene-PID	79		70-130
2,5-Dibromotoluene-FID	90		70-130

**Project Name:** 300 3RD ST  
**Project Number:** 04-7590GD2

**Lab Number:** L1110813  
**Report Date:** 07/26/11

**SAMPLE RESULTS**

Lab ID: L1110813-07  
 Client ID: ENV-10  
 Sample Location: CAMBRIDGE  
 Matrix: Water  
 Analytical Method: 100, VPH-04-1.1  
 Analytical Date: 07/25/11 16:25  
 Analyst: TT

Date Collected: 07/18/11 11:05  
 Date Received: 07/19/11  
 Field Prep: Not Specified

**Quality Control Information**

Condition of sample received: Satisfactory  
 Aqueous Preservative: Laboratory Provided Preserved Container  
 Sample Temperature upon receipt: Received on Ice

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
<b>Volatile Petroleum Hydrocarbons - Westborough Lab</b>						
C5-C8 Aliphatics	ND		ug/l	50.0	--	1
C9-C12 Aliphatics	ND		ug/l	50.0	--	1
C9-C10 Aromatics	ND		ug/l	50.0	--	1
C5-C8 Aliphatics, Adjusted	ND		ug/l	50.0	--	1
C9-C12 Aliphatics, Adjusted	ND		ug/l	50.0	--	1
Benzene	ND		ug/l	2.00	--	1
Toluene	ND		ug/l	2.00	--	1
Ethylbenzene	ND		ug/l	2.00	--	1
p/m-Xylene	ND		ug/l	2.00	--	1
o-Xylene	ND		ug/l	2.00	--	1
Methyl tert butyl ether	ND		ug/l	3.00	--	1
Naphthalene	ND		ug/l	4.00	--	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
2,5-Dibromotoluene-PID	82		70-130
2,5-Dibromotoluene-FID	90		70-130

Project Name: 300 3RD ST

Lab Number: L1110813

Project Number: 04-7590GD2

Report Date: 07/26/11

**SAMPLE RESULTS**

Lab ID: L1110813-08 D  
 Client ID: ENV-11  
 Sample Location: CAMBRIDGE  
 Matrix: Water  
 Analytical Method: 100,VPH-04-1.1  
 Analytical Date: 07/26/11 00:46  
 Analyst: TT

Date Collected: 07/18/11 10:24  
 Date Received: 07/19/11  
 Field Prep: Not Specified

**Quality Control Information**

Condition of sample received: Satisfactory  
 Aqueous Preservative: Laboratory Provided Preserved Container  
 Sample Temperature upon receipt: Received on Ice

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
<b>Volatile Petroleum Hydrocarbons - Westborough Lab</b>						
C5-C8 Aliphatics	936		ug/l	250	--	5
C9-C12 Aliphatics	443		ug/l	250	--	5
C9-C10 Aromatics	ND		ug/l	250	--	5
C5-C8 Aliphatics, Adjusted	710		ug/l	250	--	5
C9-C12 Aliphatics, Adjusted	443		ug/l	250	--	5
Benzene	225		ug/l	10.0	--	5
Toluene	ND		ug/l	10.0	--	5
Ethylbenzene	ND		ug/l	10.0	--	5
p/m-Xylene	ND		ug/l	10.0	--	5
o-Xylene	ND		ug/l	10.0	--	5
Methyl tert butyl ether	ND		ug/l	15.0	--	5
Naphthalene	ND		ug/l	20.0	--	5

Surrogate	% Recovery	Qualifier	Acceptance Criteria
2,5-Dibromotoluene-PID	74		70-130
2,5-Dibromotoluene-FID	84		70-130



**Project Name:** 300 3RD ST  
**Project Number:** 04-7590GD2

**Lab Number:** L1110813  
**Report Date:** 07/26/11

**SAMPLE RESULTS**

Lab ID: L1110813-09 D  
 Client ID: MW-60  
 Sample Location: CAMBRIDGE  
 Matrix: Water  
 Analytical Method: 100, VPH-04-1.1  
 Analytical Date: 07/26/11 02:26  
 Analyst: TT

Date Collected: 07/19/11 08:25  
 Date Received: 07/19/11  
 Field Prep: Not Specified

**Quality Control Information**

Condition of sample received: Satisfactory  
 Aqueous Preservative: Laboratory Provided Preserved Container  
 Sample Temperature upon receipt: Received on Ice

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
<b>Volatile Petroleum Hydrocarbons - Westborough Lab</b>						
C5-C8 Aliphatics	1570		ug/l	500	--	10
C9-C12 Aliphatics	1060		ug/l	500	--	10
C9-C10 Aromatics	ND		ug/l	500	--	10
C5-C8 Aliphatics, Adjusted	835		ug/l	500	--	10
C9-C12 Aliphatics, Adjusted	1020		ug/l	500	--	10
Benzene	662		ug/l	20.0	--	10
Toluene	71.0		ug/l	20.0	--	10
Ethylbenzene	47.8		ug/l	20.0	--	10
p/m-Xylene	ND		ug/l	20.0	--	10
o-Xylene	ND		ug/l	20.0	--	10
Methyl tert butyl ether	ND		ug/l	30.0	--	10
Naphthalene	121		ug/l	40.0	--	10

Surrogate	% Recovery	Qualifier	Acceptance Criteria
2,5-Dibromotoluene-PID	74		70-130
2,5-Dibromotoluene-FID	84		70-130

**Project Name:** 300 3RD ST  
**Project Number:** 04-7590GD2

**Lab Number:** L1110813  
**Report Date:** 07/26/11

**SAMPLE RESULTS**

Lab ID: L1110813-10 D  
 Client ID: B-201  
 Sample Location: CAMBRIDGE  
 Matrix: Water  
 Analytical Method: 100, VPH-04-1.1  
 Analytical Date: 07/26/11 05:47  
 Analyst: TT

Date Collected: 07/18/11 08:55  
 Date Received: 07/19/11  
 Field Prep: Not Specified

**Quality Control Information**

Condition of sample received: Satisfactory  
 Aqueous Preservative: Laboratory Provided Preserved Container  
 Sample Temperature upon receipt: Received on Ice

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
<b>Volatile Petroleum Hydrocarbons - Westborough Lab</b>						
C5-C8 Aliphatics	ND		ug/l	2500	--	50
C9-C12 Aliphatics	12300		ug/l	2500	--	50
C9-C10 Aromatics	3120		ug/l	2500	--	50
C5-C8 Aliphatics, Adjusted	ND		ug/l	2500	--	50
C9-C12 Aliphatics, Adjusted	5620		ug/l	2500	--	50
Benzene	360		ug/l	100	--	50
Toluene	409		ug/l	100	--	50
Ethylbenzene	762		ug/l	100	--	50
p/m-Xylene	2000		ug/l	100	--	50
o-Xylene	834		ug/l	100	--	50
Methyl tert butyl ether	ND		ug/l	150	--	50
Naphthalene	ND		ug/l	200	--	50

Surrogate	% Recovery	Qualifier	Acceptance Criteria
2,5-Dibromotoluene-PID	80		70-130
2,5-Dibromotoluene-FID	90		70-130

**Project Name:** 300 3RD ST  
**Project Number:** 04-7590GD2

**Lab Number:** L1110813  
**Report Date:** 07/26/11

**SAMPLE RESULTS**

Lab ID: L1110813-11 D  
 Client ID: ENV-999  
 Sample Location: CAMBRIDGE  
 Matrix: Water  
 Analytical Method: 100,VPH-04-1.1  
 Analytical Date: 07/26/11 06:37  
 Analyst: TT

Date Collected: 07/18/11 08:55  
 Date Received: 07/19/11  
 Field Prep: Not Specified

**Quality Control Information**

Condition of sample received: Satisfactory  
 Aqueous Preservative: Laboratory Provided Preserved Container  
 Sample Temperature upon receipt: Received on Ice

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
<b>Volatile Petroleum Hydrocarbons - Westborough Lab</b>						
C5-C8 Aliphatics	ND		ug/l	2500	--	50
C9-C12 Aliphatics	11600		ug/l	2500	--	50
C9-C10 Aromatics	2900		ug/l	2500	--	50
C5-C8 Aliphatics, Adjusted	ND		ug/l	2500	--	50
C9-C12 Aliphatics, Adjusted	5570		ug/l	2500	--	50
Benzene	352		ug/l	100	--	50
Toluene	381		ug/l	100	--	50
Ethylbenzene	672		ug/l	100	--	50
p/m-Xylene	1720		ug/l	100	--	50
o-Xylene	747		ug/l	100	--	50
Methyl tert butyl ether	ND		ug/l	150	--	50
Naphthalene	ND		ug/l	200	--	50

Surrogate	% Recovery	Qualifier	Acceptance Criteria
2,5-Dibromotoluene-PID	80		70-130
2,5-Dibromotoluene-FID	91		70-130

**Project Name:** 300 3RD ST  
**Project Number:** 04-7590GD2

**Lab Number:** L1110813  
**Report Date:** 07/26/11

**Method Blank Analysis  
Batch Quality Control**

Analytical Method: 100, VPH-04-1.1  
Analytical Date: 07/20/11 12:57  
Analyst: TT

Parameter	Result	Qualifier	Units	RL	MDL
Volatile Petroleum Hydrocarbons - Westborough Lab for sample(s): 02,04-05 Batch: WG479986-3					
C5-C8 Aliphatics	ND		ug/l	50.0	--
C9-C12 Aliphatics	ND		ug/l	50.0	--
C9-C10 Aromatics	ND		ug/l	50.0	--
C5-C8 Aliphatics, Adjusted	ND		ug/l	50.0	--
C9-C12 Aliphatics, Adjusted	ND		ug/l	50.0	--
Benzene	ND		ug/l	2.00	--
Toluene	ND		ug/l	2.00	--
Ethylbenzene	ND		ug/l	2.00	--
p/m-Xylene	ND		ug/l	2.00	--
o-Xylene	ND		ug/l	2.00	--
Methyl tert butyl ether	ND		ug/l	3.00	--
Naphthalene	ND		ug/l	4.00	--

Surrogate	%Recovery	Qualifier	Acceptance Criteria
2,5-Dibromotoluene-PID	81		70-130
2,5-Dibromotoluene-FID	92		70-130

**Project Name:** 300 3RD ST  
**Project Number:** 04-7590GD2

**Lab Number:** L1110813  
**Report Date:** 07/26/11

**Method Blank Analysis  
Batch Quality Control**

Analytical Method: 100, VPH-04-1.1  
Analytical Date: 07/25/11 11:02  
Analyst: TT

Parameter	Result	Qualifier	Units	RL	MDL
Volatile Petroleum Hydrocarbons - Westborough Lab for sample(s): 06-11 Batch: WG480829-3					
C5-C8 Aliphatics	ND		ug/l	50.0	--
C9-C12 Aliphatics	ND		ug/l	50.0	--
C9-C10 Aromatics	ND		ug/l	50.0	--
C5-C8 Aliphatics, Adjusted	ND		ug/l	50.0	--
C9-C12 Aliphatics, Adjusted	ND		ug/l	50.0	--
Benzene	ND		ug/l	2.00	--
Toluene	ND		ug/l	2.00	--
Ethylbenzene	ND		ug/l	2.00	--
p/m-Xylene	ND		ug/l	2.00	--
o-Xylene	ND		ug/l	2.00	--
Methyl tert butyl ether	ND		ug/l	3.00	--
Naphthalene	ND		ug/l	4.00	--

Surrogate	%Recovery	Qualifier	Acceptance Criteria
2,5-Dibromotoluene-PID	84		70-130
2,5-Dibromotoluene-FID	94		70-130

## Lab Control Sample Analysis

### Batch Quality Control

**Project Name:** 300 3RD ST  
**Project Number:** 04-7590GD2

**Lab Number:** L1110813  
**Report Date:** 07/26/11

Parameter	LCS		LCSD		%Recovery Limits	RPD	Qual	RPD Limits
	%Recovery	Qual	%Recovery	Qual				
Volatile Petroleum Hydrocarbons - Westborough Lab Associated sample(s): 02,04-05 Batch: WG479986-1 WG479986-2								
C5-C8 Aliphatics	109		109		70-130	0		25
C9-C12 Aliphatics	83		89		70-130	7		25
C9-C10 Aromatics	92		95		70-130	3		25
Benzene	90		91		70-130	2		25
Toluene	91		95		70-130	4		25
Ethylbenzene	91		94		70-130	4		25
p/m-Xylene	93		96		70-130	3		25
o-Xylene	93		96		70-130	4		25
Methyl tert butyl ether	87		90		70-130	4		25
Naphthalene	76		84		70-130	10		25
1,2,4-Trimethylbenzene	90		93		70-130	3		25
Pentane	119		112		70-130	6		25
2-Methylpentane	114		118		70-130	3		25
2,2,4-Trimethylpentane	100		103		70-130	3		25
n-Nonane	85		89		30-130	4		25
n-Decane	86		92		70-130	7		25
n-Butylcyclohexane	90		95		70-130	6		25

## Lab Control Sample Analysis

### Batch Quality Control

**Project Name:** 300 3RD ST  
**Project Number:** 04-7590GD2

**Lab Number:** L1110813  
**Report Date:** 07/26/11

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Volatile Petroleum Hydrocarbons - Westborough Lab Associated sample(s): 02,04-05 Batch: WG479986-1 WG479986-2								

Surrogate	LCS %Recovery	Qual	LCSD %Recovery	Qual	Acceptance Criteria
2,5-Dibromotoluene-PID	72		78		70-130
2,5-Dibromotoluene-FID	79		86		70-130

Volatile Petroleum Hydrocarbons - Westborough Lab Associated sample(s): 06-11 Batch: WG480829-1 WG480829-2								
Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
C5-C8 Aliphatics	112		113		70-130	1		25
C9-C12 Aliphatics	88		101		70-130	13		25
C9-C10 Aromatics	93		96		70-130	4		25
Benzene	90		92		70-130	2		25
Toluene	92		94		70-130	2		25
Ethylbenzene	91		94		70-130	3		25
p/m-Xylene	93		96		70-130	2		25
o-Xylene	94		95		70-130	1		25
Methyl tert butyl ether	90		94		70-130	5		25

## Lab Control Sample Analysis

### Batch Quality Control

**Project Name:** 300 3RD ST  
**Project Number:** 04-7590GD2

**Lab Number:** L1110813  
**Report Date:** 07/26/11

Parameter	LCS		LCSD		%Recovery Limits	RPD	Qual	RPD Limits
	%Recovery	Qual	%Recovery	Qual				
Volatile Petroleum Hydrocarbons - Westborough Lab Associated sample(s): 06-11 Batch: WG480829-1 WG480829-2								
Naphthalene	81		88		70-130	9		25
1,2,4-Trimethylbenzene	91		94		70-130	3		25
Pentane	120		114		70-130	5		25
2-Methylpentane	118		124		70-130	5		25
2,2,4-Trimethylpentane	103		107		70-130	4		25
n-Nonane	90		96		30-130	7		25
n-Decane	91		106		70-130	16		25
n-Butylcyclohexane	95		102		70-130	7		25

Surrogate	LCS		LCSD		Acceptance Criteria
	%Recovery	Qual	%Recovery	Qual	
2,5-Dibromotoluene-PID	78		83		70-130
2,5-Dibromotoluene-FID	86		94		70-130



**Project Name:** 300 3RD ST  
**Project Number:** 04-7590GD2

**Lab Number:** L1110813  
**Report Date:** 07/26/11

### Sample Receipt and Container Information

Were project specific reporting limits specified? YES

Reagent H2O Preserved Vials Frozen on: NA

#### Cooler Information Custody Seal

##### Cooler

A Absent

#### Container Information

Container ID	Container Type	Cooler	pH	Temp deg C	Pres	Seal	Analysis(*)
L1110813-01A	Vial HCl preserved	A	N/A	3.3	Y	Absent	MCP-8260-10(14)
L1110813-01B	Vial HCl preserved	A	N/A	3.3	Y	Absent	MCP-8260-10(14)
L1110813-02A	Vial HCl preserved	A	N/A	3.3	Y	Absent	MCP-8260-10(14)
L1110813-02B	Vial HCl preserved	A	N/A	3.3	Y	Absent	MCP-8260-10(14)
L1110813-02C	Vial HCl preserved	A	N/A	3.3	Y	Absent	VPH-DELUX-10(14)
L1110813-02D	Vial HCl preserved	A	N/A	3.3	Y	Absent	VPH-DELUX-10(14)
L1110813-03A	Vial HCl preserved	A	N/A	3.3	Y	Absent	MCP-8260-10(14)
L1110813-03B	Vial HCl preserved	A	N/A	3.3	Y	Absent	MCP-8260-10(14)
L1110813-04A	Vial HCl preserved	A	N/A	3.3	Y	Absent	MCP-8260-10(14)
L1110813-04B	Vial HCl preserved	A	N/A	3.3	Y	Absent	MCP-8260-10(14)
L1110813-04C	Vial HCl preserved	A	N/A	3.3	Y	Absent	VPH-DELUX-10(14)
L1110813-04D	Vial HCl preserved	A	N/A	3.3	Y	Absent	VPH-DELUX-10(14)
L1110813-05A	Vial HCl preserved	A	N/A	3.3	Y	Absent	MCP-8260-10(14)
L1110813-05B	Vial HCl preserved	A	N/A	3.3	Y	Absent	MCP-8260-10(14)
L1110813-05C	Vial HCl preserved	A	N/A	3.3	Y	Absent	VPH-DELUX-10(14)
L1110813-05D	Vial HCl preserved	A	N/A	3.3	Y	Absent	VPH-DELUX-10(14)
L1110813-06A	Vial HCl preserved	A	N/A	3.3	Y	Absent	MCP-8260-10(14)
L1110813-06B	Vial HCl preserved	A	N/A	3.3	Y	Absent	MCP-8260-10(14)
L1110813-06C	Vial HCl preserved	A	N/A	3.3	Y	Absent	VPH-DELUX-10(14)
L1110813-06D	Vial HCl preserved	A	N/A	3.3	Y	Absent	VPH-DELUX-10(14)
L1110813-07A	Vial HCl preserved	A	N/A	3.3	Y	Absent	VPH-DELUX-10(14)
L1110813-07B	Vial HCl preserved	A	N/A	3.3	Y	Absent	VPH-DELUX-10(14)
L1110813-08A	Vial HCl preserved	A	N/A	3.3	Y	Absent	VPH-DELUX-10(14)
L1110813-08B	Vial HCl preserved	A	N/A	3.3	Y	Absent	VPH-DELUX-10(14)
L1110813-09A	Vial HCl preserved	A	N/A	3.3	Y	Absent	VPH-DELUX-10(14)
L1110813-09B	Vial HCl preserved	A	N/A	3.3	Y	Absent	VPH-DELUX-10(14)
L1110813-10A	Vial HCl preserved	A	N/A	3.3	Y	Absent	VPH-DELUX-10(14)

\*Values in parentheses indicate holding time in days

**Project Name:** 300 3RD ST  
**Project Number:** 04-7590GD2

**Lab Number:** L1110813  
**Report Date:** 07/26/11

### Container Information

Container ID	Container Type	Cooler	pH	Temp deg C	Pres	Seal	Analysis(*)
L1110813-10B	Vial HCl preserved	A	N/A	3.3	Y	Absent	VPH-DELUX-10(14)
L1110813-11A	Vial HCl preserved	A	N/A	3.3	Y	Absent	VPH-DELUX-10(14)
L1110813-11B	Vial HCl preserved	A	N/A	3.3	Y	Absent	VPH-DELUX-10(14)
L1110813-12A	Vial HCl preserved	A	N/A	3.3	Y	Absent	MCP-8260-10(14)
L1110813-12B	Vial HCl preserved	A	N/A	3.3	Y	Absent	MCP-8260-10(14)
L1110813-13A	Vial HCl preserved	A	N/A	3.3	Y	Absent	MCP-8260-10(14)

### Container Comments

L1110813-06C

L1110813-07B

L1110813-08A

L1110813-09A

L1110813-10A

L1110813-11A

\*Values in parentheses indicate holding time in days



**Project Name:** 300 3RD ST  
**Project Number:** 04-7590GD2

**Lab Number:** L1110813  
**Report Date:** 07/26/11

## GLOSSARY

### Acronyms

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

### Footnotes

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

### Terms

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

### Data Qualifiers

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

Report Format: Data Usability Report



**Project Name:** 300 3RD ST  
**Project Number:** 04-7590GD2

**Lab Number:** L1110813  
**Report Date:** 07/26/11

**Data Qualifiers**

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:** 300 3RD ST  
**Project Number:** 04-7590GD2

**Lab Number:** L1110813  
**Report Date:** 07/26/11

## REFERENCES

- 97 EPA Test Methods (SW-846) with QC Requirements & Performance Standards for the Analysis of EPA SW-846 Methods under the Massachusetts Contingency Plan, WSC-CAM-IIA, IIB, IIIA, IIIB, IIIC, IIID, VA, VB, VC, VIA, VIB, VIIIA and VIIIB, July 2010.
- 100 Method for the Determination of Volatile Petroleum Hydrocarbons (VPH), MassDEP, May 2004, Revision 1.1 with QC Requirements & Performance Standards for the Analysis of VPH under the Massachusetts Contingency Plan, WSC-CAM-IVA, July 2010.

## LIMITATION OF LIABILITIES

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

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



## Certificate/Approval Program Summary

Last revised June 7, 2011 - Westboro Facility

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

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

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

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

*Solid Waste/Soil* (Inorganic Parameters: pH, Sulfide, Aluminum, Antimony, Arsenic, Barium, Beryllium, Boron, Cadmium, Calcium, Chromium, Hexavalent Chromium, Cobalt, Copper, Iron, Lead, Magnesium, Manganese, Mercury, Molybdenum, Nickel, Potassium, Selenium, Silver, Sodium, Thallium, Tin, Vanadium, Zinc, Total Cyanide, Ignitability, Phenolics, Corrosivity, TCLP Leach (1311), SPLP Leach (1312 metals only), Reactivity. Organic Parameters: PCBs, PCBs in Oil, Organochlorine Pesticides, Technical Chlordane, Toxaphene, Extractable Petroleum Hydrocarbons (ETPH), MA-EPH, MA-VPH, Dicamba, 2,4-D, 2,4,5-T, 2,4,5-TP(Silvex), Volatile Organics, Acid Extractables (Phenols), 3,3'-Dichlorobenzidine, Phthalates, Nitrosamines, Nitroaromatics & Cyclic Ketones, PAHs, Haloethers, Chlorinated Hydrocarbons. )

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

*Drinking Water* (Inorganic Parameters: SM9215B, 9222D, 9223B, EPA 180.1, 353.2, SM2130B, 2320B, 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, 4500NH3-H, 4500NO3-F, 4500P-B, 4500P-E, 5210B, 5220D, 5310C, EPA 200.7, 200.8, 245.1. Organic Parameters: 608, 624, ME-DRO, ME-GRO, MA-EPH, MA-VPH.)

*Solid Waste/Soil* (Organic Parameters: ME-DRO, ME-GRO, MA-EPH, MA-VPH.)

### 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; ColilertQT SM9223B; MF-SM9222D.)

*Non-Potable Water* (Inorganic Parameters:, (EPA 200.8 for: Al,Sb,As,Be,Cd,Cr,Cu,Pb,Mn,Ni,Se,Ag,Tl,Zn); (EPA 200.7 for: Al,Sb,As,Be,Cd,Ca,Cr,Co,Cu,Fe,Pb,Mg,Mn,Mo,Ni,K,Se,Ag,Na,Sr,Ti,Tl, V,Zn); 245.1, SM4500H,B, EPA 120.1, SM2510B, 2540C, 2340B, 2320B, 4500CL-E, 4500F-BC, 426C, SM4500NH3-BH, (EPA 350.1 for: Ammonia-N), LCHAT 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, Aldrin, Dieldrin, DDD, DDE, DDT, Heptachlor, Heptachlor Epoxide, PCBs-Water), (EPA 625 for SVOC Acid Extractables and SVOC Base/Neutral Extractables), 600/4-81-045-PCB-Oil. Microbiology Parameters: (ColilertQT SM9223B;Enterolert-QT: SM9222D-MF.)

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

*Drinking Water* (Inorganic Parameters: SM 9222B, 9223B, 9215B, EPA 200.7, 200.8, 245.2, 300.0, SM4500CN-E, 4500H+B, 4500NO3-F, 2320B, 2510B, 2540C, 4500F-C, 5310C, 2120B, EPA 332.0. Organic Parameters: 504.1, 524.2.)

*Non-Potable Water* (Inorganic Parameters: SM9222D, 9221B, 9222B, 9221E-EC, EPA 3005A, 200.7, 200.8, 245.1, 245.2, SW-846 6010B, 6020, 7196A, 7470A, SM3500-CR-D, EPA 120.1, 300.0, 350.1, 351.1, 353.2, 410.4, 420.1, 1664A, SW-846 9010, 9030, 9040B, 9050A, SM426C, SM2120B, 2310B, 2320B, 2540B, 2540D, 4500H+B, 4500CL-E, 4500CN-E, 4500NH3-H, 4500NO3-F, 4500NO2-B, 4500P-E, 4500-S2-D, 5210B, 5220D, 2510B, 2540C, 4500F-C, 5310C, 5540C, LACHAT 10-204-00-1-A, LACHAT 10-107-06-2-D. Organic Parameters: SW-846 3510C, 5030B, 8260B, 8270C, 8330, EPA 624, 625, 608, SW-846 8082, 8081A, 8151A.)

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

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

*Drinking Water* (Inorganic Parameters: SM9222B, 9221E, 9223B, 9215B, 4500CN-CE, 4500NO3-F, 4500F-C, EPA 300.0, 200.7, 200.8, 245.2, 2540C, SM2120B, 2320B, 2510B, 5310C, SM4500H-B. Organic Parameters: EPA 332, 504.1, 524.2.)

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

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

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

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

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

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

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

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

*Drinking Water* (Organic Parameters: EPA 524.2)

*Non-Potable Water* (Inorganic Parameters: EPA 1312. Organic Parameters: EPA 3510C, 5030B, 625, 624, 608, 8081A, 8082, 8151A, 8260B, 8270C, 8330)

*Solid & Hazardous Waste* (Inorganic Parameters: EPA 350.1, 1010, 1030, 1311, 1312, 3050B, 6010B, 7196A, 7471A, 9010B, 9012A, 9014, 9040B, 9045C, 9050, 9065, SM 4500NH3-H. Organic Parameters: 3540C, 3545, 3546, 3550B,

3580A, 3630C, 5035, 8015B, 8081A, 8082, 8151A, 8260B, 8270C, 8330)

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

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

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

**Texas Commission on Environmental Quality Certificate/Lab ID: T104704476-09-1. *NELAP Accredited.***

*Non-Potable Water (Inorganic Parameters: EPA 120.1, 1664, 200.7, 200.8, 245.1, 245.2, 300.0, 350.1, 351.1, 353.2, 376.2, 410.4, 420.1, 6010, 6020, 7196, 7470, 9040, SM 2120B, 2310B, 2320B, 2510B, 2540B, 2540C, 2540D, 426C, 4500CL-E, 4500CN-E, 4500F-C, 4500H+B, 4500NH3-H, 4500NO2B, 4500P-E, 4500 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.)*

**Department of Defense Certificate/Lab ID: L2217.**

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

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

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

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

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



# CHAIN OF CUSTODY

PAGE 1 OF 2

Date Rec'd In Lab: 09/19/11

ALPHA Job #: 0110813

**ALPHA**  
WESTBORO, MA  
TEL: 508-896-9220  
FAX: 508-896-9193

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

## Client Information

Client: EMILSON  
Address: S HOLLIS ST  
S ROTUN, MA  
Phone: 978-449-0558  
Fax: \_\_\_\_\_

Email: murdoy@emilson.com  
 These samples have been previously analyzed by Alpha

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

**Project Information**  
Project Name: 3RD 3RD ST  
Project Location: Cambridge  
Project #: 04-7592662  
Project Manager: Doug Lindsay  
ALPHA Quote #: \_\_\_\_\_  
Turn-Around Time: \_\_\_\_\_

Standard  RUSH (only confirmed if re-approval w/)  
Date Due: 01/20/11 Time: \_\_\_\_\_

ALPHA Lab ID (Lab Use Only)	Sample ID	Collection Date	Time	Sample Matrix	Sampler's Initials
10813-01	ENV-1	7/18/11	1325	W	MW
02	ENV-2		1355		
03	ENV-3		1440		
04	ENV-4	7/18/11	1522		
05	ENV-8	7/19/11	1655		
06	ENV-9	7/19/11	0942	W	MW
07	ENV-10	7/18/11	1105		
08	ENV-11	7/18/11	1024		
09	MW-60	7/19/11	0835	W	MW
10	B-201	7/18/11	0855	W	MW

PLEASE ANSWER QUESTIONS ABOVE!

IS YOUR PROJECT MA MCP or CT RCP?

Relinquished By: \_\_\_\_\_  
Date/Time: \_\_\_\_\_

Received By: \_\_\_\_\_  
Date/Time: \_\_\_\_\_

Container Type: V  
Preservative: HCL HCL

**Report Information - Data Deliverables**  
 FAX  EMAIL  
 ADDEX  Add'l Deliverables

**Regulatory Requirements/Report Limits**  
 State/Fed Program: MCP Criteria: MS200 603-11913

**ANALYSIS**  
MCP-8260  
VPH

**REPORTING INFORMATION**  
 Same as Client Info  
 PO #: \_\_\_\_\_

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

**SAMPLE HANDLING**  
 Filtration: \_\_\_\_\_  
 Done  
 Not needed  
 Lab to do  
 Lab to do  
 Preservation: \_\_\_\_\_  
 (Please specify below)

**Sample Specific Comments**



# CHAIN OF CUSTODY

PAGE 2 OF 2

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

MANSHFIELD, MA  
TEL: 508-822-9500  
FAX: 508-822-3288

### Client Information

Client: ENVIRAN  
Address: 8 HAUIS ST  
STOTON MA  
Phone: 978-449-0358  
Fax: \_\_\_\_\_

Email: MWednesday@environment.com

Project Name: SD 3rd  
Project Location: Cambridge, MA  
Project #: 04-7592502  
Project Manager: D. Luedsay  
ALPHA Quote #: \_\_\_\_\_  
Turn-Around Time

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

ALPHA Lab ID (Lab Use Only)	Sample ID	Collection		Sample Matrix	Sampler's Initials
		Date	Time		

1813-11	ENV-999	7/18/11	0855 W	W	MV	X
12	ENV-998	7/19/11	1940 W	W	W	X
13	Trip Blk-b	7/19/11	---	---	---	X

Sample Specific Comments
ANALYSIS MCP-8260 VH
Sample Specific Comments

Date Rec'd in Lab: 07/19/11

Report Information - Data Deliverables

FAX  EMAIL

INDEX  Add'l Deliverables

Regulatory Requirements/Report Limits

State / Fed Program: MCP Criteria: MARSHALL SW-11213

MA MCP PRESUMPTIVE CERTAINTY --- CT REASONABLE CONFIDENCE PROTO

Are MCP Analytical Methods Required?  Yes  No

Is Matrix Spike (MS) Required on this SDG? (if yes see note in Comments)  Yes  No

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

BILLING INFORMATION

Alpha Job #: 61110813

PO #: \_\_\_\_\_

PLEASE ANSWER QUESTIONS ABOVE!

IS YOUR PROJECT  
MA MCP or CT RCP?

Relinquished By:	Date/Time	Container Type	Preservative	Received By:	Date/Time
<u>[Signature]</u>	<u>7/19/11</u>	<u>U</u>	<u>H2O</u>	<u>[Signature]</u>	<u>7/19/11</u>

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

7A  
VOLATILE CONTINUING CALIBRATION CHECK

Lab Name: Alpha Analytical Labs

SDG No.: L1110813

Instrument ID: Jack.i                      Calibration Date: 20-JUL-2011    Time: 06:32

Lab File ID: 0720A02                      Init. Calib. Date(s): 04-JUL-2      04-JUL-2

Sample No: 8260 CCAL                      Init. Calib. Times    : 08:13                      14:11

Compound	RRF	RRF	MIN RRF	%D	MAX %D
=====	=====	=====	=====	=====	=====
dichlorodifluoromethane	.52492	.50727	.1	3	20
chloromethane	.70039	.62778	.1	10	20
vinyl chloride	.72014	.66441	.1	8	20
bromomethane	.40322	.35113	.1	13	20
chloroethane	100	98.028	.1	2	20
trichlorofluoromethane	.83655	.97501	.1	-17	20
ethyl ether	.23936	.27876	.05	-16	20
1,1,-dichloroethene	.59342	.60758	.1	-2	20
carbon disulfide	1.4576	1.6076	.05	-10	20
methylene chloride	.60652	.6574	.05	-8	20
acetone	100	120	.1	-20	20
trans-1,2-dichloroethene	.6048	.64321	.1	-6	20
methyl tert butyl ether	1.1567	1.1403	.1	1	20
Ethyl-Tert-Butyl-Ether	1.3170	1.2441	.05	6	20
Diisopropyl Ether	1.4918	1.3853	.05	7	20
1,1-dichloroethane	1.0495	1.0996	.2	-5	20
cis-1,2-dichloroethene	.64358	.73363	.1	-14	20
2,2-dichloropropane	.82415	.93142	.05	-13	20
bromochloromethane	.2814	.3498	.05	-24	20
chloroform	1.0144	1.0851	.2	-7	20
carbontetrachloride	.80663	.84676	.1	-5	20
tetrahydrofuran	.11027	.12065	.05	-9	20
1,1,1-trichloroethane	.83621	.95187	.1	-14	20
Tertiary-Amyl Methyl Ether	1.1038	1.1361	.05	-3	20
1,1-dichloropropene	.7978	.7653	.05	4	20
2-butanone	.1438	.14123	.1	2	20
benzene	2.3459	2.3135	.5	1	20
1,2-dichloroethane	.59571	.64407	.1	-8	20
trichloroethene	.60089	.60161	.2	0	20
dibromomethane	.28717	.32953	.05	-15	20
1,2-dichloropropane	.57637	.54476	.1	5	20
bromodichloromethane	.77062	.79493	.2	-3	20
1,4-dioxane	.0029	.00316	.05	-9	20
cis-1,3-dichloropropene	.83903	.76611	.2	9	20
toluene	1.9231	1.7245	.4	10	20
tetrachloroethene	.9071	.90285	.2	0	20
4-methyl-2-pentanone	100	117	.1	-17	20
trans-1,3-dichloropropene	.85413	.7399	.1	13	20

F

F

FORM VII MCP-8260-10

7A  
CONTINUING CALIBRATION CHECK

Lab Name: Alpha Analytical Labs

SDG No.: L1110813

Instrument ID: Jack.i                      Calibration Date: 20-JUL-2011    Time: 06:32

Lab File ID: 0720A02                      Init. Calib. Date(s): 04-JUL-2      04-JUL-2

Sample No: 8260 CCAL                      Init. Calib. Times    : 08:13                      14:11

Compound	RRF	RRF	MIN RRF	%D	MAX %D
1,1,2-trichloroethane	.44046	.37498	.1	15	20
chlorodibromomethane	.61242	.53725	.1	12	20
1,3-dichloropropane	.87693	.76378	.05	13	20
1,2-dibromoethane	.51062	.49124	.1	4	20
2-hexanone	.22887	.23149	.1	-1	20
chlorobenzene	2.1037	1.9228	.5	9	20
ethyl benzene	3.6137	3.4217	.1	5	20
1,1,1,2-tetrachloroethane	.67014	.6265	.05	7	20
p/m xylene	1.4606	1.3897	.1	5	20
o xylene	1.4092	1.3917	.3	1	20
styrene	2.3254	2.2767	.3	2	20
bromoform	.60371	.52417	.1	13	20
isopropylbenzene	3.5894	3.5302	.1	2	20
bromobenzene	1.5107	1.3641	.05	10	20
n-propylbenzene	6.683	5.6327	.05	16	20
1,1,2,2,-tetrachloroethane	.94093	.80098	.3	15	20
2-chlorotoluene	4.4983	3.8359	.05	15	20
1,2,3-trichloropropane	.72666	.64302	.05	12	20
1,3,5-trimethylbenzene	4.6345	3.9497	.05	15	20
4-chorotoluene	4.1977	3.3835	.05	19	20
tert-butylbenzene	3.9944	3.523	.05	12	20
1,2,4-trimethylbenzene	4.6350	4.0084	.05	14	20
sec-butylbenzene	5.7010	4.8660	.05	15	20
p-isopropyltoluene	4.6636	4.2084	.05	10	20
1,3-dichlorobenzene	2.8506	2.5312	.6	11	20
1,4-dichlorobenzene	2.8556	2.6012	.5	9	20
n-butylbenzene	3.7474	3.3399	.05	11	20
1,2-dichlorobenzene	2.6854	2.3210	.4	14	20
1,2-dibromo-3-chloropropane	.14877	.1191	.05	20	20
hexachlorobutadiene	.59701	.5228	.05	12	20
1,2,4-trichlorobenzene	1.4506	1.2118	.2	16	20
naphthalene	2.7849	2.3080	.05	17	20
1,2,3-trichlorobenzene	1.1595	1.0276	.05	11	20
dibromofluoromethane	.26339	.28735	.05	-9	20
1,2-dichloroethane-d4	.24671	.25281	.05	-2	20
toluene-d8	1.2527	1.1554	.05	8	20
4-bromofluorobenzene	.77815	.68714	.05	12	20

FORM VII MCP-8260-10

7A  
CONTINUING CALIBRATION CHECK

Lab Name: Alpha Analytical Labs

SDG No.: L1110813

Instrument ID: Quimby.i      Calibration Date: 21-JUL-2011      Time: 09:16

Lab File ID: 0721A01      Init. Calib. Date(s): 04-JUL-2      04-JUL-2

Sample No: 8260 CCAL      Init. Calib. Times : 06:08      11:54

Compound	RRF	RRF	MIN RRF	%D	MAX %D	
=====	=====	=====	=====	=====	=====	
dichlorodifluoromethane	.44627	.46465	.1	-4	20	
chloromethane	.77477	.71868	.1	7	20	
vinyl chloride	.78361	.74473	.1	5	20	
bromomethane	.35709	.22404	.1	37	20	F
chloroethane	.38397	.40393	.1	-5	20	
trichlorofluoromethane	.7423	.78033	.1	-5	20	
ethyl ether	.17361	.17974	.05	-4	20	
acetone	100	65.449	.1	35	20	F
1,1,-dichloroethene	.41677	.4142	.1	1	20	
methylene chloride	.43008	.42982	.1	0	20	
carbon disulfide	1.2533	1.0590	.1	16	20	
methyl tert butyl ether	.6955	.64156	.1	8	20	
trans-1,2-dichloroethene	.42879	.34749	.1	19	20	
Diisopropyl Ether	1.3292	1.0512	.05	21	20	F
1,1-dichloroethane	.7854	.68832	.2	12	20	
Ethyl-Tert-Butyl-Ether	.8305	.67144	.05	19	20	
2-butanone	.08579	.07795	.1	9	20	F
2,2-dichloropropane	.41464	.38998	.05	6	20	
cis-1,2-dichloroethene	.40398	.3622	.1	10	20	
chloroform	.66979	.60668	.2	9	20	
bromochloromethane	.12868	.12777	.05	1	20	
tetrahydrofuran	.05345	.04335	.05	19	20	
1,1,1-trichloroethane	.56005	.49716	.1	11	20	
1,1-dichloropropene	.58735	.52814	.05	10	20	
carbontetrachloride	.44929	.40919	.1	9	20	
Tertiary-Amyl Methyl Ether	.57762	.46394	.05	20	20	
1,2-dichloroethane	.45852	.39685	.1	13	20	
benzene	1.6806	1.5332	.5	9	20	
trichloroethene	.39458	.35628	.2	10	20	
1,2-dichloropropane	.39424	.33846	.1	14	20	
bromodichloromethane	.43599	.37338	.2	14	20	
1,4-dioxane	.00108	.00123	.05	-13	20	F
dibromomethane	.14528	.14068	.05	3	20	
4-methyl-2-pentanone	.06091	.0556	.1	9	20	F
cis-1,3-dichloropropene	.47347	.38309	.2	19	20	
toluene	1.4514	1.2142	.4	16	20	
trans-1,3-dichloropropene	.47033	.3769	.1	20	20	
1,1,2-trichloroethane	.24883	.21626	.1	13	20	

FORM VII MCP-8260-10

7A  
CONTINUING CALIBRATION CHECK

Lab Name: Alpha Analytical Labs

SDG No.: L1110813

Instrument ID: Quimby.i      Calibration Date: 21-JUL-2011      Time: 09:16

Lab File ID: 0721A01      Init. Calib. Date(s): 04-JUL-2      04-JUL-2

Sample No: 8260 CCAL      Init. Calib. Times : 06:08      11:54

Compound	RRF	RRF	MIN RRF	%D	MAX %D	
2-hexanone	.18148	.13721	.1	24	20	F
1,3-dichloropropane	.57186	.49751	.05	13	20	
tetrachloroethene	.49924	.49187	.2	1	20	
chlorodibromomethane	.31597	.26358	.1	17	20	
1,2-dibromoethane	.24613	.21921	.1	11	20	
chlorobenzene	1.4584	1.2072	.5	17	20	
1,1,1,2-tetrachloroethane	.3779	.34966	.05	7	20	
ethyl benzene	2.9401	2.4640	.1	16	20	
p/m xylene	1.1457	.95635	.1	17	20	
o xylene	1.1042	.87119	.3	21	20	F
styrene	1.9186	1.4548	.31	24	20	F
isopropylbenzene	2.6624	2.2832	.1	14	20	
bromoform	.27692	.22628	.1	18	20	
1,1,2,2,-tetrachloroethane	.55172	.47036	.3	15	20	
1,2,3-trichloropropane	.4278	.36956	.05	14	20	
n-propylbenzene	3.932	3.0745	.05	22	20	F
bromobenzene	.96898	.7893	.05	19	20	
1,3,5-trimethylbenzene	3.8332	2.9480	.05	23	20	F
2-chlorotoluene	3.932	3.0745	.05	22	20	F
4-chlorotoluene	3.6619	2.8528	.05	22	20	F
tert-butylbenzene	2.8288	2.4045	.05	15	20	
1,2,4-trimethylbenzene	3.8442	3.0668	.05	20	20	F
sec-butylbenzene	3.9618	3.4240	.05	14	20	
p-isopropyltoluene	3.2709	2.8139	.05	14	20	
1,3-dichlorobenzene	1.9544	1.5750	.6	19	20	
1,4-dichlorobenzene	1.9977	1.6298	.5	18	20	
n-butylbenzene	3.6805	2.9282	.05	20	20	F
1,2-dichlorobenzene	1.6724	1.3683	.4	18	20	
1,2-dibromo-3-chloropropane	.20463	.14431	.05	29	20	F
1,2,4-trichlorobenzene	.71736	.60411	.2	16	20	
hexachlorobutadiene	100	90.566	.05	9	20	
naphthalene	1.1196	.88113	.05	21	20	F
1,2,3-trichlorobenzene	.49799	.43288	.05	13	20	
dibromofluoromethane	.21586	.22516	.05	-4	20	
1,2-dichloroethane-d4	.25522	.24225	.05	5	20	
toluene-d8	1.3927	1.3182	.05	5	20	
4-bromofluorobenzene	.9375	.8538	.05	9	20	

FORM VII MCP-8260-10



## ANALYTICAL REPORT

Lab Number:	L1223265
Client:	Environ 3 Carlisle Rd Suite 210 Westford, MA 01450
ATTN:	Doug Lindsay
Phone:	(617) 946-6100
Project Name:	04-7590GD2
Project Number:	04-7590GD2
Report Date:	12/31/12

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

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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:** 04-7590GD2  
**Project Number:** 04-7590GD2

**Lab Number:** L1223265  
**Report Date:** 12/31/12

<b>Alpha Sample ID</b>	<b>Client ID</b>	<b>Sample Location</b>	<b>Collection Date/Time</b>
L1223265-01	B-201-GW	CAMBRIDGE, MA	12/21/12 10:25
L1223265-02	ENV-9-GW	CAMBRIDGE, MA	12/21/12 12:00
L1223265-03	TRIPBLANK	CAMBRIDGE, MA	12/21/12 00:00



**Project Name:** 04-7590GD2  
**Project Number:** 04-7590GD2

**Lab Number:** L1223265  
**Report Date:** 12/31/12

### MADEP MCP Response Action Analytical Report Certification

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

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

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



**Project Name:** 04-7590GD2  
**Project Number:** 04-7590GD2

**Lab Number:** L1223265  
**Report Date:** 12/31/12

### Case Narrative

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

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

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

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

#### HOLD POLICY

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

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

**Project Name:** 04-7590GD2  
**Project Number:** 04-7590GD2

**Lab Number:** L1223265  
**Report Date:** 12/31/12

### Case Narrative (continued)

#### MCP Related Narratives

##### Volatile Organics

In reference to question G:

One or more of the target analytes did not achieve the requested CAM reporting limits.

In reference to question H:

The initial calibrations, associated with L1223265-01, -02, and -03, did not meet the method required minimum response factor on the lowest calibration standard for 1,4-Dioxane (0.00323), as well as the average response factor for 1,4-Dioxane.

The continuing calibration standards, associated with L1223265-01, -02, and -03, are outside the acceptance criteria for several compounds; however, they are within overall method allowances. Copies of the continuing calibration standards are included as addenda to this report.

##### VPH

In reference to question G:

One or more of the target analytes did not achieve the requested CAM reporting limits.

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

Authorized Signature:  Cynthia McQueen

Title: Technical Director/Representative

Date: 12/31/12

# ORGANICS

# VOLATILES

**Project Name:** 04-7590GD2**Lab Number:** L1223265**Project Number:** 04-7590GD2**Report Date:** 12/31/12**SAMPLE RESULTS**

**Lab ID:** L1223265-01      D2  
**Client ID:** B-201-GW  
**Sample Location:** CAMBRIDGE, MA  
**Matrix:** Water  
**Analytical Method:** 97,8260C  
**Analytical Date:** 12/31/12 10:27  
**Analyst:** PD

**Date Collected:** 12/21/12 10:25  
**Date Received:** 12/21/12  
**Field Prep:** Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
MCP Volatile Organics - Westborough Lab						
p/m-Xylene	5000		ug/l	100	--	50

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	109		70-130
Toluene-d8	111		70-130
4-Bromofluorobenzene	109		70-130
Dibromofluoromethane	99		70-130

Project Name: 04-7590GD2

Lab Number: L1223265

Project Number: 04-7590GD2

Report Date: 12/31/12

## SAMPLE RESULTS

Lab ID: L1223265-01 D  
 Client ID: B-201-GW  
 Sample Location: CAMBRIDGE, MA  
 Matrix: Water  
 Analytical Method: 97,8260C  
 Analytical Date: 12/27/12 16:51  
 Analyst: PD

Date Collected: 12/21/12 10:25  
 Date Received: 12/21/12  
 Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
<b>MCP Volatile Organics - Westborough Lab</b>						
Methylene chloride	ND		ug/l	40	--	20
1,1-Dichloroethane	ND		ug/l	20	--	20
Chloroform	ND		ug/l	20	--	20
Carbon tetrachloride	ND		ug/l	20	--	20
1,2-Dichloropropane	ND		ug/l	20	--	20
Dibromochloromethane	ND		ug/l	20	--	20
1,1,2-Trichloroethane	ND		ug/l	20	--	20
Tetrachloroethene	ND		ug/l	20	--	20
Chlorobenzene	ND		ug/l	20	--	20
Trichlorofluoromethane	ND		ug/l	40	--	20
1,2-Dichloroethane	ND		ug/l	20	--	20
1,1,1-Trichloroethane	ND		ug/l	20	--	20
Bromodichloromethane	ND		ug/l	20	--	20
trans-1,3-Dichloropropene	ND		ug/l	10	--	20
cis-1,3-Dichloropropene	ND		ug/l	10	--	20
1,1-Dichloropropene	ND		ug/l	40	--	20
Bromoform	ND		ug/l	40	--	20
1,1,2,2-Tetrachloroethane	ND		ug/l	20	--	20
Benzene	180		ug/l	10	--	20
Toluene	390		ug/l	20	--	20
Ethylbenzene	1400		ug/l	20	--	20
Chloromethane	ND		ug/l	40	--	20
Bromomethane	ND		ug/l	40	--	20
Vinyl chloride	ND		ug/l	20	--	20
Chloroethane	ND		ug/l	40	--	20
1,1-Dichloroethene	ND		ug/l	20	--	20
trans-1,2-Dichloroethene	ND		ug/l	20	--	20
Trichloroethene	ND		ug/l	20	--	20
1,2-Dichlorobenzene	ND		ug/l	20	--	20
1,3-Dichlorobenzene	ND		ug/l	20	--	20
1,4-Dichlorobenzene	ND		ug/l	20	--	20

Project Name: 04-7590GD2

Lab Number: L1223265

Project Number: 04-7590GD2

Report Date: 12/31/12

## SAMPLE RESULTS

Lab ID: L1223265-01 D  
 Client ID: B-201-GW  
 Sample Location: CAMBRIDGE, MA

Date Collected: 12/21/12 10:25  
 Date Received: 12/21/12  
 Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
MCP Volatile Organics - Westborough Lab						
Methyl tert butyl ether	ND		ug/l	40	--	20
p/m-Xylene	4600	E	ug/l	40	--	20
o-Xylene	2100		ug/l	20	--	20
cis-1,2-Dichloroethene	31		ug/l	20	--	20
Dibromomethane	ND		ug/l	40	--	20
1,2,3-Trichloropropane	ND		ug/l	40	--	20
Styrene	ND		ug/l	20	--	20
Dichlorodifluoromethane	ND		ug/l	40	--	20
Acetone	ND		ug/l	100	--	20
Carbon disulfide	ND		ug/l	40	--	20
2-Butanone	ND		ug/l	100	--	20
4-Methyl-2-pentanone	ND		ug/l	100	--	20
2-Hexanone	ND		ug/l	100	--	20
Bromochloromethane	ND		ug/l	40	--	20
Tetrahydrofuran	ND		ug/l	100	--	20
2,2-Dichloropropane	ND		ug/l	40	--	20
1,2-Dibromoethane	ND		ug/l	40	--	20
1,3-Dichloropropane	ND		ug/l	40	--	20
1,1,1,2-Tetrachloroethane	ND		ug/l	20	--	20
Bromobenzene	ND		ug/l	40	--	20
n-Butylbenzene	ND		ug/l	40	--	20
sec-Butylbenzene	ND		ug/l	40	--	20
tert-Butylbenzene	ND		ug/l	40	--	20
o-Chlorotoluene	ND		ug/l	40	--	20
p-Chlorotoluene	ND		ug/l	40	--	20
1,2-Dibromo-3-chloropropane	ND		ug/l	40	--	20
Hexachlorobutadiene	ND		ug/l	12	--	20
Isopropylbenzene	ND		ug/l	40	--	20
p-Isopropyltoluene	ND		ug/l	40	--	20
Naphthalene	ND		ug/l	40	--	20
n-Propylbenzene	ND		ug/l	40	--	20
1,2,3-Trichlorobenzene	ND		ug/l	40	--	20
1,2,4-Trichlorobenzene	ND		ug/l	40	--	20
1,3,5-Trimethylbenzene	ND		ug/l	40	--	20
1,2,4-Trimethylbenzene	140		ug/l	40	--	20
Ethyl ether	ND		ug/l	40	--	20
Isopropyl Ether	ND		ug/l	40	--	20
Ethyl-Tert-Butyl-Ether	ND		ug/l	40	--	20
Tertiary-Amyl Methyl Ether	ND		ug/l	40	--	20





Project Name: 04-7590GD2

Lab Number: L1223265

Project Number: 04-7590GD2

Report Date: 12/31/12

## SAMPLE RESULTS

Lab ID: L1223265-01 D  
 Client ID: B-201-GW  
 Sample Location: CAMBRIDGE, MA

Date Collected: 12/21/12 10:25  
 Date Received: 12/21/12  
 Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
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## MCP Volatile Organics - Westborough Lab

1,4-Dioxane	ND		ug/l	5000	--	20
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Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	118		70-130
Toluene-d8	112		70-130
4-Bromofluorobenzene	110		70-130
Dibromofluoromethane	103		70-130

**Project Name:** 04-7590GD2**Lab Number:** L1223265**Project Number:** 04-7590GD2**Report Date:** 12/31/12**SAMPLE RESULTS**

Lab ID: L1223265-02 D2  
 Client ID: ENV-9-GW  
 Sample Location: CAMBRIDGE, MA  
 Matrix: Water  
 Analytical Method: 97,8260C  
 Analytical Date: 12/31/12 10:59  
 Analyst: PD

Date Collected: 12/21/12 12:00  
 Date Received: 12/21/12  
 Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
MCP Volatile Organics - Westborough Lab						
Ethylbenzene	4100		ug/l	500	--	500
p/m-Xylene	16000		ug/l	1000	--	500

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	113		70-130
Toluene-d8	112		70-130
4-Bromofluorobenzene	107		70-130
Dibromofluoromethane	99		70-130

Project Name: 04-7590GD2

Lab Number: L1223265

Project Number: 04-7590GD2

Report Date: 12/31/12

## SAMPLE RESULTS

Lab ID: L1223265-02 D  
 Client ID: ENV-9-GW  
 Sample Location: CAMBRIDGE, MA  
 Matrix: Water  
 Analytical Method: 97,8260C  
 Analytical Date: 12/27/12 16:18  
 Analyst: PD

Date Collected: 12/21/12 12:00  
 Date Received: 12/21/12  
 Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
MCP Volatile Organics - Westborough Lab						
Methylene chloride	ND		ug/l	100	--	50
1,1-Dichloroethane	ND		ug/l	50	--	50
Chloroform	ND		ug/l	50	--	50
Carbon tetrachloride	ND		ug/l	50	--	50
1,2-Dichloropropane	ND		ug/l	50	--	50
Dibromochloromethane	ND		ug/l	50	--	50
1,1,2-Trichloroethane	ND		ug/l	50	--	50
Tetrachloroethene	ND		ug/l	50	--	50
Chlorobenzene	ND		ug/l	50	--	50
Trichlorofluoromethane	ND		ug/l	100	--	50
1,2-Dichloroethane	ND		ug/l	50	--	50
1,1,1-Trichloroethane	ND		ug/l	50	--	50
Bromodichloromethane	ND		ug/l	50	--	50
trans-1,3-Dichloropropene	ND		ug/l	25	--	50
cis-1,3-Dichloropropene	ND		ug/l	25	--	50
1,1-Dichloropropene	ND		ug/l	100	--	50
Bromoform	ND		ug/l	100	--	50
1,1,2,2-Tetrachloroethane	ND		ug/l	50	--	50
Benzene	ND		ug/l	25	--	50
Toluene	3100		ug/l	50	--	50
Ethylbenzene	5800	E	ug/l	50	--	50
Chloromethane	ND		ug/l	100	--	50
Bromomethane	ND		ug/l	100	--	50
Vinyl chloride	ND		ug/l	50	--	50
Chloroethane	ND		ug/l	100	--	50
1,1-Dichloroethene	ND		ug/l	50	--	50
trans-1,2-Dichloroethene	ND		ug/l	50	--	50
Trichloroethene	ND		ug/l	50	--	50
1,2-Dichlorobenzene	ND		ug/l	50	--	50
1,3-Dichlorobenzene	ND		ug/l	50	--	50
1,4-Dichlorobenzene	ND		ug/l	50	--	50

Project Name: 04-7590GD2

Lab Number: L1223265

Project Number: 04-7590GD2

Report Date: 12/31/12

## SAMPLE RESULTS

Lab ID: L1223265-02 D  
 Client ID: ENV-9-GW  
 Sample Location: CAMBRIDGE, MA

Date Collected: 12/21/12 12:00  
 Date Received: 12/21/12  
 Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
MCP Volatile Organics - Westborough Lab						
Methyl tert butyl ether	ND		ug/l	100	--	50
p/m-Xylene	22000	E	ug/l	100	--	50
o-Xylene	5900		ug/l	50	--	50
cis-1,2-Dichloroethene	ND		ug/l	50	--	50
Dibromomethane	ND		ug/l	100	--	50
1,2,3-Trichloropropane	ND		ug/l	100	--	50
Styrene	ND		ug/l	50	--	50
Dichlorodifluoromethane	ND		ug/l	100	--	50
Acetone	ND		ug/l	250	--	50
Carbon disulfide	ND		ug/l	100	--	50
2-Butanone	ND		ug/l	250	--	50
4-Methyl-2-pentanone	ND		ug/l	250	--	50
2-Hexanone	ND		ug/l	250	--	50
Bromochloromethane	ND		ug/l	100	--	50
Tetrahydrofuran	ND		ug/l	250	--	50
2,2-Dichloropropane	ND		ug/l	100	--	50
1,2-Dibromoethane	ND		ug/l	100	--	50
1,3-Dichloropropane	ND		ug/l	100	--	50
1,1,1,2-Tetrachloroethane	ND		ug/l	50	--	50
Bromobenzene	ND		ug/l	100	--	50
n-Butylbenzene	ND		ug/l	100	--	50
sec-Butylbenzene	ND		ug/l	100	--	50
tert-Butylbenzene	ND		ug/l	100	--	50
o-Chlorotoluene	ND		ug/l	100	--	50
p-Chlorotoluene	ND		ug/l	100	--	50
1,2-Dibromo-3-chloropropane	ND		ug/l	100	--	50
Hexachlorobutadiene	ND		ug/l	30	--	50
Isopropylbenzene	ND		ug/l	100	--	50
p-Isopropyltoluene	ND		ug/l	100	--	50
Naphthalene	ND		ug/l	100	--	50
n-Propylbenzene	ND		ug/l	100	--	50
1,2,3-Trichlorobenzene	ND		ug/l	100	--	50
1,2,4-Trichlorobenzene	ND		ug/l	100	--	50
1,3,5-Trimethylbenzene	100		ug/l	100	--	50
1,2,4-Trimethylbenzene	370		ug/l	100	--	50
Ethyl ether	ND		ug/l	100	--	50
Isopropyl Ether	ND		ug/l	100	--	50
Ethyl-Tert-Butyl-Ether	ND		ug/l	100	--	50
Tertiary-Amyl Methyl Ether	ND		ug/l	100	--	50



Project Name: 04-7590GD2

Lab Number: L1223265

Project Number: 04-7590GD2

Report Date: 12/31/12

## SAMPLE RESULTS

Lab ID: L1223265-02 D  
 Client ID: ENV-9-GW  
 Sample Location: CAMBRIDGE, MA

Date Collected: 12/21/12 12:00  
 Date Received: 12/21/12  
 Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
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## MCP Volatile Organics - Westborough Lab

1,4-Dioxane	ND		ug/l	12000	--	50
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Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	113		70-130
Toluene-d8	113		70-130
4-Bromofluorobenzene	110		70-130
Dibromofluoromethane	99		70-130

Project Name: 04-7590GD2

Lab Number: L1223265

Project Number: 04-7590GD2

Report Date: 12/31/12

## SAMPLE RESULTS

Lab ID: L1223265-03  
 Client ID: TRIPBLANK  
 Sample Location: CAMBRIDGE, MA  
 Matrix: Water  
 Analytical Method: 97,8260C  
 Analytical Date: 12/27/12 15:46  
 Analyst: PD

Date Collected: 12/21/12 00:00  
 Date Received: 12/21/12  
 Field Prep: Not Specified

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

Project Name: 04-7590GD2

Lab Number: L1223265

Project Number: 04-7590GD2

Report Date: 12/31/12

## SAMPLE RESULTS

Lab ID: L1223265-03  
 Client ID: TRIPBLANK  
 Sample Location: CAMBRIDGE, MA

Date Collected: 12/21/12 00:00  
 Date Received: 12/21/12  
 Field Prep: Not Specified

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



Project Name: 04-7590GD2

Lab Number: L1223265

Project Number: 04-7590GD2

Report Date: 12/31/12

## SAMPLE RESULTS

Lab ID: L1223265-03  
 Client ID: TRIPBLANK  
 Sample Location: CAMBRIDGE, MA

Date Collected: 12/21/12 00:00  
 Date Received: 12/21/12  
 Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
MCP Volatile Organics - Westborough Lab						
1,4-Dioxane	ND		ug/l	250	--	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	118		70-130
Toluene-d8	110		70-130
4-Bromofluorobenzene	109		70-130
Dibromofluoromethane	105		70-130



Project Name: 04-7590GD2

Lab Number: L1223265

Project Number: 04-7590GD2

Report Date: 12/31/12

### Method Blank Analysis Batch Quality Control

Analytical Method: 97,8260C  
 Analytical Date: 12/27/12 09:46  
 Analyst: PD

Parameter	Result	Qualifier	Units	RL	MDL
MCP Volatile Organics - Westborough Lab for sample(s): 01-03 Batch: WG581535-3					
Methylene chloride	ND		ug/l	2.0	--
1,1-Dichloroethane	ND		ug/l	1.0	--
Chloroform	ND		ug/l	1.0	--
Carbon tetrachloride	ND		ug/l	1.0	--
1,2-Dichloropropane	ND		ug/l	1.0	--
Dibromochloromethane	ND		ug/l	1.0	--
1,1,2-Trichloroethane	ND		ug/l	1.0	--
Tetrachloroethene	ND		ug/l	1.0	--
Chlorobenzene	ND		ug/l	1.0	--
Trichlorofluoromethane	ND		ug/l	2.0	--
1,2-Dichloroethane	ND		ug/l	1.0	--
1,1,1-Trichloroethane	ND		ug/l	1.0	--
Bromodichloromethane	ND		ug/l	1.0	--
trans-1,3-Dichloropropene	ND		ug/l	0.50	--
cis-1,3-Dichloropropene	ND		ug/l	0.50	--
1,1-Dichloropropene	ND		ug/l	2.0	--
Bromoform	ND		ug/l	2.0	--
1,1,2,2-Tetrachloroethane	ND		ug/l	1.0	--
Benzene	ND		ug/l	0.50	--
Toluene	ND		ug/l	1.0	--
Ethylbenzene	ND		ug/l	1.0	--
Chloromethane	ND		ug/l	2.0	--
Bromomethane	ND		ug/l	2.0	--
Vinyl chloride	ND		ug/l	1.0	--
Chloroethane	ND		ug/l	2.0	--
1,1-Dichloroethene	ND		ug/l	1.0	--
trans-1,2-Dichloroethene	ND		ug/l	1.0	--
Trichloroethene	ND		ug/l	1.0	--
1,2-Dichlorobenzene	ND		ug/l	1.0	--
1,3-Dichlorobenzene	ND		ug/l	1.0	--
1,4-Dichlorobenzene	ND		ug/l	1.0	--



Project Name: 04-7590GD2

Lab Number: L1223265

Project Number: 04-7590GD2

Report Date: 12/31/12

### Method Blank Analysis Batch Quality Control

Analytical Method: 97,8260C  
 Analytical Date: 12/27/12 09:46  
 Analyst: PD

Parameter	Result	Qualifier	Units	RL	MDL
MCP Volatile Organics - Westborough Lab for sample(s): 01-03 Batch: WG581535-3					
Methyl tert butyl ether	ND		ug/l	2.0	--
p/m-Xylene	ND		ug/l	2.0	--
o-Xylene	ND		ug/l	1.0	--
cis-1,2-Dichloroethene	ND		ug/l	1.0	--
Dibromomethane	ND		ug/l	2.0	--
1,2,3-Trichloropropane	ND		ug/l	2.0	--
Styrene	ND		ug/l	1.0	--
Dichlorodifluoromethane	ND		ug/l	2.0	--
Acetone	ND		ug/l	5.0	--
Carbon disulfide	ND		ug/l	2.0	--
2-Butanone	ND		ug/l	5.0	--
4-Methyl-2-pentanone	ND		ug/l	5.0	--
2-Hexanone	ND		ug/l	5.0	--
Bromochloromethane	ND		ug/l	2.0	--
Tetrahydrofuran	ND		ug/l	5.0	--
2,2-Dichloropropane	ND		ug/l	2.0	--
1,2-Dibromoethane	ND		ug/l	2.0	--
1,3-Dichloropropane	ND		ug/l	2.0	--
1,1,1,2-Tetrachloroethane	ND		ug/l	1.0	--
Bromobenzene	ND		ug/l	2.0	--
n-Butylbenzene	ND		ug/l	2.0	--
sec-Butylbenzene	ND		ug/l	2.0	--
tert-Butylbenzene	ND		ug/l	2.0	--
o-Chlorotoluene	ND		ug/l	2.0	--
p-Chlorotoluene	ND		ug/l	2.0	--
1,2-Dibromo-3-chloropropane	ND		ug/l	2.0	--
Hexachlorobutadiene	ND		ug/l	0.60	--
Isopropylbenzene	ND		ug/l	2.0	--
p-Isopropyltoluene	ND		ug/l	2.0	--
Naphthalene	ND		ug/l	2.0	--
n-Propylbenzene	ND		ug/l	2.0	--



Project Name: 04-7590GD2

Lab Number: L1223265

Project Number: 04-7590GD2

Report Date: 12/31/12

**Method Blank Analysis**  
**Batch Quality Control**

Analytical Method: 97,8260C  
 Analytical Date: 12/27/12 09:46  
 Analyst: PD

Parameter	Result	Qualifier	Units	RL	MDL
MCP Volatile Organics - Westborough Lab for sample(s): 01-03 Batch: WG581535-3					
1,2,3-Trichlorobenzene	ND		ug/l	2.0	--
1,2,4-Trichlorobenzene	ND		ug/l	2.0	--
1,3,5-Trimethylbenzene	ND		ug/l	2.0	--
1,2,4-Trimethylbenzene	ND		ug/l	2.0	--
Ethyl ether	ND		ug/l	2.0	--
Isopropyl Ether	ND		ug/l	2.0	--
Ethyl-Tert-Butyl-Ether	ND		ug/l	2.0	--
Tertiary-Amyl Methyl Ether	ND		ug/l	2.0	--
1,4-Dioxane	ND		ug/l	250	--

Surrogate	%Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	115		70-130
Toluene-d8	110		70-130
4-Bromofluorobenzene	105		70-130
Dibromofluoromethane	104		70-130

Project Name: 04-7590GD2

Lab Number: L1223265

Project Number: 04-7590GD2

Report Date: 12/31/12

**Method Blank Analysis**  
**Batch Quality Control**

Analytical Method: 97,8260C  
 Analytical Date: 12/31/12 09:54  
 Analyst: PD

Parameter	Result	Qualifier	Units	RL	MDL
MCP Volatile Organics - Westborough Lab for sample(s): 01-02 Batch: WG581535-6					
Benzene	ND		ug/l	0.50	--
Toluene	ND		ug/l	1.0	--
Ethylbenzene	ND		ug/l	1.0	--
p/m-Xylene	ND		ug/l	2.0	--
o-Xylene	ND		ug/l	1.0	--

Surrogate	%Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	118		70-130
Toluene-d8	112		70-130
4-Bromofluorobenzene	105		70-130
Dibromofluoromethane	103		70-130

## Lab Control Sample Analysis

### Batch Quality Control

Project Name: 04-7590GD2

Lab Number: L1223265

Project Number: 04-7590GD2

Report Date: 12/31/12

Parameter	LCS		LCSD		%Recovery Limits	RPD	Qual	RPD Limits
	%Recovery	Qual	%Recovery	Qual				
MCP Volatile Organics - Westborough Lab Associated sample(s): 01-03 Batch: WG581535-1 WG581535-2								
Methylene chloride	88		90		70-130	2		20
1,1-Dichloroethane	87		85		70-130	2		20
Chloroform	87		85		70-130	2		20
Carbon tetrachloride	90		87		70-130	3		20
1,2-Dichloropropane	85		84		70-130	1		20
Dibromochloromethane	104		97		70-130	7		20
1,1,2-Trichloroethane	110		100		70-130	10		20
Tetrachloroethene	101		97		70-130	4		20
Chlorobenzene	99		94		70-130	5		20
Trichlorofluoromethane	99		96		70-130	3		20
1,2-Dichloroethane	94		89		70-130	5		20
1,1,1-Trichloroethane	89		88		70-130	1		20
Bromodichloromethane	86		83		70-130	4		20
trans-1,3-Dichloropropene	104		97		70-130	7		20
cis-1,3-Dichloropropene	88		84		70-130	5		20
1,1-Dichloropropene	88		86		70-130	2		20
Bromoform	118		96		70-130	21	Q	20
1,1,2,2-Tetrachloroethane	128		108		70-130	17		20
Benzene	86		84		70-130	2		20
Toluene	97		92		70-130	5		20
Ethylbenzene	105		99		70-130	6		20

## Lab Control Sample Analysis

### Batch Quality Control

Project Name: 04-7590GD2

Lab Number: L1223265

Project Number: 04-7590GD2

Report Date: 12/31/12

Parameter	LCS		LCSD		%Recovery Limits	RPD	Qual	RPD Limits
	%Recovery	Qual	%Recovery	Qual				
MCP Volatile Organics - Westborough Lab Associated sample(s): 01-03 Batch: WG581535-1 WG581535-2								
Chloromethane	80		79		70-130	1		20
Bromomethane	44	Q	41	Q	70-130	7		20
Vinyl chloride	84		83		70-130	1		20
Chloroethane	100		100		70-130	0		20
1,1-Dichloroethene	86		83		70-130	4		20
trans-1,2-Dichloroethene	86		81		70-130	6		20
Trichloroethene	92		89		70-130	3		20
1,2-Dichlorobenzene	115		102		70-130	12		20
1,3-Dichlorobenzene	113		103		70-130	9		20
1,4-Dichlorobenzene	110		99		70-130	11		20
Methyl tert butyl ether	92		88		70-130	4		20
p/m-Xylene	104		100		70-130	4		20
o-Xylene	103		96		70-130	7		20
cis-1,2-Dichloroethene	80		81		70-130	1		20
Dibromomethane	86		85		70-130	1		20
1,2,3-Trichloropropane	128		110		70-130	15		20
Styrene	103		96		70-130	7		20
Dichlorodifluoromethane	90		92		70-130	2		20
Acetone	81		76		70-130	6		20
Carbon disulfide	86		85		70-130	1		20
2-Butanone	86		83		70-130	4		20

## Lab Control Sample Analysis

### Batch Quality Control

Project Name: 04-7590GD2

Lab Number: L1223265

Project Number: 04-7590GD2

Report Date: 12/31/12

Parameter	LCS		LCSD		%Recovery Limits	RPD	Qual	RPD Limits
	%Recovery	Qual	%Recovery	Qual				
MCP Volatile Organics - Westborough Lab Associated sample(s): 01-03 Batch: WG581535-1 WG581535-2								
4-Methyl-2-pentanone	91		86		70-130	6		20
2-Hexanone	106		92		70-130	14		20
Bromochloromethane	85		85		70-130	0		20
Tetrahydrofuran	96		91		70-130	5		20
2,2-Dichloropropane	92		91		70-130	1		20
1,2-Dibromoethane	103		98		70-130	5		20
1,3-Dichloropropane	104		97		70-130	7		20
1,1,1,2-Tetrachloroethane	106		97		70-130	9		20
Bromobenzene	110		101		70-130	9		20
n-Butylbenzene	121		108		70-130	11		20
sec-Butylbenzene	116		105		70-130	10		20
tert-Butylbenzene	116		105		70-130	10		20
o-Chlorotoluene	118		109		70-130	8		20
p-Chlorotoluene	118		108		70-130	9		20
1,2-Dibromo-3-chloropropane	122		107		70-130	13		20
Hexachlorobutadiene	113		100		70-130	12		20
Isopropylbenzene	103		98		70-130	5		20
p-Isopropyltoluene	117		105		70-130	11		20
Naphthalene	112		93		70-130	19		20
n-Propylbenzene	118		109		70-130	8		20
1,2,3-Trichlorobenzene	109		96		70-130	13		20

## Lab Control Sample Analysis

### Batch Quality Control

Project Name: 04-7590GD2

Lab Number: L1223265

Project Number: 04-7590GD2

Report Date: 12/31/12

Parameter	LCS		LCSD		%Recovery Limits	RPD	Qual	RPD Limits
	%Recovery	Qual	%Recovery	Qual				
MCP Volatile Organics - Westborough Lab Associated sample(s): 01-03 Batch: WG581535-1 WG581535-2								
1,2,4-Trichlorobenzene	106		94		70-130	12		20
1,3,5-Trimethylbenzene	115		109		70-130	5		20
1,2,4-Trimethylbenzene	116		104		70-130	11		20
Ethyl ether	94		90		70-130	4		20
Isopropyl Ether	90		88		70-130	2		20
Ethyl-Tert-Butyl-Ether	90		87		70-130	3		20
Tertiary-Amyl Methyl Ether	87		85		70-130	2		20
1,4-Dioxane	98		88		70-130	11		20

Surrogate	LCS		LCSD		Acceptance Criteria
	%Recovery	Qual	%Recovery	Qual	
1,2-Dichloroethane-d4	112		113		70-130
Toluene-d8	112		110		70-130
4-Bromofluorobenzene	111		107		70-130
Dibromofluoromethane	100		98		70-130



## Lab Control Sample Analysis

### Batch Quality Control

Project Name: 04-7590GD2

Lab Number: L1223265

Project Number: 04-7590GD2

Report Date: 12/31/12

Parameter	LCS		LCSD		%Recovery Limits	RPD	Qual	RPD Limits
	%Recovery	Qual	%Recovery	Qual				
MCP Volatile Organics - Westborough Lab Associated sample(s): 01-02 Batch: WG581535-4 WG581535-5								
Benzene	89		93		70-130	4		20
Toluene	109		111		70-130	2		20
Ethylbenzene	116		115		70-130	1		20
p/m-Xylene	114		113		70-130	1		20
o-Xylene	116		115		70-130	1		20

Surrogate	LCS		LCSD		Acceptance Criteria
	%Recovery	Qual	%Recovery	Qual	
1,2-Dichloroethane-d4	109		114		70-130
Toluene-d8	114		112		70-130
4-Bromofluorobenzene	110		106		70-130
Dibromofluoromethane	94		100		70-130

# PETROLEUM HYDROCARBONS

Project Name: 04-7590GD2

Lab Number: L1223265

Project Number: 04-7590GD2

Report Date: 12/31/12

**SAMPLE RESULTS**

Lab ID: L1223265-01 D  
 Client ID: B-201-GW  
 Sample Location: CAMBRIDGE, MA  
 Matrix: Water  
 Analytical Method: 100, VPH-04-1.1  
 Analytical Date: 12/24/12 16:18  
 Analyst: GT

Date Collected: 12/21/12 10:25  
 Date Received: 12/21/12  
 Field Prep: Not Specified

**Quality Control Information**

Condition of sample received: Satisfactory  
 Aqueous Preservative: Laboratory Provided Preserved Container  
 Sample Temperature upon receipt: Received on Ice

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
<b>Volatile Petroleum Hydrocarbons - Westborough Lab</b>						
C5-C8 Aliphatics	ND		ug/l	1000	--	20
C9-C12 Aliphatics	5540		ug/l	1000	--	20
C9-C10 Aromatics	3980		ug/l	1000	--	20
C5-C8 Aliphatics, Adjusted	ND		ug/l	1000	--	20
C9-C12 Aliphatics, Adjusted	ND		ug/l	1000	--	20
Benzene	177		ug/l	40.0	--	20
Toluene	332		ug/l	40.0	--	20
Ethylbenzene	1110		ug/l	40.0	--	20
p/m-Xylene	3760		ug/l	40.0	--	20
o-Xylene	1640		ug/l	40.0	--	20
Methyl tert butyl ether	ND		ug/l	60.0	--	20
Naphthalene	ND		ug/l	80.0	--	20

Surrogate	% Recovery	Qualifier	Acceptance Criteria
2,5-Dibromotoluene-PID	107		70-130
2,5-Dibromotoluene-FID	104		70-130



Project Name: 04-7590GD2

Lab Number: L1223265

Project Number: 04-7590GD2

Report Date: 12/31/12

**SAMPLE RESULTS**

Lab ID: L1223265-02 D  
 Client ID: ENV-9-GW  
 Sample Location: CAMBRIDGE, MA  
 Matrix: Water  
 Analytical Method: 100, VPH-04-1.1  
 Analytical Date: 12/24/12 17:35  
 Analyst: GT

Date Collected: 12/21/12 12:00  
 Date Received: 12/21/12  
 Field Prep: Not Specified

**Quality Control Information**

Condition of sample received: Satisfactory  
 Aqueous Preservative: Laboratory Provided Preserved Container  
 Sample Temperature upon receipt: Received on Ice

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
<b>Volatile Petroleum Hydrocarbons - Westborough Lab</b>						
C5-C8 Aliphatics	ND		ug/l	5000	--	100
C9-C12 Aliphatics	70100		ug/l	5000	--	100
C9-C10 Aromatics	7590		ug/l	5000	--	100
C5-C8 Aliphatics, Adjusted	ND		ug/l	5000	--	100
C9-C12 Aliphatics, Adjusted	36000		ug/l	5000	--	100
Benzene	ND		ug/l	200	--	100
Toluene	2430		ug/l	200	--	100
Ethylbenzene	4400		ug/l	200	--	100
p/m-Xylene	17700		ug/l	200	--	100
o-Xylene	4400		ug/l	200	--	100
Methyl tert butyl ether	ND		ug/l	300	--	100
Naphthalene	ND		ug/l	400	--	100

Surrogate	% Recovery	Qualifier	Acceptance Criteria
2,5-Dibromotoluene-PID	105		70-130
2,5-Dibromotoluene-FID	77		70-130



Project Name: 04-7590GD2

Lab Number: L1223265

Project Number: 04-7590GD2

Report Date: 12/31/12

### Method Blank Analysis Batch Quality Control

Analytical Method: 100, VPH-04-1.1

Analytical Date: 12/24/12 10:13

Analyst: GT

Parameter	Result	Qualifier	Units	RL	MDL
Volatile Petroleum Hydrocarbons - Westborough Lab for sample(s): 01-02 Batch: WG581181-3					
C5-C8 Aliphatics	ND		ug/l	50.0	--
C9-C12 Aliphatics	ND		ug/l	50.0	--
C9-C10 Aromatics	ND		ug/l	50.0	--
C5-C8 Aliphatics, Adjusted	ND		ug/l	50.0	--
C9-C12 Aliphatics, Adjusted	ND		ug/l	50.0	--
Benzene	ND		ug/l	2.00	--
Toluene	ND		ug/l	2.00	--
Ethylbenzene	ND		ug/l	2.00	--
p/m-Xylene	ND		ug/l	2.00	--
o-Xylene	ND		ug/l	2.00	--
Methyl tert butyl ether	ND		ug/l	3.00	--
Naphthalene	ND		ug/l	4.00	--

Surrogate	%Recovery	Qualifier	Acceptance Criteria
2,5-Dibromotoluene-PID	101		70-130
2,5-Dibromotoluene-FID	101		70-130

## Lab Control Sample Analysis

### Batch Quality Control

Project Name: 04-7590GD2

Lab Number: L1223265

Project Number: 04-7590GD2

Report Date: 12/31/12

Parameter	LCS		LCSD		%Recovery Limits	RPD	Qual	RPD Limits
	%Recovery	Qual	%Recovery	Qual				
Volatile Petroleum Hydrocarbons - Westborough Lab Associated sample(s): 01-02 Batch: WG581181-1 WG581181-2								
C5-C8 Aliphatics	100		98		70-130	3		25
C9-C12 Aliphatics	86		79		70-130	9		25
C9-C10 Aromatics	112		108		70-130	4		25
Benzene	102		100		70-130	2		25
Toluene	102		100		70-130	2		25
Ethylbenzene	104		102		70-130	2		25
p/m-Xylene	105		103		70-130	2		25
o-Xylene	104		101		70-130	3		25
Methyl tert butyl ether	95		95		70-130	1		25
Naphthalene	91		87		70-130	4		25
1,2,4-Trimethylbenzene	112		108		70-130	4		25
Pentane	104		101		70-130	3		25
2-Methylpentane	102		99		70-130	3		25
2,2,4-Trimethylpentane	96		94		70-130	2		25
n-Nonane	85		81		30-130	4		25
n-Decane	84		73		70-130	14		25
n-Butylcyclohexane	89		84		70-130	5		25

## Lab Control Sample Analysis

Batch Quality Control

**Project Name:** 04-7590GD2  
**Project Number:** 04-7590GD2

**Lab Number:** L1223265  
**Report Date:** 12/31/12

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Volatile Petroleum Hydrocarbons - Westborough Lab Associated sample(s): 01-02 Batch: WG581181-1 WG581181-2								

Surrogate	LCS %Recovery	Qual	LCSD %Recovery	Qual	Acceptance Criteria
2,5-Dibromotoluene-PID	84		83		70-130
2,5-Dibromotoluene-FID	80		79		70-130



Project Name: 04-7590GD2

Lab Number: L1223265

Project Number: 04-7590GD2

Report Date: 12/31/12

**Sample Receipt and Container Information**

Were project specific reporting limits specified? YES

Reagent H2O Preserved Vials Frozen on: NA

**Cooler Information Custody Seal****Cooler**

A Absent

**Container Information**

Container ID	Container Type	Cooler	pH	Temp deg C	Pres	Seal	Analysis(*)
L1223265-01A	Vial HCl preserved	A	N/A	2.2	Y	Absent	MCP-8260-10(14)
L1223265-01B	Vial HCl preserved	A	N/A	2.2	Y	Absent	MCP-8260-10(14)
L1223265-01C	Vial HCl preserved	A	N/A	2.2	Y	Absent	MCP-8260-10(14)
L1223265-01D	Vial HCl preserved	A	N/A	2.2	Y	Absent	VPH-DELUX-10(14)
L1223265-01E	Vial HCl preserved	A	N/A	2.2	Y	Absent	VPH-DELUX-10(14)
L1223265-02A	Vial HCl preserved	A	N/A	2.2	Y	Absent	MCP-8260-10(14)
L1223265-02B	Vial HCl preserved	A	N/A	2.2	Y	Absent	MCP-8260-10(14)
L1223265-02C	Vial HCl preserved	A	N/A	2.2	Y	Absent	MCP-8260-10(14)
L1223265-02D	Vial HCl preserved	A	N/A	2.2	Y	Absent	VPH-DELUX-10(14)
L1223265-02E	Vial HCl preserved	A	N/A	2.2	Y	Absent	VPH-DELUX-10(14)
L1223265-03A	Vial HCl preserved	A	N/A	2.2	Y	Absent	MCP-8260-10(14)

\*Values in parentheses indicate holding time in days





**Project Name:** 04-7590GD2  
**Project Number:** 04-7590GD2

**Lab Number:** L1223265  
**Report Date:** 12/31/12

## 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:** 04-7590GD2  
**Project Number:** 04-7590GD2

**Lab Number:** L1223265  
**Report Date:** 12/31/12

**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:** 04-7590GD2  
**Project Number:** 04-7590GD2

**Lab Number:** L1223265  
**Report Date:** 12/31/12

## REFERENCES

- 97 EPA Test Methods (SW-846) with QC Requirements & Performance Standards for the Analysis of EPA SW-846 Methods under the Massachusetts Contingency Plan, WSC-CAM-IIA, IIB, IIIA, IIIB, IIIC, IIID, VA, VB, VC, VIA, VIB, VIIIA and VIIIB, July 2010.
- 100 Method for the Determination of Volatile Petroleum Hydrocarbons (VPH), MassDEP, May 2004, Revision 1.1 with QC Requirements & Performance Standards for the Analysis of VPH under the Massachusetts Contingency Plan, WSC-CAM-IVA, July 2010.

## LIMITATION OF LIABILITIES

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

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



## 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, 4500CI-E, 4500Cn-E, 9014, Lachat 10-204-00-1-X, 1010A, 1030, 4500NO3-F, 353.2, 4500P-E, 4500SO4-E, 300.0, 4500S-D, 5310B, 5310C, 6010C, 6020A, 200.7, 200.8, 3500Cr-B, 7196A, 245.1, 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, 4500NO3-F, 5310C. **Organic Parameters:** EPA 524.2, 504.1)

*Non-Potable Water (Inorganic Parameters:* EPA 120.1, 1312, 3005A,3015, 3060A, 200.7, 200.8, 410.4, 1664A, SM2540D, 5210B, 5220D, 4500-P,BE, 245.1, 300.0, 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, 4500CI-E, 4500F-B, 4500F-C, 4500H+-B, 4500NH3-H, 4500NO2-B, 4500NO3-F, 4500S-D, 4500SO3-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 4500NH3-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, 4500NH3-H, 4500NO2B, 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, 4500NO3-F, 5310C. **Organic Parameters:** EPA 504.1, 524.2.)

*Non-Potable Water (Inorganic Parameters:* EPA 120.1, 1664A, 200.7, 200.8, 245.1, 300.0, 3005A, 3015, 1312, 6010B, 6010C, 3060A, 353.2, 420.1, 6020, 6020A, SM4500S-D, SM4500-CN-CE, Lachat 10-204-00-1-X, 7196A, 7470A, 9010B, 9040B, 2310B, 2320B, 2510B, 2540B, 2540C, 3500Cr-D, 426C, 4500CI-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, 4500NO3-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.)

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.



# CHAIN OF CUSTODY

PAGE \_\_\_\_\_ OF \_\_\_\_\_

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

MASSFIELD, MA  
TEL: 508-822-9300  
FAX: 508-922-3288

**Client Information**

Client: Environ  
Address: 3 Cowles Rd Sct 1200  
Westfield, MA  
Phone: 978 449 0366  
Fax: \_\_\_\_\_  
Email: dindsay@environcorp.com  
mccurry@environcorp.com

**Project Information**

Project Name: 04-7590GD2

Project Location: Camb. Jct, MA 300 Third St.

Project #: 04-7590GD2

Project Manager: Day Lindsay

ALPHA Quote #:

Turn-Around Time

Standard  RUSH (only confirmed if pre-approved)

Date Due: 12/31/12 Time:

**Other Project Specific Requirements/Comments/Detection Limits:**

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

ALPHA Lab ID (Lab Use Only)	Sample ID	Collection Date	Time	Sample Matrix	Sampler's Initials
<u>232651</u>	<u>B-201-GW</u>	<u>12/21/12</u>	<u>10:25</u>	<u>Water</u>	<u>MC</u>
<u>12</u>	<u>ENV-9-GW</u>	<u>↓</u>	<u>12:00</u>	<u>↓</u>	<u>MC</u>

**Report Information - Data Deliverables**

FAX  EMAIL

ADEX  Add'l Deliverables

**Regulatory Requirements/Report Limits**

State Fed Program

Criteria

**MA MCP PRESUMPTIVE CERTAINTY --- CT REASONABLE CONFIDENCE PROTO**

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

Date Rec'd in Lab: 12/21/12

ALPHA Job #: L1203265

**Billing Information**

Same as Client info

PO #:

**ANALYSIS**  
VOCS (8260)  
VPH + Targets

**SAMPLE HANDLING**  
 Done  
 Not needed  
 Lab to do  
 Preservation  
 Lab to do  
(Please specify below)

Sample Specific Comments

Container Type	Vol	Vol
Preservative		

**PLEASE ANSWER QUESTIONS ABOVE!**

**IS YOUR PROJECT  
MA MCP or CT RCP?**

Requested By: [Signature]

Date/Time: 12/21/12 17:30

Received By: [Signature]

Date/Time: 12/21/12 17:30

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





# CHAIN OF CUSTODY

PAGE \_\_\_\_ OF \_\_\_\_

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

MASSFIELD, MA  
TEL: 508-822-9300  
FAX: 508-922-3288

**Client Information**

Client: Environ  
Address: 3 Cowles Rd Sct 1200  
Westfield, MA  
Phone: 978 449 0366  
Fax: \_\_\_\_\_  
Email: dhindsay@environcorp.com  
mccurry@environcorp.com

Project Name: 04-7590GD2  
Project Location: Camb. Jg. MA Trid St.  
Project #: 04-7590GD2  
Project Manager: Day Lindsay  
ALPHA Quote #: \_\_\_\_\_  
Turn-Around Time \_\_\_\_\_

Standard  RUSH (only confirmed if pre-approved)  
Date Due: 12/31/12 Time: \_\_\_\_\_  
 These samples have been previously analyzed by Alpha

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

Date Rec'd in Lab: 12/21/12  
Report Information - Data Deliverables  
 FAX  EMAIL  
 ADEX  Add'l Deliverables

ALPHA Job #: L12023265  
Billing Information  
Same as Client info PO #: \_\_\_\_\_

Regulatory Requirements/Report Limits  
State Fed Program \_\_\_\_\_ Criteria \_\_\_\_\_  
MA MCP PRESUMPTIVE CERTAINTY --- CT REASONABLE CONFIDENCE PROTO

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

**ANALYSIS**  
VOCs (8260)  
VPH + Targets

**SAMPLE HANDLING**  
Filtration \_\_\_\_\_  
 Done  
 Not needed  
 Lab to do  
Preservation \_\_\_\_\_  
 Lab to do  
(Please specify below)  
Sample Specific Comments \_\_\_\_\_

ALPHA Lab ID (Lab Use Only)	Sample ID	Collection		Sample Matrix	Sampler's Initials	Container Type	Date/Time	Received By:	Date/Time
		Date	Time						
<u>2326511</u>	<u>B-201-GW</u>	<u>12/21/12</u>	<u>10:25</u>	<u>Water</u>	<u>MC</u>	<u>gk</u>	<u>12/21/12 17:30</u>	<u>[Signature]</u>	<u>12/21/12 17:30</u>
	<u>12</u>	<u>ENV-9-GW</u>	<u>12:00</u>	<u>Water</u>	<u>MC</u>	<u>gk</u>	<u>12/21/12 18:30</u>	<u>[Signature]</u>	<u>12/21/12 18:30</u>
	<u>3</u>	<u>Trip Blank</u>				<u>gk</u>			

PLEASE ANSWER QUESTIONS ABOVE!

IS YOUR PROJECT  
MA MCP OR CT RCP?

Requested By: [Signature] Date/Time: 12/21/12 17:30  
Received By: [Signature] Date/Time: 12/21/12 17:30

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



7A  
CONTINUING CALIBRATION CHECK

Lab Name: Alpha Analytical Labs

SDG No.: L1223265

Instrument ID: Jack.i                      Calibration Date: 27-DEC-2012    Time: 08:40

Lab File ID: 1227A06                      Init. Calib. Date(s): 02-DEC-2      03-DEC-2

Sample No: wg581-1,31,10                Init. Calib. Times    : 23:40                      03:10

Compound	RRF	RRF	MIN RRF	%D	MAX %D
dichlorodifluoromethane	.44231	.39662	.1	-10	20
chloromethane	.69611	.55972	.1	-20	20
vinyl chloride	.61522	.51441	.1	-16	20
bromomethane	.34023	.15096	.1	-56	20
chloroethane	.35211	.35418	.1	1	20
trichlorofluoromethane	.80004	.79112	.1	-1	20
ethyl ether	.26453	.24954	.05	-6	20
1,1,-dichloroethene	.53719	.46257	.1	-14	20
carbon disulfide	1.3400	1.1576	.1	-14	20
methylene chloride	.60767	.53695	.1	-12	20
acetone	.15315	.12459	.1	-19	20
trans-1,2-dichloroethene	.60344	.5174	.1	-14	20
methyl tert butyl ether	1.1839	1.0916	.1	-8	20
Ethyl-Tert-Butyl-Ether	1.5022	1.3568	.05	-10	20
Diisopropyl Ether	1.8402	1.6563	.01	-10	20
1,1-dichloroethane	1.0820	.93988	.2	-13	20
cis-1,2-dichloroethene	.69264	.55627	.1	-20	20
2,2-dichloropropane	.83161	.76798	.05	-8	20
bromochloromethane	.31969	.2726	.05	-15	20
chloroform	1.0619	.92438	.2	-13	20
carbontetrachloride	.83908	.75296	.1	-10	20
tetrahydrofuran	.14512	.13956	.05	-4	20
1,1,1-trichloroethane	.95041	.84445	.1	-11	20
Tertiary-Amyl Methyl Ether	1.2343	1.0734	.05	-13	20
1,1-dichloropropene	.81637	.71462	.05	-12	20
2-butanone	.19602	.16911	.1	-14	20
benzene	2.4143	2.0833	.5	-14	20
1,2-dichloroethane	.70333	.65747	.1	-7	20
trichloroethene	.59493	.54849	.2	-8	20
dibromomethane	.31911	.27505	.05	-14	20
1,2-dichloropropane	.58731	.5011	.1	-15	20
bromodichloromethane	.75232	.64683	.2	-14	20
1,4-dioxane	.0037	.00364	.05	-2	20
cis-1,3-dichloropropene	.84765	.74443	.2	-12	20
toluene	1.6814	1.6361	.4	-3	20
tetrachloroethene	.72008	.72968	.2	1	20
4-methyl-2-pentanone	.12715	.11564	.1	-9	20
trans-1,3-dichloropropene	.73014	.75712	.1	4	20

FORM VII MCP-8260-10

7A  
CONTINUING CALIBRATION CHECK

Lab Name: Alpha Analytical Labs

SDG No.: L1223265

Instrument ID: Jack.i                      Calibration Date: 27-DEC-2012    Time: 08:40

Lab File ID: 1227A06                      Init. Calib. Date(s): 02-DEC-2      03-DEC-2

Sample No: wg581-1,31,10                Init. Calib. Times    : 23:40                      03:10

Compound	RRF	RRF	MIN RRF	%D	MAX %D
1,1,2-trichloroethane	.3643	.40108	.1	10	20
chlorodibromomethane	.5418	.5641	.1	4	20
1,3-dichloropropane	.78516	.8148	.05	4	20
1,2-dibromoethane	.47566	.49025	.1	3	20
2-hexanone	.26817	.2852	.1	6	20
chlorobenzene	1.8295	1.8084	.5	-1	20
ethyl benzene	2.9682	3.1275	.1	5	20
1,1,1,2-tetrachloroethane	.60201	.63886	.05	6	20
p/m xylene	1.1946	1.2456	.1	4	20
o xylene	1.1367	1.1708	.3	3	20
styrene	1.8255	1.8798	.3	3	20
bromoform	.50481	.59381	.1	18	20
isopropylbenzene	2.8298	2.9159	.1	3	20
bromobenzene	1.3302	1.4637	.05	10	20
n-propylbenzene	4.8796	5.7723	.05	18	20
1,1,2,2,-tetrachloroethane	.87903	1.1218	.3	28	20
2-chlorotoluene	3.5502	4.2012	.05	18	20
1,2,3-trichloropropane	.68021	.8742	.05	29	20
1,3,5-trimethylbenzene	3.4398	3.9448	.05	15	20
4-chlorotoluene	3.2344	3.8064	.05	18	20
tert-butylbenzene	3.1484	3.6406	.05	16	20
1,2,4-trimethylbenzene	3.4375	3.9934	.05	16	20
sec-butylbenzene	4.1431	4.8015	.01	16	20
p-isopropyltoluene	3.4190	4.0080	.05	17	20
1,3-dichlorobenzene	2.2801	2.5813	.6	13	20
1,4-dichlorobenzene	2.3599	2.6041	.5	10	20
n-butylbenzene	2.5569	3.1045	.05	21	20
1,2-dichlorobenzene	2.1802	2.5022	.4	15	20
1,2-dibromo-3-chloropropane	.1395	.17083	.05	22	20
hexachlorobutadiene	.38423	.4352	.05	13	20
1,2,4-trichlorobenzene	1.0936	1.1538	.2	6	20
naphthalene	2.3790	2.6771	.05	13	20
1,2,3-trichlorobenzene	.90722	.98891	.05	9	20
dibromofluoromethane	.27471	.27369	.05	0	20
1,2-dichloroethane-d4	.2611	.29305	.05	12	20
toluene-d8	1.0935	1.2215	.01	12	20
4-bromofluorobenzene	.81013	.9013	.05	11	20

F

F

F

F

FORM VII MCP-8260-10



## ANALYTICAL REPORT

Lab Number:	L1316679
Client:	Haley & Aldrich, Inc. 465 Medford Street, Suite 2200 Charlestown, MA 02129-1400
ATTN:	Keith Johnson
Phone:	(617) 886-7400
Project Name:	100 BINNEY STREET
Project Number:	34250-021
Report Date:	08/30/13

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.

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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:** 100 BINNEY STREET  
**Project Number:** 34250-021

**Lab Number:** L1316679  
**Report Date:** 08/30/13

<b>Alpha Sample ID</b>	<b>Client ID</b>	<b>Sample Location</b>	<b>Collection Date/Time</b>
L1316679-01	HA-B2-08-27-2013	Not Specified	08/27/13 13:00
L1316679-02	ENV-17(OW)-08-27-2013	Not Specified	08/27/13 14:00
L1316679-03	MW-60-08-27-2013	Not Specified	08/27/13 15:15

Project Name: 100 BINNEY STREET

Lab Number: L1316679

Project Number: 34250-021

Report Date: 08/30/13

**MADEP MCP Response Action Analytical Report Certification**

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

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

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



**Project Name:** 100 BINNEY STREET  
**Project Number:** 34250-021

**Lab Number:** L1316679  
**Report Date:** 08/30/13

### 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:** 100 BINNEY STREET  
**Project Number:** 34250-021

**Lab Number:** L1316679  
**Report Date:** 08/30/13

### Case Narrative (continued)

#### MCP Related Narratives

##### Volatile Organics

In reference to question G:

L1316679-01, -02 and -03 (all submitted samples): One or more of the target analytes did not achieve the requested CAM reporting limits.

In reference to question H:

The initial calibration, associated with L1316679-01, -02 and -03 (all submitted samples) did not meet the method required minimum response factor on the lowest calibration standard for 1,4-dioxane (0.00298), as well as the average response factor for 1,4-dioxane. In addition, a quadratic fit was utilized for carbon tetrachloride, acetone and 2,2-dichloropropane.

The continuing calibration standard, associated with L1316679-01, -02 and -03 (all submitted samples), is outside the acceptance criteria for bromomethane and 1,4-dioxane; however, it is within overall method allowances.

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

Authorized Signature:  Cynthia McQueen

Title: Technical Director/Representative

Date: 08/30/13

# ORGANICS

# VOLATILES

**Project Name:** 100 BINNEY STREET**Lab Number:** L1316679**Project Number:** 34250-021**Report Date:** 08/30/13**SAMPLE RESULTS**

Lab ID: L1316679-01 D  
 Client ID: HA-B2-08-27-2013  
 Sample Location: Not Specified  
 Matrix: Water  
 Analytical Method: 97,8260C  
 Analytical Date: 08/29/13 11:24  
 Analyst: MM

Date Collected: 08/27/13 13:00  
 Date Received: 08/27/13  
 Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
<b>MCP Volatile Organics - Westborough Lab</b>						
Methylene chloride	ND		ug/l	50	--	25
1,1-Dichloroethane	ND		ug/l	25	--	25
Chloroform	ND		ug/l	25	--	25
Carbon tetrachloride	ND		ug/l	25	--	25
1,2-Dichloropropane	ND		ug/l	25	--	25
Dibromochloromethane	ND		ug/l	25	--	25
1,1,2-Trichloroethane	ND		ug/l	25	--	25
Tetrachloroethene	ND		ug/l	25	--	25
Chlorobenzene	ND		ug/l	25	--	25
Trichlorofluoromethane	ND		ug/l	50	--	25
1,2-Dichloroethane	ND		ug/l	25	--	25
1,1,1-Trichloroethane	ND		ug/l	25	--	25
Bromodichloromethane	ND		ug/l	25	--	25
trans-1,3-Dichloropropene	ND		ug/l	12	--	25
cis-1,3-Dichloropropene	ND		ug/l	12	--	25
1,1-Dichloropropene	ND		ug/l	50	--	25
Bromoform	ND		ug/l	50	--	25
1,1,2,2-Tetrachloroethane	ND		ug/l	25	--	25
Benzene	1900		ug/l	12	--	25
Toluene	ND		ug/l	25	--	25
Ethylbenzene	48		ug/l	25	--	25
Chloromethane	ND		ug/l	50	--	25
Bromomethane	ND		ug/l	50	--	25
Vinyl chloride	ND		ug/l	25	--	25
Chloroethane	ND		ug/l	50	--	25
1,1-Dichloroethene	ND		ug/l	25	--	25
trans-1,2-Dichloroethene	ND		ug/l	25	--	25
Trichloroethene	ND		ug/l	25	--	25
1,2-Dichlorobenzene	ND		ug/l	25	--	25
1,3-Dichlorobenzene	ND		ug/l	25	--	25
1,4-Dichlorobenzene	ND		ug/l	25	--	25

Project Name: 100 BINNEY STREET

Lab Number: L1316679

Project Number: 34250-021

Report Date: 08/30/13

## SAMPLE RESULTS

Lab ID: L1316679-01 D  
 Client ID: HA-B2-08-27-2013  
 Sample Location: Not Specified

Date Collected: 08/27/13 13:00  
 Date Received: 08/27/13  
 Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
<b>MCP Volatile Organics - Westborough Lab</b>						
Methyl tert butyl ether	ND		ug/l	50	--	25
p/m-Xylene	ND		ug/l	50	--	25
o-Xylene	ND		ug/l	25	--	25
cis-1,2-Dichloroethene	ND		ug/l	25	--	25
Dibromomethane	ND		ug/l	50	--	25
1,2,3-Trichloropropane	ND		ug/l	50	--	25
Styrene	ND		ug/l	25	--	25
Dichlorodifluoromethane	ND		ug/l	50	--	25
Acetone	ND		ug/l	120	--	25
Carbon disulfide	ND		ug/l	50	--	25
2-Butanone	ND		ug/l	120	--	25
4-Methyl-2-pentanone	ND		ug/l	120	--	25
2-Hexanone	ND		ug/l	120	--	25
Bromochloromethane	ND		ug/l	50	--	25
Tetrahydrofuran	ND		ug/l	50	--	25
2,2-Dichloropropane	ND		ug/l	50	--	25
1,2-Dibromoethane	ND		ug/l	50	--	25
1,3-Dichloropropane	ND		ug/l	50	--	25
1,1,1,2-Tetrachloroethane	ND		ug/l	25	--	25
Bromobenzene	ND		ug/l	50	--	25
n-Butylbenzene	ND		ug/l	50	--	25
sec-Butylbenzene	ND		ug/l	50	--	25
tert-Butylbenzene	ND		ug/l	50	--	25
o-Chlorotoluene	ND		ug/l	50	--	25
p-Chlorotoluene	ND		ug/l	50	--	25
1,2-Dibromo-3-chloropropane	ND		ug/l	50	--	25
Hexachlorobutadiene	ND		ug/l	15	--	25
Isopropylbenzene	ND		ug/l	50	--	25
p-Isopropyltoluene	ND		ug/l	50	--	25
Naphthalene	ND		ug/l	50	--	25
n-Propylbenzene	ND		ug/l	50	--	25
1,2,3-Trichlorobenzene	ND		ug/l	50	--	25
1,2,4-Trichlorobenzene	ND		ug/l	50	--	25
1,3,5-Trimethylbenzene	ND		ug/l	50	--	25
1,2,4-Trimethylbenzene	ND		ug/l	50	--	25
Ethyl ether	ND		ug/l	50	--	25
Isopropyl Ether	ND		ug/l	50	--	25
Ethyl-Tert-Butyl-Ether	ND		ug/l	50	--	25
Tertiary-Amyl Methyl Ether	ND		ug/l	50	--	25

**Project Name:** 100 BINNEY STREET**Lab Number:** L1316679**Project Number:** 34250-021**Report Date:** 08/30/13**SAMPLE RESULTS**

Lab ID: L1316679-01 D

Date Collected: 08/27/13 13:00

Client ID: HA-B2-08-27-2013

Date Received: 08/27/13

Sample Location: Not Specified

Field Prep: Not Specified

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

## MCP Volatile Organics - Westborough Lab

1,4-Dioxane	ND		ug/l	6200	--	25
-------------	----	--	------	------	----	----

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

**Project Name:** 100 BINNEY STREET**Lab Number:** L1316679**Project Number:** 34250-021**Report Date:** 08/30/13**SAMPLE RESULTS**

Lab ID: L1316679-02 D  
 Client ID: ENV-17(OW)-08-27-2013  
 Sample Location: Not Specified  
 Matrix: Water  
 Analytical Method: 97,8260C  
 Analytical Date: 08/29/13 11:55  
 Analyst: MM

Date Collected: 08/27/13 14:00  
 Date Received: 08/27/13  
 Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
<b>MCP Volatile Organics - Westborough Lab</b>						
Methylene chloride	ND		ug/l	50	--	25
1,1-Dichloroethane	ND		ug/l	25	--	25
Chloroform	ND		ug/l	25	--	25
Carbon tetrachloride	ND		ug/l	25	--	25
1,2-Dichloropropane	ND		ug/l	25	--	25
Dibromochloromethane	ND		ug/l	25	--	25
1,1,2-Trichloroethane	ND		ug/l	25	--	25
Tetrachloroethene	ND		ug/l	25	--	25
Chlorobenzene	ND		ug/l	25	--	25
Trichlorofluoromethane	ND		ug/l	50	--	25
1,2-Dichloroethane	ND		ug/l	25	--	25
1,1,1-Trichloroethane	ND		ug/l	25	--	25
Bromodichloromethane	ND		ug/l	25	--	25
trans-1,3-Dichloropropene	ND		ug/l	12	--	25
cis-1,3-Dichloropropene	ND		ug/l	12	--	25
1,1-Dichloropropene	ND		ug/l	50	--	25
Bromoform	ND		ug/l	50	--	25
1,1,2,2-Tetrachloroethane	ND		ug/l	25	--	25
Benzene	2100		ug/l	12	--	25
Toluene	54		ug/l	25	--	25
Ethylbenzene	880		ug/l	25	--	25
Chloromethane	ND		ug/l	50	--	25
Bromomethane	ND		ug/l	50	--	25
Vinyl chloride	ND		ug/l	25	--	25
Chloroethane	ND		ug/l	50	--	25
1,1-Dichloroethene	ND		ug/l	25	--	25
trans-1,2-Dichloroethene	ND		ug/l	25	--	25
Trichloroethene	ND		ug/l	25	--	25
1,2-Dichlorobenzene	ND		ug/l	25	--	25
1,3-Dichlorobenzene	ND		ug/l	25	--	25
1,4-Dichlorobenzene	ND		ug/l	25	--	25

**Project Name:** 100 BINNEY STREET**Lab Number:** L1316679**Project Number:** 34250-021**Report Date:** 08/30/13**SAMPLE RESULTS**

Lab ID: L1316679-02 D  
 Client ID: ENV-17(OW)-08-27-2013  
 Sample Location: Not Specified

Date Collected: 08/27/13 14:00  
 Date Received: 08/27/13  
 Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
<b>MCP Volatile Organics - Westborough Lab</b>						
Methyl tert butyl ether	ND		ug/l	50	--	25
p/m-Xylene	170		ug/l	50	--	25
o-Xylene	120		ug/l	25	--	25
cis-1,2-Dichloroethene	ND		ug/l	25	--	25
Dibromomethane	ND		ug/l	50	--	25
1,2,3-Trichloropropane	ND		ug/l	50	--	25
Styrene	ND		ug/l	25	--	25
Dichlorodifluoromethane	ND		ug/l	50	--	25
Acetone	ND		ug/l	120	--	25
Carbon disulfide	ND		ug/l	50	--	25
2-Butanone	ND		ug/l	120	--	25
4-Methyl-2-pentanone	ND		ug/l	120	--	25
2-Hexanone	ND		ug/l	120	--	25
Bromochloromethane	ND		ug/l	50	--	25
Tetrahydrofuran	ND		ug/l	50	--	25
2,2-Dichloropropane	ND		ug/l	50	--	25
1,2-Dibromoethane	ND		ug/l	50	--	25
1,3-Dichloropropane	ND		ug/l	50	--	25
1,1,1,2-Tetrachloroethane	ND		ug/l	25	--	25
Bromobenzene	ND		ug/l	50	--	25
n-Butylbenzene	ND		ug/l	50	--	25
sec-Butylbenzene	ND		ug/l	50	--	25
tert-Butylbenzene	ND		ug/l	50	--	25
o-Chlorotoluene	ND		ug/l	50	--	25
p-Chlorotoluene	ND		ug/l	50	--	25
1,2-Dibromo-3-chloropropane	ND		ug/l	50	--	25
Hexachlorobutadiene	ND		ug/l	15	--	25
Isopropylbenzene	ND		ug/l	50	--	25
p-Isopropyltoluene	ND		ug/l	50	--	25
Naphthalene	610		ug/l	50	--	25
n-Propylbenzene	ND		ug/l	50	--	25
1,2,3-Trichlorobenzene	ND		ug/l	50	--	25
1,2,4-Trichlorobenzene	ND		ug/l	50	--	25
1,3,5-Trimethylbenzene	ND		ug/l	50	--	25
1,2,4-Trimethylbenzene	66		ug/l	50	--	25
Ethyl ether	ND		ug/l	50	--	25
Isopropyl Ether	ND		ug/l	50	--	25
Ethyl-Tert-Butyl-Ether	ND		ug/l	50	--	25
Tertiary-Amyl Methyl Ether	ND		ug/l	50	--	25



**Project Name:** 100 BINNEY STREET**Lab Number:** L1316679**Project Number:** 34250-021**Report Date:** 08/30/13**SAMPLE RESULTS**

Lab ID: L1316679-02 D  
 Client ID: ENV-17(OW)-08-27-2013  
 Sample Location: Not Specified

Date Collected: 08/27/13 14:00  
 Date Received: 08/27/13  
 Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
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## MCP Volatile Organics - Westborough Lab

1,4-Dioxane	ND		ug/l	6200	--	25
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Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	100		70-130
Toluene-d8	101		70-130
4-Bromofluorobenzene	93		70-130
Dibromofluoromethane	99		70-130

**Project Name:** 100 BINNEY STREET**Lab Number:** L1316679**Project Number:** 34250-021**Report Date:** 08/30/13**SAMPLE RESULTS**

Lab ID: L1316679-03 D  
 Client ID: MW-60-08-27-2013  
 Sample Location: Not Specified  
 Matrix: Water  
 Analytical Method: 97,8260C  
 Analytical Date: 08/29/13 12:27  
 Analyst: MM

Date Collected: 08/27/13 15:15  
 Date Received: 08/27/13  
 Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
<b>MCP Volatile Organics - Westborough Lab</b>						
Methylene chloride	ND		ug/l	20	--	10
1,1-Dichloroethane	ND		ug/l	10	--	10
Chloroform	ND		ug/l	10	--	10
Carbon tetrachloride	ND		ug/l	10	--	10
1,2-Dichloropropane	ND		ug/l	10	--	10
Dibromochloromethane	ND		ug/l	10	--	10
1,1,2-Trichloroethane	ND		ug/l	10	--	10
Tetrachloroethene	ND		ug/l	10	--	10
Chlorobenzene	ND		ug/l	10	--	10
Trichlorofluoromethane	ND		ug/l	20	--	10
1,2-Dichloroethane	ND		ug/l	10	--	10
1,1,1-Trichloroethane	ND		ug/l	10	--	10
Bromodichloromethane	ND		ug/l	10	--	10
trans-1,3-Dichloropropene	ND		ug/l	5.0	--	10
cis-1,3-Dichloropropene	ND		ug/l	5.0	--	10
1,1-Dichloropropene	ND		ug/l	20	--	10
Bromoform	ND		ug/l	20	--	10
1,1,2,2-Tetrachloroethane	ND		ug/l	10	--	10
Benzene	340		ug/l	5.0	--	10
Toluene	20		ug/l	10	--	10
Ethylbenzene	53		ug/l	10	--	10
Chloromethane	ND		ug/l	20	--	10
Bromomethane	ND		ug/l	20	--	10
Vinyl chloride	ND		ug/l	10	--	10
Chloroethane	ND		ug/l	20	--	10
1,1-Dichloroethene	ND		ug/l	10	--	10
trans-1,2-Dichloroethene	ND		ug/l	10	--	10
Trichloroethene	ND		ug/l	10	--	10
1,2-Dichlorobenzene	ND		ug/l	10	--	10
1,3-Dichlorobenzene	ND		ug/l	10	--	10
1,4-Dichlorobenzene	ND		ug/l	10	--	10

Project Name: 100 BINNEY STREET

Lab Number: L1316679

Project Number: 34250-021

Report Date: 08/30/13

## SAMPLE RESULTS

Lab ID: L1316679-03 D  
 Client ID: MW-60-08-27-2013  
 Sample Location: Not Specified

Date Collected: 08/27/13 15:15  
 Date Received: 08/27/13  
 Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
<b>MCP Volatile Organics - Westborough Lab</b>						
Methyl tert butyl ether	ND		ug/l	20	--	10
p/m-Xylene	22		ug/l	20	--	10
o-Xylene	13		ug/l	10	--	10
cis-1,2-Dichloroethene	ND		ug/l	10	--	10
Dibromomethane	ND		ug/l	20	--	10
1,2,3-Trichloropropane	ND		ug/l	20	--	10
Styrene	ND		ug/l	10	--	10
Dichlorodifluoromethane	ND		ug/l	20	--	10
Acetone	ND		ug/l	50	--	10
Carbon disulfide	ND		ug/l	20	--	10
2-Butanone	ND		ug/l	50	--	10
4-Methyl-2-pentanone	ND		ug/l	50	--	10
2-Hexanone	ND		ug/l	50	--	10
Bromochloromethane	ND		ug/l	20	--	10
Tetrahydrofuran	ND		ug/l	20	--	10
2,2-Dichloropropane	ND		ug/l	20	--	10
1,2-Dibromoethane	ND		ug/l	20	--	10
1,3-Dichloropropane	ND		ug/l	20	--	10
1,1,1,2-Tetrachloroethane	ND		ug/l	10	--	10
Bromobenzene	ND		ug/l	20	--	10
n-Butylbenzene	ND		ug/l	20	--	10
sec-Butylbenzene	ND		ug/l	20	--	10
tert-Butylbenzene	ND		ug/l	20	--	10
o-Chlorotoluene	ND		ug/l	20	--	10
p-Chlorotoluene	ND		ug/l	20	--	10
1,2-Dibromo-3-chloropropane	ND		ug/l	20	--	10
Hexachlorobutadiene	ND		ug/l	6.0	--	10
Isopropylbenzene	ND		ug/l	20	--	10
p-Isopropyltoluene	ND		ug/l	20	--	10
Naphthalene	180		ug/l	20	--	10
n-Propylbenzene	ND		ug/l	20	--	10
1,2,3-Trichlorobenzene	ND		ug/l	20	--	10
1,2,4-Trichlorobenzene	ND		ug/l	20	--	10
1,3,5-Trimethylbenzene	ND		ug/l	20	--	10
1,2,4-Trimethylbenzene	ND		ug/l	20	--	10
Ethyl ether	ND		ug/l	20	--	10
Isopropyl Ether	ND		ug/l	20	--	10
Ethyl-Tert-Butyl-Ether	ND		ug/l	20	--	10
Tertiary-Amyl Methyl Ether	ND		ug/l	20	--	10

**Project Name:** 100 BINNEY STREET**Lab Number:** L1316679**Project Number:** 34250-021**Report Date:** 08/30/13**SAMPLE RESULTS**

Lab ID: L1316679-03 D

Date Collected: 08/27/13 15:15

Client ID: MW-60-08-27-2013

Date Received: 08/27/13

Sample Location: Not Specified

Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
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## MCP Volatile Organics - Westborough Lab

1,4-Dioxane	ND		ug/l	2500	--	10
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Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	104		70-130
Toluene-d8	99		70-130
4-Bromofluorobenzene	96		70-130
Dibromofluoromethane	103		70-130

**Project Name:** 100 BINNEY STREET  
**Project Number:** 34250-021

**Lab Number:** L1316679  
**Report Date:** 08/30/13

**Method Blank Analysis**  
**Batch Quality Control**

Analytical Method: 97,8260C  
Analytical Date: 08/29/13 07:43  
Analyst: MM

Parameter	Result	Qualifier	Units	RL	MDL
MCP Volatile Organics - Westborough Lab for sample(s): 01-03 Batch: WG632457-3					
Methylene chloride	ND		ug/l	2.0	--
1,1-Dichloroethane	ND		ug/l	1.0	--
Chloroform	ND		ug/l	1.0	--
Carbon tetrachloride	ND		ug/l	1.0	--
1,2-Dichloropropane	ND		ug/l	1.0	--
Dibromochloromethane	ND		ug/l	1.0	--
1,1,2-Trichloroethane	ND		ug/l	1.0	--
Tetrachloroethene	ND		ug/l	1.0	--
Chlorobenzene	ND		ug/l	1.0	--
Trichlorofluoromethane	ND		ug/l	2.0	--
1,2-Dichloroethane	ND		ug/l	1.0	--
1,1,1-Trichloroethane	ND		ug/l	1.0	--
Bromodichloromethane	ND		ug/l	1.0	--
trans-1,3-Dichloropropene	ND		ug/l	0.50	--
cis-1,3-Dichloropropene	ND		ug/l	0.50	--
1,1-Dichloropropene	ND		ug/l	2.0	--
Bromoform	ND		ug/l	2.0	--
1,1,2,2-Tetrachloroethane	ND		ug/l	1.0	--
Benzene	ND		ug/l	0.50	--
Toluene	ND		ug/l	1.0	--
Ethylbenzene	ND		ug/l	1.0	--
Chloromethane	ND		ug/l	2.0	--
Bromomethane	ND		ug/l	2.0	--
Vinyl chloride	ND		ug/l	1.0	--
Chloroethane	ND		ug/l	2.0	--
1,1-Dichloroethene	ND		ug/l	1.0	--
trans-1,2-Dichloroethene	ND		ug/l	1.0	--
Trichloroethene	ND		ug/l	1.0	--
1,2-Dichlorobenzene	ND		ug/l	1.0	--
1,3-Dichlorobenzene	ND		ug/l	1.0	--
1,4-Dichlorobenzene	ND		ug/l	1.0	--



**Project Name:** 100 BINNEY STREET  
**Project Number:** 34250-021

**Lab Number:** L1316679  
**Report Date:** 08/30/13

**Method Blank Analysis**  
**Batch Quality Control**

Analytical Method: 97,8260C  
Analytical Date: 08/29/13 07:43  
Analyst: MM

Parameter	Result	Qualifier	Units	RL	MDL
MCP Volatile Organics - Westborough Lab for sample(s): 01-03 Batch: WG632457-3					
Methyl tert butyl ether	ND		ug/l	2.0	--
p/m-Xylene	ND		ug/l	2.0	--
o-Xylene	ND		ug/l	1.0	--
cis-1,2-Dichloroethene	ND		ug/l	1.0	--
Dibromomethane	ND		ug/l	2.0	--
1,2,3-Trichloropropane	ND		ug/l	2.0	--
Styrene	ND		ug/l	1.0	--
Dichlorodifluoromethane	ND		ug/l	2.0	--
Acetone	ND		ug/l	5.0	--
Carbon disulfide	ND		ug/l	2.0	--
2-Butanone	ND		ug/l	5.0	--
4-Methyl-2-pentanone	ND		ug/l	5.0	--
2-Hexanone	ND		ug/l	5.0	--
Bromochloromethane	ND		ug/l	2.0	--
Tetrahydrofuran	ND		ug/l	2.0	--
2,2-Dichloropropane	ND		ug/l	2.0	--
1,2-Dibromoethane	ND		ug/l	2.0	--
1,3-Dichloropropane	ND		ug/l	2.0	--
1,1,1,2-Tetrachloroethane	ND		ug/l	1.0	--
Bromobenzene	ND		ug/l	2.0	--
n-Butylbenzene	ND		ug/l	2.0	--
sec-Butylbenzene	ND		ug/l	2.0	--
tert-Butylbenzene	ND		ug/l	2.0	--
o-Chlorotoluene	ND		ug/l	2.0	--
p-Chlorotoluene	ND		ug/l	2.0	--
1,2-Dibromo-3-chloropropane	ND		ug/l	2.0	--
Hexachlorobutadiene	ND		ug/l	0.60	--
Isopropylbenzene	ND		ug/l	2.0	--
p-Isopropyltoluene	ND		ug/l	2.0	--
Naphthalene	ND		ug/l	2.0	--
n-Propylbenzene	ND		ug/l	2.0	--



**Project Name:** 100 BINNEY STREET  
**Project Number:** 34250-021

**Lab Number:** L1316679  
**Report Date:** 08/30/13

**Method Blank Analysis**  
**Batch Quality Control**

Analytical Method: 97,8260C  
Analytical Date: 08/29/13 07:43  
Analyst: MM

Parameter	Result	Qualifier	Units	RL	MDL
MCP Volatile Organics - Westborough Lab for sample(s): 01-03 Batch: WG632457-3					
1,2,3-Trichlorobenzene	ND		ug/l	2.0	--
1,2,4-Trichlorobenzene	ND		ug/l	2.0	--
1,3,5-Trimethylbenzene	ND		ug/l	2.0	--
1,2,4-Trimethylbenzene	ND		ug/l	2.0	--
Ethyl ether	ND		ug/l	2.0	--
Isopropyl Ether	ND		ug/l	2.0	--
Ethyl-Tert-Butyl-Ether	ND		ug/l	2.0	--
Tertiary-Amyl Methyl Ether	ND		ug/l	2.0	--
1,4-Dioxane	ND		ug/l	250	--

Surrogate	%Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	106		70-130
Toluene-d8	102		70-130
4-Bromofluorobenzene	101		70-130
Dibromofluoromethane	105		70-130

## Lab Control Sample Analysis

### Batch Quality Control

Project Name: 100 BINNEY STREET

Lab Number: L1316679

Project Number: 34250-021

Report Date: 08/30/13

Parameter	LCS		LCSD		%Recovery Limits	RPD	Qual	RPD Limits
	%Recovery	Qual	%Recovery	Qual				
MCP Volatile Organics - Westborough Lab Associated sample(s): 01-03 Batch: WG632457-1 WG632457-2								
Methylene chloride	90		84		70-130	7		20
1,1-Dichloroethane	97		89		70-130	9		20
Chloroform	100		93		70-130	7		20
Carbon tetrachloride	116		108		70-130	7		20
1,2-Dichloropropane	96		88		70-130	9		20
Dibromochloromethane	103		98		70-130	5		20
1,1,2-Trichloroethane	95		90		70-130	5		20
Tetrachloroethene	100		94		70-130	6		20
Chlorobenzene	99		92		70-130	7		20
Trichlorofluoromethane	112		104		70-130	7		20
1,2-Dichloroethane	98		91		70-130	7		20
1,1,1-Trichloroethane	102		94		70-130	8		20
Bromodichloromethane	101		95		70-130	6		20
trans-1,3-Dichloropropene	102		96		70-130	6		20
cis-1,3-Dichloropropene	98		92		70-130	6		20
1,1-Dichloropropene	100		92		70-130	8		20
Bromoform	102		96		70-130	6		20
1,1,2,2-Tetrachloroethane	93		89		70-130	4		20
Benzene	98		91		70-130	7		20
Toluene	95		89		70-130	7		20
Ethylbenzene	102		95		70-130	7		20



## Lab Control Sample Analysis

### Batch Quality Control

Project Name: 100 BINNEY STREET

Lab Number: L1316679

Project Number: 34250-021

Report Date: 08/30/13

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
MCP Volatile Organics - Westborough Lab Associated sample(s): 01-03 Batch: WG632457-1 WG632457-2								
Chloromethane	80		71		70-130	12		20
Bromomethane	72		65	Q	70-130	10		20
Vinyl chloride	111		103		70-130	7		20
Chloroethane	104		94		70-130	10		20
1,1-Dichloroethene	95		87		70-130	9		20
trans-1,2-Dichloroethene	98		89		70-130	10		20
Trichloroethene	98		91		70-130	7		20
1,2-Dichlorobenzene	100		93		70-130	7		20
1,3-Dichlorobenzene	102		94		70-130	8		20
1,4-Dichlorobenzene	100		92		70-130	8		20
Methyl tert butyl ether	90		84		70-130	7		20
p/m-Xylene	102		95		70-130	7		20
o-Xylene	102		95		70-130	7		20
cis-1,2-Dichloroethene	98		89		70-130	10		20
Dibromomethane	99		92		70-130	7		20
1,2,3-Trichloropropane	92		87		70-130	6		20
Styrene	103		96		70-130	7		20
Dichlorodifluoromethane	84		80		70-130	5		20
Acetone	90		82		70-130	9		20
Carbon disulfide	94		87		70-130	8		20
2-Butanone	107		104		70-130	3		20

## Lab Control Sample Analysis

### Batch Quality Control

Project Name: 100 BINNEY STREET

Lab Number: L1316679

Project Number: 34250-021

Report Date: 08/30/13

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
MCP Volatile Organics - Westborough Lab Associated sample(s): 01-03 Batch: WG632457-1 WG632457-2								
4-Methyl-2-pentanone	93		85		70-130	9		20
2-Hexanone	92		89		70-130	3		20
Bromochloromethane	99		92		70-130	7		20
Tetrahydrofuran	88		85		70-130	3		20
2,2-Dichloropropane	107		100		70-130	7		20
1,2-Dibromoethane	99		95		70-130	4		20
1,3-Dichloropropane	96		92		70-130	4		20
1,1,1,2-Tetrachloroethane	105		101		70-130	4		20
Bromobenzene	101		92		70-130	9		20
n-Butylbenzene	101		93		70-130	8		20
sec-Butylbenzene	101		93		70-130	8		20
tert-Butylbenzene	101		93		70-130	8		20
o-Chlorotoluene	102		92		70-130	10		20
p-Chlorotoluene	100		92		70-130	8		20
1,2-Dibromo-3-chloropropane	98		94		70-130	4		20
Hexachlorobutadiene	97		91		70-130	6		20
Isopropylbenzene	102		95		70-130	7		20
p-Isopropyltoluene	105		96		70-130	9		20
Naphthalene	95		88		70-130	8		20
n-Propylbenzene	99		91		70-130	8		20
1,2,3-Trichlorobenzene	98		91		70-130	7		20

## Lab Control Sample Analysis

### Batch Quality Control

Project Name: 100 BINNEY STREET

Lab Number: L1316679

Project Number: 34250-021

Report Date: 08/30/13

Parameter	LCS		LCSD		%Recovery Limits	RPD	Qual	RPD Limits
	%Recovery	Qual	%Recovery	Qual				
MCP Volatile Organics - Westborough Lab Associated sample(s): 01-03 Batch: WG632457-1 WG632457-2								
1,2,4-Trichlorobenzene	97		90		70-130	7		20
1,3,5-Trimethylbenzene	104		95		70-130	9		20
1,2,4-Trimethylbenzene	101		92		70-130	9		20
Ethyl ether	99		89		70-130	11		20
Isopropyl Ether	95		88		70-130	8		20
Ethyl-Tert-Butyl-Ether	92		85		70-130	8		20
Tertiary-Amyl Methyl Ether	86		80		70-130	7		20
1,4-Dioxane	86		89		70-130	3		20

Surrogate	LCS		LCSD		Acceptance Criteria
	%Recovery	Qual	%Recovery	Qual	
1,2-Dichloroethane-d4	102		104		70-130
Toluene-d8	101		101		70-130
4-Bromofluorobenzene	97		95		70-130
Dibromofluoromethane	102		101		70-130

Project Name: 100 BINNEY STREET

Lab Number: L1316679

Project Number: 34250-021

Report Date: 08/30/13

**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

**Container Information**

Container ID	Container Type	Cooler	pH	Temp deg C	Pres	Seal	Analysis(*)
L1316679-01A	Vial HCl preserved	A	N/A	4	Y	Absent	MCP-8260-10(14)
L1316679-01B	Vial HCl preserved	A	N/A	4	Y	Absent	MCP-8260-10(14)
L1316679-01C	Vial HCl preserved	A	N/A	4	Y	Absent	MCP-8260-10(14)
L1316679-02A	Vial HCl preserved	A	N/A	4	Y	Absent	MCP-8260-10(14)
L1316679-02B	Vial HCl preserved	A	N/A	4	Y	Absent	MCP-8260-10(14)
L1316679-02C	Vial HCl preserved	A	N/A	4	Y	Absent	MCP-8260-10(14)
L1316679-03A	Vial HCl preserved	A	N/A	4	Y	Absent	MCP-8260-10(14)
L1316679-03B	Vial HCl preserved	A	N/A	4	Y	Absent	MCP-8260-10(14)
L1316679-03C	Vial HCl preserved	A	N/A	4	Y	Absent	MCP-8260-10(14)

\*Values in parentheses indicate holding time in days

**Project Name:** 100 BINNEY STREET  
**Project Number:** 34250-021

**Lab Number:** L1316679  
**Report Date:** 08/30/13

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

**Report Format:** Data Usability Report



**Project Name:** 100 BINNEY STREET  
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**Data Qualifiers**

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

**Project Name:** 100 BINNEY STREET  
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## REFERENCES

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

## LIMITATION OF LIABILITIES

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

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



## Certificate/Approval Program Summary

Last revised August 29, 2013 - 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, 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 – Coliart (SM9223, Enumeration and P/A), E. Coli. – Coliart (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 – Coliart (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).)

### State of Illinois Certificate/Lab ID: 003155. NELAP Accredited.

*Drinking Water* (Inorganic Parameters: SM2120B, 2320B, 2510B, 2540C, SM4500CN-CE, 4500F-C, 4500H-B, 4500NO3-F, 5310C, EPA 200.7, 200.8, 245.1, 300.0. Organic Parameters: EPA 504.1, 524.2.)

*Wastewater/Non-Potable Water* (Inorganic Parameters: SM2120B, 2310B, 2320B, 2340B, 2510B, 2540B, 2540C, 2540D, SM4500CL-E, 4500CN-E, 4500F-C, 4500H-B, 4500NH3-H, 4500NO2-B, 4500NO3-F, 4500P-E, 4500S-D, 4500SO3-B, 5210B, 5220D, 5310C, 5540C, EPA 120.1, 1664A, 200.7, 200.8, 245.1, 300.0, 350.1, 351.1, 353.2, 410.4, 420.1. Organic Parameters: EPA 608, 624, 625.)

*Hazardous and Solid Waste* (Inorganic Parameters: EPA 1010A, 1030, 1311, 1312, 6010C, 6020A, 7196A, 7470A, 7471B, 9012B, 9014, 9038, 9040C, 9045D, 9050A, 9065, 9251. Organic Parameters: 8011 (NPW only), 8015C, 8081B, 8082A, 8151A, 8260C, 8270D, 8315A, 8330.)

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

*Drinking Water* (Inorganic Parameters: SM9215B, 9222D, 9223B, EPA 180.1, 353.2, SM2120B, 2130B, 2320B, 2510C, 2540C, 4500CI-D, 4500CN-C, 4500CN-E, 4500F-C, 4500H+B, 4500NO3-F, 5310C, 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, 300.0, 350.1, 351.1, 353.2, 410.4, 420.1, 8315A, 9010C, SM2120B, 2310B, 2320B, 2510B, 2540B, 2540C, 2540D, 426C, 4500CI-E, 4500CN-C, 4500CN-E, 4500F-B, 4500F-C, 4500H+B, 4500Norg-C, 4500NH3-B, 4500NH3-H, 4500NO2-B, 4500NO3-F, 4500P-B, 4500P-E, 4500S2-D, 4500SO3-B, 5540C, 5210B, 5220D, 5310C, 9010B, 9030B, 9040C, 7470A, 7196A, 2340B, EPA 200.7, 6010C, 200.8, 6020A, 245.1, 1311, 1312, 3005A, Enterolert, 9223B, 9222D. Organic Parameters: 608, 624, 625, 8011, 8081B, 8082A, 8330, 8151A, 8260C, 8270D, 3510C, 3630C, 5030B, ME-DRO, ME-GRO, MA-EPH, MA-VPH.)



*Solid Waste/Soil* (Inorganic Parameters: 9010B, 9012A, 9014, 9040B, 9045C, 6010C, 6020A, 7471B, 7196A, 9050A, 1010, 1030, 9065, 1311, 1312, 3005A, 3050B, 9038, 9251. Organic Parameters: ME-DRO, ME-GRO, MA-EPH, MA-VPH, 8260C, 8270D, 8330, 8151A, 8081B, 8082A, 3540C, 3546, 3580A, 3620C, 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; ColilertQT SM9223B; MF-SM9222D.)

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

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

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

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

*Non-Potable Water* (Inorganic Parameters: SM9222D, 9221B, 9222B, 9221E-EC, EPA 3005A, 200.7, 200.8, 245.1, SW-846 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 Hampshire Department of Environmental Services Certificate/Lab ID: 2064. NELAP Accredited.**

*Drinking Water* (Organic Parameters: **EPA 524.2**: Di-isopropyl ether (DIPE), Ethyl-t-butyl ether (ETBE), Tert-amyl methyl ether (TAME)).

*Non-Potable Water* (Organic Parameters: **EPA 8260C**: 1,3,5-Trichlorobenzene. **EPA 8015C(M)**: TPH.)

*Solid & Chemical Materials* (Organic Parameters: **EPA 8260C**: 1,3,5-Trichlorobenzene.)

**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, 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.)

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, 245.1, SM5310C, EPA 332.0, SM2320B, EPA 300.0, SM2120B, 4500CN-E, 4500F-C, 4500NO<sub>3</sub>-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, 2320B, EPA 200.7, 300.0, SM4500CL-E, 4500F-C, SM15 426C, EPA 350.1, SM4500NH<sub>3</sub>-BH, EPA 351.1, LACHAT 10-107-06-2, EPA 353.2, SM4500-NO<sub>3</sub>-F, 4500-NO<sub>2</sub>-B, 4500P-E, 2340B, 2540C, 2540B, 2540D, EPA 200.8, EPA 6010C, 6020A, EPA 7196A, SM3500Cr-D, EPA 245.1, 7470A, SM2120B, 4500CN-CE, EPA 1664A, EPA 420.1, SM14 510C, EPA 120.1, SM2510B, SM4500S-D, SM5540C, EPA 8315A, 3005A, 3015, 9010C, 9030B. Organic Parameters: EPA 624, 8260C, 8270D, 8270D-SIM, 625, 608, 8081B, 8151A, 8330, 8082A, EPA 3510C, 5030B, 8015C, 8011.)

*Solid & Hazardous Waste* (Inorganic Parameters: EPA 1010A, 1030, EPA 6010C, 6020A, 7196A, 7471B, 8315A, 9012B, 9014, 9065, 9050A, 9038, 9251, EPA 1311, 1312, 3005A, 3050B, 9010C, 9030B, 9040C, 9045D. Organic Parameters: EPA 8260C, 8270D, 8270D-SIM, 8015C, 8081B, 8151A, 8330, 8082A, 3540C, 3546, 3580A, 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, 9012B, 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, 245.1, 2320B, 4500F-C, 4500NO<sub>3</sub>-F, 4500H+B, 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, 350.1, 351.1, 351.2, 3005A, 3015, 1312, 6010B, 6010C, 3060A, 353.2, 420.1, 2340B, 6020, 6020A, SM4500S-D, SM4500-CN-CE, Lachat 10-204-00-1-X, 7196A, 7470A, 2310B, 2320B, 2510B, 2540B, 2540C, 2540D, 3500Cr-D, 426C, 4500Cl-E, 4500F-B, 4500F-C, 4500NH<sub>3</sub>-H, 4500NO<sub>2</sub>-B, 4500NO<sub>3</sub>-F, 4500 SO<sub>3</sub>-B, 4500H-B, 4500PE, 510AC, 5210B, 5310B 5310C, 5540C, 9010Cm

9030B, 9040C. Organic Parameters: EPA 3510C, 3630C, 5030B, 8260B, 608, 624, 625, 8011, 8015C, 8081A, 8081B, 8082, 8082A, 8151A, 8260C, 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, 9010C, 9012B, 9030B, 9014, 9038, 9040C, 9045D, 9251, 9050A, 9065. Organic Parameters: EPA 5030B, 5035, 3540C, 3546, 3550B, 3580A, 3620C, 3630C, 6020A, 8260B, 8260C, 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, 6010C, 6020A, 245.1, 7470A, 9040B, 9010B, 180.1, 300.0, 332.0, 6860, 351.1, 353.2, 9060, 1664A, SM 4500CN-E, 4500H-B, 4500Norg-C, 4500NO3-F, 5310C, 2130B, 2320B, 2340B, 2540C, 5540C, 3005A, 3015, 9056, 7196A, 3500-Cr-D. Organic Parameters: EPA 8015C, 8151A, 8260C, 8270D, 8270D-SIM, 8330A, 8082A, 8081B, 3510C, 5030B, MassDEP EPH, MassDEP VPH.)

*Solid & Hazardous Waste* (Inorganic Parameters: EPA 200.7, 6010C, 6020A, 7471A, 6860, 1311, 1312, 3050B, 7196A, 9040B, 9045C, 9010C, 9012B, 9251, SM3500-CR-D, 4500CN-CE, 2540G, Organic Parameters: EPA 8015C, 8151A, 8260C, 8270D, 8270D-SIM, 8330A/B-prep, 8082A, 8081B, 3540C, 3546, 3580A, 5035A, MassDEP EPH, MassDEP VPH.)

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

**EPA 524.2:** Acetone, 2-Butanone (Methyl ethyl ketone (MEK)), Tert-butyl alcohol, 2-Hexanone, Tetrahydrofuran, 1,3,5-Trichlorobenzene, 4-Methyl-2-pentanone (MIBK), Carbon disulfide, Diethyl ether. **EPA 8260B:** 1,2,4,5-Tetramethylbenzene, 4-Ethyltoluene. **EPA 8260 Non-potable water matrix:** Iodomethane (methyl iodide), Methyl methacrylate. **EPA 8260 Soil matrix:** Tert-amyl methyl ether (TAME), Diisopropyl ether (DIPE), Azobenzene. **EPA 8330A:** PETN, Picric Acid, Nitroglycerine, 2,6-DANT, 2,4-DANT. **EPA 8270C:** Methyl naphthalene, Dimethyl naphthalene, Total Methylnaphthalenes, Total Dimethylnaphthalenes, 1,4-Diphenylhydrazine. **EPA 625:** 4-Chloroaniline, 4-Methylphenol. Total Phosphorus 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.



Haley & Aldrich, Inc.  
465 Medford St.,  
Suite 2200,  
Boston, MA 02129-1402

1052

# CHAIN OF CUSTODY RECORD

L131667A

Phone (617) 886-7400  
Fax (617) 886-7600

Page 1 of 1

H&A FILE NO.	34250 <b>040</b>	LABORATORY	Alpha Analytical	DELIVERY DATE	
PROJECT NAME	BMR	ADDRESS	Westborough, MA	TURNAROUND TIME	5-DAY
H&A CONTACT	Rebecca Higgins/Jane Parkin Kullmann	CONTACT	Gina Hall	PROJECT MANAGER	Kelth Johnson

Sample No.	Date	Time	Depth	Type	Analysis Requested													Number of Containers	Comments (special instructions, precautions, additional method numbers, etc.)
					VOA	ABNs PAH only	MCP Metals	Pesticides TCBs	VPH	Full Suite C-ranges only	PHH	Full Suite C-ranges only	TPH (specify)	TCLP (specify)	Reactivity Stability Composity				
HA-B2-08-27-2013	8/27/13	1300	—	water	X													3	Laboratory to use applicable DEP CAM methods, unless otherwise directed.  8260 VOC's
ENV-17(OW)-08-27-2013	8/27/13	1400		water	X													3	
MW-60-08-27-2013	8/27/13	1515		water	X													3	
				water	X													3	
				TRIP BLANK	X														3

<b>Sampled and Relinquished by</b> Sign: <i>[Signature]</i> Print: CRAIG TOSCANO Firm: H&A Date: 8-27-13 Time:	<b>Received by</b> Sign: <i>[Signature]</i> Print: WAYNE PHINER Firm: Alpha Date: 8/27/13 Time: 1605	<b>LIQUID</b> X	VOA Vial Amber Glass Plastic Bottle Preservative Volume	<b>Sampling Comments</b>
<b>Relinquished by</b> Sign: <i>[Signature]</i> Print: WAYNE PHINER Firm: Alpha Date: 8/27/13 Time: 1810	<b>Received by</b> Sign: <i>[Signature]</i> Print: RICHARD SCOTT Firm: Alpha Date: 8/27/13 Time: 1610	<b>SOLID</b> 40 mL	VOA Vial Amber Glass Clear Glass Preservative Volume	Evidence samples were tampered with? YES NO If YES, please explain in section below.
<b>Relinquished by</b> Sign: Print: Firm: Date: Time:	<b>Received by</b> Sign: Print: Firm: Date: Time:	<b>PRESERVATION KEY</b> A Sample chilled    C NaOH    E H <sub>2</sub> SO <sub>4</sub> G Methanol B Sample filtered    D HNO <sub>3</sub> F HCL    H Water/NaHSO <sub>4</sub> (circle)		

**Presumptive Certainty Data Package (Laboratory to use applicable DEP CAM methods)**

If Presumptive Certainty Data Package is needed, initial all sections:

The required minimum field QC samples, as designated in BWSC CAM-VII have been or will be collected, as appropriate, to meet the requirements of Presumptive Certainty.

Matrix Spike (MS) samples for MCP Metals and/or Cyanide are included and identified herein.

This Chain of Custody Record (specify) \_\_\_\_\_ includes  does not include samples defined as Drinking Water Samples.

If this Chain of Custody Record identifies samples defined as Drinking Water Samples, Trip Blanks and Field Duplicates are included and identified and analysis of TICs are required, as appropriate. Laboratory should (specify if applicable) \_\_\_\_\_ analyz

Required Reporting Limits and Data Quality Objectives			
<input type="checkbox"/> RC-S1	<input type="checkbox"/> S1	<input type="checkbox"/> GW1	
<input type="checkbox"/> RC-S2	<input type="checkbox"/> S2	<input type="checkbox"/> GW2	
<input type="checkbox"/> RC-GW1	<input type="checkbox"/> S3	<input type="checkbox"/> GW3	
<input type="checkbox"/> RC-GW2			



Haley & Aldrich, Inc.  
465 Medford St.,  
Suite 2200,  
Boston, MA 02129-1402

1052

# CHAIN OF CUSTODY RECORD

L131667A

Phone (617) 886-7400  
Fax (617) 886-7600

Page 1 of 1

H&A FILE NO. ~~34250~~ **040** 34250-021      LABORATORY Alpha Analytical      DELIVERY DATE \_\_\_\_\_  
 PROJECT NAME ~~BMR~~ 100 Binney Street ADDRESS Westborough, MA      TURNAROUND TIME 5-DAY  
 H&A CONTACT Rebecca Higgins/Jane Parkin Kullmann CONTACT Gina Hall      PROJECT MANAGER Keith Johnson

Sample No.	Date	Time	Depth	Type	Analysis Requested													Number of Containers	Comments (special instructions, precautions, additional method numbers, etc.)
					VOA	ABNS PAB only	MCP Metals	Pesticides TCBs	VPH	Full Suite C-ranges only	EPH	Full Suite C-ranges only	TPH (specify)	TCLP (specify)	Reactivity Stability Composity				
HA-B2-08-27-2013	8/27/13	1300	—	water	X													3	Laboratory to use applicable DEP CAM methods, unless otherwise directed.  8260 VOC's
ENV-17(OW)-08-27-2013	8/27/13	1400		water	X													3	
MW-60-08-27-2013	8/27/13	1515		water	X													3	
<del>TRIP BLANK</del>				<del>water</del>	<del>X</del>													<del>3</del>	
File number and Project name change per J. Kullmann -- GMH 8/28/13																			

Sampled and Relinquished by Sign <i>[Signature]</i> Print CRAIG TOSCANO Firm H&A Date 8-27-13 Time	Received by Sign <i>[Signature]</i> Print WAYNE PHINER Firm Alpha Date 8/27/13 Time 1605	LIQUID X 40 mL	VOA Vial Amber Glass Plastic Bottle Preservative Volume	Sampling Comments
Relinquished by Sign <i>[Signature]</i> Print WAYNE PHINER Firm Alpha Date 8/27/13 Time 1810	Received by Sign <i>[Signature]</i> Print RICHARD SCOTT Firm Alpha Date 8/27/13 Time 1610	SOLID	VOA Vial Amber Glass Clear Glass Preservative Volume	Evidence samples were tampered with? YRS NO If YES, please explain in section below.
Relinquished by Sign Print Firm Date Time	Received by Sign Print Firm Date Time	PRESERVATION KEY A Sample chilled      C NaOH      E H <sub>2</sub> SO <sub>4</sub> G Methanol B Sample filtered      D HNO <sub>3</sub> F HCL      H Water/NaHSO <sub>4</sub> (circle)		

**Presumptive Certainty Data Package (Laboratory to use applicable DEP CAM methods)**

If Presumptive Certainty Data Package is needed, initial all sections:

The required minimum field QC samples, as designated in BWSC CAM-VII have been or will be collected, as appropriate, to meet the requirements of Presumptive Certainty.

Matrix Spike (MS) samples for MCP Metals and/or Cyanide are included and identified herein.

This Chain of Custody Record (specify) \_\_\_\_\_ includes  does not include samples defined as Drinking Water Samples.

If this Chain of Custody Record identifies samples defined as Drinking Water Samples, Trip Blanks and Field Duplicates are included and identified and analysis of TICs are required, as appropriate. Laboratory should (specify if applicable) \_\_\_\_\_ analyze

Required Reporting Limits and Data Quality Objectives			
<input type="checkbox"/> RC-S1	<input type="checkbox"/> S1	<input type="checkbox"/> GW1	
<input type="checkbox"/> RC-S2	<input type="checkbox"/> S2	<input type="checkbox"/> GW2	
<input type="checkbox"/> RC-GW1	<input type="checkbox"/> S3	<input type="checkbox"/> GW3	
<input type="checkbox"/> RC-GW2			



## ANALYTICAL REPORT

Lab Number:	L1316680
Client:	Haley & Aldrich, Inc. 465 Medford Street, Suite 2200 Charlestown, MA 02129-1400
ATTN:	Keith Johnson
Phone:	(617) 886-7400
Project Name:	100 BINNEY STREET
Project Number:	34250-021
Report Date:	08/29/13

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.

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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:** 100 BINNEY STREET  
**Project Number:** 34250-021

**Lab Number:** L1316680  
**Report Date:** 08/29/13

<b>Alpha Sample ID</b>	<b>Client ID</b>	<b>Sample Location</b>	<b>Collection Date/Time</b>
L1316680-01	HA-B15 (RW)-08-27-2013	Not Specified	08/27/13 11:30
L1316680-02	TRIP BLANK	Not Specified	08/27/13 00:00

Project Name: 100 BINNEY STREET

Lab Number: L1316680

Project Number: 34250-021

Report Date: 08/29/13

**MADEP MCP Response Action Analytical Report Certification**

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

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

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





**Project Name:** 100 BINNEY STREET  
**Project Number:** 34250-021

**Lab Number:** L1316680  
**Report Date:** 08/29/13

### 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:** 100 BINNEY STREET  
**Project Number:** 34250-021

**Lab Number:** L1316680  
**Report Date:** 08/29/13

### Case Narrative (continued)

#### MCP Related Narratives

#### Volatile Organics

In reference to question H:

The initial calibration, associated with L1316680-01 and -02 (all submitted samples), did not meet the method required minimum response factor on the lowest calibration standard for 1,4-dioxane (0.00298), as well as the average response factor for 1,4-dioxane. In addition, a quadratic fit was utilized for carbon tetrachloride, acetone and 2,2-dichloropropane.

The continuing calibration standards, associated with L1316680-01 and -02 (all submitted samples), are outside the acceptance criteria for several compounds; however, they are within overall method allowances. A copy of the continuing calibration standards is included as an addendum to this report.

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

Authorized Signature:  Cynthia McQueen

Title: Technical Director/Representative

Date: 08/29/13

# ORGANICS

# VOLATILES

**Project Name:** 100 BINNEY STREET**Lab Number:** L1316680**Project Number:** 34250-021**Report Date:** 08/29/13**SAMPLE RESULTS**

Lab ID: L1316680-01  
 Client ID: HA-B15 (RW)-08-27-2013  
 Sample Location: Not Specified  
 Matrix: Water  
 Analytical Method: 97,8260C  
 Analytical Date: 08/29/13 10:52  
 Analyst: MM

Date Collected: 08/27/13 11:30  
 Date Received: 08/27/13  
 Field Prep: Not Specified

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

Project Name: 100 BINNEY STREET

Lab Number: L1316680

Project Number: 34250-021

Report Date: 08/29/13

## SAMPLE RESULTS

Lab ID: L1316680-01

Date Collected: 08/27/13 11:30

Client ID: HA-B15 (RW)-08-27-2013

Date Received: 08/27/13

Sample Location: Not Specified

Field Prep: Not Specified

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

**Project Name:** 100 BINNEY STREET**Lab Number:** L1316680**Project Number:** 34250-021**Report Date:** 08/29/13**SAMPLE RESULTS**

Lab ID: L1316680-01

Date Collected: 08/27/13 11:30

Client ID: HA-B15 (RW)-08-27-2013

Date Received: 08/27/13

Sample Location: Not Specified

Field Prep: Not Specified

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

## MCP Volatile Organics - Westborough Lab

1,4-Dioxane	ND		ug/l	250	--	1
-------------	----	--	------	-----	----	---

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	109		70-130
Toluene-d8	101		70-130
4-Bromofluorobenzene	99		70-130
Dibromofluoromethane	106		70-130

**Project Name:** 100 BINNEY STREET**Lab Number:** L1316680**Project Number:** 34250-021**Report Date:** 08/29/13**SAMPLE RESULTS**

**Lab ID:** L1316680-02  
**Client ID:** TRIP BLANK  
**Sample Location:** Not Specified  
**Matrix:** Water  
**Analytical Method:** 97,8260C  
**Analytical Date:** 08/28/13 09:05  
**Analyst:** MM

**Date Collected:** 08/27/13 00:00  
**Date Received:** 08/27/13  
**Field Prep:** Not Specified

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



Project Name: 100 BINNEY STREET

Lab Number: L1316680

Project Number: 34250-021

Report Date: 08/29/13

## SAMPLE RESULTS

Lab ID: L1316680-02

Date Collected: 08/27/13 00:00

Client ID: TRIP BLANK

Date Received: 08/27/13

Sample Location: Not Specified

Field Prep: Not Specified

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



**Project Name:** 100 BINNEY STREET**Lab Number:** L1316680**Project Number:** 34250-021**Report Date:** 08/29/13**SAMPLE RESULTS**

Lab ID: L1316680-02

Date Collected: 08/27/13 00:00

Client ID: TRIP BLANK

Date Received: 08/27/13

Sample Location: Not Specified

Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
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## MCP Volatile Organics - Westborough Lab

1,4-Dioxane	ND		ug/l	250	--	1
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Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	107		70-130
Toluene-d8	102		70-130
4-Bromofluorobenzene	103		70-130
Dibromofluoromethane	104		70-130

**Project Name:** 100 BINNEY STREET  
**Project Number:** 34250-021

**Lab Number:** L1316680  
**Report Date:** 08/29/13

**Method Blank Analysis**  
**Batch Quality Control**

Analytical Method: 97,8260C  
Analytical Date: 08/28/13 06:28  
Analyst: MM

Parameter	Result	Qualifier	Units	RL	MDL
MCP Volatile Organics - Westborough Lab for sample(s): 02 Batch: WG632151-3					
Methylene chloride	ND		ug/l	2.0	--
1,1-Dichloroethane	ND		ug/l	1.0	--
Chloroform	ND		ug/l	1.0	--
Carbon tetrachloride	ND		ug/l	1.0	--
1,2-Dichloropropane	ND		ug/l	1.0	--
Dibromochloromethane	ND		ug/l	1.0	--
1,1,2-Trichloroethane	ND		ug/l	1.0	--
Tetrachloroethene	ND		ug/l	1.0	--
Chlorobenzene	ND		ug/l	1.0	--
Trichlorofluoromethane	ND		ug/l	2.0	--
1,2-Dichloroethane	ND		ug/l	1.0	--
1,1,1-Trichloroethane	ND		ug/l	1.0	--
Bromodichloromethane	ND		ug/l	1.0	--
trans-1,3-Dichloropropene	ND		ug/l	0.50	--
cis-1,3-Dichloropropene	ND		ug/l	0.50	--
1,1-Dichloropropene	ND		ug/l	2.0	--
Bromoform	ND		ug/l	2.0	--
1,1,2,2-Tetrachloroethane	ND		ug/l	1.0	--
Benzene	ND		ug/l	0.50	--
Toluene	ND		ug/l	1.0	--
Ethylbenzene	ND		ug/l	1.0	--
Chloromethane	ND		ug/l	2.0	--
Bromomethane	ND		ug/l	2.0	--
Vinyl chloride	ND		ug/l	1.0	--
Chloroethane	ND		ug/l	2.0	--
1,1-Dichloroethene	ND		ug/l	1.0	--
trans-1,2-Dichloroethene	ND		ug/l	1.0	--
Trichloroethene	ND		ug/l	1.0	--
1,2-Dichlorobenzene	ND		ug/l	1.0	--
1,3-Dichlorobenzene	ND		ug/l	1.0	--
1,4-Dichlorobenzene	ND		ug/l	1.0	--



**Project Name:** 100 BINNEY STREET  
**Project Number:** 34250-021

**Lab Number:** L1316680  
**Report Date:** 08/29/13

**Method Blank Analysis**  
**Batch Quality Control**

Analytical Method: 97,8260C  
Analytical Date: 08/28/13 06:28  
Analyst: MM

Parameter	Result	Qualifier	Units	RL	MDL
MCP Volatile Organics - Westborough Lab for sample(s): 02 Batch: WG632151-3					
Methyl tert butyl ether	ND		ug/l	2.0	--
p/m-Xylene	ND		ug/l	2.0	--
o-Xylene	ND		ug/l	1.0	--
cis-1,2-Dichloroethene	ND		ug/l	1.0	--
Dibromomethane	ND		ug/l	2.0	--
1,2,3-Trichloropropane	ND		ug/l	2.0	--
Styrene	ND		ug/l	1.0	--
Dichlorodifluoromethane	ND		ug/l	2.0	--
Acetone	ND		ug/l	5.0	--
Carbon disulfide	ND		ug/l	2.0	--
2-Butanone	ND		ug/l	5.0	--
4-Methyl-2-pentanone	ND		ug/l	5.0	--
2-Hexanone	ND		ug/l	5.0	--
Bromochloromethane	ND		ug/l	2.0	--
Tetrahydrofuran	ND		ug/l	2.0	--
2,2-Dichloropropane	ND		ug/l	2.0	--
1,2-Dibromoethane	ND		ug/l	2.0	--
1,3-Dichloropropane	ND		ug/l	2.0	--
1,1,1,2-Tetrachloroethane	ND		ug/l	1.0	--
Bromobenzene	ND		ug/l	2.0	--
n-Butylbenzene	ND		ug/l	2.0	--
sec-Butylbenzene	ND		ug/l	2.0	--
tert-Butylbenzene	ND		ug/l	2.0	--
o-Chlorotoluene	ND		ug/l	2.0	--
p-Chlorotoluene	ND		ug/l	2.0	--
1,2-Dibromo-3-chloropropane	ND		ug/l	2.0	--
Hexachlorobutadiene	ND		ug/l	0.60	--
Isopropylbenzene	ND		ug/l	2.0	--
p-Isopropyltoluene	ND		ug/l	2.0	--
Naphthalene	ND		ug/l	2.0	--
n-Propylbenzene	ND		ug/l	2.0	--



**Project Name:** 100 BINNEY STREET  
**Project Number:** 34250-021

**Lab Number:** L1316680  
**Report Date:** 08/29/13

**Method Blank Analysis  
Batch Quality Control**

Analytical Method: 97,8260C  
Analytical Date: 08/28/13 06:28  
Analyst: MM

Parameter	Result	Qualifier	Units	RL	MDL
MCP Volatile Organics - Westborough Lab for sample(s): 02 Batch: WG632151-3					
1,2,3-Trichlorobenzene	ND		ug/l	2.0	--
1,2,4-Trichlorobenzene	ND		ug/l	2.0	--
1,3,5-Trimethylbenzene	ND		ug/l	2.0	--
1,2,4-Trimethylbenzene	ND		ug/l	2.0	--
Ethyl ether	ND		ug/l	2.0	--
Isopropyl Ether	ND		ug/l	2.0	--
Ethyl-Tert-Butyl-Ether	ND		ug/l	2.0	--
Tertiary-Amyl Methyl Ether	ND		ug/l	2.0	--
1,4-Dioxane	ND		ug/l	250	--
2-Chloroethylvinyl ether	ND		ug/l	10	--

Surrogate	%Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	105		70-130
Toluene-d8	102		70-130
4-Bromofluorobenzene	101		70-130
Dibromofluoromethane	101		70-130

**Project Name:** 100 BINNEY STREET  
**Project Number:** 34250-021

**Lab Number:** L1316680  
**Report Date:** 08/29/13

**Method Blank Analysis**  
**Batch Quality Control**

Analytical Method: 97,8260C  
Analytical Date: 08/29/13 07:43  
Analyst: MM

Parameter	Result	Qualifier	Units	RL	MDL
MCP Volatile Organics - Westborough Lab for sample(s): 01 Batch: WG632457-3					
Methylene chloride	ND		ug/l	2.0	--
1,1-Dichloroethane	ND		ug/l	1.0	--
Chloroform	ND		ug/l	1.0	--
Carbon tetrachloride	ND		ug/l	1.0	--
1,2-Dichloropropane	ND		ug/l	1.0	--
Dibromochloromethane	ND		ug/l	1.0	--
1,1,2-Trichloroethane	ND		ug/l	1.0	--
Tetrachloroethene	ND		ug/l	1.0	--
Chlorobenzene	ND		ug/l	1.0	--
Trichlorofluoromethane	ND		ug/l	2.0	--
1,2-Dichloroethane	ND		ug/l	1.0	--
1,1,1-Trichloroethane	ND		ug/l	1.0	--
Bromodichloromethane	ND		ug/l	1.0	--
trans-1,3-Dichloropropene	ND		ug/l	0.50	--
cis-1,3-Dichloropropene	ND		ug/l	0.50	--
1,1-Dichloropropene	ND		ug/l	2.0	--
Bromoform	ND		ug/l	2.0	--
1,1,2,2-Tetrachloroethane	ND		ug/l	1.0	--
Benzene	ND		ug/l	0.50	--
Toluene	ND		ug/l	1.0	--
Ethylbenzene	ND		ug/l	1.0	--
Chloromethane	ND		ug/l	2.0	--
Bromomethane	ND		ug/l	2.0	--
Vinyl chloride	ND		ug/l	1.0	--
Chloroethane	ND		ug/l	2.0	--
1,1-Dichloroethene	ND		ug/l	1.0	--
trans-1,2-Dichloroethene	ND		ug/l	1.0	--
Trichloroethene	ND		ug/l	1.0	--
1,2-Dichlorobenzene	ND		ug/l	1.0	--
1,3-Dichlorobenzene	ND		ug/l	1.0	--
1,4-Dichlorobenzene	ND		ug/l	1.0	--



**Project Name:** 100 BINNEY STREET  
**Project Number:** 34250-021

**Lab Number:** L1316680  
**Report Date:** 08/29/13

**Method Blank Analysis**  
**Batch Quality Control**

Analytical Method: 97,8260C  
 Analytical Date: 08/29/13 07:43  
 Analyst: MM

Parameter	Result	Qualifier	Units	RL	MDL
MCP Volatile Organics - Westborough Lab for sample(s): 01 Batch: WG632457-3					
Methyl tert butyl ether	ND		ug/l	2.0	--
p/m-Xylene	ND		ug/l	2.0	--
o-Xylene	ND		ug/l	1.0	--
cis-1,2-Dichloroethene	ND		ug/l	1.0	--
Dibromomethane	ND		ug/l	2.0	--
1,2,3-Trichloropropane	ND		ug/l	2.0	--
Styrene	ND		ug/l	1.0	--
Dichlorodifluoromethane	ND		ug/l	2.0	--
Acetone	ND		ug/l	5.0	--
Carbon disulfide	ND		ug/l	2.0	--
2-Butanone	ND		ug/l	5.0	--
4-Methyl-2-pentanone	ND		ug/l	5.0	--
2-Hexanone	ND		ug/l	5.0	--
Bromochloromethane	ND		ug/l	2.0	--
Tetrahydrofuran	ND		ug/l	2.0	--
2,2-Dichloropropane	ND		ug/l	2.0	--
1,2-Dibromoethane	ND		ug/l	2.0	--
1,3-Dichloropropane	ND		ug/l	2.0	--
1,1,1,2-Tetrachloroethane	ND		ug/l	1.0	--
Bromobenzene	ND		ug/l	2.0	--
n-Butylbenzene	ND		ug/l	2.0	--
sec-Butylbenzene	ND		ug/l	2.0	--
tert-Butylbenzene	ND		ug/l	2.0	--
o-Chlorotoluene	ND		ug/l	2.0	--
p-Chlorotoluene	ND		ug/l	2.0	--
1,2-Dibromo-3-chloropropane	ND		ug/l	2.0	--
Hexachlorobutadiene	ND		ug/l	0.60	--
Isopropylbenzene	ND		ug/l	2.0	--
p-Isopropyltoluene	ND		ug/l	2.0	--
Naphthalene	ND		ug/l	2.0	--
n-Propylbenzene	ND		ug/l	2.0	--



**Project Name:** 100 BINNEY STREET  
**Project Number:** 34250-021

**Lab Number:** L1316680  
**Report Date:** 08/29/13

**Method Blank Analysis  
Batch Quality Control**

Analytical Method: 97,8260C  
Analytical Date: 08/29/13 07:43  
Analyst: MM

Parameter	Result	Qualifier	Units	RL	MDL
MCP Volatile Organics - Westborough Lab for sample(s): 01 Batch: WG632457-3					
1,2,3-Trichlorobenzene	ND		ug/l	2.0	--
1,2,4-Trichlorobenzene	ND		ug/l	2.0	--
1,3,5-Trimethylbenzene	ND		ug/l	2.0	--
1,2,4-Trimethylbenzene	ND		ug/l	2.0	--
Ethyl ether	ND		ug/l	2.0	--
Isopropyl Ether	ND		ug/l	2.0	--
Ethyl-Tert-Butyl-Ether	ND		ug/l	2.0	--
Tertiary-Amyl Methyl Ether	ND		ug/l	2.0	--
1,4-Dioxane	ND		ug/l	250	--

Surrogate	%Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	106		70-130
Toluene-d8	102		70-130
4-Bromofluorobenzene	101		70-130
Dibromofluoromethane	105		70-130



## Lab Control Sample Analysis

### Batch Quality Control

Project Name: 100 BINNEY STREET

Lab Number: L1316680

Project Number: 34250-021

Report Date: 08/29/13

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
MCP Volatile Organics - Westborough Lab Associated sample(s): 02 Batch: WG632151-1 WG632151-2								
Methylene chloride	90		91		70-130	1		20
1,1-Dichloroethane	98		97		70-130	1		20
Chloroform	99		100		70-130	1		20
Carbon tetrachloride	116		114		70-130	2		20
1,2-Dichloropropane	93		96		70-130	3		20
Dibromochloromethane	100		102		70-130	2		20
1,1,2-Trichloroethane	95		94		70-130	1		20
Tetrachloroethene	111		102		70-130	8		20
Chlorobenzene	101		101		70-130	0		20
Trichlorofluoromethane	118		109		70-130	8		20
1,2-Dichloroethane	93		96		70-130	3		20
1,1,1-Trichloroethane	104		102		70-130	2		20
Bromodichloromethane	96		100		70-130	4		20
trans-1,3-Dichloropropene	97		100		70-130	3		20
cis-1,3-Dichloropropene	94		98		70-130	4		20
1,1-Dichloropropene	106		100		70-130	6		20
Bromoform	96		100		70-130	4		20
1,1,2,2-Tetrachloroethane	90		91		70-130	1		20
Benzene	99		98		70-130	1		20
Toluene	100		97		70-130	3		20
Ethylbenzene	107		105		70-130	2		20

## Lab Control Sample Analysis

### Batch Quality Control

Project Name: 100 BINNEY STREET

Lab Number: L1316680

Project Number: 34250-021

Report Date: 08/29/13

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
MCP Volatile Organics - Westborough Lab Associated sample(s): 02 Batch: WG632151-1 WG632151-2								
Chloromethane	86		82		70-130	5		20
Bromomethane	71		74		70-130	4		20
Vinyl chloride	121		117		70-130	3		20
Chloroethane	108		104		70-130	4		20
1,1-Dichloroethene	102		95		70-130	7		20
trans-1,2-Dichloroethene	102		97		70-130	5		20
Trichloroethene	100		99		70-130	1		20
1,2-Dichlorobenzene	101		102		70-130	1		20
1,3-Dichlorobenzene	107		106		70-130	1		20
1,4-Dichlorobenzene	102		102		70-130	0		20
Methyl tert butyl ether	86		86		70-130	0		20
p/m-Xylene	107		105		70-130	2		20
o-Xylene	105		104		70-130	1		20
cis-1,2-Dichloroethene	98		97		70-130	1		20
Dibromomethane	94		95		70-130	1		20
1,2,3-Trichloropropane	89		89		70-130	0		20
Styrene	105		104		70-130	1		20
Dichlorodifluoromethane	95		87		70-130	9		20
Acetone	<b>134</b>	Q	80		70-130	<b>50</b>	Q	20
Carbon disulfide	98		94		70-130	4		20
2-Butanone	121		81		70-130	<b>40</b>	Q	20

## Lab Control Sample Analysis

### Batch Quality Control

Project Name: 100 BINNEY STREET

Lab Number: L1316680

Project Number: 34250-021

Report Date: 08/29/13

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
MCP Volatile Organics - Westborough Lab Associated sample(s): 02 Batch: WG632151-1 WG632151-2								
4-Methyl-2-pentanone	85		84		70-130	1		20
2-Hexanone	122		85		70-130	36	Q	20
Bromochloromethane	97		96		70-130	1		20
Tetrahydrofuran	83		85		70-130	2		20
2,2-Dichloropropane	106		107		70-130	1		20
1,2-Dibromoethane	95		96		70-130	1		20
1,3-Dichloropropane	95		95		70-130	0		20
1,1,1,2-Tetrachloroethane	107		108		70-130	1		20
Bromobenzene	101		102		70-130	1		20
n-Butylbenzene	112		105		70-130	6		20
sec-Butylbenzene	113		107		70-130	5		20
tert-Butylbenzene	110		105		70-130	5		20
o-Chlorotoluene	106		105		70-130	1		20
p-Chlorotoluene	105		103		70-130	2		20
1,2-Dibromo-3-chloropropane	93		98		70-130	5		20
Hexachlorobutadiene	106		104		70-130	2		20
Isopropylbenzene	110		106		70-130	4		20
p-Isopropyltoluene	115		110		70-130	4		20
Naphthalene	90		91		70-130	1		20
n-Propylbenzene	107		104		70-130	3		20
1,2,3-Trichlorobenzene	96		97		70-130	1		20

## Lab Control Sample Analysis

### Batch Quality Control

Project Name: 100 BINNEY STREET

Project Number: 34250-021

Lab Number: L1316680

Report Date: 08/29/13

Parameter	LCS		LCSD		%Recovery Limits	RPD	Qual	RPD Limits
	%Recovery	Qual	%Recovery	Qual				
MCP Volatile Organics - Westborough Lab Associated sample(s): 02 Batch: WG632151-1 WG632151-2								
1,2,4-Trichlorobenzene	97		99		70-130	2		20
1,3,5-Trimethylbenzene	110		109		70-130	1		20
1,2,4-Trimethylbenzene	107		104		70-130	3		20
Ethyl ether	93		92		70-130	1		20
Isopropyl Ether	93		93		70-130	0		20
Ethyl-Tert-Butyl-Ether	88		89		70-130	1		20
Tertiary-Amyl Methyl Ether	81		80		70-130	1		20
1,4-Dioxane	81		72		70-130	12		20
2-Chloroethylvinyl ether	77		75		70-130	3		20

Surrogate	LCS		LCSD		Acceptance Criteria
	%Recovery	Qual	%Recovery	Qual	
1,2-Dichloroethane-d4	98		101		70-130
Toluene-d8	104		102		70-130
4-Bromofluorobenzene	96		97		70-130
Dibromofluoromethane	100		102		70-130

## Lab Control Sample Analysis

### Batch Quality Control

Project Name: 100 BINNEY STREET

Lab Number: L1316680

Project Number: 34250-021

Report Date: 08/29/13

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
MCP Volatile Organics - Westborough Lab Associated sample(s): 01 Batch: WG632457-1 WG632457-2								
Methylene chloride	90		84		70-130	7		20
1,1-Dichloroethane	97		89		70-130	9		20
Chloroform	100		93		70-130	7		20
Carbon tetrachloride	116		108		70-130	7		20
1,2-Dichloropropane	96		88		70-130	9		20
Dibromochloromethane	103		98		70-130	5		20
1,1,2-Trichloroethane	95		90		70-130	5		20
Tetrachloroethene	100		94		70-130	6		20
Chlorobenzene	99		92		70-130	7		20
Trichlorofluoromethane	112		104		70-130	7		20
1,2-Dichloroethane	98		91		70-130	7		20
1,1,1-Trichloroethane	102		94		70-130	8		20
Bromodichloromethane	101		95		70-130	6		20
trans-1,3-Dichloropropene	102		96		70-130	6		20
cis-1,3-Dichloropropene	98		92		70-130	6		20
1,1-Dichloropropene	100		92		70-130	8		20
Bromoform	102		96		70-130	6		20
1,1,2,2-Tetrachloroethane	93		89		70-130	4		20
Benzene	98		91		70-130	7		20
Toluene	95		89		70-130	7		20
Ethylbenzene	102		95		70-130	7		20

## Lab Control Sample Analysis

### Batch Quality Control

Project Name: 100 BINNEY STREET

Lab Number: L1316680

Project Number: 34250-021

Report Date: 08/29/13

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
MCP Volatile Organics - Westborough Lab Associated sample(s): 01 Batch: WG632457-1 WG632457-2								
Chloromethane	80		71		70-130	12		20
Bromomethane	72		65	Q	70-130	10		20
Vinyl chloride	111		103		70-130	7		20
Chloroethane	104		94		70-130	10		20
1,1-Dichloroethene	95		87		70-130	9		20
trans-1,2-Dichloroethene	98		89		70-130	10		20
Trichloroethene	98		91		70-130	7		20
1,2-Dichlorobenzene	100		93		70-130	7		20
1,3-Dichlorobenzene	102		94		70-130	8		20
1,4-Dichlorobenzene	100		92		70-130	8		20
Methyl tert butyl ether	90		84		70-130	7		20
p/m-Xylene	102		95		70-130	7		20
o-Xylene	102		95		70-130	7		20
cis-1,2-Dichloroethene	98		89		70-130	10		20
Dibromomethane	99		92		70-130	7		20
1,2,3-Trichloropropane	92		87		70-130	6		20
Styrene	103		96		70-130	7		20
Dichlorodifluoromethane	84		80		70-130	5		20
Acetone	90		82		70-130	9		20
Carbon disulfide	94		87		70-130	8		20
2-Butanone	107		104		70-130	3		20

## Lab Control Sample Analysis

### Batch Quality Control

Project Name: 100 BINNEY STREET

Lab Number: L1316680

Project Number: 34250-021

Report Date: 08/29/13

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
MCP Volatile Organics - Westborough Lab Associated sample(s): 01 Batch: WG632457-1 WG632457-2								
4-Methyl-2-pentanone	93		85		70-130	9		20
2-Hexanone	92		89		70-130	3		20
Bromochloromethane	99		92		70-130	7		20
Tetrahydrofuran	88		85		70-130	3		20
2,2-Dichloropropane	107		100		70-130	7		20
1,2-Dibromoethane	99		95		70-130	4		20
1,3-Dichloropropane	96		92		70-130	4		20
1,1,1,2-Tetrachloroethane	105		101		70-130	4		20
Bromobenzene	101		92		70-130	9		20
n-Butylbenzene	101		93		70-130	8		20
sec-Butylbenzene	101		93		70-130	8		20
tert-Butylbenzene	101		93		70-130	8		20
o-Chlorotoluene	102		92		70-130	10		20
p-Chlorotoluene	100		92		70-130	8		20
1,2-Dibromo-3-chloropropane	98		94		70-130	4		20
Hexachlorobutadiene	97		91		70-130	6		20
Isopropylbenzene	102		95		70-130	7		20
p-Isopropyltoluene	105		96		70-130	9		20
Naphthalene	95		88		70-130	8		20
n-Propylbenzene	99		91		70-130	8		20
1,2,3-Trichlorobenzene	98		91		70-130	7		20

## Lab Control Sample Analysis

### Batch Quality Control

Project Name: 100 BINNEY STREET

Project Number: 34250-021

Lab Number: L1316680

Report Date: 08/29/13

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
MCP Volatile Organics - Westborough Lab Associated sample(s): 01 Batch: WG632457-1 WG632457-2								
1,2,4-Trichlorobenzene	97		90		70-130	7		20
1,3,5-Trimethylbenzene	104		95		70-130	9		20
1,2,4-Trimethylbenzene	101		92		70-130	9		20
Ethyl ether	99		89		70-130	11		20
Isopropyl Ether	95		88		70-130	8		20
Ethyl-Tert-Butyl-Ether	92		85		70-130	8		20
Tertiary-Amyl Methyl Ether	86		80		70-130	7		20
1,4-Dioxane	86		89		70-130	3		20

Surrogate	LCS %Recovery	Qual	LCSD %Recovery	Qual	Acceptance Criteria
1,2-Dichloroethane-d4	102		104		70-130
Toluene-d8	101		101		70-130
4-Bromofluorobenzene	97		95		70-130
Dibromofluoromethane	102		101		70-130



Project Name: 100 BINNEY STREET

Lab Number: L1316680

Project Number: 34250-021

Report Date: 08/29/13

**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

**Container Information**

Container ID	Container Type	Cooler	pH	Temp deg C	Pres	Seal	Analysis(*)
L1316680-01A	Vial HCl preserved	A	N/A	4	Y	Absent	MCP-8260-10(14)
L1316680-01B	Vial HCl preserved	A	N/A	4	Y	Absent	MCP-8260-10(14)
L1316680-01C	Vial HCl preserved	A	N/A	4	Y	Absent	MCP-8260-10(14)
L1316680-02A	Vial HCl preserved	A	N/A	4	Y	Absent	MCP-8260-10(14)

\*Values in parentheses indicate holding time in days

**Project Name:** 100 BINNEY STREET  
**Project Number:** 34250-021

**Lab Number:** L1316680  
**Report Date:** 08/29/13

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

**Report Format:** Data Usability Report



**Project Name:** 100 BINNEY STREET  
**Project Number:** 34250-021

**Lab Number:** L1316680  
**Report Date:** 08/29/13

**Data Qualifiers**

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

**Project Name:** 100 BINNEY STREET  
**Project Number:** 34250-021

**Lab Number:** L1316680  
**Report Date:** 08/29/13

## REFERENCES

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

## LIMITATION OF LIABILITIES

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

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



## Certificate/Approval Program Summary

Last revised August 29, 2013 - 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, 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).)

### State of Illinois Certificate/Lab ID: 003155. **NELAP Accredited.**

*Drinking Water* (Inorganic Parameters: SM2120B, 2320B, 2510B, 2540C, SM4500CN-CE, 4500F-C, 4500H-B, 4500NO3-F, 5310C, EPA 200.7, 200.8, 245.1, 300.0. Organic Parameters: EPA 504.1, 524.2.)

*Wastewater/Non-Potable Water* (Inorganic Parameters: SM2120B, 2310B, 2320B, 2340B, 2510B, 2540B, 2540C, 2540D, SM4500CL-E, 4500CN-E, 4500F-C, 4500H-B, 4500NH3-H, 4500NO2-B, 4500NO3-F, 4500P-E, 4500S-D, 4500SO3-B, 5210B, 5220D, 5310C, 5540C, EPA 120.1, 1664A, 200.7, 200.8, 245.1, 300.0, 350.1, 351.1, 353.2, 410.4, 420.1. Organic Parameters: EPA 608, 624, 625.)

*Hazardous and Solid Waste* (Inorganic Parameters: EPA 1010A, 1030, 1311, 1312, 6010C, 6020A, 7196A, 7470A, 7471B, 9012B, 9014, 9038, 9040C, 9045D, 9050A, 9065, 9251. Organic Parameters: 8011 (NPW only), 8015C, 8081B, 8082A, 8151A, 8260C, 8270D, 8315A, 8330.)

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

*Drinking Water* (Inorganic Parameters: SM9215B, 9222D, 9223B, EPA 180.1, 353.2, SM2120B, 2130B, 2320B, 2510C, 2540C, 4500CI-D, 4500CN-C, 4500CN-E, 4500F-C, 4500H+B, 4500NO3-F, 5310C, 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, 300.0, 350.1, 351.1, 353.2, 410.4, 420.1, 8315A, 9010C, SM2120B, 2310B, 2320B, 2510B, 2540B, 2540C, 2540D, 426C, 4500CI-E, 4500CN-C, 4500CN-E, 4500F-B, 4500F-C, 4500H+B, 4500Norg-C, 4500NH3-B, 4500NH3-H, 4500NO2-B, 4500NO3-F, 4500P-B, 4500P-E, 4500S2-D, 4500SO3-B, 5540C, 5210B, 5220D, 5310C, 9010B, 9030B, 9040C, 7470A, 7196A, 2340B, EPA 200.7, 6010C, 200.8, 6020A, 245.1, 1311, 1312, 3005A, Enterolert, 9223B, 9222D. Organic Parameters: 608, 624, 625, 8011, 8081B, 8082A, 8330, 8151A, 8260C, 8270D, 3510C, 3630C, 5030B, ME-DRO, ME-GRO, MA-EPH, MA-VPH.)

*Solid Waste/Soil* (Inorganic Parameters: 9010B, 9012A, 9014, 9040B, 9045C, 6010C, 6020A, 7471B, 7196A, 9050A, 1010, 1030, 9065, 1311, 1312, 3005A, 3050B, 9038, 9251. Organic Parameters: ME-DRO, ME-GRO, MA-EPH, MA-VPH, 8260C, 8270D, 8330, 8151A, 8081B, 8082A, 3540C, 3546, 3580A, 3620C, 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; ColilertQT SM9223B; MF-SM9222D.)

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

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

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

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

*Non-Potable Water* (Inorganic Parameters: SM9222D, 9221B, 9222B, 9221E-EC, EPA 3005A, 200.7, 200.8, 245.1, SW-846 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 Hampshire Department of Environmental Services Certificate/Lab ID: 2064. NELAP Accredited.**

*Drinking Water* (Organic Parameters: **EPA 524.2**: Di-isopropyl ether (DIPE), Ethyl-t-butyl ether (ETBE), Tert-amyl methyl ether (TAME)).

*Non-Potable Water* (Organic Parameters: **EPA 8260C**: 1,3,5-Trichlorobenzene. **EPA 8015C(M)**: TPH.)

*Solid & Chemical Materials* (Organic Parameters: **EPA 8260C**: 1,3,5-Trichlorobenzene.)

**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, 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.)

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, 245.1, SM5310C, EPA 332.0, SM2320B, EPA 300.0, SM2120B, 4500CN-E, 4500F-C, 4500NO<sub>3</sub>-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, 2320B, EPA 200.7, 300.0, SM4500CL-E, 4500F-C, SM15 426C, EPA 350.1, SM4500NH<sub>3</sub>-BH, EPA 351.1, LACHAT 10-107-06-2, EPA 353.2, SM4500-NO<sub>3</sub>-F, 4500-NO<sub>2</sub>-B, 4500P-E, 2340B, 2540C, 2540B, 2540D, EPA 200.8, EPA 6010C, 6020A, EPA 7196A, SM3500Cr-D, EPA 245.1, 7470A, SM2120B, 4500CN-CE, EPA 1664A, EPA 420.1, SM14 510C, EPA 120.1, SM2510B, SM4500S-D, SM5540C, EPA 8315A, 3005A, 3015, 9010C, 9030B. Organic Parameters: EPA 624, 8260C, 8270D, 8270D-SIM, 625, 608, 8081B, 8151A, 8330, 8082A, EPA 3510C, 5030B, 8015C, 8011.)

*Solid & Hazardous Waste* (Inorganic Parameters: EPA 1010A, 1030, EPA 6010C, 6020A, 7196A, 7471B, 8315A, 9012B, 9014, 9065, 9050A, 9038, 9251, EPA 1311, 1312, 3005A, 3050B, 9010C, 9030B, 9040C, 9045D. Organic Parameters: EPA 8260C, 8270D, 8270D-SIM, 8015C, 8081B, 8151A, 8330, 8082A, 3540C, 3546, 3580A, 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, 9012B, 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, 245.1, 2320B, 4500F-C, 4500NO<sub>3</sub>-F, 4500H+B, 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, 350.1, 351.1, 351.2, 3005A, 3015, 1312, 6010B, 6010C, 3060A, 353.2, 420.1, 2340B, 6020, 6020A, SM4500S-D, SM4500-CN-CE, Lachat 10-204-00-1-X, 7196A, 7470A, 2310B, 2320B, 2510B, 2540B, 2540C, 2540D, 3500Cr-D, 426C, 4500Cl-E, 4500F-B, 4500F-C, 4500NH<sub>3</sub>-H, 4500NO<sub>2</sub>-B, 4500NO<sub>3</sub>-F, 4500 SO<sub>3</sub>-B, 4500H-B, 4500PE, 510AC, 5210B, 5310B 5310C, 5540C, 9010Cm

9030B, 9040C. Organic Parameters: EPA 3510C, 3630C, 5030B, 8260B, 608, 624, 625, 8011, 8015C, 8081A, 8081B, 8082, 8082A, 8151A, 8260C, 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, 9010C, 9012B, 9030B, 9014, 9038, 9040C, 9045D, 9251, 9050A, 9065. Organic Parameters: EPA 5030B, 5035, 3540C, 3546, 3550B, 3580A, 3620C, 3630C, 6020A, 8260B, 8260C, 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, 6010C, 6020A, 245.1, 7470A, 9040B, 9010B, 180.1, 300.0, 332.0, 6860, 351.1, 353.2, 9060, 1664A, SM 4500CN-E, 4500H-B, 4500Norg-C, 4500NO3-F, 5310C, 2130B, 2320B, 2340B, 2540C, 5540C, 3005A, 3015, 9056, 7196A, 3500-Cr-D. Organic Parameters: EPA 8015C, 8151A, 8260C, 8270D, 8270D-SIM, 8330A, 8082A, 8081B, 3510C, 5030B, MassDEP EPH, MassDEP VPH.)

*Solid & Hazardous Waste* (Inorganic Parameters: EPA 200.7, 6010C, 6020A, 7471A, 6860, 1311, 1312, 3050B, 7196A, 9040B, 9045C, 9010C, 9012B, 9251, SM3500-CR-D, 4500CN-CE, 2540G, Organic Parameters: EPA 8015C, 8151A, 8260C, 8270D, 8270D-SIM, 8330A/B-prep, 8082A, 8081B, 3540C, 3546, 3580A, 5035A, MassDEP EPH, MassDEP VPH.)

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

**EPA 524.2:** Acetone, 2-Butanone (Methyl ethyl ketone (MEK)), Tert-butyl alcohol, 2-Hexanone, Tetrahydrofuran, 1,3,5-Trichlorobenzene, 4-Methyl-2-pentanone (MIBK), Carbon disulfide, Diethyl ether. **EPA 8260B:** 1,2,4,5-Tetramethylbenzene, 4-Ethyltoluene. **EPA 8260 Non-potable water matrix:** Iodomethane (methyl iodide), Methyl methacrylate. **EPA 8260 Soil matrix:** Tert-amyl methyl ether (TAME), Diisopropyl ether (DIPE), Azobenzene. **EPA 8330A:** PETN, Picric Acid, Nitroglycerine, 2,6-DANT, 2,4-DANT. **EPA 8270C:** Methyl naphthalene, Dimethyl naphthalene, Total Methylnaphthalenes, Total Dimethylnaphthalenes, 1,4-Diphenylhydrazine. **EPA 625:** 4-Chloroaniline, 4-Methylphenol. Total Phosphorus 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.



**HALEY & ALDRICH**

Haley & Aldrich, Inc.  
465 Medford St.,  
Suite 2200,  
Boston, MA 02129-1402

2012

**CHAIN OF CUSTODY RECORD**

L13/16680

Phone (617) 886-7400  
Fax (617) 886-7600

Page 1 of 1

H&A FILE NO. 34250-021 LABORATORY Alpha Analytical DELIVERY DATE  
PROJECT NAME BMR ADDRESS Westborough, MA TURNAROUND TIME 5-DAY  
H&A CONTACT Rebecca Higgins/Jane Parkin Kullmann CONTACT Gina Hall PROJECT MANAGER Keith Johnson

Sample No.	Date	Time	Depth	Type	Analysis Requested													Number of Containers	Comments (special instructions, precautions, additional method numbers, etc.)		
					VOA	ABNs PAH only	MCP Metals	Pesticides PCBs	VPB Staff Suite C-ranges only	EPH Full Suite C-ranges only	TPH (specify)	TCLP (specify)	Reactivity Ignitability Corrosivity								
HA-B15(RW)-08-27-2013 1130				water	X													3	Laboratory to use applicable DEF CAM methods, unless otherwise directed.  B260 VOC's		
				water	X															3	
				water	X																3
				water	X																3
TRIP BLANK				water	X												3				

Sampled and Relinquished by Sign: <i>[Signature]</i> Print: <i>Chris Toranzo</i> Firm: <i>HEA</i> Date: <i>8-27-13</i> Time: <i></i>	Received by Sign: <i>[Signature]</i> Print: <i>Wayne Plummer</i> Firm: <i>Alpha</i> Date: <i>8/27/13</i> Time: <i>1605</i>	LIQUID X 40 mL	VOA Vial Amber Glass Plastic Bottle Preservative Volume	Sampling Comments
Relinquished by Sign: <i>[Signature]</i> Print: <i>Wayne Plummer</i> Firm: <i>Alpha</i> Date: <i>8/27/13</i> Time: <i>1810</i>	Received by Sign: <i>Richard Scott</i> Print: <i>Richard Scott</i> Firm: <i>Alpha</i> Date: <i>8/27/13</i> Time: <i>1910</i>	SOLID	VOA Vial Amber Glass Clear Glass Preservative Volume	Evidence samples were tampered with? YES NO If YES, please explain in section below.
Relinquished by Sign: Print: Firm: Date: Time:	Received by Sign: Print: Firm: Date: Time:	PRESERVATION KEY A Sample chilled C NaOH E H <sub>2</sub> SO <sub>4</sub> G Methanol B Sample filtered D HNO <sub>3</sub> F HCL H Water/NaHSO <sub>4</sub> (circle)		

**Presumptive Certainty Data Package (Laboratory to use applicable DEF CAM methods)**

If Presumptive Certainty Data Package is needed, initial all sections:

The required minimum field QC samples, as designated in BWSC CAM-VII have been or will be collected, as appropriate, to meet the requirements of Presumptive Certainty.

Matrix Spike (MS) samples for MCP Metals and/or Cyanide are included and identified herein.

This Chain of Custody Record (specify) \_\_\_\_\_ includes  does not include samples defined as Drinking Water Samples.

If this Chain of Custody Record identifies samples defined as Drinking Water Samples, Trip Blanks and Field Duplicates are included and identified and analysis of TICs are required, as appropriate. Laboratory should (specify if applicable) \_\_\_\_\_ analyze

**Required Reporting Limits and Data Quality Objectives**

<input type="checkbox"/> RC-S1	<input type="checkbox"/> S1	<input type="checkbox"/> GW1
<input type="checkbox"/> RC-S2	<input type="checkbox"/> S2	<input type="checkbox"/> GW2
<input type="checkbox"/> RC-GW1	<input type="checkbox"/> S3	<input type="checkbox"/> GW3
<input type="checkbox"/> RC-GW2		

**HALEY & ALDRICH**

Haley & Aldrich, Inc.  
465 Medford St.,  
Suite 2200,  
Boston, MA 02129-1402

2012

# CHAIN OF CUSTODY RECORD

L13/6680

Phone (617) 886-7400  
Fax (617) 886-7600

Page 1 of 1

H&A FILE NO.	34250-021	LABORATORY	Alpha Analytical	DELIVERY DATE	
PROJECT NAME	<del>BMR</del> 100 Binney Street	ADDRESS	Westborough, MA	TURNAROUND TIME	5-DAY
H&A CONTACT	Rebecca Higgins/Jane Parkin Kullmann	CONTACT	Gina Hall	PROJECT MANAGER	Keith Johnson

Sample No.	Date	Time	Depth	Type	Analysis Requested													Number of Containers	Comments (special instructions, precautions, additional method numbers, etc.)		
					VOA	ABNS PAH only	MCP Metals	Pesticides PCPs	VPB Soil Suite C-ranges only	EPH Soil Suite C-ranges only	TPH (specify)	TCLP (specify)	Reactivity Ignitability Corrosivity								
HA-B15(RW)-08-27-2013 1130 -				water	X													3	Laboratory to use applicable DEF CAM methods, unless otherwise directed.  B260 VOC's		
				water	X															3	
				water	X																3
				water	X																3
TRIP BLANK				water	X													3			

project name change per Jane Kullmann--GMH 8/28/13

Sampled and Relinquished by	Received by	LIQUID	Sampling Comments
Sign: <i>[Signature]</i> Print: <i>Chris Toranzo</i> Firm: <i>HEA</i> Date: <i>8-27-13</i> Time	Sign: <i>[Signature]</i> Print: <i>Wayne Plummer</i> Firm: <i>Alpha</i> Date: <i>8/27/13</i> Time <i>1605</i>	X 40 mL	VOA Vial Amber Glass Plastic Bottle Preservative Volume
Relinquished by	Received by	SOLID	
Sign: <i>[Signature]</i> Print: <i>Wayne Plummer</i> Firm: <i>Alpha</i> Date: <i>8/27/13</i> Time <i>1810</i>	Sign: <i>Richard Scott</i> Print: <i>Richard Scott</i> Firm: <i>Alpha</i> Date: <i>8/27/13</i> Time <i>1910</i>		VOA Vial Amber Glass Clear Glass Preservative Volume
Relinquished by	Received by	PRESERVATION KEY	Evidence samples were tampered with? YES NO If YES, please explain in section below.
Sign	Sign	A Sample chilled      C NaOH      E H <sub>2</sub> SO <sub>4</sub> G Methanol	
Print	Print	B Sample filtered      D HNO <sub>3</sub> F HCL      H Water/NaHSO <sub>4</sub> (circle)	
Firm	Firm		
Date	Date		

### Presumptive Certainty Data Package (Laboratory to use applicable DEF CAM methods)

<p>If Presumptive Certainty Data Package is needed, initial all sections:</p> <p><input checked="" type="checkbox"/> The required minimum field QC samples, as designated in BWSC CAM-VII have been or will be collected, as appropriate, to meet the requirements of Presumptive Certainty.</p> <p>Matrix Spike (MS) samples for MCP Metals and/or Cyanide are included and identified herein.</p> <p><input checked="" type="checkbox"/> This Chain of Custody Record (specify) _____ includes <input checked="" type="checkbox"/> does not include samples defined as Drinking Water Samples.</p> <p>If this Chain of Custody Record identifies samples defined as Drinking Water Samples, Trip Blanks and Field Duplicates are included and identified and analysis of TICs are required, as appropriate. Laboratory should (specify if applicable) _____ analyze</p>	<p>Required Reporting Limits and Data Quality Objectives</p> <table border="0"> <tr> <td><input type="checkbox"/> RC-S1</td> <td><input type="checkbox"/> S1</td> <td><input type="checkbox"/> GW1</td> </tr> <tr> <td><input type="checkbox"/> RC-S2</td> <td><input type="checkbox"/> S2</td> <td><input type="checkbox"/> GW2</td> </tr> <tr> <td><input type="checkbox"/> RC-GW1</td> <td><input type="checkbox"/> S3</td> <td><input type="checkbox"/> GW3</td> </tr> <tr> <td><input type="checkbox"/> RC-GW2</td> <td></td> <td></td> </tr> </table>	<input type="checkbox"/> RC-S1	<input type="checkbox"/> S1	<input type="checkbox"/> GW1	<input type="checkbox"/> RC-S2	<input type="checkbox"/> S2	<input type="checkbox"/> GW2	<input type="checkbox"/> RC-GW1	<input type="checkbox"/> S3	<input type="checkbox"/> GW3	<input type="checkbox"/> RC-GW2		
<input type="checkbox"/> RC-S1	<input type="checkbox"/> S1	<input type="checkbox"/> GW1											
<input type="checkbox"/> RC-S2	<input type="checkbox"/> S2	<input type="checkbox"/> GW2											
<input type="checkbox"/> RC-GW1	<input type="checkbox"/> S3	<input type="checkbox"/> GW3											
<input type="checkbox"/> RC-GW2													

7A  
Volatile Organics CONTINUING CALIBRATION CHECK

Lab Name: Alpha Analytical Labs

SDG No.: L1316680

Instrument ID: Quimby.i      Calibration Date: 29-AUG-2013      Time: 06:09

Lab File ID: 0829A04      Init. Calib. Date(s): 03-AUG-2      03-AUG-2

Sample No: 8260 CCAL      Init. Calib. Times : 11:54      15:34

Compound	RRF	RRF	MIN RRF	%D	MAX %D	
=====	=====	=====	=====	=====	=====	
dichlorodifluoromethane	.48192	.40651	.1	16	20	
chloromethane	.66153	.52945	.1	20	20	
vinyl chloride	.4549	.50402	.1	-11	20	
bromomethane	.35991	.25987	.1	28	20	F
chloroethane	.36569	.38219	.1	-5	20	
trichlorofluoromethane	.70547	.78868	.1	-12	20	
ethyl ether	.24138	.2389	.05	1	20	
acrolein	.05804	.0556	.05	4	20	
freon-113	.4491	.44038	.1	2	20	
acetone	100	90.350	.1	10	20	
1,1,-dichloroethene	.4408	.41986	.1	5	20	
tert-butyl alcohol	.01704	.01461	.05	14	20	F
iodomethane	.48518	.34724	.05	28	20	F
methyl acetate	.22559	.21165	.01	6	30	
methylene chloride	100	89.831	.1	10	20	
carbon disulfide	1.3388	1.2614	.1	6	20	
acrylonitrile	.12207	.11353	.05	7	20	
methyl tert butyl ether	.95413	.8618	.1	10	20	
Halothane	.35325	.27018	.05	24	20	F
trans-1,2-dichloroethene	.49084	.48152	.1	2	20	
Diisopropyl Ether	1.8188	1.7316	.05	5	20	
vinyl acetate	.67825	.70163	.05	-3	20	
1,1-dichloroethane	.95987	.93019	.2	3	20	
Ethyl-Tert-Butyl-Ether	1.3059	1.1993	.05	8	20	
2-butanone	100	107	.1	-7	20	
2,2-dichloropropane	100	107	.05	-7	20	
ethyl acetate	.30471	.30532	.05	0	20	
cis-1,2-dichloroethene	.54983	.53778	.1	2	20	
chloroform	.90419	.90201	.2	0	20	
bromochloromethane	.22132	.21814	.05	1	20	
tetrahydrofuran	.09694	.08552	.05	12	20	
1,1,1-trichloroethane	.70497	.72192	.1	-2	20	
cyclohexane	.96734	.91525	.01	5	30	
1,1-dichloropropene	.70714	.70755	.05	0	20	
carbontetrachloride	100	116	.1	-16	20	
Tertiary-Amyl Methyl Ether	1.0155	.86915	.05	14	20	
1,2-dichloroethane	.64663	.63667	.1	2	20	
benzene	2.1672	2.1283	.5	2	20	

FORM VII MCP-8260-10

7A  
CONTINUING CALIBRATION CHECK

Lab Name: Alpha Analytical Labs

SDG No.: L1316680

Instrument ID: Quimby.i      Calibration Date: 29-AUG-2013      Time: 06:09

Lab File ID: 0829A04      Init. Calib. Date(s): 03-AUG-2      03-AUG-2

Sample No: 8260 CCAL      Init. Calib. Times : 11:54      15:34

Compound	RRF	RRF	MIN RRF	%D	MAX %D
=====	=====	=====	=====	=====	=====
trichloroethene	.49943	.48981	.2	2	20
methyl cyclohexane	.79943	.76875	.01	4	30
1,2-dichloropropane	.54811	.52474	.1	4	20
bromodichloromethane	.63125	.63661	.2	-1	20
1,4-dioxane	.00272	.00233	.05	14	20
dibromomethane	.24397	.24195	.05	1	20
2-chloroethylvinyl ether	.14271	.1151	.05	19	20
4-methyl-2-pentanone	.10893	.10165	.1	7	20
cis-1,3-dichloropropene	.70254	.68926	.2	2	20
toluene	1.5178	1.4480	.4	5	20
ethyl-methacrylate	.47083	.46119	.01	2	30
trans-1,3-dichloropropene	.56461	.57483	.1	-2	20
2-hexanone	.23438	.21635	.1	8	20
1,1,2-trichloroethane	.32992	.31415	.1	5	20
1,3-dichloropropane	.72289	.69035	.05	5	20
tetrachloroethene	.57848	.57602	.2	0	20
chlorodibromomethane	.40521	.41924	.1	-3	20
1,2-dibromoethane	.34872	.34505	.1	1	20
chlorobenzene	1.5937	1.5762	.5	1	20
1,1,1,2-tetrachloroethane	.44836	.4707	.05	-5	20
ethyl benzene	2.8497	2.9093	.1	-2	20
p/m xylene	1.1090	1.1303	.1	-2	20
o xylene	1.0893	1.1102	.3	-2	20
styrene	1.7746	1.8263	.31	-3	20
isopropylbenzene	2.7949	2.8608	.1	-2	20
bromoform	.37579	.38298	.1	-2	20
1,4-dichlorobutane	1.2819	1.2496	.01	3	30
1,1,2,2,-tetrachloroethane	.80355	.75058	.3	7	20
1,2,3-trichloropropane	.629	.57912	.05	8	20
trans-1,4-dichloro-2-butene	.23221	.21906	.05	6	20
n-propylbenzene	5.6238	5.5827	.05	1	20
bromobenzene	1.1520	1.1622	.05	-1	20
4-ethyltoluene	2.7280	2.7309	.05	0	20
1,3,5-trimethylbenzene	4.0089	4.1704	.05	-4	20
2-chlorotoluene	3.9968	4.0672	.05	-2	20
4-chlorotoluene	3.7593	3.7812	.05	-1	20
tert-butylbenzene	3.3739	3.4071	.05	-1	20
1,2,4-trimethylbenzene	3.8938	3.9365	.05	-1	20

F

FORM VII MCP-8260-10

7A  
CONTINUING CALIBRATION CHECK

Lab Name: Alpha Analytical Labs

SDG No.: L1316680

Instrument ID: Quimby.i      Calibration Date: 29-AUG-2013      Time: 06:09

Lab File ID: 0829A04      Init. Calib. Date(s): 03-AUG-2      03-AUG-2

Sample No: 8260 CCAL      Init. Calib. Times : 11:54      15:34

Compound	RRF	RRF	MIN RRF	%D	MAX %D
sec-butylbenzene	4.8218	4.8593	.05	-1	20
p-isopropyltoluene	3.8479	4.0382	.05	-5	20
1,3-dichlorobenzene	2.2511	2.3079	.6	-3	20
1,4-dichlorobenzene	2.2670	2.2729	.5	0	20
n-butylbenzene	4.0374	4.0802	.05	-1	20
1,2,4,5-tetramethylbenzene	1.2416	1.2443	.05	0	20
1,2-dichlorobenzene	2.0349	2.0269	.4	0	20
p-diethylbenzene	1.6964	1.7333	.05	-2	20
1,2-dibromo-3-chloropropane	.10023	.0979	.05	2	20
1,3,5-trichlorobenzene	1.3381	1.3124	.01	2	30
1,2,4-trichlorobenzene	1.0237	.99413	.2	3	20
hexachlorobutadiene	.45013	.43626	.05	3	20
naphthalene	1.6749	1.5934	.05	5	20
1,2,3-trichlorobenzene	.82934	.80969	.05	2	20
dibromofluoromethane	.23962	.24332	.05	-2	20
1,2-dichloroethane-d4	.25793	.26187	.05	-2	20
toluene-d8	1.1767	1.1871	.05	-1	20
4-bromofluorobenzene	.96599	.93277	.05	3	20

7A  
CONTINUING CALIBRATION CHECK

Lab Name: Alpha Analytical Labs

SDG No.: L1316680

Instrument ID: Quimby.i      Calibration Date: 28-AUG-2013      Time: 04:22

Lab File ID: 0828A01      Init. Calib. Date(s): 03-AUG-2      03-AUG-2

Sample No: wg632151-1,31,1      Init. Calib. Times : 11:54      15:34

Compound	RRF	RRF	MIN RRF	%D	MAX %D	
=====	=====	=====	=====	=====	=====	
dichlorodifluoromethane	.48192	.45906	.1	5	20	
chloromethane	.66153	.56809	.1	14	20	
vinyl chloride	.4549	.55037	.1	-21	20	F
bromomethane	.35991	.2556	.1	29	20	F
chloroethane	.36569	.39517	.1	-8	20	
trichlorofluoromethane	.70547	.83456	.1	-18	20	
ethyl ether	.24138	.22461	.05	7	20	
acetone	100	134	.1	-34	20	F
1,1,-dichloroethene	.4408	.44978	.1	-2	20	
methylene chloride	100	89.997	.1	10	20	
carbon disulfide	1.3388	1.3177	.1	2	20	
methyl tert butyl ether	.95413	.82379	.1	14	20	
trans-1,2-dichloroethene	.49084	.49864	.1	-2	20	
Diisopropyl Ether	1.8188	1.6956	.05	7	20	
1,1-dichloroethane	.95987	.93564	.2	3	20	
Ethyl-Tert-Butyl-Ether	1.3059	1.1500	.05	12	20	
2-butanone	100	121	.1	-21	20	F
2,2-dichloropropane	100	106	.05	-6	20	
cis-1,2-dichloroethene	.54983	.54081	.1	2	20	
chloroform	.90419	.89345	.2	1	20	
bromochloromethane	.22132	.21418	.05	3	20	
tetrahydrofuran	.09694	.08073	.05	17	20	
1,1,1-trichloroethane	.70497	.73626	.1	-4	20	
1,1-dichloropropene	.70714	.74772	.05	-6	20	
carbontetrachloride	100	116	.1	-16	20	
Tertiary-Amyl Methyl Ether	1.0155	.82035	.05	19	20	
1,2-dichloroethane	.64663	.60123	.1	7	20	
benzene	2.1672	2.1413	.5	1	20	
trichloroethene	.49943	.4981	.2	0	20	
1,2-dichloropropane	.54811	.51195	.1	7	20	
bromodichloromethane	.63125	.6094	.2	3	20	
1,4-dioxane	.00272	.0022	.05	19	20	F
dibromomethane	.24397	.22893	.05	6	20	
2-chloroethylvinyl ether	.14271	.10967	.05	23	20	F
4-methyl-2-pentanone	.10893	.09224	.1	15	20	
cis-1,3-dichloropropene	.70254	.66256	.2	6	20	
toluene	1.5178	1.52	.4	0	20	
trans-1,3-dichloropropene	.56461	.54983	.1	3	20	

FORM VII MCP-8260-10

7A  
CONTINUING CALIBRATION CHECK

Lab Name: Alpha Analytical Labs

SDG No.: L1316680

Instrument ID: Quimby.i      Calibration Date: 28-AUG-2013      Time: 04:22

Lab File ID: 0828A01      Init. Calib. Date(s): 03-AUG-2      03-AUG-2

Sample No: wg632151-1,31,1      Init. Calib. Times : 11:54      15:34

Compound	RRF	RRF	MIN RRF	%D	MAX %D
1,1,2-trichloroethane	.32992	.31417	.1	5	20
2-hexanone	.23438	.28521	.1	-22	20
1,3-dichloropropane	.72289	.68579	.05	5	20
tetrachloroethene	.57848	.64463	.2	-11	20
chlorodibromomethane	.40521	.40629	.1	0	20
1,2-dibromoethane	.34872	.33171	.1	5	20
chlorobenzene	1.5937	1.6135	.5	-1	20
1,1,1,2-tetrachloroethane	.44836	.47842	.05	-7	20
ethyl benzene	2.8497	3.0611	.1	-7	20
p/m xylene	1.1090	1.1845	.1	-7	20
o xylene	1.0893	1.1450	.3	-5	20
styrene	1.7746	1.8584	.31	-5	20
isopropylbenzene	2.7949	3.0693	.1	-10	20
bromoform	.37579	.36262	.1	4	20
1,1,2,2,-tetrachloroethane	.80355	.72694	.3	10	20
1,2,3-trichloropropane	.629	.5593	.05	11	20
n-propylbenzene	5.6238	6.0331	.05	-7	20
bromobenzene	1.1520	1.1594	.05	-1	20
1,3,5-trimethylbenzene	4.0089	4.4301	.05	-11	20
2-chlorotoluene	3.9968	4.2572	.05	-7	20
4-chlorotoluene	3.7593	3.9412	.05	-5	20
tert-butylbenzene	3.3739	3.7234	.05	-10	20
1,2,4-trimethylbenzene	3.8938	4.1564	.05	-7	20
sec-butylbenzene	4.8218	5.4568	.05	-13	20
p-isopropyltoluene	3.8479	4.4276	.05	-15	20
1,3-dichlorobenzene	2.2511	2.4004	.6	-7	20
1,4-dichlorobenzene	2.2670	2.3140	.5	-2	20
n-butylbenzene	4.0374	4.5168	.05	-12	20
1,2-dichlorobenzene	2.0349	2.0623	.4	-1	20
1,2-dibromo-3-chloropropane	.10023	.09321	.05	7	20
1,2,4-trichlorobenzene	1.0237	.99543	.2	3	20
hexachlorobutadiene	.45013	.47796	.05	-6	20
naphthalene	1.6749	1.5126	.05	10	20
1,2,3-trichlorobenzene	.82934	.79373	.05	4	20
dibromofluoromethane	.23962	.24004	.05	0	20
1,2-dichloroethane-d4	.25793	.25253	.05	2	20
toluene-d8	1.1767	1.2183	.05	-4	20

F

FORM VII MCP-8260-10

7A  
CONTINUING CALIBRATION CHECK

Lab Name: Alpha Analytical Labs

SDG No.: L1316680

Instrument ID: Quimby.i Calibration Date: 28-AUG-2013 Time: 04:22

Lab File ID: 0828A01 Init. Calib. Date(s): 03-AUG-2 03-AUG-2

Sample No: wg632151-1,31,1 Init. Calib. Times : 11:54 15:34

Compound	$\bar{RRF}$	RRF	MIN RRF	%D	MAX %D
=====	=====	=====	=====	=====	=====
4-bromofluorobenzene	.96599	.92805	.05	4	20





## ANALYTICAL REPORT

Lab Number:	L1316784
Client:	Haley & Aldrich, Inc. 465 Medford Street, Suite 2200 Charlestown, MA 02129-1400
ATTN:	Keith Johnson
Phone:	(617) 886-7400
Project Name:	100 BINNEY STREET
Project Number:	34250-021
Report Date:	09/03/13

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.

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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:** 100 BINNEY STREET  
**Project Number:** 34250-021

**Lab Number:** L1316784  
**Report Date:** 09/03/13

<b>Alpha Sample ID</b>	<b>Client ID</b>	<b>Sample Location</b>	<b>Collection Date/Time</b>
L1316784-01	MW-58-08-28-2013	Not Specified	08/28/13 09:30
L1316784-02	MW-59-08-28-2013	Not Specified	08/28/13 11:00
L1316784-03	MW-66-08-28-2013	Not Specified	08/28/13 13:45
L1316784-04	TRIP BLANK	Not Specified	08/28/13 00:00

Project Name: 100 BINNEY STREET

Lab Number: L1316784

Project Number: 34250-021

Report Date: 09/03/13

**MADEP MCP Response Action Analytical Report Certification**

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

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

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



**Project Name:** 100 BINNEY STREET  
**Project Number:** 34250-021

**Lab Number:** L1316784  
**Report Date:** 09/03/13

### 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:** 100 BINNEY STREET  
**Project Number:** 34250-021

**Lab Number:** L1316784  
**Report Date:** 09/03/13

### Case Narrative (continued)

#### MCP Related Narratives

##### Volatile Organics

In reference to question G:

L1316784-01, -02 and -03: One or more of the target analytes did not achieve the requested CAM reporting limits.

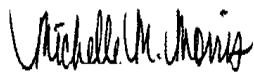
In reference to question H:

The initial calibration, associated with L1316784-01 through -04, did not meet the method required minimum response factor on the lowest calibration standard for 1,4-dioxane (0.00298), as well as the average response factor for 1,4-dioxane. In addition, a quadratic fit was utilized for carbon tetrachloride, acetone and 2,2-dichloropropane.

The continuing calibration standards, associated with L1316784-01 through -04, are outside the acceptance criteria for several compounds; however, they are within overall method allowances. A copy of the continuing calibration standards is included as an addendum to this report.

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: 09/03/13

# ORGANICS

# VOLATILES

**Project Name:** 100 BINNEY STREET**Lab Number:** L1316784**Project Number:** 34250-021**Report Date:** 09/03/13**SAMPLE RESULTS**

Lab ID: L1316784-01 D2  
 Client ID: MW-58-08-28-2013  
 Sample Location: Not Specified  
 Matrix: Water  
 Analytical Method: 97,8260C  
 Analytical Date: 09/03/13 09:04  
 Analyst: MM

Date Collected: 08/28/13 09:30  
 Date Received: 08/28/13  
 Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
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## MCP Volatile Organics - Westborough Lab

Benzene	18000		ug/l	250	--	500
---------	-------	--	------	-----	----	-----

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	106		70-130
Toluene-d8	97		70-130
4-Bromofluorobenzene	96		70-130
Dibromofluoromethane	102		70-130



**Project Name:** 100 BINNEY STREET**Lab Number:** L1316784**Project Number:** 34250-021**Report Date:** 09/03/13**SAMPLE RESULTS**

Lab ID: L1316784-01 D  
 Client ID: MW-58-08-28-2013  
 Sample Location: Not Specified  
 Matrix: Water  
 Analytical Method: 97,8260C  
 Analytical Date: 08/30/13 10:10  
 Analyst: MM

Date Collected: 08/28/13 09:30  
 Date Received: 08/28/13  
 Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
<b>MCP Volatile Organics - Westborough Lab</b>						
Methylene chloride	ND		ug/l	400	--	200
1,1-Dichloroethane	ND		ug/l	200	--	200
Chloroform	ND		ug/l	200	--	200
Carbon tetrachloride	ND		ug/l	200	--	200
1,2-Dichloropropane	ND		ug/l	200	--	200
Dibromochloromethane	ND		ug/l	200	--	200
1,1,2-Trichloroethane	ND		ug/l	200	--	200
Tetrachloroethene	ND		ug/l	200	--	200
Chlorobenzene	ND		ug/l	200	--	200
Trichlorofluoromethane	ND		ug/l	400	--	200
1,2-Dichloroethane	ND		ug/l	200	--	200
1,1,1-Trichloroethane	ND		ug/l	200	--	200
Bromodichloromethane	ND		ug/l	200	--	200
trans-1,3-Dichloropropene	ND		ug/l	100	--	200
cis-1,3-Dichloropropene	ND		ug/l	100	--	200
1,1-Dichloropropene	ND		ug/l	400	--	200
Bromoform	ND		ug/l	400	--	200
1,1,2,2-Tetrachloroethane	ND		ug/l	200	--	200
Benzene	20000	E	ug/l	100	--	200
Toluene	2800		ug/l	200	--	200
Ethylbenzene	4200		ug/l	200	--	200
Chloromethane	ND		ug/l	400	--	200
Bromomethane	ND		ug/l	400	--	200
Vinyl chloride	ND		ug/l	200	--	200
Chloroethane	ND		ug/l	400	--	200
1,1-Dichloroethene	ND		ug/l	200	--	200
trans-1,2-Dichloroethene	ND		ug/l	200	--	200
Trichloroethene	ND		ug/l	200	--	200
1,2-Dichlorobenzene	ND		ug/l	200	--	200
1,3-Dichlorobenzene	ND		ug/l	200	--	200
1,4-Dichlorobenzene	ND		ug/l	200	--	200

Project Name: 100 BINNEY STREET

Lab Number: L1316784

Project Number: 34250-021

Report Date: 09/03/13

## SAMPLE RESULTS

Lab ID: L1316784-01 D

Date Collected: 08/28/13 09:30

Client ID: MW-58-08-28-2013

Date Received: 08/28/13

Sample Location: Not Specified

Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
<b>MCP Volatile Organics - Westborough Lab</b>						
Methyl tert butyl ether	ND		ug/l	400	--	200
p/m-Xylene	2100		ug/l	400	--	200
o-Xylene	960		ug/l	200	--	200
cis-1,2-Dichloroethene	ND		ug/l	200	--	200
Dibromomethane	ND		ug/l	400	--	200
1,2,3-Trichloropropane	ND		ug/l	400	--	200
Styrene	ND		ug/l	200	--	200
Dichlorodifluoromethane	ND		ug/l	400	--	200
Acetone	ND		ug/l	1000	--	200
Carbon disulfide	ND		ug/l	400	--	200
2-Butanone	ND		ug/l	1000	--	200
4-Methyl-2-pentanone	ND		ug/l	1000	--	200
2-Hexanone	ND		ug/l	1000	--	200
Bromochloromethane	ND		ug/l	400	--	200
Tetrahydrofuran	ND		ug/l	400	--	200
2,2-Dichloropropane	ND		ug/l	400	--	200
1,2-Dibromoethane	ND		ug/l	400	--	200
1,3-Dichloropropane	ND		ug/l	400	--	200
1,1,1,2-Tetrachloroethane	ND		ug/l	200	--	200
Bromobenzene	ND		ug/l	400	--	200
n-Butylbenzene	ND		ug/l	400	--	200
sec-Butylbenzene	ND		ug/l	400	--	200
tert-Butylbenzene	ND		ug/l	400	--	200
o-Chlorotoluene	ND		ug/l	400	--	200
p-Chlorotoluene	ND		ug/l	400	--	200
1,2-Dibromo-3-chloropropane	ND		ug/l	400	--	200
Hexachlorobutadiene	ND		ug/l	120	--	200
Isopropylbenzene	ND		ug/l	400	--	200
p-Isopropyltoluene	ND		ug/l	400	--	200
Naphthalene	5400		ug/l	400	--	200
n-Propylbenzene	ND		ug/l	400	--	200
1,2,3-Trichlorobenzene	ND		ug/l	400	--	200
1,2,4-Trichlorobenzene	ND		ug/l	400	--	200
1,3,5-Trimethylbenzene	ND		ug/l	400	--	200
1,2,4-Trimethylbenzene	ND		ug/l	400	--	200
Ethyl ether	ND		ug/l	400	--	200
Isopropyl Ether	ND		ug/l	400	--	200
Ethyl-Tert-Butyl-Ether	ND		ug/l	400	--	200
Tertiary-Amyl Methyl Ether	ND		ug/l	400	--	200

**Project Name:** 100 BINNEY STREET**Lab Number:** L1316784**Project Number:** 34250-021**Report Date:** 09/03/13**SAMPLE RESULTS**

Lab ID: L1316784-01 D

Date Collected: 08/28/13 09:30

Client ID: MW-58-08-28-2013

Date Received: 08/28/13

Sample Location: Not Specified

Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
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## MCP Volatile Organics - Westborough Lab

1,4-Dioxane	ND		ug/l	50000	--	200
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Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	99		70-130
Toluene-d8	101		70-130
4-Bromofluorobenzene	96		70-130
Dibromofluoromethane	99		70-130

**Project Name:** 100 BINNEY STREET**Lab Number:** L1316784**Project Number:** 34250-021**Report Date:** 09/03/13**SAMPLE RESULTS**

Lab ID: L1316784-02 D  
 Client ID: MW-59-08-28-2013  
 Sample Location: Not Specified  
 Matrix: Water  
 Analytical Method: 97,8260C  
 Analytical Date: 08/30/13 10:42  
 Analyst: MM

Date Collected: 08/28/13 11:00  
 Date Received: 08/28/13  
 Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
<b>MCP Volatile Organics - Westborough Lab</b>						
Methylene chloride	ND		ug/l	400	--	200
1,1-Dichloroethane	ND		ug/l	200	--	200
Chloroform	ND		ug/l	200	--	200
Carbon tetrachloride	ND		ug/l	200	--	200
1,2-Dichloropropane	ND		ug/l	200	--	200
Dibromochloromethane	ND		ug/l	200	--	200
1,1,2-Trichloroethane	ND		ug/l	200	--	200
Tetrachloroethene	ND		ug/l	200	--	200
Chlorobenzene	ND		ug/l	200	--	200
Trichlorofluoromethane	ND		ug/l	400	--	200
1,2-Dichloroethane	ND		ug/l	200	--	200
1,1,1-Trichloroethane	ND		ug/l	200	--	200
Bromodichloromethane	ND		ug/l	200	--	200
trans-1,3-Dichloropropene	ND		ug/l	100	--	200
cis-1,3-Dichloropropene	ND		ug/l	100	--	200
1,1-Dichloropropene	ND		ug/l	400	--	200
Bromoform	ND		ug/l	400	--	200
1,1,2,2-Tetrachloroethane	ND		ug/l	200	--	200
Benzene	7600		ug/l	100	--	200
Toluene	ND		ug/l	200	--	200
Ethylbenzene	1100		ug/l	200	--	200
Chloromethane	ND		ug/l	400	--	200
Bromomethane	ND		ug/l	400	--	200
Vinyl chloride	ND		ug/l	200	--	200
Chloroethane	ND		ug/l	400	--	200
1,1-Dichloroethene	ND		ug/l	200	--	200
trans-1,2-Dichloroethene	ND		ug/l	200	--	200
Trichloroethene	ND		ug/l	200	--	200
1,2-Dichlorobenzene	ND		ug/l	200	--	200
1,3-Dichlorobenzene	ND		ug/l	200	--	200
1,4-Dichlorobenzene	ND		ug/l	200	--	200

**Project Name:** 100 BINNEY STREET**Lab Number:** L1316784**Project Number:** 34250-021**Report Date:** 09/03/13**SAMPLE RESULTS**

Lab ID: L1316784-02 D

Date Collected: 08/28/13 11:00

Client ID: MW-59-08-28-2013

Date Received: 08/28/13

Sample Location: Not Specified

Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
<b>MCP Volatile Organics - Westborough Lab</b>						
Methyl tert butyl ether	ND		ug/l	400	--	200
p/m-Xylene	540		ug/l	400	--	200
o-Xylene	300		ug/l	200	--	200
cis-1,2-Dichloroethene	ND		ug/l	200	--	200
Dibromomethane	ND		ug/l	400	--	200
1,2,3-Trichloropropane	ND		ug/l	400	--	200
Styrene	ND		ug/l	200	--	200
Dichlorodifluoromethane	ND		ug/l	400	--	200
Acetone	ND		ug/l	1000	--	200
Carbon disulfide	ND		ug/l	400	--	200
2-Butanone	ND		ug/l	1000	--	200
4-Methyl-2-pentanone	ND		ug/l	1000	--	200
2-Hexanone	ND		ug/l	1000	--	200
Bromochloromethane	ND		ug/l	400	--	200
Tetrahydrofuran	ND		ug/l	400	--	200
2,2-Dichloropropane	ND		ug/l	400	--	200
1,2-Dibromoethane	ND		ug/l	400	--	200
1,3-Dichloropropane	ND		ug/l	400	--	200
1,1,1,2-Tetrachloroethane	ND		ug/l	200	--	200
Bromobenzene	ND		ug/l	400	--	200
n-Butylbenzene	ND		ug/l	400	--	200
sec-Butylbenzene	ND		ug/l	400	--	200
tert-Butylbenzene	ND		ug/l	400	--	200
o-Chlorotoluene	ND		ug/l	400	--	200
p-Chlorotoluene	ND		ug/l	400	--	200
1,2-Dibromo-3-chloropropane	ND		ug/l	400	--	200
Hexachlorobutadiene	ND		ug/l	120	--	200
Isopropylbenzene	ND		ug/l	400	--	200
p-Isopropyltoluene	ND		ug/l	400	--	200
Naphthalene	1200		ug/l	400	--	200
n-Propylbenzene	ND		ug/l	400	--	200
1,2,3-Trichlorobenzene	ND		ug/l	400	--	200
1,2,4-Trichlorobenzene	ND		ug/l	400	--	200
1,3,5-Trimethylbenzene	ND		ug/l	400	--	200
1,2,4-Trimethylbenzene	ND		ug/l	400	--	200
Ethyl ether	ND		ug/l	400	--	200
Isopropyl Ether	ND		ug/l	400	--	200
Ethyl-Tert-Butyl-Ether	ND		ug/l	400	--	200
Tertiary-Amyl Methyl Ether	ND		ug/l	400	--	200

**Project Name:** 100 BINNEY STREET**Lab Number:** L1316784**Project Number:** 34250-021**Report Date:** 09/03/13**SAMPLE RESULTS**

Lab ID: L1316784-02 D

Date Collected: 08/28/13 11:00

Client ID: MW-59-08-28-2013

Date Received: 08/28/13

Sample Location: Not Specified

Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
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## MCP Volatile Organics - Westborough Lab

1,4-Dioxane	ND		ug/l	50000	--	200
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Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	100		70-130
Toluene-d8	101		70-130
4-Bromofluorobenzene	96		70-130
Dibromofluoromethane	100		70-130

**Project Name:** 100 BINNEY STREET**Lab Number:** L1316784**Project Number:** 34250-021**Report Date:** 09/03/13**SAMPLE RESULTS**

Lab ID: L1316784-03 D  
 Client ID: MW-66-08-28-2013  
 Sample Location: Not Specified  
 Matrix: Water  
 Analytical Method: 97,8260C  
 Analytical Date: 08/30/13 11:13  
 Analyst: MM

Date Collected: 08/28/13 13:45  
 Date Received: 08/28/13  
 Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
<b>MCP Volatile Organics - Westborough Lab</b>						
Methylene chloride	ND		ug/l	40	--	20
1,1-Dichloroethane	ND		ug/l	20	--	20
Chloroform	ND		ug/l	20	--	20
Carbon tetrachloride	ND		ug/l	20	--	20
1,2-Dichloropropane	ND		ug/l	20	--	20
Dibromochloromethane	ND		ug/l	20	--	20
1,1,2-Trichloroethane	ND		ug/l	20	--	20
Tetrachloroethene	ND		ug/l	20	--	20
Chlorobenzene	ND		ug/l	20	--	20
Trichlorofluoromethane	ND		ug/l	40	--	20
1,2-Dichloroethane	ND		ug/l	20	--	20
1,1,1-Trichloroethane	ND		ug/l	20	--	20
Bromodichloromethane	ND		ug/l	20	--	20
trans-1,3-Dichloropropene	ND		ug/l	10	--	20
cis-1,3-Dichloropropene	ND		ug/l	10	--	20
1,1-Dichloropropene	ND		ug/l	40	--	20
Bromoform	ND		ug/l	40	--	20
1,1,2,2-Tetrachloroethane	ND		ug/l	20	--	20
Benzene	830		ug/l	10	--	20
Toluene	100		ug/l	20	--	20
Ethylbenzene	500		ug/l	20	--	20
Chloromethane	ND		ug/l	40	--	20
Bromomethane	ND		ug/l	40	--	20
Vinyl chloride	ND		ug/l	20	--	20
Chloroethane	ND		ug/l	40	--	20
1,1-Dichloroethene	ND		ug/l	20	--	20
trans-1,2-Dichloroethene	ND		ug/l	20	--	20
Trichloroethene	ND		ug/l	20	--	20
1,2-Dichlorobenzene	ND		ug/l	20	--	20
1,3-Dichlorobenzene	ND		ug/l	20	--	20
1,4-Dichlorobenzene	ND		ug/l	20	--	20

Project Name: 100 BINNEY STREET

Lab Number: L1316784

Project Number: 34250-021

Report Date: 09/03/13

## SAMPLE RESULTS

Lab ID: L1316784-03 D

Date Collected: 08/28/13 13:45

Client ID: MW-66-08-28-2013

Date Received: 08/28/13

Sample Location: Not Specified

Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
<b>MCP Volatile Organics - Westborough Lab</b>						
Methyl tert butyl ether	ND		ug/l	40	--	20
p/m-Xylene	130		ug/l	40	--	20
o-Xylene	100		ug/l	20	--	20
cis-1,2-Dichloroethene	ND		ug/l	20	--	20
Dibromomethane	ND		ug/l	40	--	20
1,2,3-Trichloropropane	ND		ug/l	40	--	20
Styrene	ND		ug/l	20	--	20
Dichlorodifluoromethane	ND		ug/l	40	--	20
Acetone	ND		ug/l	100	--	20
Carbon disulfide	ND		ug/l	40	--	20
2-Butanone	ND		ug/l	100	--	20
4-Methyl-2-pentanone	ND		ug/l	100	--	20
2-Hexanone	ND		ug/l	100	--	20
Bromochloromethane	ND		ug/l	40	--	20
Tetrahydrofuran	ND		ug/l	40	--	20
2,2-Dichloropropane	ND		ug/l	40	--	20
1,2-Dibromoethane	ND		ug/l	40	--	20
1,3-Dichloropropane	ND		ug/l	40	--	20
1,1,1,2-Tetrachloroethane	ND		ug/l	20	--	20
Bromobenzene	ND		ug/l	40	--	20
n-Butylbenzene	ND		ug/l	40	--	20
sec-Butylbenzene	ND		ug/l	40	--	20
tert-Butylbenzene	ND		ug/l	40	--	20
o-Chlorotoluene	ND		ug/l	40	--	20
p-Chlorotoluene	ND		ug/l	40	--	20
1,2-Dibromo-3-chloropropane	ND		ug/l	40	--	20
Hexachlorobutadiene	ND		ug/l	12	--	20
Isopropylbenzene	ND		ug/l	40	--	20
p-Isopropyltoluene	ND		ug/l	40	--	20
Naphthalene	490		ug/l	40	--	20
n-Propylbenzene	ND		ug/l	40	--	20
1,2,3-Trichlorobenzene	ND		ug/l	40	--	20
1,2,4-Trichlorobenzene	ND		ug/l	40	--	20
1,3,5-Trimethylbenzene	ND		ug/l	40	--	20
1,2,4-Trimethylbenzene	ND		ug/l	40	--	20
Ethyl ether	ND		ug/l	40	--	20
Isopropyl Ether	ND		ug/l	40	--	20
Ethyl-Tert-Butyl-Ether	ND		ug/l	40	--	20
Tertiary-Amyl Methyl Ether	ND		ug/l	40	--	20





**Project Name:** 100 BINNEY STREET**Lab Number:** L1316784**Project Number:** 34250-021**Report Date:** 09/03/13**SAMPLE RESULTS**

Lab ID: L1316784-03 D

Date Collected: 08/28/13 13:45

Client ID: MW-66-08-28-2013

Date Received: 08/28/13

Sample Location: Not Specified

Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
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## MCP Volatile Organics - Westborough Lab

1,4-Dioxane	ND		ug/l	5000	--	20
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Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	101		70-130
Toluene-d8	101		70-130
4-Bromofluorobenzene	93		70-130
Dibromofluoromethane	101		70-130

**Project Name:** 100 BINNEY STREET**Lab Number:** L1316784**Project Number:** 34250-021**Report Date:** 09/03/13**SAMPLE RESULTS**

**Lab ID:** L1316784-04  
**Client ID:** TRIP BLANK  
**Sample Location:** Not Specified  
**Matrix:** Water  
**Analytical Method:** 97,8260C  
**Analytical Date:** 08/29/13 09:49  
**Analyst:** MM

**Date Collected:** 08/28/13 00:00  
**Date Received:** 08/28/13  
**Field Prep:** Not Specified

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

Project Name: 100 BINNEY STREET

Lab Number: L1316784

Project Number: 34250-021

Report Date: 09/03/13

## SAMPLE RESULTS

Lab ID: L1316784-04

Date Collected: 08/28/13 00:00

Client ID: TRIP BLANK

Date Received: 08/28/13

Sample Location: Not Specified

Field Prep: Not Specified

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

**Project Name:** 100 BINNEY STREET**Lab Number:** L1316784**Project Number:** 34250-021**Report Date:** 09/03/13**SAMPLE RESULTS**

Lab ID: L1316784-04

Date Collected: 08/28/13 00:00

Client ID: TRIP BLANK

Date Received: 08/28/13

Sample Location: Not Specified

Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
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## MCP Volatile Organics - Westborough Lab

1,4-Dioxane	ND		ug/l	250	--	1
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Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	106		70-130
Toluene-d8	102		70-130
4-Bromofluorobenzene	102		70-130
Dibromofluoromethane	102		70-130

**Project Name:** 100 BINNEY STREET  
**Project Number:** 34250-021

**Lab Number:** L1316784  
**Report Date:** 09/03/13

**Method Blank Analysis**  
**Batch Quality Control**

Analytical Method: 97,8260C  
Analytical Date: 08/29/13 07:43  
Analyst: MM

Parameter	Result	Qualifier	Units	RL	MDL
MCP Volatile Organics - Westborough Lab for sample(s): 04 Batch: WG632457-3					
Methylene chloride	ND		ug/l	2.0	--
1,1-Dichloroethane	ND		ug/l	1.0	--
Chloroform	ND		ug/l	1.0	--
Carbon tetrachloride	ND		ug/l	1.0	--
1,2-Dichloropropane	ND		ug/l	1.0	--
Dibromochloromethane	ND		ug/l	1.0	--
1,1,2-Trichloroethane	ND		ug/l	1.0	--
Tetrachloroethene	ND		ug/l	1.0	--
Chlorobenzene	ND		ug/l	1.0	--
Trichlorofluoromethane	ND		ug/l	2.0	--
1,2-Dichloroethane	ND		ug/l	1.0	--
1,1,1-Trichloroethane	ND		ug/l	1.0	--
Bromodichloromethane	ND		ug/l	1.0	--
trans-1,3-Dichloropropene	ND		ug/l	0.50	--
cis-1,3-Dichloropropene	ND		ug/l	0.50	--
1,1-Dichloropropene	ND		ug/l	2.0	--
Bromoform	ND		ug/l	2.0	--
1,1,2,2-Tetrachloroethane	ND		ug/l	1.0	--
Benzene	ND		ug/l	0.50	--
Toluene	ND		ug/l	1.0	--
Ethylbenzene	ND		ug/l	1.0	--
Chloromethane	ND		ug/l	2.0	--
Bromomethane	ND		ug/l	2.0	--
Vinyl chloride	ND		ug/l	1.0	--
Chloroethane	ND		ug/l	2.0	--
1,1-Dichloroethene	ND		ug/l	1.0	--
trans-1,2-Dichloroethene	ND		ug/l	1.0	--
Trichloroethene	ND		ug/l	1.0	--
1,2-Dichlorobenzene	ND		ug/l	1.0	--
1,3-Dichlorobenzene	ND		ug/l	1.0	--
1,4-Dichlorobenzene	ND		ug/l	1.0	--



**Project Name:** 100 BINNEY STREET  
**Project Number:** 34250-021

**Lab Number:** L1316784  
**Report Date:** 09/03/13

**Method Blank Analysis**  
**Batch Quality Control**

Analytical Method: 97,8260C  
Analytical Date: 08/29/13 07:43  
Analyst: MM

Parameter	Result	Qualifier	Units	RL	MDL
MCP Volatile Organics - Westborough Lab for sample(s): 04 Batch: WG632457-3					
Methyl tert butyl ether	ND		ug/l	2.0	--
p/m-Xylene	ND		ug/l	2.0	--
o-Xylene	ND		ug/l	1.0	--
cis-1,2-Dichloroethene	ND		ug/l	1.0	--
Dibromomethane	ND		ug/l	2.0	--
1,2,3-Trichloropropane	ND		ug/l	2.0	--
Styrene	ND		ug/l	1.0	--
Dichlorodifluoromethane	ND		ug/l	2.0	--
Acetone	ND		ug/l	5.0	--
Carbon disulfide	ND		ug/l	2.0	--
2-Butanone	ND		ug/l	5.0	--
4-Methyl-2-pentanone	ND		ug/l	5.0	--
2-Hexanone	ND		ug/l	5.0	--
Bromochloromethane	ND		ug/l	2.0	--
Tetrahydrofuran	ND		ug/l	2.0	--
2,2-Dichloropropane	ND		ug/l	2.0	--
1,2-Dibromoethane	ND		ug/l	2.0	--
1,3-Dichloropropane	ND		ug/l	2.0	--
1,1,1,2-Tetrachloroethane	ND		ug/l	1.0	--
Bromobenzene	ND		ug/l	2.0	--
n-Butylbenzene	ND		ug/l	2.0	--
sec-Butylbenzene	ND		ug/l	2.0	--
tert-Butylbenzene	ND		ug/l	2.0	--
o-Chlorotoluene	ND		ug/l	2.0	--
p-Chlorotoluene	ND		ug/l	2.0	--
1,2-Dibromo-3-chloropropane	ND		ug/l	2.0	--
Hexachlorobutadiene	ND		ug/l	0.60	--
Isopropylbenzene	ND		ug/l	2.0	--
p-Isopropyltoluene	ND		ug/l	2.0	--
Naphthalene	ND		ug/l	2.0	--
n-Propylbenzene	ND		ug/l	2.0	--



**Project Name:** 100 BINNEY STREET  
**Project Number:** 34250-021

**Lab Number:** L1316784  
**Report Date:** 09/03/13

**Method Blank Analysis**  
**Batch Quality Control**

Analytical Method: 97,8260C  
 Analytical Date: 08/29/13 07:43  
 Analyst: MM

Parameter	Result	Qualifier	Units	RL	MDL
MCP Volatile Organics - Westborough Lab for sample(s): 04 Batch: WG632457-3					
1,2,3-Trichlorobenzene	ND		ug/l	2.0	--
1,2,4-Trichlorobenzene	ND		ug/l	2.0	--
1,3,5-Trimethylbenzene	ND		ug/l	2.0	--
1,2,4-Trimethylbenzene	ND		ug/l	2.0	--
Ethyl ether	ND		ug/l	2.0	--
Isopropyl Ether	ND		ug/l	2.0	--
Ethyl-Tert-Butyl-Ether	ND		ug/l	2.0	--
Tertiary-Amyl Methyl Ether	ND		ug/l	2.0	--
1,4-Dioxane	ND		ug/l	250	--

Surrogate	%Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	106		70-130
Toluene-d8	102		70-130
4-Bromofluorobenzene	101		70-130
Dibromofluoromethane	105		70-130

**Project Name:** 100 BINNEY STREET  
**Project Number:** 34250-021

**Lab Number:** L1316784  
**Report Date:** 09/03/13

**Method Blank Analysis**  
**Batch Quality Control**

Analytical Method: 97,8260C  
Analytical Date: 08/30/13 05:27  
Analyst: MM

Parameter	Result	Qualifier	Units	RL	MDL
MCP Volatile Organics - Westborough Lab for sample(s): 01-03 Batch: WG632725-3					
Methylene chloride	ND		ug/l	2.0	--
1,1-Dichloroethane	ND		ug/l	1.0	--
Chloroform	ND		ug/l	1.0	--
Carbon tetrachloride	ND		ug/l	1.0	--
1,2-Dichloropropane	ND		ug/l	1.0	--
Dibromochloromethane	ND		ug/l	1.0	--
1,1,2-Trichloroethane	ND		ug/l	1.0	--
Tetrachloroethene	ND		ug/l	1.0	--
Chlorobenzene	ND		ug/l	1.0	--
Trichlorofluoromethane	ND		ug/l	2.0	--
1,2-Dichloroethane	ND		ug/l	1.0	--
1,1,1-Trichloroethane	ND		ug/l	1.0	--
Bromodichloromethane	ND		ug/l	1.0	--
trans-1,3-Dichloropropene	ND		ug/l	0.50	--
cis-1,3-Dichloropropene	ND		ug/l	0.50	--
1,1-Dichloropropene	ND		ug/l	2.0	--
Bromoform	ND		ug/l	2.0	--
1,1,2,2-Tetrachloroethane	ND		ug/l	1.0	--
Benzene	ND		ug/l	0.50	--
Toluene	ND		ug/l	1.0	--
Ethylbenzene	ND		ug/l	1.0	--
Chloromethane	ND		ug/l	2.0	--
Bromomethane	ND		ug/l	2.0	--
Vinyl chloride	ND		ug/l	1.0	--
Chloroethane	ND		ug/l	2.0	--
1,1-Dichloroethene	ND		ug/l	1.0	--
trans-1,2-Dichloroethene	ND		ug/l	1.0	--
Trichloroethene	ND		ug/l	1.0	--
1,2-Dichlorobenzene	ND		ug/l	1.0	--
1,3-Dichlorobenzene	ND		ug/l	1.0	--
1,4-Dichlorobenzene	ND		ug/l	1.0	--





**Project Name:** 100 BINNEY STREET  
**Project Number:** 34250-021

**Lab Number:** L1316784  
**Report Date:** 09/03/13

**Method Blank Analysis**  
**Batch Quality Control**

Analytical Method: 97,8260C  
Analytical Date: 08/30/13 05:27  
Analyst: MM

Parameter	Result	Qualifier	Units	RL	MDL
MCP Volatile Organics - Westborough Lab for sample(s): 01-03 Batch: WG632725-3					
Methyl tert butyl ether	ND		ug/l	2.0	--
p/m-Xylene	ND		ug/l	2.0	--
o-Xylene	ND		ug/l	1.0	--
cis-1,2-Dichloroethene	ND		ug/l	1.0	--
Dibromomethane	ND		ug/l	2.0	--
1,2,3-Trichloropropane	ND		ug/l	2.0	--
Styrene	ND		ug/l	1.0	--
Dichlorodifluoromethane	ND		ug/l	2.0	--
Acetone	ND		ug/l	5.0	--
Carbon disulfide	ND		ug/l	2.0	--
2-Butanone	ND		ug/l	5.0	--
4-Methyl-2-pentanone	ND		ug/l	5.0	--
2-Hexanone	ND		ug/l	5.0	--
Bromochloromethane	ND		ug/l	2.0	--
Tetrahydrofuran	ND		ug/l	2.0	--
2,2-Dichloropropane	ND		ug/l	2.0	--
1,2-Dibromoethane	ND		ug/l	2.0	--
1,3-Dichloropropane	ND		ug/l	2.0	--
1,1,1,2-Tetrachloroethane	ND		ug/l	1.0	--
Bromobenzene	ND		ug/l	2.0	--
n-Butylbenzene	ND		ug/l	2.0	--
sec-Butylbenzene	ND		ug/l	2.0	--
tert-Butylbenzene	ND		ug/l	2.0	--
o-Chlorotoluene	ND		ug/l	2.0	--
p-Chlorotoluene	ND		ug/l	2.0	--
1,2-Dibromo-3-chloropropane	ND		ug/l	2.0	--
Hexachlorobutadiene	ND		ug/l	0.60	--
Isopropylbenzene	ND		ug/l	2.0	--
p-Isopropyltoluene	ND		ug/l	2.0	--
Naphthalene	ND		ug/l	2.0	--
n-Propylbenzene	ND		ug/l	2.0	--



**Project Name:** 100 BINNEY STREET  
**Project Number:** 34250-021

**Lab Number:** L1316784  
**Report Date:** 09/03/13

**Method Blank Analysis**  
**Batch Quality Control**

Analytical Method: 97,8260C  
 Analytical Date: 08/30/13 05:27  
 Analyst: MM

Parameter	Result	Qualifier	Units	RL	MDL
MCP Volatile Organics - Westborough Lab for sample(s): 01-03 Batch: WG632725-3					
1,2,3-Trichlorobenzene	ND		ug/l	2.0	--
1,2,4-Trichlorobenzene	ND		ug/l	2.0	--
1,3,5-Trimethylbenzene	ND		ug/l	2.0	--
1,2,4-Trimethylbenzene	ND		ug/l	2.0	--
Ethyl ether	ND		ug/l	2.0	--
Isopropyl Ether	ND		ug/l	2.0	--
Ethyl-Tert-Butyl-Ether	ND		ug/l	2.0	--
Tertiary-Amyl Methyl Ether	ND		ug/l	2.0	--
1,4-Dioxane	ND		ug/l	250	--

Surrogate	%Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	104		70-130
Toluene-d8	101		70-130
4-Bromofluorobenzene	99		70-130
Dibromofluoromethane	103		70-130

**Project Name:** 100 BINNEY STREET  
**Project Number:** 34250-021

**Lab Number:** L1316784  
**Report Date:** 09/03/13

**Method Blank Analysis**  
**Batch Quality Control**

Analytical Method: 97,8260C  
Analytical Date: 09/03/13 06:27  
Analyst: MM

Parameter	Result	Qualifier	Units	RL	MDL
MCP Volatile Organics - Westborough Lab for sample(s): 01 Batch: WG632725-6					
Methylene chloride	ND		ug/l	2.0	--
1,1-Dichloroethane	ND		ug/l	1.0	--
Chloroform	ND		ug/l	1.0	--
Carbon tetrachloride	ND		ug/l	1.0	--
1,2-Dichloropropane	ND		ug/l	1.0	--
Dibromochloromethane	ND		ug/l	1.0	--
1,1,2-Trichloroethane	ND		ug/l	1.0	--
Tetrachloroethene	ND		ug/l	1.0	--
Chlorobenzene	ND		ug/l	1.0	--
Trichlorofluoromethane	ND		ug/l	2.0	--
1,2-Dichloroethane	ND		ug/l	1.0	--
1,1,1-Trichloroethane	ND		ug/l	1.0	--
Bromodichloromethane	ND		ug/l	1.0	--
trans-1,3-Dichloropropene	ND		ug/l	0.50	--
cis-1,3-Dichloropropene	ND		ug/l	0.50	--
1,1-Dichloropropene	ND		ug/l	2.0	--
Bromoform	ND		ug/l	2.0	--
1,1,2,2-Tetrachloroethane	ND		ug/l	1.0	--
Benzene	ND		ug/l	0.50	--
Toluene	ND		ug/l	1.0	--
Ethylbenzene	ND		ug/l	1.0	--
Chloromethane	ND		ug/l	2.0	--
Bromomethane	ND		ug/l	2.0	--
Vinyl chloride	ND		ug/l	1.0	--
Chloroethane	ND		ug/l	2.0	--
1,1-Dichloroethene	ND		ug/l	1.0	--
trans-1,2-Dichloroethene	ND		ug/l	1.0	--
Trichloroethene	ND		ug/l	1.0	--
1,2-Dichlorobenzene	ND		ug/l	1.0	--
1,3-Dichlorobenzene	ND		ug/l	1.0	--
1,4-Dichlorobenzene	ND		ug/l	1.0	--



**Project Name:** 100 BINNEY STREET  
**Project Number:** 34250-021

**Lab Number:** L1316784  
**Report Date:** 09/03/13

**Method Blank Analysis**  
**Batch Quality Control**

Analytical Method: 97,8260C  
Analytical Date: 09/03/13 06:27  
Analyst: MM

Parameter	Result	Qualifier	Units	RL	MDL
MCP Volatile Organics - Westborough Lab for sample(s): 01 Batch: WG632725-6					
Methyl tert butyl ether	ND		ug/l	2.0	--
p/m-Xylene	ND		ug/l	2.0	--
o-Xylene	ND		ug/l	1.0	--
cis-1,2-Dichloroethene	ND		ug/l	1.0	--
Dibromomethane	ND		ug/l	2.0	--
1,2,3-Trichloropropane	ND		ug/l	2.0	--
Styrene	ND		ug/l	1.0	--
Dichlorodifluoromethane	ND		ug/l	2.0	--
Acetone	ND		ug/l	5.0	--
Carbon disulfide	ND		ug/l	2.0	--
2-Butanone	ND		ug/l	5.0	--
4-Methyl-2-pentanone	ND		ug/l	5.0	--
2-Hexanone	ND		ug/l	5.0	--
Bromochloromethane	ND		ug/l	2.0	--
Tetrahydrofuran	ND		ug/l	2.0	--
2,2-Dichloropropane	ND		ug/l	2.0	--
1,2-Dibromoethane	ND		ug/l	2.0	--
1,3-Dichloropropane	ND		ug/l	2.0	--
1,1,1,2-Tetrachloroethane	ND		ug/l	1.0	--
Bromobenzene	ND		ug/l	2.0	--
n-Butylbenzene	ND		ug/l	2.0	--
sec-Butylbenzene	ND		ug/l	2.0	--
tert-Butylbenzene	ND		ug/l	2.0	--
o-Chlorotoluene	ND		ug/l	2.0	--
p-Chlorotoluene	ND		ug/l	2.0	--
1,2-Dibromo-3-chloropropane	ND		ug/l	2.0	--
Hexachlorobutadiene	ND		ug/l	0.60	--
Isopropylbenzene	ND		ug/l	2.0	--
p-Isopropyltoluene	ND		ug/l	2.0	--
Naphthalene	ND		ug/l	2.0	--
n-Propylbenzene	ND		ug/l	2.0	--



**Project Name:** 100 BINNEY STREET  
**Project Number:** 34250-021

**Lab Number:** L1316784  
**Report Date:** 09/03/13

**Method Blank Analysis**  
**Batch Quality Control**

Analytical Method: 97,8260C  
 Analytical Date: 09/03/13 06:27  
 Analyst: MM

Parameter	Result	Qualifier	Units	RL	MDL
MCP Volatile Organics - Westborough Lab for sample(s): 01 Batch: WG632725-6					
1,2,3-Trichlorobenzene	ND		ug/l	2.0	--
1,2,4-Trichlorobenzene	ND		ug/l	2.0	--
1,3,5-Trimethylbenzene	ND		ug/l	2.0	--
1,2,4-Trimethylbenzene	ND		ug/l	2.0	--
Ethyl ether	ND		ug/l	2.0	--
Isopropyl Ether	ND		ug/l	2.0	--
Ethyl-Tert-Butyl-Ether	ND		ug/l	2.0	--
Tertiary-Amyl Methyl Ether	ND		ug/l	2.0	--
1,4-Dioxane	ND		ug/l	250	--

Surrogate	%Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	115		70-130
Toluene-d8	99		70-130
4-Bromofluorobenzene	99		70-130
Dibromofluoromethane	107		70-130

## Lab Control Sample Analysis

### Batch Quality Control

Project Name: 100 BINNEY STREET

Lab Number: L1316784

Project Number: 34250-021

Report Date: 09/03/13

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
MCP Volatile Organics - Westborough Lab Associated sample(s): 04 Batch: WG632457-1 WG632457-2								
Methylene chloride	90		84		70-130	7		20
1,1-Dichloroethane	97		89		70-130	9		20
Chloroform	100		93		70-130	7		20
Carbon tetrachloride	116		108		70-130	7		20
1,2-Dichloropropane	96		88		70-130	9		20
Dibromochloromethane	103		98		70-130	5		20
1,1,2-Trichloroethane	95		90		70-130	5		20
Tetrachloroethene	100		94		70-130	6		20
Chlorobenzene	99		92		70-130	7		20
Trichlorofluoromethane	112		104		70-130	7		20
1,2-Dichloroethane	98		91		70-130	7		20
1,1,1-Trichloroethane	102		94		70-130	8		20
Bromodichloromethane	101		95		70-130	6		20
trans-1,3-Dichloropropene	102		96		70-130	6		20
cis-1,3-Dichloropropene	98		92		70-130	6		20
1,1-Dichloropropene	100		92		70-130	8		20
Bromoform	102		96		70-130	6		20
1,1,2,2-Tetrachloroethane	93		89		70-130	4		20
Benzene	98		91		70-130	7		20
Toluene	95		89		70-130	7		20
Ethylbenzene	102		95		70-130	7		20

## Lab Control Sample Analysis

### Batch Quality Control

Project Name: 100 BINNEY STREET

Project Number: 34250-021

Lab Number: L1316784

Report Date: 09/03/13

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
MCP Volatile Organics - Westborough Lab Associated sample(s): 04 Batch: WG632457-1 WG632457-2								
Chloromethane	80		71		70-130	12		20
Bromomethane	72		65	Q	70-130	10		20
Vinyl chloride	111		103		70-130	7		20
Chloroethane	104		94		70-130	10		20
1,1-Dichloroethene	95		87		70-130	9		20
trans-1,2-Dichloroethene	98		89		70-130	10		20
Trichloroethene	98		91		70-130	7		20
1,2-Dichlorobenzene	100		93		70-130	7		20
1,3-Dichlorobenzene	102		94		70-130	8		20
1,4-Dichlorobenzene	100		92		70-130	8		20
Methyl tert butyl ether	90		84		70-130	7		20
p/m-Xylene	102		95		70-130	7		20
o-Xylene	102		95		70-130	7		20
cis-1,2-Dichloroethene	98		89		70-130	10		20
Dibromomethane	99		92		70-130	7		20
1,2,3-Trichloropropane	92		87		70-130	6		20
Styrene	103		96		70-130	7		20
Dichlorodifluoromethane	84		80		70-130	5		20
Acetone	90		82		70-130	9		20
Carbon disulfide	94		87		70-130	8		20
2-Butanone	107		104		70-130	3		20

## Lab Control Sample Analysis

### Batch Quality Control

Project Name: 100 BINNEY STREET

Lab Number: L1316784

Project Number: 34250-021

Report Date: 09/03/13

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
MCP Volatile Organics - Westborough Lab Associated sample(s): 04 Batch: WG632457-1 WG632457-2								
4-Methyl-2-pentanone	93		85		70-130	9		20
2-Hexanone	92		89		70-130	3		20
Bromochloromethane	99		92		70-130	7		20
Tetrahydrofuran	88		85		70-130	3		20
2,2-Dichloropropane	107		100		70-130	7		20
1,2-Dibromoethane	99		95		70-130	4		20
1,3-Dichloropropane	96		92		70-130	4		20
1,1,1,2-Tetrachloroethane	105		101		70-130	4		20
Bromobenzene	101		92		70-130	9		20
n-Butylbenzene	101		93		70-130	8		20
sec-Butylbenzene	101		93		70-130	8		20
tert-Butylbenzene	101		93		70-130	8		20
o-Chlorotoluene	102		92		70-130	10		20
p-Chlorotoluene	100		92		70-130	8		20
1,2-Dibromo-3-chloropropane	98		94		70-130	4		20
Hexachlorobutadiene	97		91		70-130	6		20
Isopropylbenzene	102		95		70-130	7		20
p-Isopropyltoluene	105		96		70-130	9		20
Naphthalene	95		88		70-130	8		20
n-Propylbenzene	99		91		70-130	8		20
1,2,3-Trichlorobenzene	98		91		70-130	7		20



## Lab Control Sample Analysis

### Batch Quality Control

Project Name: 100 BINNEY STREET

Lab Number: L1316784

Project Number: 34250-021

Report Date: 09/03/13

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
MCP Volatile Organics - Westborough Lab Associated sample(s): 04 Batch: WG632457-1 WG632457-2								
1,2,4-Trichlorobenzene	97		90		70-130	7		20
1,3,5-Trimethylbenzene	104		95		70-130	9		20
1,2,4-Trimethylbenzene	101		92		70-130	9		20
Ethyl ether	99		89		70-130	11		20
Isopropyl Ether	95		88		70-130	8		20
Ethyl-Tert-Butyl-Ether	92		85		70-130	8		20
Tertiary-Amyl Methyl Ether	86		80		70-130	7		20
1,4-Dioxane	86		89		70-130	3		20

Surrogate	LCS %Recovery	Qual	LCSD %Recovery	Qual	Acceptance Criteria
1,2-Dichloroethane-d4	102		104		70-130
Toluene-d8	101		101		70-130
4-Bromofluorobenzene	97		95		70-130
Dibromofluoromethane	102		101		70-130

## Lab Control Sample Analysis

### Batch Quality Control

Project Name: 100 BINNEY STREET

Lab Number: L1316784

Project Number: 34250-021

Report Date: 09/03/13

Parameter	LCS		LCSD		%Recovery Limits	RPD	Qual	RPD Limits
	%Recovery	Qual	%Recovery	Qual				
MCP Volatile Organics - Westborough Lab Associated sample(s): 01-03 Batch: WG632725-1 WG632725-2								
Methylene chloride	92		86		70-130	7		20
1,1-Dichloroethane	98		92		70-130	6		20
Chloroform	100		95		70-130	5		20
Carbon tetrachloride	112		110		70-130	2		20
1,2-Dichloropropane	94		91		70-130	3		20
Dibromochloromethane	98		100		70-130	2		20
1,1,2-Trichloroethane	92		90		70-130	2		20
Tetrachloroethene	102		94		70-130	8		20
Chlorobenzene	100		94		70-130	6		20
Trichlorofluoromethane	106		103		70-130	3		20
1,2-Dichloroethane	94		94		70-130	0		20
1,1,1-Trichloroethane	100		97		70-130	3		20
Bromodichloromethane	97		98		70-130	1		20
trans-1,3-Dichloropropene	92		96		70-130	4		20
cis-1,3-Dichloropropene	92		93		70-130	1		20
1,1-Dichloropropene	100		94		70-130	6		20
Bromoform	90		96		70-130	6		20
1,1,2,2-Tetrachloroethane	88		88		70-130	0		20
Benzene	99		94		70-130	5		20
Toluene	97		90		70-130	7		20
Ethylbenzene	104		96		70-130	8		20

## Lab Control Sample Analysis

### Batch Quality Control

Project Name: 100 BINNEY STREET

Lab Number: L1316784

Project Number: 34250-021

Report Date: 09/03/13

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
MCP Volatile Organics - Westborough Lab Associated sample(s): 01-03 Batch: WG632725-1 WG632725-2								
Chloromethane	80		72		70-130	11		20
Bromomethane	60	Q	64	Q	70-130	6		20
Vinyl chloride	111		104		70-130	7		20
Chloroethane	104		98		70-130	6		20
1,1-Dichloroethene	97		91		70-130	6		20
trans-1,2-Dichloroethene	100		93		70-130	7		20
Trichloroethene	99		94		70-130	5		20
1,2-Dichlorobenzene	97		94		70-130	3		20
1,3-Dichlorobenzene	102		95		70-130	7		20
1,4-Dichlorobenzene	99		92		70-130	7		20
Methyl tert butyl ether	85		86		70-130	1		20
p/m-Xylene	104		96		70-130	8		20
o-Xylene	103		96		70-130	7		20
cis-1,2-Dichloroethene	99		94		70-130	5		20
Dibromomethane	94		96		70-130	2		20
1,2,3-Trichloropropane	85		87		70-130	2		20
Styrene	102		96		70-130	6		20
Dichlorodifluoromethane	87		79		70-130	10		20
Acetone	105		67	Q	70-130	44	Q	20
Carbon disulfide	94		90		70-130	4		20
2-Butanone	112		85		70-130	27	Q	20

## Lab Control Sample Analysis

### Batch Quality Control

Project Name: 100 BINNEY STREET

Project Number: 34250-021

Lab Number: L1316784

Report Date: 09/03/13

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
MCP Volatile Organics - Westborough Lab Associated sample(s): 01-03 Batch: WG632725-1 WG632725-2								
4-Methyl-2-pentanone	81		86		70-130	6		20
2-Hexanone	101		83		70-130	20		20
Bromochloromethane	97		95		70-130	2		20
Tetrahydrofuran	82		88		70-130	7		20
2,2-Dichloropropane	102		101		70-130	1		20
1,2-Dibromoethane	93		95		70-130	2		20
1,3-Dichloropropane	92		93		70-130	1		20
1,1,1,2-Tetrachloroethane	103		101		70-130	2		20
Bromobenzene	98		93		70-130	5		20
n-Butylbenzene	102		93		70-130	9		20
sec-Butylbenzene	103		93		70-130	10		20
tert-Butylbenzene	102		94		70-130	8		20
o-Chlorotoluene	102		94		70-130	8		20
p-Chlorotoluene	101		93		70-130	8		20
1,2-Dibromo-3-chloropropane	87		92		70-130	6		20
Hexachlorobutadiene	94		90		70-130	4		20
Isopropylbenzene	104		96		70-130	8		20
p-Isopropyltoluene	106		97		70-130	9		20
Naphthalene	84		86		70-130	2		20
n-Propylbenzene	100		91		70-130	9		20
1,2,3-Trichlorobenzene	89		90		70-130	1		20

## Lab Control Sample Analysis

### Batch Quality Control

Project Name: 100 BINNEY STREET

Lab Number: L1316784

Project Number: 34250-021

Report Date: 09/03/13

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
MCP Volatile Organics - Westborough Lab Associated sample(s): 01-03 Batch: WG632725-1 WG632725-2								
1,2,4-Trichlorobenzene	91		89		70-130	2		20
1,3,5-Trimethylbenzene	103		95		70-130	8		20
1,2,4-Trimethylbenzene	102		94		70-130	8		20
Ethyl ether	92		94		70-130	2		20
Isopropyl Ether	94		91		70-130	3		20
Ethyl-Tert-Butyl-Ether	88		88		70-130	0		20
Tertiary-Amyl Methyl Ether	80		80		70-130	0		20
1,4-Dioxane	101		106		70-130	5		20

Surrogate	LCS %Recovery	Qual	LCSD %Recovery	Qual	Acceptance Criteria
1,2-Dichloroethane-d4	97		104		70-130
Toluene-d8	102		101		70-130
4-Bromofluorobenzene	95		96		70-130
Dibromofluoromethane	99		103		70-130

## Lab Control Sample Analysis

### Batch Quality Control

Project Name: 100 BINNEY STREET

Lab Number: L1316784

Project Number: 34250-021

Report Date: 09/03/13

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
MCP Volatile Organics - Westborough Lab Associated sample(s): 01 Batch: WG632725-4 WG632725-5								
Methylene chloride	96		88		70-130	9		20
1,1-Dichloroethane	102		91		70-130	11		20
Chloroform	106		95		70-130	11		20
Carbon tetrachloride	120		109		70-130	10		20
1,2-Dichloropropane	100		92		70-130	8		20
Dibromochloromethane	104		102		70-130	2		20
1,1,2-Trichloroethane	96		94		70-130	2		20
Tetrachloroethene	102		89		70-130	14		20
Chlorobenzene	100		90		70-130	11		20
Trichlorofluoromethane	118		107		70-130	10		20
1,2-Dichloroethane	104		100		70-130	4		20
1,1,1-Trichloroethane	107		96		70-130	11		20
Bromodichloromethane	106		99		70-130	7		20
trans-1,3-Dichloropropene	102		98		70-130	4		20
cis-1,3-Dichloropropene	103		96		70-130	7		20
1,1-Dichloropropene	106		95		70-130	11		20
Bromoform	100		100		70-130	0		20
1,1,2,2-Tetrachloroethane	95		93		70-130	2		20
Benzene	103		93		70-130	10		20
Toluene	97		85		70-130	13		20
Ethylbenzene	103		92		70-130	11		20

## Lab Control Sample Analysis

### Batch Quality Control

Project Name: 100 BINNEY STREET

Lab Number: L1316784

Project Number: 34250-021

Report Date: 09/03/13

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
MCP Volatile Organics - Westborough Lab Associated sample(s): 01 Batch: WG632725-4 WG632725-5								
Chloromethane	82		73		70-130	12		20
Bromomethane	77		73		70-130	5		20
Vinyl chloride	122		108		70-130	12		20
Chloroethane	112		99		70-130	12		20
1,1-Dichloroethene	101		91		70-130	10		20
trans-1,2-Dichloroethene	103		90		70-130	13		20
Trichloroethene	103		91		70-130	12		20
1,2-Dichlorobenzene	101		89		70-130	13		20
1,3-Dichlorobenzene	103		89		70-130	15		20
1,4-Dichlorobenzene	100		87		70-130	14		20
Methyl tert butyl ether	93		94		70-130	1		20
p/m-Xylene	104		91		70-130	13		20
o-Xylene	102		91		70-130	11		20
cis-1,2-Dichloroethene	103		93		70-130	10		20
Dibromomethane	102		102		70-130	0		20
1,2,3-Trichloropropane	92		91		70-130	1		20
Styrene	104		92		70-130	12		20
Dichlorodifluoromethane	91		82		70-130	10		20
Acetone	77		80		70-130	4		20
Carbon disulfide	99		91		70-130	8		20
2-Butanone	93		100		70-130	7		20

## Lab Control Sample Analysis

### Batch Quality Control

Project Name: 100 BINNEY STREET

Lab Number: L1316784

Project Number: 34250-021

Report Date: 09/03/13

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
MCP Volatile Organics - Westborough Lab Associated sample(s): 01 Batch: WG632725-4 WG632725-5								
4-Methyl-2-pentanone	93		98		70-130	5		20
2-Hexanone	88		92		70-130	4		20
Bromochloromethane	104		100		70-130	4		20
Tetrahydrofuran	93		101		70-130	8		20
2,2-Dichloropropane	109		99		70-130	10		20
1,2-Dibromoethane	99		100		70-130	1		20
1,3-Dichloropropane	96		94		70-130	2		20
1,1,1,2-Tetrachloroethane	107		96		70-130	11		20
Bromobenzene	99		87		70-130	13		20
n-Butylbenzene	100		86		70-130	15		20
sec-Butylbenzene	102		87		70-130	16		20
tert-Butylbenzene	101		86		70-130	16		20
o-Chlorotoluene	101		86		70-130	16		20
p-Chlorotoluene	100		85		70-130	16		20
1,2-Dibromo-3-chloropropane	101		101		70-130	0		20
Hexachlorobutadiene	97		84		70-130	14		20
Isopropylbenzene	104		91		70-130	13		20
p-Isopropyltoluene	103		88		70-130	16		20
Naphthalene	90		90		70-130	0		20
n-Propylbenzene	99		84		70-130	16		20
1,2,3-Trichlorobenzene	95		87		70-130	9		20



### Lab Control Sample Analysis Batch Quality Control

**Project Name:** 100 BINNEY STREET  
**Project Number:** 34250-021

**Lab Number:** L1316784  
**Report Date:** 09/03/13

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
MCP Volatile Organics - Westborough Lab Associated sample(s): 01 Batch: WG632725-4 WG632725-5								
1,2,4-Trichlorobenzene	95		86		70-130	10		20
1,3,5-Trimethylbenzene	103		87		70-130	17		20
1,2,4-Trimethylbenzene	100		85		70-130	16		20
Ethyl ether	101		99		70-130	2		20
Isopropyl Ether	100		91		70-130	9		20
Ethyl-Tert-Butyl-Ether	95		91		70-130	4		20
Tertiary-Amyl Methyl Ether	88		85		70-130	3		20
1,4-Dioxane	103		110		70-130	7		20

Surrogate	LCS %Recovery	Qual	LCSD %Recovery	Qual	Acceptance Criteria
1,2-Dichloroethane-d4	102		111		70-130
Toluene-d8	98		97		70-130
4-Bromofluorobenzene	96		94		70-130
Dibromofluoromethane	103		103		70-130



Project Name: 100 BINNEY STREET

Lab Number: L1316784

Project Number: 34250-021

Report Date: 09/03/13

**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

**Container Information**

Container ID	Container Type	Cooler	pH	Temp deg C	Pres	Seal	Analysis(*)
L1316784-01A	Vial HCl preserved	A	N/A	3.5	Y	Absent	MCP-8260-10(14)
L1316784-01B	Vial HCl preserved	A	N/A	3.5	Y	Absent	MCP-8260-10(14)
L1316784-01C	Vial HCl preserved	A	N/A	3.5	Y	Absent	MCP-8260-10(14)
L1316784-02A	Vial HCl preserved	A	N/A	3.5	Y	Absent	MCP-8260-10(14)
L1316784-02B	Vial HCl preserved	A	N/A	3.5	Y	Absent	MCP-8260-10(14)
L1316784-02C	Vial HCl preserved	A	N/A	3.5	Y	Absent	MCP-8260-10(14)
L1316784-03A	Vial HCl preserved	A	N/A	3.5	Y	Absent	MCP-8260-10(14)
L1316784-03B	Vial HCl preserved	A	N/A	3.5	Y	Absent	MCP-8260-10(14)
L1316784-03C	Vial HCl preserved	A	N/A	3.5	Y	Absent	MCP-8260-10(14)
L1316784-04A	Vial HCl preserved	A	N/A	3.5	Y	Absent	MCP-8260-10(14)

\*Values in parentheses indicate holding time in days

**Project Name:** 100 BINNEY STREET  
**Project Number:** 34250-021

**Lab Number:** L1316784  
**Report Date:** 09/03/13

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

Report Format: Data Usability Report



**Project Name:** 100 BINNEY STREET  
**Project Number:** 34250-021

**Lab Number:** L1316784  
**Report Date:** 09/03/13

**Data Qualifiers**

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

**Project Name:** 100 BINNEY STREET  
**Project Number:** 34250-021

**Lab Number:** L1316784  
**Report Date:** 09/03/13

## REFERENCES

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

## LIMITATION OF LIABILITIES

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

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



## Certificate/Approval Program Summary

Last revised August 29, 2013 - 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, 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).)

### State of Illinois Certificate/Lab ID: 003155. **NELAP Accredited.**

*Drinking Water* (Inorganic Parameters: SM2120B, 2320B, 2510B, 2540C, SM4500CN-CE, 4500F-C, 4500H-B, 4500NO3-F, 5310C, EPA 200.7, 200.8, 245.1, 300.0. Organic Parameters: EPA 504.1, 524.2.)

*Wastewater/Non-Potable Water* (Inorganic Parameters: SM2120B, 2310B, 2320B, 2340B, 2510B, 2540B, 2540C, 2540D, SM4500CL-E, 4500CN-E, 4500F-C, 4500H-B, 4500NH3-H, 4500NO2-B, 4500NO3-F, 4500P-E, 4500S-D, 4500SO3-B, 5210B, 5220D, 5310C, 5540C, EPA 120.1, 1664A, 200.7, 200.8, 245.1, 300.0, 350.1, 351.1, 353.2, 410.4, 420.1. Organic Parameters: EPA 608, 624, 625.)

*Hazardous and Solid Waste* (Inorganic Parameters: EPA 1010A, 1030, 1311, 1312, 6010C, 6020A, 7196A, 7470A, 7471B, 9012B, 9014, 9038, 9040C, 9045D, 9050A, 9065, 9251. Organic Parameters: 8011 (NPW only), 8015C, 8081B, 8082A, 8151A, 8260C, 8270D, 8315A, 8330.)

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

*Drinking Water* (Inorganic Parameters: SM9215B, 9222D, 9223B, EPA 180.1, 353.2, SM2120B, 2130B, 2320B, 2510C, 2540C, 4500CI-D, 4500CN-C, 4500CN-E, 4500F-C, 4500H+B, 4500NO3-F, 5310C, 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, 300.0, 350.1, 351.1, 353.2, 410.4, 420.1, 8315A, 9010C, SM2120B, 2310B, 2320B, 2510B, 2540B, 2540C, 2540D, 426C, 4500CI-E, 4500CN-C, 4500CN-E, 4500F-B, 4500F-C, 4500H+B, 4500Norg-C, 4500NH3-B, 4500NH3-H, 4500NO2-B, 4500NO3-F, 4500P-B, 4500P-E, 4500S2-D, 4500SO3-B, 5540C, 5210B, 5220D, 5310C, 9010B, 9030B, 9040C, 7470A, 7196A, 2340B, EPA 200.7, 6010C, 200.8, 6020A, 245.1, 1311, 1312, 3005A, Enterolert, 9223B, 9222D. Organic Parameters: 608, 624, 625, 8011, 8081B, 8082A, 8330, 8151A, 8260C, 8270D, 3510C, 3630C, 5030B, ME-DRO, ME-GRO, MA-EPH, MA-VPH.)

*Solid Waste/Soil* (Inorganic Parameters: 9010B, 9012A, 9014, 9040B, 9045C, 6010C, 6020A, 7471B, 7196A, 9050A, 1010, 1030, 9065, 1311, 1312, 3005A, 3050B, 9038, 9251. Organic Parameters: ME-DRO, ME-GRO, MA-EPH, MA-VPH, 8260C, 8270D, 8330, 8151A, 8081B, 8082A, 3540C, 3546, 3580A, 3620C, 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; ColilertQT SM9223B; MF-SM9222D.)

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

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

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

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

*Non-Potable Water* (Inorganic Parameters: SM9222D, 9221B, 9222B, 9221E-EC, EPA 3005A, 200.7, 200.8, 245.1, SW-846 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 Hampshire Department of Environmental Services Certificate/Lab ID: 2064. NELAP Accredited.**

*Drinking Water* (Organic Parameters: **EPA 524.2**: Di-isopropyl ether (DIPE), Ethyl-t-butyl ether (ETBE), Tert-amyl methyl ether (TAME)).

*Non-Potable Water* (Organic Parameters: **EPA 8260C**: 1,3,5-Trichlorobenzene. **EPA 8015C(M)**: TPH.)

*Solid & Chemical Materials* (Organic Parameters: **EPA 8260C**: 1,3,5-Trichlorobenzene.)

**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, 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.)

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, 245.1, SM5310C, EPA 332.0, SM2320B, EPA 300.0, SM2120B, 4500CN-E, 4500F-C, 4500NO<sub>3</sub>-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, 2320B, EPA 200.7, 300.0, SM4500CL-E, 4500F-C, SM15 426C, EPA 350.1, SM4500NH<sub>3</sub>-BH, EPA 351.1, LCHAT 10-107-06-2, EPA 353.2, SM4500-NO<sub>3</sub>-F, 4500-NO<sub>2</sub>-B, 4500P-E, 2340B, 2540C, 2540B, 2540D, EPA 200.8, EPA 6010C, 6020A, EPA 7196A, SM3500Cr-D, EPA 245.1, 7470A, SM2120B, 4500CN-CE, EPA 1664A, EPA 420.1, SM14 510C, EPA 120.1, SM2510B, SM4500S-D, SM5540C, EPA 8315A, 3005A, 3015, 9010C, 9030B. Organic Parameters: EPA 624, 8260C, 8270D, 8270D-SIM, 625, 608, 8081B, 8151A, 8330, 8082A, EPA 3510C, 5030B, 8015C, 8011.)

*Solid & Hazardous Waste* (Inorganic Parameters: EPA 1010A, 1030, EPA 6010C, 6020A, 7196A, 7471B, 8315A, 9012B, 9014, 9065, 9050A, 9038, 9251, EPA 1311, 1312, 3005A, 3050B, 9010C, 9030B, 9040C, 9045D. Organic Parameters: EPA 8260C, 8270D, 8270D-SIM, 8015C, 8081B, 8151A, 8330, 8082A, 3540C, 3546, 3580A, 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, 9012B, 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 Commisison 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, 245.1, 2320B, 4500F-C, 4500NO<sub>3</sub>-F, 4500H+B, 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, 350.1, 351.1, 351.2, 3005A, 3015, 1312, 6010B, 6010C, 3060A, 353.2, 420.1, 2340B, 6020, 6020A, SM4500S-D, SM4500-CN-CE, Lachat 10-204-00-1-X, 7196A, 7470A, 2310B, 2320B, 2510B, 2540B, 2540C, 2540D, 3500Cr-D, 426C, 4500Cl-E, 4500F-B, 4500F-C, 4500NH<sub>3</sub>-H, 4500NO<sub>2</sub>-B, 4500NO<sub>3</sub>-F, 4500 SO<sub>3</sub>-B, 4500H-B, 4500PE, 510AC, 5210B, 5310B 5310C, 5540C, 9010Cm



9030B, 9040C. Organic Parameters: EPA 3510C, 3630C, 5030B, 8260B, 608, 624, 625, 8011, 8015C, 8081A, 8081B, 8082, 8082A, 8151A, 8260C, 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, 9010C, 9012B, 9030B, 9014, 9038, 9040C, 9045D, 9251, 9050A, 9065. Organic Parameters: EPA 5030B, 5035, 3540C, 3546, 3550B, 3580A, 3620C, 3630C, 6020A, 8260B, 8260C, 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, 6010C, 6020A, 245.1, 7470A, 9040B, 9010B, 180.1, 300.0, 332.0, 6860, 351.1, 353.2, 9060, 1664A, SM 4500CN-E, 4500H-B, 4500Norg-C, 4500NO3-F, 5310C, 2130B, 2320B, 2340B, 2540C, 5540C, 3005A, 3015, 9056, 7196A, 3500-Cr-D. Organic Parameters: EPA 8015C, 8151A, 8260C, 8270D, 8270D-SIM, 8330A, 8082A, 8081B, 3510C, 5030B, MassDEP EPH, MassDEP VPH.)

*Solid & Hazardous Waste* (Inorganic Parameters: EPA 200.7, 6010C, 6020A, 7471A, 6860, 1311, 1312, 3050B, 7196A, 9040B, 9045C, 9010C, 9012B, 9251, SM3500-CR-D, 4500CN-CE, 2540G, Organic Parameters: EPA 8015C, 8151A, 8260C, 8270D, 8270D-SIM, 8330A/B-prep, 8082A, 8081B, 3540C, 3546, 3580A, 5035A, MassDEP EPH, MassDEP VPH.)

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

**EPA 524.2:** Acetone, 2-Butanone (Methyl ethyl ketone (MEK)), Tert-butyl alcohol, 2-Hexanone, Tetrahydrofuran, 1,3,5-Trichlorobenzene, 4-Methyl-2-pentanone (MIBK), Carbon disulfide, Diethyl ether. **EPA 8260B:** 1,2,4,5-Tetramethylbenzene, 4-Ethyltoluene. **EPA 8260 Non-potable water matrix:** Iodomethane (methyl iodide), Methyl methacrylate. **EPA 8260 Soil matrix:** Tert-amyl methyl ether (TAME), Diisopropyl ether (DIPE), Azobenzene. **EPA 8330A:** PETN, Picric Acid, Nitroglycerine, 2,6-DANT, 2,4-DANT. **EPA 8270C:** Methyl naphthalene, Dimethyl naphthalene, Total Methylnaphthalenes, Total Dimethylnaphthalenes, 1,4-Diphenylhydrazine. **EPA 625:** 4-Chloroaniline, 4-Methylphenol. Total Phosphorus 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.



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# CHAIN OF CUSTODY RECORD

Phone (617) 886-7400  
Fax (617) 886-7600

Page 1 of 1

H&A FILE NO.	34250-021	LABORATORY	Alpha Analytical	DELIVERY DATE	
PROJECT NAME	BMR	ADDRESS	Westborough, MA	TURNAROUND TIME	5-DAY
H&A CONTACT	Rebecca Higgins/Jane Parkin Kullmann	CONTACT	Gina Hall	PROJECT MANAGER	Keith Johnson

Sample No.	Date	Time	Depth	Type	Analysis Requested													Number of Containers	Comments (special instructions, precautions, additional method numbers, etc.)
					VOA	ABN's PAH only	MCP Metals	Pesticides PCBs	VPH	Full Suite Cyanides only	ERH	Full Suite Cyanides only	TVA (specify)	TCLP (specify)	Reactivity	Leachability	Conductivity		
1 MW-59-08-28-2013	8-28-13	0930		water	X													3	Laboratory to use applicable DEP CAM methods, unless otherwise directed.  8260 VOC's
2 MW-59-08-28-2013	"	1100		water	X													3	
3 MW-66-08-28-2013	"	1345		water	X													3	
4 TRIP BLANK				water	X													1	

<b>Sampled and Relinquished by</b> Sign: <i>[Signature]</i> Print: Chris Toscano Firm: H&A Date: _____ Time: _____		<b>Received by</b> Sign: <i>[Signature]</i> Print: M. Arysta Firm: H&A Date: 8/28/13 Time: 1630		<b>LIQUID</b> 40 ml.													<b>Sampling Comments</b>	
<b>Relinquished by</b> Sign: <i>[Signature]</i> Print: M. Arysta Firm: H&A Date: 8/28/13 Time: 1630		<b>Received by</b> Sign: <i>[Signature]</i> Print: Wayne Plummer Firm: Alpha Date: 8/28/13 Time: 1630		<b>SOLID</b>													Evidence samples were tampered with? YES NO If YES, please explain in section below.	
<b>Relinquished by</b> Sign: <i>[Signature]</i> Print: Wayne Plummer Firm: Alpha Date: 8/28/13 Time: 1755		<b>Received by</b> Sign: <i>[Signature]</i> Print: Blake Buckner Firm: ALPHA Date: 9/29/13 Time: 1755		<b>PRESERVATION KEY</b> A Sample chilled      C NaOH      E H <sub>2</sub> SO <sub>4</sub> G Methanol B Sample filtered      D HNO <sub>3</sub> F HCL      H Water/NaHSO <sub>4</sub> (circle)														

**Presumptive Certainty Data Package (Laboratory to use applicable DEP CAM methods)**

If Presumptive Certainty Data Package is needed, initial all sections:

The required minimum field QC samples, as designated in BWSC CAM-VII have been or will be collected, as appropriate, to meet the requirements of Presumptive Certainty.

Matrix Spike (MS) samples for MCP Metals and/or Cyanide are included and identified herein.

This Chain of Custody Record (specify) \_\_\_\_\_ includes  does not include samples defined as Drinking Water Samples.

If this Chain of Custody Record identifies samples defined as Drinking Water Samples, Trip Blanks and Field Duplicates are included and identified and analysis of TICs are required, as appropriate. Laboratory should (specify if applicable) \_\_\_\_\_ analyze.

Required Reporting Limits and Data Quality Objectives		
<input type="checkbox"/> RC-S1	<input type="checkbox"/> S1	<input type="checkbox"/> GW1
<input type="checkbox"/> RC-S2	<input type="checkbox"/> S2	<input type="checkbox"/> GW2
<input type="checkbox"/> RC-GW1	<input type="checkbox"/> S3	<input type="checkbox"/> GW3
<input type="checkbox"/> RC-GW2		



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# CHAIN OF CUSTODY RECORD

Phone (617) 886-7400  
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Page 1 of 1

H&A FILE NO.	34250-021	LABORATORY	Alpha Analytical	DELIVERY DATE	
PROJECT NAME	<del>BMR</del> 100 Binney Street	ADDRESS	Westborough, MA	TURNAROUND TIME	5-DAY
H&A CONTACT	Rebecca Higgins/Jane Parkin Kullmann	CONTACT	Gina Hall	PROJECT MANAGER	Keith Johnson

Sample No.	Date	Time	Depth	Type	Analysis Requested													Number of Containers	Comments (special instructions, precautions, additional method numbers, etc.)	
					VOA	ABN's PAH only	MCP Metals	Pesticides PCBs	VPH	Full Suite Cyanides only	ERH	Full Suite Cyanides only	TPE (specify)	TCLP (specify)	Reactivity	Leachability	Corrosivity			
1	MW-59-08-28-2013	0930		water	X														3	Laboratory to use applicable DEP CAM methods, unless otherwise directed.  8260 VOC's
2	MW-59-08-28-2013	1100		water	X														3	
3	MW-66-08-28-2013	1345		water	X														3	
4	TRIP BLANK			water	X														1	

Project name updated per Jane Kullmann-- GMH 8/29/13

<b>Sampled and Relinquished by</b> Sign: <i>[Signature]</i> Print: Chris Tascano Firm: H&A Date: _____ Time: _____		<b>Received by</b> Sign: <i>[Signature]</i> Print: M. Arysta Firm: H&A Date: 8/28/13 Time: 1630		<b>LIQUID</b> X 40 ml.													<b>Sampling Comments</b> VOA Vial Amber Glass Plastic Bottle Preservative Volume	
<b>Relinquished by</b> Sign: <i>[Signature]</i> Print: M. Arysta Firm: H&A Date: 8/28/13 Time: 1630		<b>Received by</b> Sign: <i>[Signature]</i> Print: Wayne Plummer Firm: Alpha Date: 8/28/13 Time: 1630		<b>SOLID</b>													VOA Vial Amber Glass Clear Glass Preservative Volume	
<b>Relinquished by</b> Sign: <i>[Signature]</i> Print: Wayne Plummer Firm: Alpha Date: 8/28/13 Time: 1755		<b>Received by</b> Sign: <i>[Signature]</i> Print: Blake Buckner Firm: ALPHA Date: 8/29/13 Time: 1755		<b>PRESERVATION KEY</b> A Sample chilled      C NaOH      E H <sub>2</sub> SO <sub>4</sub> G Methanol B Sample filtered      D HNO <sub>3</sub> F HCL      H Water/NaHSO <sub>4</sub> (circle)													Evidence samples were tampered with? YES NO If YES, please explain in section below.	

**Presumptive Certainty Data Package (Laboratory to use applicable DEP CAM methods)**

If Presumptive Certainty Data Package is needed, initial all sections:

The required minimum field QC samples, as designated in BWSC CAM-VII have been or will be collected, as appropriate, to meet the requirements of Presumptive Certainty.

Matrix Spike (MS) samples for MCP Metals and/or Cyanide are included and identified herein.

This Chain of Custody Record (specify) \_\_\_\_\_ includes  does not include samples defined as Drinking Water Samples.

If this Chain of Custody Record identifies samples defined as Drinking Water Samples, Trip Blanks and Field Duplicates are included and identified and analysis of TICs are required, as appropriate. Laboratory should (specify if applicable) \_\_\_\_\_ analyze.

Required Reporting Limits and Data Quality Objectives		
<input type="checkbox"/> RC-S1	<input type="checkbox"/> S1	<input type="checkbox"/> GW1
<input type="checkbox"/> RC-S2	<input type="checkbox"/> S2	<input type="checkbox"/> GW2
<input type="checkbox"/> RC-GW1	<input type="checkbox"/> S3	<input type="checkbox"/> GW3
<input type="checkbox"/> RC-GW2		

7A  
Volatile Organics CONTINUING CALIBRATION CHECK

Lab Name: Alpha Analytical Labs

SDG No.: L1316784

Instrument ID: Quimby.i      Calibration Date: 29-AUG-2013      Time: 06:09

Lab File ID: 0829A04      Init. Calib. Date(s): 03-AUG-2      03-AUG-2

Sample No: 8260 CCAL      Init. Calib. Times : 11:54      15:34

Compound	RRF	RRF	MIN RRF	%D	MAX %D	
dichlorodifluoromethane	.48192	.40651	.1	16	20	
chloromethane	.66153	.52945	.1	20	20	
vinyl chloride	.4549	.50402	.1	-11	20	
bromomethane	.35991	.25987	.1	28	20	F
chloroethane	.36569	.38219	.1	-5	20	
trichlorofluoromethane	.70547	.78868	.1	-12	20	
ethyl ether	.24138	.2389	.05	1	20	
acrolein	.05804	.0556	.05	4	20	
freon-113	.4491	.44038	.1	2	20	
acetone	100	90.350	.1	10	20	
1,1,-dichloroethene	.4408	.41986	.1	5	20	
tert-butyl alcohol	.01704	.01461	.05	14	20	F
iodomethane	.48518	.34724	.05	28	20	F
methyl acetate	.22559	.21165	.01	6	30	
methylene chloride	100	89.831	.1	10	20	
carbon disulfide	1.3388	1.2614	.1	6	20	
acrylonitrile	.12207	.11353	.05	7	20	
methyl tert butyl ether	.95413	.8618	.1	10	20	
Halothane	.35325	.27018	.05	24	20	F
trans-1,2-dichloroethene	.49084	.48152	.1	2	20	
Diisopropyl Ether	1.8188	1.7316	.05	5	20	
vinyl acetate	.67825	.70163	.05	-3	20	
1,1-dichloroethane	.95987	.93019	.2	3	20	
Ethyl-Tert-Butyl-Ether	1.3059	1.1993	.05	8	20	
2-butanone	100	107	.1	-7	20	
2,2-dichloropropane	100	107	.05	-7	20	
ethyl acetate	.30471	.30532	.05	0	20	
cis-1,2-dichloroethene	.54983	.53778	.1	2	20	
chloroform	.90419	.90201	.2	0	20	
bromochloromethane	.22132	.21814	.05	1	20	
tetrahydrofuran	.09694	.08552	.05	12	20	
1,1,1-trichloroethane	.70497	.72192	.1	-2	20	
cyclohexane	.96734	.91525	.01	5	30	
1,1-dichloropropene	.70714	.70755	.05	0	20	
carbontetrachloride	100	116	.1	-16	20	
Tertiary-Amyl Methyl Ether	1.0155	.86915	.05	14	20	
1,2-dichloroethane	.64663	.63667	.1	2	20	
benzene	2.1672	2.1283	.5	2	20	

FORM VII MCP-8260-10

7A  
CONTINUING CALIBRATION CHECK

Lab Name: Alpha Analytical Labs

SDG No.: L1316784

Instrument ID: Quimby.i      Calibration Date: 29-AUG-2013      Time: 06:09

Lab File ID: 0829A04      Init. Calib. Date(s): 03-AUG-2      03-AUG-2

Sample No: 8260 CCAL      Init. Calib. Times : 11:54      15:34

Compound	RRF	RRF	MIN RRF	%D	MAX %D
=====	=====	=====	=====	=====	=====
trichloroethene	.49943	.48981	.2	2	20
methyl cyclohexane	.79943	.76875	.01	4	30
1,2-dichloropropane	.54811	.52474	.1	4	20
bromodichloromethane	.63125	.63661	.2	-1	20
1,4-dioxane	.00272	.00233	.05	14	20
dibromomethane	.24397	.24195	.05	1	20
2-chloroethylvinyl ether	.14271	.1151	.05	19	20
4-methyl-2-pentanone	.10893	.10165	.1	7	20
cis-1,3-dichloropropene	.70254	.68926	.2	2	20
toluene	1.5178	1.4480	.4	5	20
ethyl-methacrylate	.47083	.46119	.01	2	30
trans-1,3-dichloropropene	.56461	.57483	.1	-2	20
2-hexanone	.23438	.21635	.1	8	20
1,1,2-trichloroethane	.32992	.31415	.1	5	20
1,3-dichloropropane	.72289	.69035	.05	5	20
tetrachloroethene	.57848	.57602	.2	0	20
chlorodibromomethane	.40521	.41924	.1	-3	20
1,2-dibromoethane	.34872	.34505	.1	1	20
chlorobenzene	1.5937	1.5762	.5	1	20
1,1,1,2-tetrachloroethane	.44836	.4707	.05	-5	20
ethyl benzene	2.8497	2.9093	.1	-2	20
p/m xylene	1.1090	1.1303	.1	-2	20
o xylene	1.0893	1.1102	.3	-2	20
styrene	1.7746	1.8263	.31	-3	20
isopropylbenzene	2.7949	2.8608	.1	-2	20
bromoform	.37579	.38298	.1	-2	20
1,4-dichlorobutane	1.2819	1.2496	.01	3	30
1,1,2,2,-tetrachloroethane	.80355	.75058	.3	7	20
1,2,3-trichloropropane	.629	.57912	.05	8	20
trans-1,4-dichloro-2-butene	.23221	.21906	.05	6	20
n-propylbenzene	5.6238	5.5827	.05	1	20
bromobenzene	1.1520	1.1622	.05	-1	20
4-ethyltoluene	2.7280	2.7309	.05	0	20
1,3,5-trimethylbenzene	4.0089	4.1704	.05	-4	20
2-chlorotoluene	3.9968	4.0672	.05	-2	20
4-chlorotoluene	3.7593	3.7812	.05	-1	20
tert-butylbenzene	3.3739	3.4071	.05	-1	20
1,2,4-trimethylbenzene	3.8938	3.9365	.05	-1	20

F

FORM VII MCP-8260-10

7A  
CONTINUING CALIBRATION CHECK

Lab Name: Alpha Analytical Labs

SDG No.: L1316784

Instrument ID: Quimby.i      Calibration Date: 29-AUG-2013      Time: 06:09

Lab File ID: 0829A04      Init. Calib. Date(s): 03-AUG-2      03-AUG-2

Sample No: 8260 CCAL      Init. Calib. Times : 11:54      15:34

Compound	RRF	RRF	MIN RRF	%D	MAX %D
=====	=====	=====	=====	=====	=====
sec-butylbenzene	4.8218	4.8593	.05	-1	20
p-isopropyltoluene	3.8479	4.0382	.05	-5	20
1,3-dichlorobenzene	2.2511	2.3079	.6	-3	20
1,4-dichlorobenzene	2.2670	2.2729	.5	0	20
n-butylbenzene	4.0374	4.0802	.05	-1	20
1,2,4,5-tetramethylbenzene	1.2416	1.2443	.05	0	20
1,2-dichlorobenzene	2.0349	2.0269	.4	0	20
p-diethylbenzene	1.6964	1.7333	.05	-2	20
1,2-dibromo-3-chloropropane	.10023	.0979	.05	2	20
1,3,5-trichlorobenzene	1.3381	1.3124	.01	2	30
1,2,4-trichlorobenzene	1.0237	.99413	.2	3	20
hexachlorobutadiene	.45013	.43626	.05	3	20
naphthalene	1.6749	1.5934	.05	5	20
1,2,3-trichlorobenzene	.82934	.80969	.05	2	20
=====	=====	=====	=====	=====	=====
dibromofluoromethane	.23962	.24332	.05	-2	20
1,2-dichloroethane-d4	.25793	.26187	.05	-2	20
toluene-d8	1.1767	1.1871	.05	-1	20
4-bromofluorobenzene	.96599	.93277	.05	3	20

FORM VII MCP-8260-10

7A  
CONTINUING CALIBRATION CHECK

Lab Name: Alpha Analytical Labs

SDG No.: L1316784

Instrument ID: Quimby.i      Calibration Date: 30-AUG-2013      Time: 03:53

Lab File ID: 0830A01      Init. Calib. Date(s): 03-AUG-2      03-AUG-2

Sample No: 8260 CCAL      Init. Calib. Times : 11:54      15:34

Compound	RRF	RRF	MIN RRF	%D	MAX %D	
=====	=====	=====	=====	=====	=====	
dichlorodifluoromethane	.48192	.42096	.1	13	20	
chloromethane	.66153	.53222	.1	20	20	
vinyl chloride	.4549	.50554	.1	-11	20	
bromomethane	.35991	.21604	.1	40	20	F
chloroethane	.36569	.37889	.1	-4	20	
trichlorofluoromethane	.70547	.74683	.1	-6	20	
ethyl ether	.24138	.22321	.05	8	20	
acrolein	.05804	.05087	.05	12	20	
freon-113	.4491	.44021	.1	2	20	
acetone	100	105	.1	-5	20	
1,1,-dichloroethene	.4408	.42708	.1	3	20	
tert-butyl alcohol	.01704	.01236	.05	27	20	F
iodomethane	.48518	.25316	.05	48	20	F
methyl acetate	.22559	.19645	.01	13	30	
methylene chloride	100	91.539	.1	8	20	
carbon disulfide	1.3388	1.2530	.1	6	20	
acrylonitrile	.12207	.10637	.05	13	20	
methyl tert butyl ether	.95413	.81514	.1	15	20	
Halothane	.35325	.26649	.05	25	20	F
trans-1,2-dichloroethene	.49084	.492	.1	0	20	
Diisopropyl Ether	1.8188	1.7071	.05	6	20	
vinyl acetate	.67825	.62054	.05	9	20	
1,1-dichloroethane	.95987	.94423	.2	2	20	
Ethyl-Tert-Butyl-Ether	1.3059	1.1492	.05	12	20	
2-butanone	100	112	.1	-12	20	
2,2-dichloropropane	100	102	.05	-2	20	
ethyl acetate	.30471	.25676	.05	16	20	
cis-1,2-dichloroethene	.54983	.54645	.1	1	20	
chloroform	.90419	.90723	.2	0	20	
bromochloromethane	.22132	.21452	.05	3	20	
tetrahydrofuran	.09694	.0794	.05	18	20	
1,1,1-trichloroethane	.70497	.70826	.1	0	20	
cyclohexane	.96734	.9095	.01	6	30	
1,1-dichloropropene	.70714	.70829	.05	0	20	
carbontetrachloride	100	112	.1	-12	20	
Tertiary-Amyl Methyl Ether	1.0155	.81414	.05	20	20	
1,2-dichloroethane	.64663	.60889	.1	6	20	
benzene	2.1672	2.1503	.5	1	20	

FORM VII MCP-8260-10

7A  
CONTINUING CALIBRATION CHECK

Lab Name: Alpha Analytical Labs

SDG No.: L1316784

Instrument ID: Quimby.i      Calibration Date: 30-AUG-2013      Time: 03:53

Lab File ID: 0830A01      Init. Calib. Date(s): 03-AUG-2      03-AUG-2

Sample No: 8260 CCAL      Init. Calib. Times : 11:54      15:34

Compound	RRF	RRF	MIN RRF	%D	MAX %D
=====	=====	=====	=====	=====	=====
trichloroethene	.49943	.49236	.2	1	20
methyl cyclohexane	.79943	.77438	.01	3	30
1,2-dichloropropane	.54811	.51784	.1	6	20
bromodichloromethane	.63125	.61264	.2	3	20
1,4-dioxane	.00272	.00275	.05	-1	20
dibromomethane	.24397	.23026	.05	6	20
2-chloroethylvinyl ether	.14271	.08922	.05	37	20
4-methyl-2-pentanone	.10893	.08813	.1	19	20
cis-1,3-dichloropropene	.70254	.64808	.2	8	20
toluene	1.5178	1.4777	.4	3	20
ethyl-methacrylate	.47083	.42117	.01	11	30
trans-1,3-dichloropropene	.56461	.52151	.1	8	20
2-hexanone	.23438	.23669	.1	-1	20
1,1,2-trichloroethane	.32992	.3037	.1	8	20
1,3-dichloropropane	.72289	.66225	.05	8	20
tetrachloroethene	.57848	.59231	.2	-2	20
chlorodibromomethane	.40521	.39546	.1	2	20
1,2-dibromoethane	.34872	.32468	.1	7	20
chlorobenzene	1.5937	1.5975	.5	0	20
1,1,1,2-tetrachloroethane	.44836	.4627	.05	-3	20
ethyl benzene	2.8497	2.9536	.1	-4	20
p/m xylene	1.1090	1.1573	.1	-4	20
o xylene	1.0893	1.1204	.3	-3	20
styrene	1.7746	1.8163	.31	-2	20
isopropylbenzene	2.7949	2.9009	.1	-4	20
bromoform	.37579	.33998	.1	10	20
1,4-dichlorobutane	1.2819	1.1454	.01	11	30
1,1,2,2,-tetrachloroethane	.80355	.70387	.3	12	20
1,2,3-trichloropropane	.629	.53477	.05	15	20
trans-1,4-dichloro-2-butene	.23221	.19683	.05	15	20
n-propylbenzene	5.6238	5.6170	.05	0	20
bromobenzene	1.1520	1.1242	.05	2	20
4-ethyltoluene	2.7280	2.7307	.05	0	20
1,3,5-trimethylbenzene	4.0089	4.1402	.05	-3	20
2-chlorotoluene	3.9968	4.0728	.05	-2	20
4-chlorotoluene	3.7593	3.7969	.05	-1	20
tert-butylbenzene	3.3739	3.4457	.05	-2	20
1,2,4-trimethylbenzene	3.8938	3.9577	.05	-2	20

F  
F

FORM VII MCP-8260-10



7A  
CONTINUING CALIBRATION CHECK

Lab Name: Alpha Analytical Labs

SDG No.: L1316784

Instrument ID: Quimby.i Calibration Date: 30-AUG-2013 Time: 03:53

Lab File ID: 0830A01 Init. Calib. Date(s): 03-AUG-2 03-AUG-2

Sample No: 8260 CCAL Init. Calib. Times : 11:54 15:34

Compound	RRF	RRF	MIN RRF	%D	MAX %D
sec-butylbenzene	4.8218	4.9681	.05	-3	20
p-isopropyltoluene	3.8479	4.0739	.05	-6	20
1,3-dichlorobenzene	2.2511	2.2998	.6	-2	20
1,4-dichlorobenzene	2.2670	2.2376	.5	1	20
n-butylbenzene	4.0374	4.1068	.05	-2	20
1,2,4,5-tetramethylbenzene	1.2416	1.2627	.05	-2	20
1,2-dichlorobenzene	2.0349	1.9823	.4	3	20
p-diethylbenzene	1.6964	1.7060	.05	-1	20
1,2-dibromo-3-chloropropane	.10023	.08717	.05	13	20
1,3,5-trichlorobenzene	1.3381	1.3148	.01	2	30
1,2,4-trichlorobenzene	1.0237	.92906	.2	9	20
hexachlorobutadiene	.45013	.42384	.05	6	20
naphthalene	1.6749	1.4158	.05	15	20
1,2,3-trichlorobenzene	.82934	.74187	.05	11	20
dibromofluoromethane	.23962	.23799	.05	1	20
1,2-dichloroethane-d4	.25793	.2506	.05	3	20
toluene-d8	1.1767	1.2004	.05	-2	20
4-bromofluorobenzene	.96599	.92241	.05	5	20

7A  
CONTINUING CALIBRATION CHECK

Lab Name: Alpha Analytical Labs

SDG No.: L1316784

Instrument ID: Quimby.i      Calibration Date: 03-SEP-2013      Time: 04:52

Lab File ID: 0903A02      Init. Calib. Date(s): 03-AUG-2      03-AUG-2

Sample No: 8260 CCAL      Init. Calib. Times : 11:54      15:34

Compound	RRF	RRF	MIN RRF	%D	MAX %D	
=====	=====	=====	=====	=====	=====	
dichlorodifluoromethane	.48192	.43981	.1	9	20	
chloromethane	.66153	.54197	.1	18	20	
vinyl chloride	.4549	.55579	.1	-22	20	F
bromomethane	.35991	.27854	.1	23	20	F
chloroethane	.36569	.40947	.1	-12	20	
trichlorofluoromethane	.70547	.83229	.1	-18	20	
ethyl ether	.24138	.24394	.05	-1	20	
acrolein	.05804	.05469	.05	6	20	
freon-113	.4491	.47727	.1	-6	20	
acetone	100	77.154	.1	23	20	F
1,1,-dichloroethene	.4408	.4461	.1	-1	20	
tert-butyl alcohol	.01704	.01548	.05	9	20	F
iodomethane	.48518	.31217	.05	36	20	F
methyl acetate	.22559	.22473	.01	0	30	
methylene chloride	100	96.294	.1	4	20	
carbon disulfide	1.3388	1.3298	.1	1	20	
acrylonitrile	.12207	.12088	.05	1	20	
methyl tert butyl ether	.95413	.88339	.1	7	20	
Halothane	.35325	.27924	.05	21	20	F
trans-1,2-dichloroethene	.49084	.50773	.1	-3	20	
Diisopropyl Ether	1.8188	1.8125	.05	0	20	
vinyl acetate	.67825	.73676	.05	-9	20	
1,1-dichloroethane	.95987	.97748	.2	-2	20	
Ethyl-Tert-Butyl-Ether	1.3059	1.2453	.05	5	20	
2-butanone	100	92.718	.1	7	20	
2,2-dichloropropane	100	109	.05	-9	20	
ethyl acetate	.30471	.32081	.05	-5	20	
cis-1,2-dichloroethene	.54983	.56519	.1	-3	20	
chloroform	.90419	.95794	.2	-6	20	
bromochloromethane	.22132	.2293	.05	-4	20	
tetrahydrofuran	.09694	.08974	.05	7	20	
1,1,1-trichloroethane	.70497	.75661	.1	-7	20	
cyclohexane	.96734	.97823	.01	-1	30	
1,1-dichloropropene	.70714	.74616	.05	-6	20	
carbontetrachloride	100	120	.1	-20	20	F
Tertiary-Amyl Methyl Ether	1.0155	.89439	.05	12	20	
1,2-dichloroethane	.64663	.66994	.1	-4	20	
benzene	2.1672	2.2359	.5	-3	20	

FORM VII MCP-8260-10

7A  
CONTINUING CALIBRATION CHECK

Lab Name: Alpha Analytical Labs

SDG No.: L1316784

Instrument ID: Quimby.i      Calibration Date: 03-SEP-2013      Time: 04:52

Lab File ID: 0903A02      Init. Calib. Date(s): 03-AUG-2      03-AUG-2

Sample No: 8260 CCAL      Init. Calib. Times : 11:54      15:34

Compound	RRF	RRF	MIN RRF	%D	MAX %D
=====	=====	=====	=====	=====	=====
trichloroethene	.49943	.51608	.2	-3	20
methyl cyclohexane	.79943	.82661	.01	-3	30
1,2-dichloropropane	.54811	.54967	.1	0	20
bromodichloromethane	.63125	.67158	.2	-6	20
1,4-dioxane	.00272	.00281	.05	-3	20
dibromomethane	.24397	.24948	.05	-2	20
2-chloroethylvinyl ether	.14271	.05057	.05	65	20
4-methyl-2-pentanone	.10893	.10166	.1	7	20
cis-1,3-dichloropropene	.70254	.72349	.2	-3	20
toluene	1.5178	1.4732	.4	3	20
ethyl-methacrylate	.47083	.45829	.01	3	30
trans-1,3-dichloropropene	.56461	.57815	.1	-2	20
2-hexanone	.23438	.20534	.1	12	20
1,1,2-trichloroethane	.32992	.31672	.1	4	20
1,3-dichloropropane	.72289	.69685	.05	4	20
tetrachloroethene	.57848	.58954	.2	-2	20
chlorodibromomethane	.40521	.42088	.1	-4	20
1,2-dibromoethane	.34872	.34427	.1	1	20
chlorobenzene	1.5937	1.5994	.5	0	20
1,1,1,2-tetrachloroethane	.44836	.47914	.05	-7	20
ethyl benzene	2.8497	2.9411	.1	-3	20
p/m xylene	1.1090	1.1500	.1	-4	20
o xylene	1.0893	1.1135	.3	-2	20
styrene	1.7746	1.8449	.31	-4	20
isopropylbenzene	2.7949	2.9127	.1	-4	20
bromoform	.37579	.37507	.1	0	20
1,4-dichlorobutane	1.2819	1.2341	.01	4	30
1,1,2,2,-tetrachloroethane	.80355	.76114	.3	5	20
1,2,3-trichloropropane	.629	.58138	.05	8	20
trans-1,4-dichloro-2-butene	.23221	.21983	.05	5	20
n-propylbenzene	5.6238	5.5857	.05	1	20
bromobenzene	1.1520	1.1450	.05	1	20
4-ethyltoluene	2.7280	2.8595	.05	-5	20
1,3,5-trimethylbenzene	4.0089	4.1199	.05	-3	20
2-chlorotoluene	3.9968	4.0477	.05	-1	20
4-chlorotoluene	3.7593	3.7648	.05	0	20
tert-butylbenzene	3.3739	3.3945	.05	-1	20
1,2,4-trimethylbenzene	3.8938	3.8806	.05	0	20

F  
F

FORM VII MCP-8260-10

7A  
CONTINUING CALIBRATION CHECK

Lab Name: Alpha Analytical Labs

SDG No.: L1316784

Instrument ID: Quimby.i                      Calibration Date: 03-SEP-2013    Time: 04:52

Lab File ID: 0903A02                      Init. Calib. Date(s): 03-AUG-2    03-AUG-2

Sample No: 8260 CCAL                      Init. Calib. Times : 11:54                      15:34

Compound	RRF	RRF	MIN RRF	%D	MAX %D
sec-butylbenzene	4.8218	4.9182	.05	-2	20
p-isopropytoluene	3.8479	3.9681	.05	-3	20
1,3-dichlorobenzene	2.2511	2.3152	.6	-3	20
1,4-dichlorobenzene	2.2670	2.2653	.5	0	20
n-butylbenzene	4.0374	4.0227	.05	0	20
1,2,4,5-tetramethylbenzene	1.2416	1.3230	.05	-7	20
1,2-dichlorobenzene	2.0349	2.0473	.4	-1	20
p-diethylbenzene	1.6964	1.7890	.05	-5	20
1,2-dibromo-3-chloropropane	.10023	.10099	.05	-1	20
1,3,5-trichlorobenzene	1.3381	1.3196	.01	1	30
1,2,4-trichlorobenzene	1.0237	.97011	.2	5	20
hexachlorobutadiene	.45013	.43632	.05	3	20
naphthalene	1.6749	1.5114	.05	10	20
1,2,3-trichlorobenzene	.82934	.79126	.05	5	20
dibromofluoromethane	.23962	.24597	.05	-3	20
1,2-dichloroethane-d4	.25793	.26256	.05	-2	20
toluene-d8	1.1767	1.1519	.05	2	20
4-bromofluorobenzene	.96599	.92691	.05	4	20

FORM VII MCP-8260-10



## ANALYTICAL REPORT

Lab Number:	L1318099
Client:	Haley & Aldrich, Inc. 465 Medford Street, Suite 2200 Charlestown, MA 02129-1400
ATTN:	Rebecca Higgins
Phone:	(617) 886-7326
Project Name:	100 BINNEY STREET
Project Number:	34250-021
Report Date:	09/19/13

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.

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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:** 100 BINNEY STREET  
**Project Number:** 34250-021

**Lab Number:** L1318099  
**Report Date:** 09/19/13

<b>Alpha Sample ID</b>	<b>Client ID</b>	<b>Sample Location</b>	<b>Collection Date/Time</b>
L1318099-01	ENV-20(OW)-09-13-2013	Not Specified	09/13/13 11:40
L1318099-02	ENV-312(OW)-09-13-2013	Not Specified	09/13/13 14:45
L1318099-03	TRIP BLANK	Not Specified	09/13/13 00:00

Project Name: 100 BINNEY STREET

Lab Number: L1318099

Project Number: 34250-021

Report Date: 09/19/13

**MADEP MCP Response Action Analytical Report Certification**

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

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

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



**Project Name:** 100 BINNEY STREET  
**Project Number:** 34250-021

**Lab Number:** L1318099  
**Report Date:** 09/19/13

### 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 21 calendar days from the date the project is completed. After 21 calendar days, we will dispose of all samples submitted including those put on hold unless you have contacted your Client Service Representative and made arrangements for Alpha to continue to hold the samples.

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

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**Project Name:** 100 BINNEY STREET  
**Project Number:** 34250-021

**Lab Number:** L1318099  
**Report Date:** 09/19/13

### Case Narrative (continued)

#### MCP Related Narratives

##### Volatile Organics

L1318099-02 has elevated detection limits due to the dilution required by the sample matrix.

In reference to question G:

One or more of the target analytes did not achieve the requested CAM reporting limits.

In reference to question H:

The initial calibration, associated with L1318099-01 and -02, did not meet the method required minimum response factor on the lowest calibration standard for 1,4-dioxane (0.00242), as well as the average response factor for 1,4-dioxane.

The continuing calibration standard, associated with L1318099-01 and -02, is outside the acceptance criteria for several compounds; however, it is within overall method allowances. A copy of the continuing calibration standard is included as an addendum to this report.

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

Authorized Signature:  Cynthia McQueen

Title: Technical Director/Representative

Date: 09/19/13

# ORGANICS

# VOLATILES

**Project Name:** 100 BINNEY STREET**Lab Number:** L1318099**Project Number:** 34250-021**Report Date:** 09/19/13**SAMPLE RESULTS**

Lab ID: L1318099-01 D  
 Client ID: ENV-20(OW)-09-13-2013  
 Sample Location: Not Specified  
 Matrix: Water  
 Analytical Method: 97,8260C  
 Analytical Date: 09/18/13 11:09  
 Analyst: MM

Date Collected: 09/13/13 11:40  
 Date Received: 09/13/13  
 Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
<b>MCP Volatile Organics - Westborough Lab</b>						
Methylene chloride	ND		ug/l	400	--	200
1,1-Dichloroethane	ND		ug/l	200	--	200
Chloroform	ND		ug/l	200	--	200
Carbon tetrachloride	ND		ug/l	200	--	200
1,2-Dichloropropane	ND		ug/l	200	--	200
Dibromochloromethane	ND		ug/l	200	--	200
1,1,2-Trichloroethane	ND		ug/l	200	--	200
Tetrachloroethene	ND		ug/l	200	--	200
Chlorobenzene	ND		ug/l	200	--	200
Trichlorofluoromethane	ND		ug/l	400	--	200
1,2-Dichloroethane	ND		ug/l	200	--	200
1,1,1-Trichloroethane	ND		ug/l	200	--	200
Bromodichloromethane	ND		ug/l	200	--	200
trans-1,3-Dichloropropene	ND		ug/l	100	--	200
cis-1,3-Dichloropropene	ND		ug/l	100	--	200
1,1-Dichloropropene	ND		ug/l	400	--	200
Bromoform	ND		ug/l	400	--	200
1,1,2,2-Tetrachloroethane	ND		ug/l	200	--	200
Benzene	970		ug/l	100	--	200
Toluene	3000		ug/l	200	--	200
Ethylbenzene	5300		ug/l	200	--	200
Chloromethane	ND		ug/l	400	--	200
Bromomethane	ND		ug/l	400	--	200
Vinyl chloride	ND		ug/l	200	--	200
Chloroethane	ND		ug/l	400	--	200
1,1-Dichloroethene	ND		ug/l	200	--	200
trans-1,2-Dichloroethene	ND		ug/l	200	--	200
Trichloroethene	ND		ug/l	200	--	200
1,2-Dichlorobenzene	ND		ug/l	200	--	200
1,3-Dichlorobenzene	ND		ug/l	200	--	200
1,4-Dichlorobenzene	ND		ug/l	200	--	200

**Project Name:** 100 BINNEY STREET**Lab Number:** L1318099**Project Number:** 34250-021**Report Date:** 09/19/13**SAMPLE RESULTS**

Lab ID: L1318099-01 D  
 Client ID: ENV-20(OW)-09-13-2013  
 Sample Location: Not Specified

Date Collected: 09/13/13 11:40  
 Date Received: 09/13/13  
 Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
<b>MCP Volatile Organics - Westborough Lab</b>						
Methyl tert butyl ether	ND		ug/l	400	--	200
p/m-Xylene	18000		ug/l	400	--	200
o-Xylene	6000		ug/l	200	--	200
cis-1,2-Dichloroethene	ND		ug/l	200	--	200
Dibromomethane	ND		ug/l	400	--	200
1,2,3-Trichloropropane	ND		ug/l	400	--	200
Styrene	ND		ug/l	200	--	200
Dichlorodifluoromethane	ND		ug/l	400	--	200
Acetone	ND		ug/l	1000	--	200
Carbon disulfide	ND		ug/l	400	--	200
2-Butanone	ND		ug/l	1000	--	200
4-Methyl-2-pentanone	ND		ug/l	1000	--	200
2-Hexanone	ND		ug/l	1000	--	200
Bromochloromethane	ND		ug/l	400	--	200
Tetrahydrofuran	ND		ug/l	400	--	200
2,2-Dichloropropane	ND		ug/l	400	--	200
1,2-Dibromoethane	ND		ug/l	400	--	200
1,3-Dichloropropane	ND		ug/l	400	--	200
1,1,1,2-Tetrachloroethane	ND		ug/l	200	--	200
Bromobenzene	ND		ug/l	400	--	200
n-Butylbenzene	ND		ug/l	400	--	200
sec-Butylbenzene	ND		ug/l	400	--	200
tert-Butylbenzene	ND		ug/l	400	--	200
o-Chlorotoluene	ND		ug/l	400	--	200
p-Chlorotoluene	ND		ug/l	400	--	200
1,2-Dibromo-3-chloropropane	ND		ug/l	400	--	200
Hexachlorobutadiene	ND		ug/l	120	--	200
Isopropylbenzene	ND		ug/l	400	--	200
p-Isopropyltoluene	ND		ug/l	400	--	200
Naphthalene	ND		ug/l	400	--	200
n-Propylbenzene	ND		ug/l	400	--	200
1,2,3-Trichlorobenzene	ND		ug/l	400	--	200
1,2,4-Trichlorobenzene	ND		ug/l	400	--	200
1,3,5-Trimethylbenzene	ND		ug/l	400	--	200
1,2,4-Trimethylbenzene	ND		ug/l	400	--	200
Ethyl ether	ND		ug/l	400	--	200
Isopropyl Ether	ND		ug/l	400	--	200
Ethyl-Tert-Butyl-Ether	ND		ug/l	400	--	200
Tertiary-Amyl Methyl Ether	ND		ug/l	400	--	200

**Project Name:** 100 BINNEY STREET**Lab Number:** L1318099**Project Number:** 34250-021**Report Date:** 09/19/13**SAMPLE RESULTS**

Lab ID: L1318099-01 D  
 Client ID: ENV-20(OW)-09-13-2013  
 Sample Location: Not Specified

Date Collected: 09/13/13 11:40  
 Date Received: 09/13/13  
 Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
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## MCP Volatile Organics - Westborough Lab

1,4-Dioxane	ND		ug/l	50000	--	200
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Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	106		70-130
Toluene-d8	93		70-130
4-Bromofluorobenzene	98		70-130
Dibromofluoromethane	104		70-130

**Project Name:** 100 BINNEY STREET**Lab Number:** L1318099**Project Number:** 34250-021**Report Date:** 09/19/13**SAMPLE RESULTS**

Lab ID: L1318099-02 D  
 Client ID: ENV-312(OW)-09-13-2013  
 Sample Location: Not Specified  
 Matrix: Water  
 Analytical Method: 97,8260C  
 Analytical Date: 09/18/13 11:41  
 Analyst: MM

Date Collected: 09/13/13 14:45  
 Date Received: 09/13/13  
 Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
<b>MCP Volatile Organics - Westborough Lab</b>						
Methylene chloride	ND		ug/l	20	--	10
1,1-Dichloroethane	ND		ug/l	10	--	10
Chloroform	ND		ug/l	10	--	10
Carbon tetrachloride	ND		ug/l	10	--	10
1,2-Dichloropropane	ND		ug/l	10	--	10
Dibromochloromethane	ND		ug/l	10	--	10
1,1,2-Trichloroethane	ND		ug/l	10	--	10
Tetrachloroethene	ND		ug/l	10	--	10
Chlorobenzene	ND		ug/l	10	--	10
Trichlorofluoromethane	ND		ug/l	20	--	10
1,2-Dichloroethane	ND		ug/l	10	--	10
1,1,1-Trichloroethane	ND		ug/l	10	--	10
Bromodichloromethane	ND		ug/l	10	--	10
trans-1,3-Dichloropropene	ND		ug/l	5.0	--	10
cis-1,3-Dichloropropene	ND		ug/l	5.0	--	10
1,1-Dichloropropene	ND		ug/l	20	--	10
Bromoform	ND		ug/l	20	--	10
1,1,2,2-Tetrachloroethane	ND		ug/l	10	--	10
Benzene	7.0		ug/l	5.0	--	10
Toluene	ND		ug/l	10	--	10
Ethylbenzene	ND		ug/l	10	--	10
Chloromethane	ND		ug/l	20	--	10
Bromomethane	ND		ug/l	20	--	10
Vinyl chloride	ND		ug/l	10	--	10
Chloroethane	ND		ug/l	20	--	10
1,1-Dichloroethene	ND		ug/l	10	--	10
trans-1,2-Dichloroethene	ND		ug/l	10	--	10
Trichloroethene	ND		ug/l	10	--	10
1,2-Dichlorobenzene	ND		ug/l	10	--	10
1,3-Dichlorobenzene	ND		ug/l	10	--	10
1,4-Dichlorobenzene	ND		ug/l	10	--	10

Project Name: 100 BINNEY STREET

Lab Number: L1318099

Project Number: 34250-021

Report Date: 09/19/13

## SAMPLE RESULTS

Lab ID: L1318099-02 D  
 Client ID: ENV-312(OW)-09-13-2013  
 Sample Location: Not Specified

Date Collected: 09/13/13 14:45  
 Date Received: 09/13/13  
 Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
<b>MCP Volatile Organics - Westborough Lab</b>						
Methyl tert butyl ether	ND		ug/l	20	--	10
p/m-Xylene	ND		ug/l	20	--	10
o-Xylene	ND		ug/l	10	--	10
cis-1,2-Dichloroethene	ND		ug/l	10	--	10
Dibromomethane	ND		ug/l	20	--	10
1,2,3-Trichloropropane	ND		ug/l	20	--	10
Styrene	ND		ug/l	10	--	10
Dichlorodifluoromethane	ND		ug/l	20	--	10
Acetone	ND		ug/l	50	--	10
Carbon disulfide	ND		ug/l	20	--	10
2-Butanone	ND		ug/l	50	--	10
4-Methyl-2-pentanone	ND		ug/l	50	--	10
2-Hexanone	ND		ug/l	50	--	10
Bromochloromethane	ND		ug/l	20	--	10
Tetrahydrofuran	ND		ug/l	20	--	10
2,2-Dichloropropane	ND		ug/l	20	--	10
1,2-Dibromoethane	ND		ug/l	20	--	10
1,3-Dichloropropane	ND		ug/l	20	--	10
1,1,1,2-Tetrachloroethane	ND		ug/l	10	--	10
Bromobenzene	ND		ug/l	20	--	10
n-Butylbenzene	ND		ug/l	20	--	10
sec-Butylbenzene	ND		ug/l	20	--	10
tert-Butylbenzene	ND		ug/l	20	--	10
o-Chlorotoluene	ND		ug/l	20	--	10
p-Chlorotoluene	ND		ug/l	20	--	10
1,2-Dibromo-3-chloropropane	ND		ug/l	20	--	10
Hexachlorobutadiene	ND		ug/l	6.0	--	10
Isopropylbenzene	ND		ug/l	20	--	10
p-Isopropyltoluene	ND		ug/l	20	--	10
Naphthalene	ND		ug/l	20	--	10
n-Propylbenzene	ND		ug/l	20	--	10
1,2,3-Trichlorobenzene	ND		ug/l	20	--	10
1,2,4-Trichlorobenzene	ND		ug/l	20	--	10
1,3,5-Trimethylbenzene	ND		ug/l	20	--	10
1,2,4-Trimethylbenzene	ND		ug/l	20	--	10
Ethyl ether	ND		ug/l	20	--	10
Isopropyl Ether	ND		ug/l	20	--	10
Ethyl-Tert-Butyl-Ether	ND		ug/l	20	--	10
Tertiary-Amyl Methyl Ether	ND		ug/l	20	--	10



**Project Name:** 100 BINNEY STREET**Lab Number:** L1318099**Project Number:** 34250-021**Report Date:** 09/19/13**SAMPLE RESULTS**

Lab ID: L1318099-02 D  
 Client ID: ENV-312(OW)-09-13-2013  
 Sample Location: Not Specified

Date Collected: 09/13/13 14:45  
 Date Received: 09/13/13  
 Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
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## MCP Volatile Organics - Westborough Lab

1,4-Dioxane	ND		ug/l	2500	--	10
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Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	108		70-130
Toluene-d8	93		70-130
4-Bromofluorobenzene	98		70-130
Dibromofluoromethane	107		70-130

**Project Name:** 100 BINNEY STREET  
**Project Number:** 34250-021

**Lab Number:** L1318099  
**Report Date:** 09/19/13

**Method Blank Analysis**  
**Batch Quality Control**

Analytical Method: 97,8260C  
Analytical Date: 09/18/13 06:25  
Analyst: MM

Parameter	Result	Qualifier	Units	RL	MDL
MCP Volatile Organics - Westborough Lab for sample(s): 01-02 Batch: WG637307-3					
Methylene chloride	ND		ug/l	2.0	--
1,1-Dichloroethane	ND		ug/l	1.0	--
Chloroform	ND		ug/l	1.0	--
Carbon tetrachloride	ND		ug/l	1.0	--
1,2-Dichloropropane	ND		ug/l	1.0	--
Dibromochloromethane	ND		ug/l	1.0	--
1,1,2-Trichloroethane	ND		ug/l	1.0	--
Tetrachloroethene	ND		ug/l	1.0	--
Chlorobenzene	ND		ug/l	1.0	--
Trichlorofluoromethane	ND		ug/l	2.0	--
1,2-Dichloroethane	ND		ug/l	1.0	--
1,1,1-Trichloroethane	ND		ug/l	1.0	--
Bromodichloromethane	ND		ug/l	1.0	--
trans-1,3-Dichloropropene	ND		ug/l	0.50	--
cis-1,3-Dichloropropene	ND		ug/l	0.50	--
1,1-Dichloropropene	ND		ug/l	2.0	--
Bromoform	ND		ug/l	2.0	--
1,1,2,2-Tetrachloroethane	ND		ug/l	1.0	--
Benzene	ND		ug/l	0.50	--
Toluene	ND		ug/l	1.0	--
Ethylbenzene	ND		ug/l	1.0	--
Chloromethane	ND		ug/l	2.0	--
Bromomethane	ND		ug/l	2.0	--
Vinyl chloride	ND		ug/l	1.0	--
Chloroethane	ND		ug/l	2.0	--
1,1-Dichloroethene	ND		ug/l	1.0	--
trans-1,2-Dichloroethene	ND		ug/l	1.0	--
Trichloroethene	ND		ug/l	1.0	--
1,2-Dichlorobenzene	ND		ug/l	1.0	--
1,3-Dichlorobenzene	ND		ug/l	1.0	--
1,4-Dichlorobenzene	ND		ug/l	1.0	--



**Project Name:** 100 BINNEY STREET  
**Project Number:** 34250-021

**Lab Number:** L1318099  
**Report Date:** 09/19/13

**Method Blank Analysis**  
**Batch Quality Control**

Analytical Method: 97,8260C  
Analytical Date: 09/18/13 06:25  
Analyst: MM

Parameter	Result	Qualifier	Units	RL	MDL
MCP Volatile Organics - Westborough Lab for sample(s): 01-02 Batch: WG637307-3					
Methyl tert butyl ether	ND		ug/l	2.0	--
p/m-Xylene	ND		ug/l	2.0	--
o-Xylene	ND		ug/l	1.0	--
cis-1,2-Dichloroethene	ND		ug/l	1.0	--
Dibromomethane	ND		ug/l	2.0	--
1,2,3-Trichloropropane	ND		ug/l	2.0	--
Styrene	ND		ug/l	1.0	--
Dichlorodifluoromethane	ND		ug/l	2.0	--
Acetone	ND		ug/l	5.0	--
Carbon disulfide	ND		ug/l	2.0	--
2-Butanone	ND		ug/l	5.0	--
4-Methyl-2-pentanone	ND		ug/l	5.0	--
2-Hexanone	ND		ug/l	5.0	--
Bromochloromethane	ND		ug/l	2.0	--
Tetrahydrofuran	ND		ug/l	2.0	--
2,2-Dichloropropane	ND		ug/l	2.0	--
1,2-Dibromoethane	ND		ug/l	2.0	--
1,3-Dichloropropane	ND		ug/l	2.0	--
1,1,1,2-Tetrachloroethane	ND		ug/l	1.0	--
Bromobenzene	ND		ug/l	2.0	--
n-Butylbenzene	ND		ug/l	2.0	--
sec-Butylbenzene	ND		ug/l	2.0	--
tert-Butylbenzene	ND		ug/l	2.0	--
o-Chlorotoluene	ND		ug/l	2.0	--
p-Chlorotoluene	ND		ug/l	2.0	--
1,2-Dibromo-3-chloropropane	ND		ug/l	2.0	--
Hexachlorobutadiene	ND		ug/l	0.60	--
Isopropylbenzene	ND		ug/l	2.0	--
p-Isopropyltoluene	ND		ug/l	2.0	--
Naphthalene	ND		ug/l	2.0	--
n-Propylbenzene	ND		ug/l	2.0	--



**Project Name:** 100 BINNEY STREET  
**Project Number:** 34250-021

**Lab Number:** L1318099  
**Report Date:** 09/19/13

**Method Blank Analysis  
 Batch Quality Control**

Analytical Method: 97,8260C  
 Analytical Date: 09/18/13 06:25  
 Analyst: MM

Parameter	Result	Qualifier	Units	RL	MDL
MCP Volatile Organics - Westborough Lab for sample(s): 01-02 Batch: WG637307-3					
1,2,3-Trichlorobenzene	ND		ug/l	2.0	--
1,2,4-Trichlorobenzene	ND		ug/l	2.0	--
1,3,5-Trimethylbenzene	ND		ug/l	2.0	--
1,2,4-Trimethylbenzene	ND		ug/l	2.0	--
Ethyl ether	ND		ug/l	2.0	--
Isopropyl Ether	ND		ug/l	2.0	--
Ethyl-Tert-Butyl-Ether	ND		ug/l	2.0	--
Tertiary-Amyl Methyl Ether	ND		ug/l	2.0	--
1,4-Dioxane	ND		ug/l	250	--

Surrogate	%Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	101		70-130
Toluene-d8	93		70-130
4-Bromofluorobenzene	100		70-130
Dibromofluoromethane	105		70-130

## Lab Control Sample Analysis

### Batch Quality Control

Project Name: 100 BINNEY STREET

Lab Number: L1318099

Project Number: 34250-021

Report Date: 09/19/13

Parameter	LCS		LCSD		%Recovery Limits	RPD	Qual	RPD Limits
	%Recovery	Qual	%Recovery	Qual				
MCP Volatile Organics - Westborough Lab Associated sample(s): 01-02 Batch: WG637307-1 WG637307-2								
Methylene chloride	101		102		70-130	1		20
1,1-Dichloroethane	108		109		70-130	1		20
Chloroform	109		110		70-130	1		20
Carbon tetrachloride	125		127		70-130	2		20
1,2-Dichloropropane	103		103		70-130	0		20
Dibromochloromethane	93		96		70-130	3		20
1,1,2-Trichloroethane	91		95		70-130	4		20
Tetrachloroethene	107		107		70-130	0		20
Chlorobenzene	96		97		70-130	1		20
Trichlorofluoromethane	115		117		70-130	2		20
1,2-Dichloroethane	109		110		70-130	1		20
1,1,1-Trichloroethane	114		115		70-130	1		20
Bromodichloromethane	108		109		70-130	1		20
trans-1,3-Dichloropropene	86		89		70-130	3		20
cis-1,3-Dichloropropene	101		101		70-130	0		20
1,1-Dichloropropene	115		115		70-130	0		20
Bromoform	80		83		70-130	4		20
1,1,2,2-Tetrachloroethane	84		87		70-130	4		20
Benzene	108		108		70-130	0		20
Toluene	94		94		70-130	0		20
Ethylbenzene	102		102		70-130	0		20

## Lab Control Sample Analysis

### Batch Quality Control

Project Name: 100 BINNEY STREET

Lab Number: L1318099

Project Number: 34250-021

Report Date: 09/19/13

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
MCP Volatile Organics - Westborough Lab Associated sample(s): 01-02 Batch: WG637307-1 WG637307-2								
Chloromethane	91		89		70-130	2		20
Bromomethane	102		107		70-130	5		20
Vinyl chloride	109		114		70-130	4		20
Chloroethane	109		110		70-130	1		20
1,1-Dichloroethene	110		112		70-130	2		20
trans-1,2-Dichloroethene	111		112		70-130	1		20
Trichloroethene	111		112		70-130	1		20
1,2-Dichlorobenzene	88		92		70-130	4		20
1,3-Dichlorobenzene	90		92		70-130	2		20
1,4-Dichlorobenzene	90		92		70-130	2		20
Methyl tert butyl ether	94		96		70-130	2		20
p/m-Xylene	100		100		70-130	0		20
o-Xylene	98		99		70-130	1		20
cis-1,2-Dichloroethene	107		109		70-130	2		20
Dibromomethane	106		108		70-130	2		20
1,2,3-Trichloropropane	81		84		70-130	4		20
Styrene	97		98		70-130	1		20
Dichlorodifluoromethane	94		94		70-130	0		20
Acetone	149	Q	139	Q	70-130	7		20
Carbon disulfide	112		112		70-130	0		20
2-Butanone	136	Q	125		70-130	8		20

## Lab Control Sample Analysis

### Batch Quality Control

Project Name: 100 BINNEY STREET

Lab Number: L1318099

Project Number: 34250-021

Report Date: 09/19/13

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
MCP Volatile Organics - Westborough Lab Associated sample(s): 01-02 Batch: WG637307-1 WG637307-2								
4-Methyl-2-pentanone	92		92		70-130	0		20
2-Hexanone	116		109		70-130	6		20
Bromochloromethane	106		108		70-130	2		20
Tetrahydrofuran	90		92		70-130	2		20
2,2-Dichloropropane	107		107		70-130	0		20
1,2-Dibromoethane	92		94		70-130	2		20
1,3-Dichloropropane	91		93		70-130	2		20
1,1,1,2-Tetrachloroethane	93		96		70-130	3		20
Bromobenzene	89		92		70-130	3		20
n-Butylbenzene	104		103		70-130	1		20
sec-Butylbenzene	103		101		70-130	2		20
tert-Butylbenzene	97		98		70-130	1		20
o-Chlorotoluene	91		92		70-130	1		20
p-Chlorotoluene	89		91		70-130	2		20
1,2-Dibromo-3-chloropropane	80		82		70-130	2		20
Hexachlorobutadiene	109		106		70-130	3		20
Isopropylbenzene	105		104		70-130	1		20
p-Isopropyltoluene	100		99		70-130	1		20
Naphthalene	82		84		70-130	2		20
n-Propylbenzene	98		98		70-130	0		20
1,2,3-Trichlorobenzene	92		94		70-130	2		20

## Lab Control Sample Analysis

### Batch Quality Control

Project Name: 100 BINNEY STREET

Lab Number: L1318099

Project Number: 34250-021

Report Date: 09/19/13

Parameter	LCS		LCSD		%Recovery Limits	RPD	Qual	RPD Limits
	%Recovery	Qual	%Recovery	Qual				
MCP Volatile Organics - Westborough Lab Associated sample(s): 01-02 Batch: WG637307-1 WG637307-2								
1,2,4-Trichlorobenzene	94		95		70-130	1		20
1,3,5-Trimethylbenzene	95		94		70-130	1		20
1,2,4-Trimethylbenzene	92		94		70-130	2		20
Ethyl ether	100		101		70-130	1		20
Isopropyl Ether	102		102		70-130	0		20
Ethyl-Tert-Butyl-Ether	96		97		70-130	1		20
Tertiary-Amyl Methyl Ether	93		95		70-130	2		20
1,4-Dioxane	124		119		70-130	4		20

Surrogate	LCS		LCSD		Acceptance Criteria
	%Recovery	Qual	%Recovery	Qual	
1,2-Dichloroethane-d4	102		101		70-130
Toluene-d8	93		93		70-130
4-Bromofluorobenzene	95		96		70-130
Dibromofluoromethane	105		104		70-130



Project Name: 100 BINNEY STREET

Lab Number: L1318099

Project Number: 34250-021

Report Date: 09/19/13

**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

**Container Information**

Container ID	Container Type	Cooler	pH	Temp deg C	Pres	Seal	Analysis(*)
L1318099-01A	Vial HCl preserved	A	N/A	2.4	Y	Absent	MCP-8260-10(14)
L1318099-01B	Vial HCl preserved	A	N/A	2.4	Y	Absent	MCP-8260-10(14)
L1318099-01C	Vial HCl preserved	A	N/A	2.4	Y	Absent	MCP-8260-10(14)
L1318099-02A	Vial HCl preserved	A	N/A	2.4	Y	Absent	MCP-8260-10(14)
L1318099-02B	Vial HCl preserved	A	N/A	2.4	Y	Absent	MCP-8260-10(14)
L1318099-02C	Vial HCl preserved	A	N/A	2.4	Y	Absent	MCP-8260-10(14)
L1318099-03A	Vial HCl preserved	A	N/A	2.4	Y	Absent	HOLD(14)

\*Values in parentheses indicate holding time in days

**Project Name:** 100 BINNEY STREET  
**Project Number:** 34250-021

**Lab Number:** L1318099  
**Report Date:** 09/19/13

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

Report Format: Data Usability Report



**Project Name:** 100 BINNEY STREET  
**Project Number:** 34250-021

**Lab Number:** L1318099  
**Report Date:** 09/19/13

**Data Qualifiers**

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

**Project Name:** 100 BINNEY STREET  
**Project Number:** 34250-021

**Lab Number:** L1318099  
**Report Date:** 09/19/13

## REFERENCES

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

## LIMITATION OF LIABILITIES

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

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



## Certificate/Approval Program Summary

Last revised August 29, 2013 - 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, 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).)

### State of Illinois Certificate/Lab ID: 003155. **NELAP Accredited.**

*Drinking Water* (Inorganic Parameters: SM2120B, 2320B, 2510B, 2540C, SM4500CN-CE, 4500F-C, 4500H-B, 4500NO3-F, 5310C, EPA 200.7, 200.8, 245.1, 300.0. Organic Parameters: EPA 504.1, 524.2.)

*Wastewater/Non-Potable Water* (Inorganic Parameters: SM2120B, 2310B, 2320B, 2340B, 2510B, 2540B, 2540C, 2540D, SM4500CL-E, 4500CN-E, 4500F-C, 4500H-B, 4500NH3-H, 4500NO2-B, 4500NO3-F, 4500P-E, 4500S-D, 4500SO3-B, 5210B, 5220D, 5310C, 5540C, EPA 120.1, 1664A, 200.7, 200.8, 245.1, 300.0, 350.1, 351.1, 353.2, 410.4, 420.1. Organic Parameters: EPA 608, 624, 625.)

*Hazardous and Solid Waste* (Inorganic Parameters: EPA 1010A, 1030, 1311, 1312, 6010C, 6020A, 7196A, 7470A, 7471B, 9012B, 9014, 9038, 9040C, 9045D, 9050A, 9065, 9251. Organic Parameters: 8011 (NPW only), 8015C, 8081B, 8082A, 8151A, 8260C, 8270D, 8315A, 8330.)

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

*Drinking Water* (Inorganic Parameters: SM9215B, 9222D, 9223B, EPA 180.1, 353.2, SM2120B, 2130B, 2320B, 2510C, 2540C, 4500CI-D, 4500CN-C, 4500CN-E, 4500F-C, 4500H+B, 4500NO3-F, 5310C, 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, 300.0, 350.1, 351.1, 353.2, 410.4, 420.1, 8315A, 9010C, SM2120B, 2310B, 2320B, 2510B, 2540B, 2540C, 2540D, 426C, 4500CI-E, 4500CN-C, 4500CN-E, 4500F-B, 4500F-C, 4500H+B, 4500Norg-C, 4500NH3-B, 4500NH3-H, 4500NO2-B, 4500NO3-F, 4500P-B, 4500P-E, 4500S2-D, 4500SO3-B, 5540C, 5210B, 5220D, 5310C, 9010B, 9030B, 9040C, 7470A, 7196A, 2340B, EPA 200.7, 6010C, 200.8, 6020A, 245.1, 1311, 1312, 3005A, Enterolert, 9223B, 9222D. Organic Parameters: 608, 624, 625, 8011, 8081B, 8082A, 8330, 8151A, 8260C, 8270D, 3510C, 3630C, 5030B, ME-DRO, ME-GRO, MA-EPH, MA-VPH.)

*Solid Waste/Soil* (Inorganic Parameters: 9010B, 9012A, 9014, 9040B, 9045C, 6010C, 6020A, 7471B, 7196A, 9050A, 1010, 1030, 9065, 1311, 1312, 3005A, 3050B, 9038, 9251. Organic Parameters: ME-DRO, ME-GRO, MA-EPH, MA-VPH, 8260C, 8270D, 8330, 8151A, 8081B, 8082A, 3540C, 3546, 3580A, 3620C, 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; ColilertQT SM9223B; MF-SM9222D.)

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

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

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

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

*Non-Potable Water* (Inorganic Parameters: SM9222D, 9221B, 9222B, 9221E-EC, EPA 3005A, 200.7, 200.8, 245.1, SW-846 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 Hampshire Department of Environmental Services Certificate/Lab ID: 2064. NELAP Accredited.**

*Drinking Water* (Organic Parameters: **EPA 524.2**: Di-isopropyl ether (DIPE), Ethyl-t-butyl ether (ETBE), Tert-amyl methyl ether (TAME)).

*Non-Potable Water* (Organic Parameters: **EPA 8260C**: 1,3,5-Trichlorobenzene. **EPA 8015C(M)**: TPH.)

*Solid & Chemical Materials* (Organic Parameters: **EPA 8260C**: 1,3,5-Trichlorobenzene.)

**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, 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.)

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, 245.1, SM5310C, EPA 332.0, SM2320B, EPA 300.0, SM2120B, 4500CN-E, 4500F-C, 4500NO<sub>3</sub>-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, 2320B, EPA 200.7, 300.0, SM4500CL-E, 4500F-C, SM15 426C, EPA 350.1, SM4500NH<sub>3</sub>-BH, EPA 351.1, LACHAT 10-107-06-2, EPA 353.2, SM4500-NO<sub>3</sub>-F, 4500-NO<sub>2</sub>-B, 4500P-E, 2340B, 2540C, 2540B, 2540D, EPA 200.8, EPA 6010C, 6020A, EPA 7196A, SM3500Cr-D, EPA 245.1, 7470A, SM2120B, 4500CN-CE, EPA 1664A, EPA 420.1, SM14 510C, EPA 120.1, SM2510B, SM4500S-D, SM5540C, EPA 8315A, 3005A, 3015, 9010C, 9030B. Organic Parameters: EPA 624, 8260C, 8270D, 8270D-SIM, 625, 608, 8081B, 8151A, 8330, 8082A, EPA 3510C, 5030B, 8015C, 8011.)

*Solid & Hazardous Waste* (Inorganic Parameters: EPA 1010A, 1030, EPA 6010C, 6020A, 7196A, 7471B, 8315A, 9012B, 9014, 9065, 9050A, 9038, 9251, EPA 1311, 1312, 3005A, 3050B, 9010C, 9030B, 9040C, 9045D. Organic Parameters: EPA 8260C, 8270D, 8270D-SIM, 8015C, 8081B, 8151A, 8330, 8082A, 3540C, 3546, 3580A, 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, 9012B, 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, 245.1, 2320B, 4500F-C, 4500NO<sub>3</sub>-F, 4500H+B, 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, 350.1, 351.1, 351.2, 3005A, 3015, 1312, 6010B, 6010C, 3060A, 353.2, 420.1, 2340B, 6020, 6020A, SM4500S-D, SM4500-CN-CE, Lachat 10-204-00-1-X, 7196A, 7470A, 2310B, 2320B, 2510B, 2540B, 2540C, 2540D, 3500Cr-D, 426C, 4500Cl-E, 4500F-B, 4500F-C, 4500NH<sub>3</sub>-H, 4500NO<sub>2</sub>-B, 4500NO<sub>3</sub>-F, 4500 SO<sub>3</sub>-B, 4500H-B, 4500PE, 510AC, 5210B, 5310B 5310C, 5540C, 9010Cm

9030B, 9040C. Organic Parameters: EPA 3510C, 3630C, 5030B, 8260B, 608, 624, 625, 8011, 8015C, 8081A, 8081B, 8082, 8082A, 8151A, 8260C, 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, 9010C, 9012B, 9030B, 9014, 9038, 9040C, 9045D, 9251, 9050A, 9065. Organic Parameters: EPA 5030B, 5035, 3540C, 3546, 3550B, 3580A, 3620C, 3630C, 6020A, 8260B, 8260C, 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, 6010C, 6020A, 245.1, 7470A, 9040B, 9010B, 180.1, 300.0, 332.0, 6860, 351.1, 353.2, 9060, 1664A, SM 4500CN-E, 4500H-B, 4500Norg-C, 4500NO3-F, 5310C, 2130B, 2320B, 2340B, 2540C, 5540C, 3005A, 3015, 9056, 7196A, 3500-Cr-D. Organic Parameters: EPA 8015C, 8151A, 8260C, 8270D, 8270D-SIM, 8330A, 8082A, 8081B, 3510C, 5030B, MassDEP EPH, MassDEP VPH.)

*Solid & Hazardous Waste* (Inorganic Parameters: EPA 200.7, 6010C, 6020A, 7471A, 6860, 1311, 1312, 3050B, 7196A, 9040B, 9045C, 9010C, 9012B, 9251, SM3500-CR-D, 4500CN-CE, 2540G, Organic Parameters: EPA 8015C, 8151A, 8260C, 8270D, 8270D-SIM, 8330A/B-prep, 8082A, 8081B, 3540C, 3546, 3580A, 5035A, MassDEP EPH, MassDEP VPH.)

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

**EPA 524.2:** Acetone, 2-Butanone (Methyl ethyl ketone (MEK)), Tert-butyl alcohol, 2-Hexanone, Tetrahydrofuran, 1,3,5-Trichlorobenzene, 4-Methyl-2-pentanone (MIBK), Carbon disulfide, Diethyl ether. **EPA 8260B:** 1,2,4,5-Tetramethylbenzene, 4-Ethyltoluene. **EPA 8260 Non-potable water matrix:** Iodomethane (methyl iodide), Methyl methacrylate. **EPA 8260 Soil matrix:** Tert-amyl methyl ether (TAME), Diisopropyl ether (DIPE), Azobenzene. **EPA 8330A:** PETN, Picric Acid, Nitroglycerine, 2,6-DANT, 2,4-DANT. **EPA 8270C:** Methyl naphthalene, Dimethyl naphthalene, Total Methylnaphthalenes, Total Dimethylnaphthalenes, 1,4-Diphenylhydrazine. **EPA 625:** 4-Chloroaniline, 4-Methylphenol. Total Phosphorus 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.





Haley & Aldrich, Inc.  
465 Medford St.,  
Suite 2200,  
Boston, MA 02129-1402

# CHAIN OF CUSTODY RECORD

21318099

Phone (617) 886-7400  
Fax (617) 886-7600

Page 1 of 1

H&A FILE NO. 34250-021  
PROJECT NAME 100 Binney Street  
H&A CONTACT R. Higgins / L. Costa

LABORATORY Alpha  
ADDRESS Westboro, MA  
CONTACT Gina Hall

DELIVERY DATE 9/13/13  
TURNAROUND TIME \_\_\_\_\_  
PROJECT MANAGER R. Higgins

Sample No.	Date	Time	Depth	Type	Analysis Requested													Number of Containers	Comments (special instructions, precautions, additional method numbers, etc.)									
					VOA	AIBS	PAH only	MCP Metals	Pesticides	PCBs	VPH	Full Suite	C-ranges only	EPH	Full Suite	C-ranges only	TTH (specify)			TCLP (specify)	Reactivity	Ignitability	Corrosivity					
ENV-20(OW)-09-13-2013	9/13/13	1140	—	GW	X																					3	Laboratory to use applicable DEP CAM methods, unless otherwise directed.  analysis 8260 VOCs	
ENV-312(OW)-09-13-2013	"	1445	—	GW	X																					3		

Sampled and Relinquished by  
Sign Jerlin Costa  
Print LEIWA COSTA  
Firm H&A  
Date 9/13/13 Time 1015

Received by  
Sign M. Ayrick  
Print M. Ayrick  
Firm Alpha  
Date 9/13/13 Time 1630

LIQUID

VOA Vial  
Amber Glass  
Plastic Bottle  
Preservative  
Volume

Sampling Comments  
analysis 8260 VOCs  
gw = groundwater  
laurian sample

Relinquished by  
Sign M. Ayrick  
Print M. Ayrick  
Firm Alpha  
Date 9/13/13 Time 1630

Received by  
Sign Wayne Pinner  
Print Wayne Pinner  
Firm Alpha  
Date 9/13/13 Time 1815

SOLID

VOA Vial  
Amber Glass  
Clear Glass  
Preservative  
Volume

Evidence samples were tampered with? YES  NO

If YES, please explain in section below.

Relinquished by  
Sign Wayne Pinner  
Print Wayne Pinner  
Firm Alpha  
Date 9/13/13 Time 1815

Received by  
Sign William McClellan  
Print William McClellan  
Firm Alpha  
Date 9/13/13 Time 1815

PRESERVATION KEY

A Sample chilled      C NaOH      E H<sub>2</sub>SO<sub>4</sub>      G Methanol  
B Sample filtered      D HNO<sub>3</sub>      F HCL      H Water/NaHSO<sub>4</sub> (circle)

Presumptive Certainly Data Package (Laboratory to use applicable DEP CAM methods)

If Presumptive Certainly Data Package is needed, initial all sections:

\_\_\_\_\_ The required minimum field QC samples, as designated in BWSC CAM-VII have been or will be collected, as appropriate, to meet the requirements of Presumptive Certainty.

\_\_\_\_\_ Matrix Spike (MS) samples for MCP Metals and/or Cyanide are included and identified herein.

\_\_\_\_\_ This Chain of Custody Record (specify) \_\_\_\_\_ includes \_\_\_\_\_ does not include samples defined as Drinking Water Samples.

\_\_\_\_\_ If this Chain of Custody Record identifies samples defined as Drinking Water Samples, Trip Blanks and Field Duplicates are included and identified and analysis of TICs are required, as appropriate. Laboratory should (specify if applicable) \_\_\_\_\_ analyze

Required Reporting Limits and Data Quality Objectives

RC-S1       S1       GW1  
 RC-S2       S2       GW2  
 RC-GW1       S3       GW3  
 RC-GW2

7A  
Volatile Organics CONTINUING CALIBRATION CHECK

Lab Name: Alpha Analytical Labs

SDG No.: L1318099

Instrument ID: Quimby.i      Calibration Date: 18-SEP-2013      Time: 04:51

Lab File ID: 0918A03      Init. Calib. Date(s): 11-SEP-2      11-SEP-2

Sample No: 8260 CCAL      Init. Calib. Times : 09:49      12:59

Compound	RRF	RRF	MIN RRF	%D	MAX %D
dichlorodifluoromethane	.33971	.31907	.1	6	20
chloromethane	.51412	.46973	.1	9	20
vinyl chloride	.38808	.42414	.1	-9	20
bromomethane	.20169	.20632	.1	-2	20
chloroethane	.30006	.32769	.1	-9	20
trichlorofluoromethane	.60073	.69356	.1	-15	20
ethyl ether	.23428	.23349	.05	0	20
acrolein	.06636	.06973	.05	-5	20
freon-113	.41686	.49132	.1	-18	20
acetone	.1319	.19624	.1	-49	20
1,1,-dichloroethene	.40031	.43853	.1	-10	20
tert-butyl alcohol	.02696	.0216	.05	20	20
iodomethane	.32407	.38414	.05	-19	20
methyl acetate	.26882	.25218	.01	6	30
methylene chloride	.52777	.53478	.1	-1	20
carbon disulfide	1.1364	1.2752	.1	-12	20
acrylonitrile	.13379	.12804	.05	4	20
methyl tert butyl ether	1.0167	.95946	.1	6	20
Halothane	.2634	.30537	.05	-16	20
trans-1,2-dichloroethene	.45409	.50624	.1	-11	20
Diisopropyl Ether	1.9960	2.0318	.05	-2	20
vinyl acetate	.91646	.83288	.05	9	20
1,1-dichloroethane	.91737	.99336	.2	-8	20
Ethyl-Tert-Butyl-Ether	1.4842	1.4283	.05	4	20
2-butanone	.17468	.23712	.1	-36	20
2,2-dichloropropane	.64341	.68662	.05	-7	20
ethyl acetate	.35414	.33841	.05	4	20
cis-1,2-dichloroethene	.50996	.54478	.1	-7	20
chloroform	.82175	.89788	.2	-9	20
bromochloromethane	.21693	.23078	.05	-6	20
tetrahydrofuran	.11631	.10457	.05	10	20
1,1,1-trichloroethane	.68647	.77917	.1	-14	20
cyclohexane	.99255	1.1267	.01	-14	30
1,1-dichloropropene	.65708	.75709	.05	-15	20
carbontetrachloride	.49561	.61788	.1	-25	20
Tertiary-Amyl Methyl Ether	1.1173	1.0414	.05	7	20
1,2-dichloroethane	.59802	.65204	.1	-9	20
benzene	2.0154	2.1718	.5	-8	20

FORM VII MCP-8260-10

7A  
CONTINUING CALIBRATION CHECK

Lab Name: Alpha Analytical Labs

SDG No.: L1318099

Instrument ID: Quimby.i      Calibration Date: 18-SEP-2013      Time: 04:51

Lab File ID: 0918A03      Init. Calib. Date(s): 11-SEP-2      11-SEP-2

Sample No: 8260 CCAL      Init. Calib. Times : 09:49      12:59

Compound	RRF	RRF	MIN RRF	%D	MAX %D
=====	=====	=====	=====	=====	=====
trichloroethene	.46786	.52082	.2	-11	20
methyl cyclohexane	.76723	.96827	.01	-26	30
1,2-dichloropropane	.54882	.56537	.1	-3	20
bromodichloromethane	.60005	.64787	.2	-8	20
1,4-dioxane	.00232	.00287	.05	-24	20
dibromomethane	.22877	.24315	.05	-6	20
2-chloroethylvinyl ether	.16231	.14288	.05	12	20
4-methyl-2-pentanone	.13094	.11979	.1	9	20
cis-1,3-dichloropropene	.73248	.73875	.2	-1	20
toluene	1.5944	1.4938	.4	6	20
ethyl-methacrylate	.58942	.47948	.01	19	30
trans-1,3-dichloropropene	.70425	.6024	.1	14	20
2-hexanone	.29445	.34198	.1	-16	20
1,1,2-trichloroethane	.33963	.30864	.1	9	20
1,3-dichloropropane	.76381	.6923	.05	9	20
tetrachloroethene	.63231	.67744	.2	-7	20
chlorodibromomethane	.46362	.43093	.1	7	20
1,2-dibromoethane	.3969	.36475	.1	8	20
chlorobenzene	1.7170	1.6476	.5	4	20
1,1,1,2-tetrachloroethane	.54591	.50571	.05	7	20
ethyl benzene	2.9011	2.9530	.1	-2	20
p/m xylene	1.1862	1.1823	.1	0	20
o xylene	1.1535	1.1283	.3	2	20
styrene	1.8659	1.8180	.31	3	20
isopropylbenzene	2.9478	3.0909	.1	-5	20
bromoform	.48814	.38993	.1	20	20
1,4-dichlorobutane	1.6712	1.3544	.01	19	30
1,1,2,2,-tetrachloroethane	.88708	.7422	.3	16	20
1,2,3-trichloropropane	.7027	.57008	.05	19	20
trans-1,4-dichloro-2-butene	.30865	.24623	.05	20	20
n-propylbenzene	5.799	5.6935	.05	2	20
bromobenzene	1.3295	1.1816	.05	11	20
4-ethyltoluene	2.5449	2.9242	.05	-15	20
1,3,5-trimethylbenzene	4.4752	4.2378	.05	5	20
2-chlorotoluene	4.2232	3.8338	.05	9	20
4-chlorotoluene	3.9938	3.5622	.05	11	20
tert-butylbenzene	3.7761	3.6629	.05	3	20
1,2,4-trimethylbenzene	4.3017	3.9560	.05	8	20

F

F

F

FORM VII MCP-8260-10

7A  
CONTINUING CALIBRATION CHECK

Lab Name: Alpha Analytical Labs

SDG No.: L1318099

Instrument ID: Quimby.i Calibration Date: 18-SEP-2013 Time: 04:51

Lab File ID: 0918A03 Init. Calib. Date(s): 11-SEP-2 11-SEP-2

Sample No: 8260 CCAL Init. Calib. Times : 09:49 12:59

Compound	RRF	RRF	MIN RRF	%D	MAX %D
sec-butylbenzene	5.3237	5.4754	.05	-3	20
p-isopropyltoluene	4.3830	4.3681	.05	0	20
1,3-dichlorobenzene	2.6338	2.3645	.6	10	20
1,4-dichlorobenzene	2.6015	2.3414	.5	10	20
n-butylbenzene	4.1122	4.2892	.05	-4	20
1,2,4,5-tetramethylbenzene	1.1695	1.4021	.05	-20	20
1,2-dichlorobenzene	2.3667	2.0950	.4	11	20
p-diethylbenzene	1.6627	1.887	.05	-13	20
1,2-dibromo-3-chloropropane	.1325	.10588	.05	20	20
1,3,5-trichlorobenzene	1.5296	1.4635	.01	4	30
1,2,4-trichlorobenzene	1.1982	1.1282	.2	6	20
hexachlorobutadiene	.45527	.49617	.05	-9	20
naphthalene	2.1204	1.7372	.05	18	20
1,2,3-trichlorobenzene	.9887	.90473	.05	8	20
dibromofluoromethane	.23641	.24822	.05	-5	20
1,2-dichloroethane-d4	.25589	.26004	.05	-2	20
toluene-d8	1.2040	1.1223	.05	7	20
4-bromofluorobenzene	.93821	.89313	.05	5	20

F



## ANALYTICAL REPORT

Lab Number:	L1318330
Client:	Haley & Aldrich, Inc. 465 Medford Street, Suite 2200 Charlestown, MA 02129-1400
ATTN:	Rebecca Higgins
Phone:	(617) 886-7326
Project Name:	100 BINNEY STREET
Project Number:	34250-021
Report Date:	09/24/13

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.

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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:** 100 BINNEY STREET  
**Project Number:** 34250-021

**Lab Number:** L1318330  
**Report Date:** 09/24/13

<b>Alpha Sample ID</b>	<b>Client ID</b>	<b>Sample Location</b>	<b>Collection Date/Time</b>
L1318330-01	ENV-23-09-17-2013	CAMBRIDGE, MA	09/17/13 11:50
L1318330-02	MW-57-09-17-2013	CAMBRIDGE, MA	09/17/13 14:20
L1318330-03	TB	CAMBRIDGE, MA	09/17/13 00:00

Project Name: 100 BINNEY STREET

Lab Number: L1318330

Project Number: 34250-021

Report Date: 09/24/13

**MADEP MCP Response Action Analytical Report Certification**

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

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

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



**Project Name:** 100 BINNEY STREET  
**Project Number:** 34250-021

**Lab Number:** L1318330  
**Report Date:** 09/24/13

### 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 21 calendar days from the date the project is completed. After 21 calendar days, we will dispose of all samples submitted including those put on hold unless you have contacted your Client Service Representative and made arrangements for Alpha to continue to hold the samples.

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

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**Project Name:** 100 BINNEY STREET  
**Project Number:** 34250-021

**Lab Number:** L1318330  
**Report Date:** 09/24/13

### Case Narrative (continued)

#### MCP Related Narratives

In reference to question G:

One or more of the target analytes did not achieve the requested CAM reporting limits.

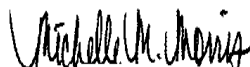
In reference to question H:

The initial calibration, associated with L1318330-01 (ENV-23-09-17-2013) and -02 (MW-57-09-17-2013), did not meet the method required minimum response factor on the lowest calibration standard for 1,4-dioxane (0.00242), as well as the average response factor for 1,4-dioxane.

The continuing calibration standards, associated with L1318330-01 (ENV-23-09-17-2013) and -02 (MW-57-09-17-2013), are outside the acceptance criteria for several compounds; however, they are within overall method allowances. Copies of the continuing calibration standards are included as an addendum to this report.

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: 09/24/13

# ORGANICS

# VOLATILES

**Project Name:** 100 BINNEY STREET**Lab Number:** L1318330**Project Number:** 34250-021**Report Date:** 09/24/13**SAMPLE RESULTS**

Lab ID: L1318330-01 D  
 Client ID: ENV-23-09-17-2013  
 Sample Location: CAMBRIDGE, MA  
 Matrix: Water  
 Analytical Method: 97,8260C  
 Analytical Date: 09/23/13 18:44  
 Analyst: TR

Date Collected: 09/17/13 11:50  
 Date Received: 09/17/13  
 Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
<b>MCP Volatile Organics - Westborough Lab</b>						
Methylene chloride	ND		ug/l	1000	--	500
1,1-Dichloroethane	ND		ug/l	500	--	500
Chloroform	ND		ug/l	500	--	500
Carbon tetrachloride	ND		ug/l	500	--	500
1,2-Dichloropropane	ND		ug/l	500	--	500
Dibromochloromethane	ND		ug/l	500	--	500
1,1,2-Trichloroethane	ND		ug/l	500	--	500
Tetrachloroethene	ND		ug/l	500	--	500
Chlorobenzene	ND		ug/l	500	--	500
Trichlorofluoromethane	ND		ug/l	1000	--	500
1,2-Dichloroethane	ND		ug/l	500	--	500
1,1,1-Trichloroethane	ND		ug/l	500	--	500
Bromodichloromethane	ND		ug/l	500	--	500
trans-1,3-Dichloropropene	ND		ug/l	250	--	500
cis-1,3-Dichloropropene	ND		ug/l	250	--	500
1,1-Dichloropropene	ND		ug/l	1000	--	500
Bromoform	ND		ug/l	1000	--	500
1,1,2,2-Tetrachloroethane	ND		ug/l	500	--	500
Benzene	21000		ug/l	250	--	500
Toluene	9200		ug/l	500	--	500
Ethylbenzene	1700		ug/l	500	--	500
Chloromethane	ND		ug/l	1000	--	500
Bromomethane	ND		ug/l	1000	--	500
Vinyl chloride	ND		ug/l	500	--	500
Chloroethane	ND		ug/l	1000	--	500
1,1-Dichloroethene	ND		ug/l	500	--	500
trans-1,2-Dichloroethene	ND		ug/l	500	--	500
Trichloroethene	ND		ug/l	500	--	500
1,2-Dichlorobenzene	ND		ug/l	500	--	500
1,3-Dichlorobenzene	ND		ug/l	500	--	500
1,4-Dichlorobenzene	ND		ug/l	500	--	500

**Project Name:** 100 BINNEY STREET**Lab Number:** L1318330**Project Number:** 34250-021**Report Date:** 09/24/13**SAMPLE RESULTS**

Lab ID: L1318330-01 D

Date Collected: 09/17/13 11:50

Client ID: ENV-23-09-17-2013

Date Received: 09/17/13

Sample Location: CAMBRIDGE, MA

Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
<b>MCP Volatile Organics - Westborough Lab</b>						
Methyl tert butyl ether	ND		ug/l	1000	--	500
p/m-Xylene	1600		ug/l	1000	--	500
o-Xylene	730		ug/l	500	--	500
cis-1,2-Dichloroethene	ND		ug/l	500	--	500
Dibromomethane	ND		ug/l	1000	--	500
1,2,3-Trichloropropane	ND		ug/l	1000	--	500
Styrene	580		ug/l	500	--	500
Dichlorodifluoromethane	ND		ug/l	1000	--	500
Acetone	ND		ug/l	2500	--	500
Carbon disulfide	ND		ug/l	1000	--	500
2-Butanone	ND		ug/l	2500	--	500
4-Methyl-2-pentanone	ND		ug/l	2500	--	500
2-Hexanone	ND		ug/l	2500	--	500
Bromochloromethane	ND		ug/l	1000	--	500
Tetrahydrofuran	ND		ug/l	1000	--	500
2,2-Dichloropropane	ND		ug/l	1000	--	500
1,2-Dibromoethane	ND		ug/l	1000	--	500
1,3-Dichloropropane	ND		ug/l	1000	--	500
1,1,1,2-Tetrachloroethane	ND		ug/l	500	--	500
Bromobenzene	ND		ug/l	1000	--	500
n-Butylbenzene	ND		ug/l	1000	--	500
sec-Butylbenzene	ND		ug/l	1000	--	500
tert-Butylbenzene	ND		ug/l	1000	--	500
o-Chlorotoluene	ND		ug/l	1000	--	500
p-Chlorotoluene	ND		ug/l	1000	--	500
1,2-Dibromo-3-chloropropane	ND		ug/l	1000	--	500
Hexachlorobutadiene	ND		ug/l	300	--	500
Isopropylbenzene	ND		ug/l	1000	--	500
p-Isopropyltoluene	ND		ug/l	1000	--	500
Naphthalene	6900		ug/l	1000	--	500
n-Propylbenzene	ND		ug/l	1000	--	500
1,2,3-Trichlorobenzene	ND		ug/l	1000	--	500
1,2,4-Trichlorobenzene	ND		ug/l	1000	--	500
1,3,5-Trimethylbenzene	ND		ug/l	1000	--	500
1,2,4-Trimethylbenzene	ND		ug/l	1000	--	500
Ethyl ether	ND		ug/l	1000	--	500
Isopropyl Ether	ND		ug/l	1000	--	500
Ethyl-Tert-Butyl-Ether	ND		ug/l	1000	--	500
Tertiary-Amyl Methyl Ether	ND		ug/l	1000	--	500



**Project Name:** 100 BINNEY STREET**Lab Number:** L1318330**Project Number:** 34250-021**Report Date:** 09/24/13**SAMPLE RESULTS**

Lab ID: L1318330-01 D

Date Collected: 09/17/13 11:50

Client ID: ENV-23-09-17-2013

Date Received: 09/17/13

Sample Location: CAMBRIDGE, MA

Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
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## MCP Volatile Organics - Westborough Lab

1,4-Dioxane	ND		ug/l	120000	--	500
-------------	----	--	------	--------	----	-----

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	117		70-130
Toluene-d8	103		70-130
4-Bromofluorobenzene	98		70-130
Dibromofluoromethane	104		70-130

**Project Name:** 100 BINNEY STREET**Lab Number:** L1318330**Project Number:** 34250-021**Report Date:** 09/24/13**SAMPLE RESULTS**

Lab ID: L1318330-02 D2  
 Client ID: MW-57-09-17-2013  
 Sample Location: CAMBRIDGE, MA  
 Matrix: Water  
 Analytical Method: 97,8260C  
 Analytical Date: 09/24/13 08:10  
 Analyst: TR

Date Collected: 09/17/13 14:20  
 Date Received: 09/17/13  
 Field Prep: Not Specified

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

## MCP Volatile Organics - Westborough Lab

Benzene	7200		ug/l	50	--	100
---------	------	--	------	----	----	-----

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	107		70-130
Toluene-d8	103		70-130
4-Bromofluorobenzene	97		70-130
Dibromofluoromethane	101		70-130

**Project Name:** 100 BINNEY STREET**Lab Number:** L1318330**Project Number:** 34250-021**Report Date:** 09/24/13**SAMPLE RESULTS**

Lab ID: L1318330-02 D  
 Client ID: MW-57-09-17-2013  
 Sample Location: CAMBRIDGE, MA  
 Matrix: Water  
 Analytical Method: 97,8260C  
 Analytical Date: 09/23/13 19:15  
 Analyst: TR

Date Collected: 09/17/13 14:20  
 Date Received: 09/17/13  
 Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
<b>MCP Volatile Organics - Westborough Lab</b>						
Methylene chloride	ND		ug/l	40	--	20
1,1-Dichloroethane	ND		ug/l	20	--	20
Chloroform	ND		ug/l	20	--	20
Carbon tetrachloride	ND		ug/l	20	--	20
1,2-Dichloropropane	ND		ug/l	20	--	20
Dibromochloromethane	ND		ug/l	20	--	20
1,1,2-Trichloroethane	ND		ug/l	20	--	20
Tetrachloroethene	ND		ug/l	20	--	20
Chlorobenzene	ND		ug/l	20	--	20
Trichlorofluoromethane	ND		ug/l	40	--	20
1,2-Dichloroethane	ND		ug/l	20	--	20
1,1,1-Trichloroethane	ND		ug/l	20	--	20
Bromodichloromethane	ND		ug/l	20	--	20
trans-1,3-Dichloropropene	ND		ug/l	10	--	20
cis-1,3-Dichloropropene	ND		ug/l	10	--	20
1,1-Dichloropropene	ND		ug/l	40	--	20
Bromoform	ND		ug/l	40	--	20
1,1,2,2-Tetrachloroethane	ND		ug/l	20	--	20
Benzene	6200	E	ug/l	10	--	20
Toluene	640		ug/l	20	--	20
Ethylbenzene	970		ug/l	20	--	20
Chloromethane	ND		ug/l	40	--	20
Bromomethane	ND		ug/l	40	--	20
Vinyl chloride	ND		ug/l	20	--	20
Chloroethane	ND		ug/l	40	--	20
1,1-Dichloroethene	ND		ug/l	20	--	20
trans-1,2-Dichloroethene	ND		ug/l	20	--	20
Trichloroethene	ND		ug/l	20	--	20
1,2-Dichlorobenzene	ND		ug/l	20	--	20
1,3-Dichlorobenzene	ND		ug/l	20	--	20
1,4-Dichlorobenzene	ND		ug/l	20	--	20



**Project Name:** 100 BINNEY STREET**Lab Number:** L1318330**Project Number:** 34250-021**Report Date:** 09/24/13**SAMPLE RESULTS**

Lab ID: L1318330-02 D

Date Collected: 09/17/13 14:20

Client ID: MW-57-09-17-2013

Date Received: 09/17/13

Sample Location: CAMBRIDGE, MA

Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
<b>MCP Volatile Organics - Westborough Lab</b>						
Methyl tert butyl ether	ND		ug/l	40	--	20
p/m-Xylene	420		ug/l	40	--	20
o-Xylene	300		ug/l	20	--	20
cis-1,2-Dichloroethene	ND		ug/l	20	--	20
Dibromomethane	ND		ug/l	40	--	20
1,2,3-Trichloropropane	ND		ug/l	40	--	20
Styrene	57		ug/l	20	--	20
Dichlorodifluoromethane	ND		ug/l	40	--	20
Acetone	ND		ug/l	100	--	20
Carbon disulfide	ND		ug/l	40	--	20
2-Butanone	ND		ug/l	100	--	20
4-Methyl-2-pentanone	ND		ug/l	100	--	20
2-Hexanone	ND		ug/l	100	--	20
Bromochloromethane	ND		ug/l	40	--	20
Tetrahydrofuran	ND		ug/l	40	--	20
2,2-Dichloropropane	ND		ug/l	40	--	20
1,2-Dibromoethane	ND		ug/l	40	--	20
1,3-Dichloropropane	ND		ug/l	40	--	20
1,1,1,2-Tetrachloroethane	ND		ug/l	20	--	20
Bromobenzene	ND		ug/l	40	--	20
n-Butylbenzene	ND		ug/l	40	--	20
sec-Butylbenzene	ND		ug/l	40	--	20
tert-Butylbenzene	ND		ug/l	40	--	20
o-Chlorotoluene	ND		ug/l	40	--	20
p-Chlorotoluene	ND		ug/l	40	--	20
1,2-Dibromo-3-chloropropane	ND		ug/l	40	--	20
Hexachlorobutadiene	ND		ug/l	12	--	20
Isopropylbenzene	ND		ug/l	40	--	20
p-Isopropyltoluene	ND		ug/l	40	--	20
Naphthalene	1800		ug/l	40	--	20
n-Propylbenzene	ND		ug/l	40	--	20
1,2,3-Trichlorobenzene	ND		ug/l	40	--	20
1,2,4-Trichlorobenzene	ND		ug/l	40	--	20
1,3,5-Trimethylbenzene	ND		ug/l	40	--	20
1,2,4-Trimethylbenzene	65		ug/l	40	--	20
Ethyl ether	ND		ug/l	40	--	20
Isopropyl Ether	ND		ug/l	40	--	20
Ethyl-Tert-Butyl-Ether	ND		ug/l	40	--	20
Tertiary-Amyl Methyl Ether	ND		ug/l	40	--	20



**Project Name:** 100 BINNEY STREET**Lab Number:** L1318330**Project Number:** 34250-021**Report Date:** 09/24/13**SAMPLE RESULTS**

Lab ID: L1318330-02 D

Date Collected: 09/17/13 14:20

Client ID: MW-57-09-17-2013

Date Received: 09/17/13

Sample Location: CAMBRIDGE, MA

Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
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## MCP Volatile Organics - Westborough Lab

1,4-Dioxane	ND		ug/l	5000	--	20
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Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	110		70-130
Toluene-d8	102		70-130
4-Bromofluorobenzene	96		70-130
Dibromofluoromethane	101		70-130

**Project Name:** 100 BINNEY STREET  
**Project Number:** 34250-021

**Lab Number:** L1318330  
**Report Date:** 09/24/13

**Method Blank Analysis**  
**Batch Quality Control**

Analytical Method: 97,8260C  
Analytical Date: 09/23/13 13:57  
Analyst: TR

Parameter	Result	Qualifier	Units	RL	MDL
MCP Volatile Organics - Westborough Lab for sample(s): 01-02 Batch: WG638343-3					
Methylene chloride	ND		ug/l	2.0	--
1,1-Dichloroethane	ND		ug/l	1.0	--
Chloroform	ND		ug/l	1.0	--
Carbon tetrachloride	ND		ug/l	1.0	--
1,2-Dichloropropane	ND		ug/l	1.0	--
Dibromochloromethane	ND		ug/l	1.0	--
1,1,2-Trichloroethane	ND		ug/l	1.0	--
Tetrachloroethene	ND		ug/l	1.0	--
Chlorobenzene	ND		ug/l	1.0	--
Trichlorofluoromethane	ND		ug/l	2.0	--
1,2-Dichloroethane	ND		ug/l	1.0	--
1,1,1-Trichloroethane	ND		ug/l	1.0	--
Bromodichloromethane	ND		ug/l	1.0	--
trans-1,3-Dichloropropene	ND		ug/l	0.50	--
cis-1,3-Dichloropropene	ND		ug/l	0.50	--
1,1-Dichloropropene	ND		ug/l	2.0	--
Bromoform	ND		ug/l	2.0	--
1,1,2,2-Tetrachloroethane	ND		ug/l	1.0	--
Benzene	ND		ug/l	0.50	--
Toluene	ND		ug/l	1.0	--
Ethylbenzene	ND		ug/l	1.0	--
Chloromethane	ND		ug/l	2.0	--
Bromomethane	ND		ug/l	2.0	--
Vinyl chloride	ND		ug/l	1.0	--
Chloroethane	ND		ug/l	2.0	--
1,1-Dichloroethene	ND		ug/l	1.0	--
trans-1,2-Dichloroethene	ND		ug/l	1.0	--
Trichloroethene	ND		ug/l	1.0	--
1,2-Dichlorobenzene	ND		ug/l	1.0	--
1,3-Dichlorobenzene	ND		ug/l	1.0	--
1,4-Dichlorobenzene	ND		ug/l	1.0	--



**Project Name:** 100 BINNEY STREET  
**Project Number:** 34250-021

**Lab Number:** L1318330  
**Report Date:** 09/24/13

**Method Blank Analysis**  
**Batch Quality Control**

Analytical Method: 97,8260C  
Analytical Date: 09/23/13 13:57  
Analyst: TR

Parameter	Result	Qualifier	Units	RL	MDL
MCP Volatile Organics - Westborough Lab for sample(s): 01-02 Batch: WG638343-3					
Methyl tert butyl ether	ND		ug/l	2.0	--
p/m-Xylene	ND		ug/l	2.0	--
o-Xylene	ND		ug/l	1.0	--
cis-1,2-Dichloroethene	ND		ug/l	1.0	--
Dibromomethane	ND		ug/l	2.0	--
1,2,3-Trichloropropane	ND		ug/l	2.0	--
Styrene	ND		ug/l	1.0	--
Dichlorodifluoromethane	ND		ug/l	2.0	--
Acetone	ND		ug/l	5.0	--
Carbon disulfide	ND		ug/l	2.0	--
2-Butanone	ND		ug/l	5.0	--
4-Methyl-2-pentanone	ND		ug/l	5.0	--
2-Hexanone	ND		ug/l	5.0	--
Bromochloromethane	ND		ug/l	2.0	--
Tetrahydrofuran	ND		ug/l	2.0	--
2,2-Dichloropropane	ND		ug/l	2.0	--
1,2-Dibromoethane	ND		ug/l	2.0	--
1,3-Dichloropropane	ND		ug/l	2.0	--
1,1,1,2-Tetrachloroethane	ND		ug/l	1.0	--
Bromobenzene	ND		ug/l	2.0	--
n-Butylbenzene	ND		ug/l	2.0	--
sec-Butylbenzene	ND		ug/l	2.0	--
tert-Butylbenzene	ND		ug/l	2.0	--
o-Chlorotoluene	ND		ug/l	2.0	--
p-Chlorotoluene	ND		ug/l	2.0	--
1,2-Dibromo-3-chloropropane	ND		ug/l	2.0	--
Hexachlorobutadiene	ND		ug/l	0.60	--
Isopropylbenzene	ND		ug/l	2.0	--
p-Isopropyltoluene	ND		ug/l	2.0	--
Naphthalene	ND		ug/l	2.0	--
n-Propylbenzene	ND		ug/l	2.0	--



**Project Name:** 100 BINNEY STREET  
**Project Number:** 34250-021

**Lab Number:** L1318330  
**Report Date:** 09/24/13

**Method Blank Analysis**  
**Batch Quality Control**

Analytical Method: 97,8260C  
 Analytical Date: 09/23/13 13:57  
 Analyst: TR

Parameter	Result	Qualifier	Units	RL	MDL
MCP Volatile Organics - Westborough Lab for sample(s): 01-02 Batch: WG638343-3					
1,2,3-Trichlorobenzene	ND		ug/l	2.0	--
1,2,4-Trichlorobenzene	ND		ug/l	2.0	--
1,3,5-Trimethylbenzene	ND		ug/l	2.0	--
1,2,4-Trimethylbenzene	ND		ug/l	2.0	--
Ethyl ether	ND		ug/l	2.0	--
Isopropyl Ether	ND		ug/l	2.0	--
Ethyl-Tert-Butyl-Ether	ND		ug/l	2.0	--
Tertiary-Amyl Methyl Ether	ND		ug/l	2.0	--
1,4-Dioxane	ND		ug/l	250	--

Surrogate	%Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	107		70-130
Toluene-d8	103		70-130
4-Bromofluorobenzene	100		70-130
Dibromofluoromethane	101		70-130

**Project Name:** 100 BINNEY STREET  
**Project Number:** 34250-021

**Lab Number:** L1318330  
**Report Date:** 09/24/13

**Method Blank Analysis**  
**Batch Quality Control**

Analytical Method: 97,8260C  
Analytical Date: 09/24/13 07:07  
Analyst: TR

Parameter	Result	Qualifier	Units	RL	MDL
MCP Volatile Organics - Westborough Lab for sample(s): 02 Batch: WG638343-6					
Methylene chloride	ND		ug/l	2.0	--
1,1-Dichloroethane	ND		ug/l	1.0	--
Chloroform	ND		ug/l	1.0	--
Carbon tetrachloride	ND		ug/l	1.0	--
1,2-Dichloropropane	ND		ug/l	1.0	--
Dibromochloromethane	ND		ug/l	1.0	--
1,1,2-Trichloroethane	ND		ug/l	1.0	--
Tetrachloroethene	ND		ug/l	1.0	--
Chlorobenzene	ND		ug/l	1.0	--
Trichlorofluoromethane	ND		ug/l	2.0	--
1,2-Dichloroethane	ND		ug/l	1.0	--
1,1,1-Trichloroethane	ND		ug/l	1.0	--
Bromodichloromethane	ND		ug/l	1.0	--
trans-1,3-Dichloropropene	ND		ug/l	0.50	--
cis-1,3-Dichloropropene	ND		ug/l	0.50	--
1,1-Dichloropropene	ND		ug/l	2.0	--
Bromoform	ND		ug/l	2.0	--
1,1,2,2-Tetrachloroethane	ND		ug/l	1.0	--
Benzene	ND		ug/l	0.50	--
Toluene	ND		ug/l	1.0	--
Ethylbenzene	ND		ug/l	1.0	--
Chloromethane	ND		ug/l	2.0	--
Bromomethane	ND		ug/l	2.0	--
Vinyl chloride	ND		ug/l	1.0	--
Chloroethane	ND		ug/l	2.0	--
1,1-Dichloroethene	ND		ug/l	1.0	--
trans-1,2-Dichloroethene	ND		ug/l	1.0	--
Trichloroethene	ND		ug/l	1.0	--
1,2-Dichlorobenzene	ND		ug/l	1.0	--
1,3-Dichlorobenzene	ND		ug/l	1.0	--
1,4-Dichlorobenzene	ND		ug/l	1.0	--



**Project Name:** 100 BINNEY STREET  
**Project Number:** 34250-021

**Lab Number:** L1318330  
**Report Date:** 09/24/13

**Method Blank Analysis  
Batch Quality Control**

Analytical Method: 97,8260C  
Analytical Date: 09/24/13 07:07  
Analyst: TR

Parameter	Result	Qualifier	Units	RL	MDL
MCP Volatile Organics - Westborough Lab for sample(s): 02 Batch: WG638343-6					
Methyl tert butyl ether	ND		ug/l	2.0	--
p/m-Xylene	ND		ug/l	2.0	--
o-Xylene	ND		ug/l	1.0	--
cis-1,2-Dichloroethene	ND		ug/l	1.0	--
Dibromomethane	ND		ug/l	2.0	--
1,2,3-Trichloropropane	ND		ug/l	2.0	--
Styrene	ND		ug/l	1.0	--
Dichlorodifluoromethane	ND		ug/l	2.0	--
Acetone	ND		ug/l	5.0	--
Carbon disulfide	ND		ug/l	2.0	--
2-Butanone	ND		ug/l	5.0	--
4-Methyl-2-pentanone	ND		ug/l	5.0	--
2-Hexanone	ND		ug/l	5.0	--
Bromochloromethane	ND		ug/l	2.0	--
Tetrahydrofuran	ND		ug/l	2.0	--
2,2-Dichloropropane	ND		ug/l	2.0	--
1,2-Dibromoethane	ND		ug/l	2.0	--
1,3-Dichloropropane	ND		ug/l	2.0	--
1,1,1,2-Tetrachloroethane	ND		ug/l	1.0	--
Bromobenzene	ND		ug/l	2.0	--
n-Butylbenzene	ND		ug/l	2.0	--
sec-Butylbenzene	ND		ug/l	2.0	--
tert-Butylbenzene	ND		ug/l	2.0	--
o-Chlorotoluene	ND		ug/l	2.0	--
p-Chlorotoluene	ND		ug/l	2.0	--
1,2-Dibromo-3-chloropropane	ND		ug/l	2.0	--
Hexachlorobutadiene	ND		ug/l	0.60	--
Isopropylbenzene	ND		ug/l	2.0	--
p-Isopropyltoluene	ND		ug/l	2.0	--
Naphthalene	ND		ug/l	2.0	--
n-Propylbenzene	ND		ug/l	2.0	--



**Project Name:** 100 BINNEY STREET  
**Project Number:** 34250-021

**Lab Number:** L1318330  
**Report Date:** 09/24/13

**Method Blank Analysis**  
**Batch Quality Control**

Analytical Method: 97,8260C  
 Analytical Date: 09/24/13 07:07  
 Analyst: TR

Parameter	Result	Qualifier	Units	RL	MDL
MCP Volatile Organics - Westborough Lab for sample(s): 02 Batch: WG638343-6					
1,2,3-Trichlorobenzene	ND		ug/l	2.0	--
1,2,4-Trichlorobenzene	ND		ug/l	2.0	--
1,3,5-Trimethylbenzene	ND		ug/l	2.0	--
1,2,4-Trimethylbenzene	ND		ug/l	2.0	--
Ethyl ether	ND		ug/l	2.0	--
Isopropyl Ether	ND		ug/l	2.0	--
Ethyl-Tert-Butyl-Ether	ND		ug/l	2.0	--
Tertiary-Amyl Methyl Ether	ND		ug/l	2.0	--
1,4-Dioxane	ND		ug/l	250	--

Surrogate	%Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	107		70-130
Toluene-d8	103		70-130
4-Bromofluorobenzene	103		70-130
Dibromofluoromethane	101		70-130



## Lab Control Sample Analysis

### Batch Quality Control

Project Name: 100 BINNEY STREET

Lab Number: L1318330

Project Number: 34250-021

Report Date: 09/24/13

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
MCP Volatile Organics - Westborough Lab Associated sample(s): 01-02 Batch: WG638343-1 WG638343-2								
Methylene chloride	88		84		70-130	5		20
1,1-Dichloroethane	95		90		70-130	5		20
Chloroform	96		92		70-130	4		20
Carbon tetrachloride	110		101		70-130	9		20
1,2-Dichloropropane	88		85		70-130	3		20
Dibromochloromethane	95		89		70-130	7		20
1,1,2-Trichloroethane	95		92		70-130	3		20
Tetrachloroethene	109		104		70-130	5		20
Chlorobenzene	98		94		70-130	4		20
Trichlorofluoromethane	113		107		70-130	5		20
1,2-Dichloroethane	96		92		70-130	4		20
1,1,1-Trichloroethane	100		94		70-130	6		20
Bromodichloromethane	93		88		70-130	6		20
trans-1,3-Dichloropropene	86		82		70-130	5		20
cis-1,3-Dichloropropene	85		81		70-130	5		20
1,1-Dichloropropene	102		96		70-130	6		20
Bromoform	87		80		70-130	8		20
1,1,2,2-Tetrachloroethane	91		87		70-130	4		20
Benzene	94		90		70-130	4		20
Toluene	96		92		70-130	4		20
Ethylbenzene	103		99		70-130	4		20

## Lab Control Sample Analysis

### Batch Quality Control

Project Name: 100 BINNEY STREET

Lab Number: L1318330

Project Number: 34250-021

Report Date: 09/24/13

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
MCP Volatile Organics - Westborough Lab Associated sample(s): 01-02 Batch: WG638343-1 WG638343-2								
Chloromethane	94		93		70-130	1		20
Bromomethane	95		89		70-130	7		20
Vinyl chloride	113		105		70-130	7		20
Chloroethane	100		96		70-130	4		20
1,1-Dichloroethene	103		97		70-130	6		20
trans-1,2-Dichloroethene	98		94		70-130	4		20
Trichloroethene	97		92		70-130	5		20
1,2-Dichlorobenzene	97		94		70-130	3		20
1,3-Dichlorobenzene	99		94		70-130	5		20
1,4-Dichlorobenzene	98		94		70-130	4		20
Methyl tert butyl ether	85		80		70-130	6		20
p/m-Xylene	101		97		70-130	4		20
o-Xylene	99		96		70-130	3		20
cis-1,2-Dichloroethene	94		90		70-130	4		20
Dibromomethane	93		90		70-130	3		20
1,2,3-Trichloropropane	91		86		70-130	6		20
Styrene	98		95		70-130	3		20
Dichlorodifluoromethane	122		115		70-130	6		20
Acetone	130		129		70-130	1		20
Carbon disulfide	101		97		70-130	4		20
2-Butanone	116		111		70-130	4		20

## Lab Control Sample Analysis

### Batch Quality Control

Project Name: 100 BINNEY STREET

Lab Number: L1318330

Project Number: 34250-021

Report Date: 09/24/13

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
MCP Volatile Organics - Westborough Lab Associated sample(s): 01-02 Batch: WG638343-1 WG638343-2								
4-Methyl-2-pentanone	81		76		70-130	6		20
2-Hexanone	117		110		70-130	6		20
Bromochloromethane	94		90		70-130	4		20
Tetrahydrofuran	82		78		70-130	5		20
2,2-Dichloropropane	89		85		70-130	5		20
1,2-Dibromoethane	96		92		70-130	4		20
1,3-Dichloropropane	93		90		70-130	3		20
1,1,1,2-Tetrachloroethane	92		88		70-130	4		20
Bromobenzene	98		94		70-130	4		20
n-Butylbenzene	110		106		70-130	4		20
sec-Butylbenzene	109		105		70-130	4		20
tert-Butylbenzene	106		101		70-130	5		20
o-Chlorotoluene	100		95		70-130	5		20
p-Chlorotoluene	98		94		70-130	4		20
1,2-Dibromo-3-chloropropane	85		80		70-130	6		20
Hexachlorobutadiene	114		109		70-130	4		20
Isopropylbenzene	105		101		70-130	4		20
p-Isopropyltoluene	107		102		70-130	5		20
Naphthalene	91		85		70-130	7		20
n-Propylbenzene	106		102		70-130	4		20
1,2,3-Trichlorobenzene	102		95		70-130	7		20

## Lab Control Sample Analysis

### Batch Quality Control

Project Name: 100 BINNEY STREET

Lab Number: L1318330

Project Number: 34250-021

Report Date: 09/24/13

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
MCP Volatile Organics - Westborough Lab Associated sample(s): 01-02 Batch: WG638343-1 WG638343-2								
1,2,4-Trichlorobenzene	102		97		70-130	5		20
1,3,5-Trimethylbenzene	104		98		70-130	6		20
1,2,4-Trimethylbenzene	101		95		70-130	6		20
Ethyl ether	89		85		70-130	5		20
Isopropyl Ether	89		86		70-130	3		20
Ethyl-Tert-Butyl-Ether	84		81		70-130	4		20
Tertiary-Amyl Methyl Ether	82		78		70-130	5		20
1,4-Dioxane	103		99		70-130	4		20

Surrogate	LCS %Recovery	Qual	LCSD %Recovery	Qual	Acceptance Criteria
1,2-Dichloroethane-d4	106		104		70-130
Toluene-d8	103		104		70-130
4-Bromofluorobenzene	98		97		70-130
Dibromofluoromethane	102		102		70-130

## Lab Control Sample Analysis

### Batch Quality Control

Project Name: 100 BINNEY STREET

Lab Number: L1318330

Project Number: 34250-021

Report Date: 09/24/13

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
MCP Volatile Organics - Westborough Lab Associated sample(s): 02 Batch: WG638343-4 WG638343-5								
Methylene chloride	78		79		70-130	1		20
1,1-Dichloroethane	86		86		70-130	0		20
Chloroform	89		90		70-130	1		20
Carbon tetrachloride	97		104		70-130	7		20
1,2-Dichloropropane	82		81		70-130	1		20
Dibromochloromethane	90		90		70-130	0		20
1,1,2-Trichloroethane	89		88		70-130	1		20
Tetrachloroethene	94		97		70-130	3		20
Chlorobenzene	91		88		70-130	3		20
Trichlorofluoromethane	100		104		70-130	4		20
1,2-Dichloroethane	91		90		70-130	1		20
1,1,1-Trichloroethane	88		91		70-130	3		20
Bromodichloromethane	88		88		70-130	0		20
trans-1,3-Dichloropropene	81		80		70-130	1		20
cis-1,3-Dichloropropene	79		79		70-130	0		20
1,1-Dichloropropene	88		91		70-130	3		20
Bromoform	83		84		70-130	1		20
1,1,2,2-Tetrachloroethane	85		85		70-130	0		20
Benzene	85		85		70-130	0		20
Toluene	86		85		70-130	1		20
Ethylbenzene	93		93		70-130	0		20

## Lab Control Sample Analysis

### Batch Quality Control

Project Name: 100 BINNEY STREET

Lab Number: L1318330

Project Number: 34250-021

Report Date: 09/24/13

Parameter	LCS		LCSD		%Recovery Limits	RPD	Qual	RPD Limits
	%Recovery	Qual	%Recovery	Qual				
MCP Volatile Organics - Westborough Lab Associated sample(s): 02 Batch: WG638343-4 WG638343-5								
Chloromethane	81		79		70-130	3		20
Bromomethane	67	Q	73		70-130	9		20
Vinyl chloride	94		99		70-130	5		20
Chloroethane	88		91		70-130	3		20
1,1-Dichloroethene	88		92		70-130	4		20
trans-1,2-Dichloroethene	87		88		70-130	1		20
Trichloroethene	86		88		70-130	2		20
1,2-Dichlorobenzene	90		90		70-130	0		20
1,3-Dichlorobenzene	90		89		70-130	1		20
1,4-Dichlorobenzene	90		90		70-130	0		20
Methyl tert butyl ether	77		77		70-130	0		20
p/m-Xylene	91		91		70-130	0		20
o-Xylene	91		89		70-130	2		20
cis-1,2-Dichloroethene	86		88		70-130	2		20
Dibromomethane	88		87		70-130	1		20
1,2,3-Trichloropropane	84		84		70-130	0		20
Styrene	92		90		70-130	2		20
Dichlorodifluoromethane	114		115		70-130	1		20
Acetone	130		93		70-130	33	Q	20
Carbon disulfide	86		91		70-130	6		20
2-Butanone	130		101		70-130	25	Q	20

## Lab Control Sample Analysis

### Batch Quality Control

Project Name: 100 BINNEY STREET

Lab Number: L1318330

Project Number: 34250-021

Report Date: 09/24/13

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
MCP Volatile Organics - Westborough Lab Associated sample(s): 02 Batch: WG638343-4 WG638343-5								
4-Methyl-2-pentanone	72		71		70-130	1		20
2-Hexanone	112		87		70-130	25	Q	20
Bromochloromethane	87		86		70-130	1		20
Tetrahydrofuran	74		74		70-130	0		20
2,2-Dichloropropane	76		80		70-130	5		20
1,2-Dibromoethane	90		88		70-130	2		20
1,3-Dichloropropane	88		86		70-130	2		20
1,1,1,2-Tetrachloroethane	88		88		70-130	0		20
Bromobenzene	90		89		70-130	1		20
n-Butylbenzene	96		99		70-130	3		20
sec-Butylbenzene	92		96		70-130	4		20
tert-Butylbenzene	91		94		70-130	3		20
o-Chlorotoluene	90		90		70-130	0		20
p-Chlorotoluene	90		90		70-130	0		20
1,2-Dibromo-3-chloropropane	82		82		70-130	0		20
Hexachlorobutadiene	98		104		70-130	6		20
Isopropylbenzene	93		94		70-130	1		20
p-Isopropyltoluene	93		96		70-130	3		20
Naphthalene	83		83		70-130	0		20
n-Propylbenzene	92		95		70-130	3		20
1,2,3-Trichlorobenzene	93		94		70-130	1		20

## Lab Control Sample Analysis

### Batch Quality Control

Project Name: 100 BINNEY STREET

Lab Number: L1318330

Project Number: 34250-021

Report Date: 09/24/13

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
MCP Volatile Organics - Westborough Lab Associated sample(s): 02 Batch: WG638343-4 WG638343-5								
1,2,4-Trichlorobenzene	93		93		70-130	0		20
1,3,5-Trimethylbenzene	92		93		70-130	1		20
1,2,4-Trimethylbenzene	90		91		70-130	1		20
Ethyl ether	82		81		70-130	1		20
Isopropyl Ether	82		81		70-130	1		20
Ethyl-Tert-Butyl-Ether	76		76		70-130	0		20
Tertiary-Amyl Methyl Ether	74		73		70-130	1		20
1,4-Dioxane	96		91		70-130	5		20

Surrogate	LCS %Recovery	Qual	LCSD %Recovery	Qual	Acceptance Criteria
1,2-Dichloroethane-d4	106		106		70-130
Toluene-d8	104		102		70-130
4-Bromofluorobenzene	96		97		70-130
Dibromofluoromethane	102		103		70-130



Project Name: 100 BINNEY STREET

Lab Number: L1318330

Project Number: 34250-021

Report Date: 09/24/13

**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

**Container Information**

Container ID	Container Type	Cooler	pH	Temp deg C	Pres	Seal	Analysis(*)
L1318330-01A	Vial HCl preserved	A	N/A	5	Y	Absent	MCP-8260-10(14)
L1318330-01B	Vial HCl preserved	A	N/A	5	Y	Absent	MCP-8260-10(14)
L1318330-01C	Vial HCl preserved	A	N/A	5	Y	Absent	MCP-8260-10(14)
L1318330-02A	Vial HCl preserved	A	N/A	5	Y	Absent	MCP-8260-10(14)
L1318330-02B	Vial HCl preserved	A	N/A	5	Y	Absent	MCP-8260-10(14)
L1318330-02C	Vial HCl preserved	A	N/A	5	Y	Absent	MCP-8260-10(14)
L1318330-03A	Vial HCl preserved	A	N/A	5	Y	Absent	HOLD(14)

\*Values in parentheses indicate holding time in days

**Project Name:** 100 BINNEY STREET  
**Project Number:** 34250-021

**Lab Number:** L1318330  
**Report Date:** 09/24/13

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

Report Format: Data Usability Report



**Project Name:** 100 BINNEY STREET  
**Project Number:** 34250-021

**Lab Number:** L1318330  
**Report Date:** 09/24/13

**Data Qualifiers**

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

**Project Name:** 100 BINNEY STREET  
**Project Number:** 34250-021

**Lab Number:** L1318330  
**Report Date:** 09/24/13

## REFERENCES

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

## LIMITATION OF LIABILITIES

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

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



## Certificate/Approval Program Summary

Last revised August 29, 2013 - 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, 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).)

### State of Illinois Certificate/Lab ID: 003155. **NELAP Accredited.**

*Drinking Water* (Inorganic Parameters: SM2120B, 2320B, 2510B, 2540C, SM4500CN-CE, 4500F-C, 4500H-B, 4500NO3-F, 5310C, EPA 200.7, 200.8, 245.1, 300.0. Organic Parameters: EPA 504.1, 524.2.)

*Wastewater/Non-Potable Water* (Inorganic Parameters: SM2120B, 2310B, 2320B, 2340B, 2510B, 2540B, 2540C, 2540D, SM4500CL-E, 4500CN-E, 4500F-C, 4500H-B, 4500NH3-H, 4500NO2-B, 4500NO3-F, 4500P-E, 4500S-D, 4500SO3-B, 5210B, 5220D, 5310C, 5540C, EPA 120.1, 1664A, 200.7, 200.8, 245.1, 300.0, 350.1, 351.1, 353.2, 410.4, 420.1. Organic Parameters: EPA 608, 624, 625.)

*Hazardous and Solid Waste* (Inorganic Parameters: EPA 1010A, 1030, 1311, 1312, 6010C, 6020A, 7196A, 7470A, 7471B, 9012B, 9014, 9038, 9040C, 9045D, 9050A, 9065, 9251. Organic Parameters: 8011 (NPW only), 8015C, 8081B, 8082A, 8151A, 8260C, 8270D, 8315A, 8330.)

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

*Drinking Water* (Inorganic Parameters: SM9215B, 9222D, 9223B, EPA 180.1, 353.2, SM2120B, 2130B, 2320B, 2510C, 2540C, 4500CI-D, 4500CN-C, 4500CN-E, 4500F-C, 4500H+B, 4500NO3-F, 5310C, 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, 300.0, 350.1, 351.1, 353.2, 410.4, 420.1, 8315A, 9010C, SM2120B, 2310B, 2320B, 2510B, 2540B, 2540C, 2540D, 426C, 4500CI-E, 4500CN-C, 4500CN-E, 4500F-B, 4500F-C, 4500H+B, 4500Norg-C, 4500NH3-B, 4500NH3-H, 4500NO2-B, 4500NO3-F, 4500P-B, 4500P-E, 4500S2-D, 4500SO3-B, 5540C, 5210B, 5220D, 5310C, 9010B, 9030B, 9040C, 7470A, 7196A, 2340B, EPA 200.7, 6010C, 200.8, 6020A, 245.1, 1311, 1312, 3005A, Enterolert, 9223B, 9222D. Organic Parameters: 608, 624, 625, 8011, 8081B, 8082A, 8330, 8151A, 8260C, 8270D, 3510C, 3630C, 5030B, ME-DRO, ME-GRO, MA-EPH, MA-VPH.)

*Solid Waste/Soil* (Inorganic Parameters: 9010B, 9012A, 9014, 9040B, 9045C, 6010C, 6020A, 7471B, 7196A, 9050A, 1010, 1030, 9065, 1311, 1312, 3005A, 3050B, 9038, 9251. Organic Parameters: ME-DRO, ME-GRO, MA-EPH, MA-VPH, 8260C, 8270D, 8330, 8151A, 8081B, 8082A, 3540C, 3546, 3580A, 3620C, 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; ColilertQT SM9223B; MF-SM9222D.)

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

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

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

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

*Non-Potable Water* (Inorganic Parameters: SM9222D, 9221B, 9222B, 9221E-EC, EPA 3005A, 200.7, 200.8, 245.1, SW-846 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 Hampshire Department of Environmental Services Certificate/Lab ID: 2064. NELAP Accredited.**

*Drinking Water* (Organic Parameters: **EPA 524.2**: Di-isopropyl ether (DIPE), Ethyl-t-butyl ether (ETBE), Tert-amyl methyl ether (TAME)).

*Non-Potable Water* (Organic Parameters: **EPA 8260C**: 1,3,5-Trichlorobenzene. **EPA 8015C(M)**: TPH.)

*Solid & Chemical Materials* (Organic Parameters: **EPA 8260C**: 1,3,5-Trichlorobenzene.)

**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, 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.)

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, 245.1, SM5310C, EPA 332.0, SM2320B, EPA 300.0, SM2120B, 4500CN-E, 4500F-C, 4500NO<sub>3</sub>-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, 2320B, EPA 200.7, 300.0, SM4500CL-E, 4500F-C, SM15 426C, EPA 350.1, SM4500NH<sub>3</sub>-BH, EPA 351.1, LACHAT 10-107-06-2, EPA 353.2, SM4500-NO<sub>3</sub>-F, 4500-NO<sub>2</sub>-B, 4500P-E, 2340B, 2540C, 2540B, 2540D, EPA 200.8, EPA 6010C, 6020A, EPA 7196A, SM3500Cr-D, EPA 245.1, 7470A, SM2120B, 4500CN-CE, EPA 1664A, EPA 420.1, SM14 510C, EPA 120.1, SM2510B, SM4500S-D, SM5540C, EPA 8315A, 3005A, 3015, 9010C, 9030B. Organic Parameters: EPA 624, 8260C, 8270D, 8270D-SIM, 625, 608, 8081B, 8151A, 8330, 8082A, EPA 3510C, 5030B, 8015C, 8011.)

*Solid & Hazardous Waste* (Inorganic Parameters: EPA 1010A, 1030, EPA 6010C, 6020A, 7196A, 7471B, 8315A, 9012B, 9014, 9065, 9050A, 9038, 9251, EPA 1311, 1312, 3005A, 3050B, 9010C, 9030B, 9040C, 9045D. Organic Parameters: EPA 8260C, 8270D, 8270D-SIM, 8015C, 8081B, 8151A, 8330, 8082A, 3540C, 3546, 3580A, 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, 9012B, 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 Commisison 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, 245.1, 2320B, 4500F-C, 4500NO<sub>3</sub>-F, 4500H+B, 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, 350.1, 351.1, 351.2, 3005A, 3015, 1312, 6010B, 6010C, 3060A, 353.2, 420.1, 2340B, 6020, 6020A, SM4500S-D, SM4500-CN-CE, Lachat 10-204-00-1-X, 7196A, 7470A, 2310B, 2320B, 2510B, 2540B, 2540C, 2540D, 3500Cr-D, 426C, 4500Cl-E, 4500F-B, 4500F-C, 4500NH<sub>3</sub>-H, 4500NO<sub>2</sub>-B, 4500NO<sub>3</sub>-F, 4500 SO<sub>3</sub>-B, 4500H-B, 4500PE, 510AC, 5210B, 5310B 5310C, 5540C, 9010Cm

9030B, 9040C. Organic Parameters: EPA 3510C, 3630C, 5030B, 8260B, 608, 624, 625, 8011, 8015C, 8081A, 8081B, 8082, 8082A, 8151A, 8260C, 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, 9010C, 9012B, 9030B, 9014, 9038, 9040C, 9045D, 9251, 9050A, 9065. Organic Parameters: EPA 5030B, 5035, 3540C, 3546, 3550B, 3580A, 3620C, 3630C, 6020A, 8260B, 8260C, 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, 6010C, 6020A, 245.1, 7470A, 9040B, 9010B, 180.1, 300.0, 332.0, 6860, 351.1, 353.2, 9060, 1664A, SM 4500CN-E, 4500H-B, 4500Norg-C, 4500NO3-F, 5310C, 2130B, 2320B, 2340B, 2540C, 5540C, 3005A, 3015, 9056, 7196A, 3500-Cr-D. Organic Parameters: EPA 8015C, 8151A, 8260C, 8270D, 8270D-SIM, 8330A, 8082A, 8081B, 3510C, 5030B, MassDEP EPH, MassDEP VPH.)

*Solid & Hazardous Waste* (Inorganic Parameters: EPA 200.7, 6010C, 6020A, 7471A, 6860, 1311, 1312, 3050B, 7196A, 9040B, 9045C, 9010C, 9012B, 9251, SM3500-CR-D, 4500CN-CE, 2540G, Organic Parameters: EPA 8015C, 8151A, 8260C, 8270D, 8270D-SIM, 8330A/B-prep, 8082A, 8081B, 3540C, 3546, 3580A, 5035A, MassDEP EPH, MassDEP VPH.)

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

**EPA 524.2:** Acetone, 2-Butanone (Methyl ethyl ketone (MEK)), Tert-butyl alcohol, 2-Hexanone, Tetrahydrofuran, 1,3,5-Trichlorobenzene, 4-Methyl-2-pentanone (MIBK), Carbon disulfide, Diethyl ether. **EPA 8260B:** 1,2,4,5-Tetramethylbenzene, 4-Ethyltoluene. **EPA 8260 Non-potable water matrix:** Iodomethane (methyl iodide), Methyl methacrylate. **EPA 8260 Soil matrix:** Tert-amyl methyl ether (TAME), Diisopropyl ether (DIPE), Azobenzene. **EPA 8330A:** PETN, Picric Acid, Nitroglycerine, 2,6-DANT, 2,4-DANT. **EPA 8270C:** Methyl naphthalene, Dimethyl naphthalene, Total Methylnaphthalenes, Total Dimethylnaphthalenes, 1,4-Diphenylhydrazine. **EPA 625:** 4-Chloroaniline, 4-Methylphenol. Total Phosphorus in a soil matrix, TKN in a soil matrix, NO2 in a soil matrix, NO3 in a soil matrix. **EPA 9071:** Total Petroleum Hydrocarbons, Oil & Grease.





Haley & Aldrich, Inc.  
465 Medford St.,  
Suite 2200,  
Boston, MA 02129-1400

# CHAIN OF CUSTODY RECORD

Phone (617) 886-7400  
Fax (617) 886-7600  
Page 1 of 1

H&A FILE NO. 100 Binney Street  
PROJECT NAME Cambridge, MA  
H&A CONTACT K. Higgins

LABORATORY Alpha  
ADDRESS Westborough  
CONTACT G. Hall

DELIVERY DATE 9/17/13  
TURNAROUND TIME 5 days  
PROJECT MANAGER K. Higgins

Sample No.	Date	Time	Depth	Type	Analysis Requested													Number of Containers	Comments (special instructions, precautions, additional method numbers, etc.)
					VOA	ARMS PAH only	MCP Metals	Pesticides PCDr	VPH	Full Suite Cyanides only	Full Suite BPH	Full Suite Cyanides only	PH (specify)	TCLP (specify)	Reactivity Stability Corrosivity				
1) ENV-23-09-17-2013	9/17	1150	-	GW	X													3	Laboratory to use applicable DEP CAM methods, unless otherwise directed.  analysis 8260
2) MW-57-09-17-2013	9/17	1420	-	GW	X													3	
3) TB	9/17	1500	-		X													1	

Total

Sampled and Relinquished by	Received by	LIQUID	Sampling Comments
Sign <u>LEIHA COSTA</u> Print <u>LEIHA COSTA</u> Firm <u>HEA</u> Date <u>9/17/13</u> Time <u>1600</u>	Sign <u>M. Auguste</u> Print <u>M. Auguste</u> Firm <u>HEA</u> Date <u>9/17/13</u> Time <u>1630</u>	<input checked="" type="checkbox"/> VOA Vial <input type="checkbox"/> Amber Glass <input type="checkbox"/> Plastic Bottle <input type="checkbox"/> Preservative <input type="checkbox"/> Volume	

Relinquished by	Received by	SOLID	Sampling Comments
Sign <u>M. Auguste</u> Print <u>M. Auguste</u> Firm <u>HEA</u> Date <u>9/17/13</u> Time <u>1630</u>	Sign <u>Wayne Plummer</u> Print <u>Wayne Plummer</u> Firm <u>Alpha</u> Date <u>9/17/13</u> Time <u>1630</u>	<input type="checkbox"/> VOA Vial <input type="checkbox"/> Amber Glass <input type="checkbox"/> Clear Glass <input type="checkbox"/> Preservative <input type="checkbox"/> Volume	

Evidence samples were tampered with? YES NO  
If YES, please explain in section below.

Relinquished by	Received by	PRESERVATION KEY
Sign <u>Wayne Plummer</u> Print <u>Wayne Plummer</u> Firm <u>Alpha</u> Date <u>9/17/13</u> Time <u>1800</u>	Sign <u>Richard Scott</u> Print <u>Richard Scott</u> Firm <u>Alpha</u> Date <u>9/17/13</u> Time <u>1800</u>	A Sample chilled    C NaOH    E H <sub>2</sub> SO <sub>4</sub> G Methanol B Sample filtered    D HNO <sub>3</sub> <u>F</u> HCL    H Water/NaHSO <sub>4</sub> (circle)

Presumptive Certainty Data Package (Laboratory to use applicable DEP CAM methods)

If Presumptive Certainty Data Package is needed, initial all sections:  
 The required minimum field QC samples, as designated in BWSC CAM-VII have been or will be collected, as appropriate, to meet the requirements of Presumptive Certainty.  
 Matrix Spike (MS) samples for MCP Metals and/or Cyanide are included and identified herein.  
 This Chain of Custody Record (specify) \_\_\_\_\_ includes \_\_\_\_\_ does not include samples defined as Drinking Water Samples.  
 If this Chain of Custody Record identifies samples defined as Drinking Water Samples, Trip Blanks and Field Duplicates are included and identified and analysis of TICs are required, as appropriate. Laboratory should (specify if applicable) \_\_\_\_\_ analyz

Required Reporting Limits and Data Quality Objectives

<input type="checkbox"/> RC-S1	<input type="checkbox"/> S1	<input type="checkbox"/> GW1
<input type="checkbox"/> RC-S2	<input type="checkbox"/> S2	<input type="checkbox"/> GW2
<input type="checkbox"/> RC-GW1	<input type="checkbox"/> S3	<input type="checkbox"/> GW3
<input type="checkbox"/> RC-GW2		



Haley & Aldrich, Inc.  
465 Medford St.,  
Suite 2200,  
Boston, MA 02129-1400

# CHAIN OF CUSTODY RECORD

34250-021

Phone (617) 886-7400  
Fax (617) 886-7600  
Page 1 of 1

H&A FILE NO. 100 Binney Street  
PROJECT NAME ~~Cambridge, MA~~  
H&A CONTACT L. Higgins

LABORATORY Alpha  
ADDRESS Westborough  
CONTACT G. Hall

DELIVERY DATE 9/17/13  
TURNAROUND TIME 5 days  
PROJECT MANAGER L. Higgins

Sample No.	Date	Time	Depth	Type	Analysis Requested													Number of Containers	Comments (special instructions, precautions, additional method numbers, etc.)
					VOA	ARBS PAH only	MCP Metals	Pesticides PCDr	VPH	Full Suite Cyanides only	Full Suite BPH	Full Suite Cyanides only	PH (specify)	TCLP (specify)	Reactivity Stability Corrosivity				
1) ENV-23-09-17-2013	9/17	1150	-	GW	X													3	Laboratory to use applicable DEP CAM methods, unless otherwise directed.  analysis 8260 Do not analyze tripblank per Rebecca Higgins---GMH 9/18/13
2) MW-57-09-17-2013	9/17	1420	-	GW	X													3	
3) TB	9/17	1500	-		X													1	

7 Total

Sampled and Relinquished by	Received by	LIQUID	Sampling Comments
Sign <u>LEIHA COSTA</u> Print LEIHA COSTA Firm H&A Date 9/17/13 Time 1600	Sign <u>M. Auguste</u> Print M. Auguste Firm Alpha Date 9/17/13 Time 1630	X	
Relinquished by	Received by	Volume	

Sampled and Relinquished by	Received by	SOLID	Sampling Comments
Sign <u>M. Auguste</u> Print M. Auguste Firm H&A Date 9/17/13 Time 1630	Sign <u>Wayne Plummer</u> Print Wayne Plummer Firm Alpha Date 9/17/13 Time 1800		
Relinquished by	Received by	Volume	Evidence samples were tampered with? YES NO

Sampled and Relinquished by	Received by	PRESERVATION KEY	Sampling Comments
Sign <u>Wayne Plummer</u> Print Wayne Plummer Firm Alpha Date 9/17/13 Time 1800	Sign <u>Richard Scott</u> Print RICHARD SCOTT Firm Alpha Date 9/17/13 Time 1800	<input checked="" type="checkbox"/> Sample chilled    C NaOH    E H <sub>2</sub> SO <sub>4</sub> G Methanol <input type="checkbox"/> Sample filtered    D HNO <sub>3</sub> <input checked="" type="checkbox"/> HCL    H Water/NaHSO <sub>4</sub> (circle)	If YES, please explain in section below.

**Presumptive Certainty Data Package (Laboratory to use applicable DEP CAM methods)**

If Presumptive Certainty Data Package is needed, initial all sections:

The required minimum field QC samples, as designated in BWSC CAM-VII have been or will be collected, as appropriate, to meet the requirements of Presumptive Certainty.

Matrix Spike (MS) samples for MCP Metals and/or Cyanide are included and identified herein.

This Chain of Custody Record (specify) \_\_\_\_\_ includes \_\_\_\_\_ does not include samples defined as Drinking Water Samples.

If this Chain of Custody Record identifies samples defined as Drinking Water Samples, Trip Blanks and Field Duplicates are included and identified and analysis of TICs are required, as appropriate. Laboratory should (specify if applicable) \_\_\_\_\_ analyz

**Required Reporting Limits and Data Quality Objectives**

<input type="checkbox"/> RC-S1	<input type="checkbox"/> S1	<input type="checkbox"/> GW1
<input type="checkbox"/> RC-S2	<input type="checkbox"/> S2	<input type="checkbox"/> GW2
<input type="checkbox"/> RC-GW1	<input type="checkbox"/> S3	<input type="checkbox"/> GW3
<input type="checkbox"/> RC-GW2		

7A  
Volatile Organics CONTINUING CALIBRATION CHECK

Lab Name: Alpha Analytical Labs

SDG No.: L1318330

Instrument ID: Quimby.i      Calibration Date: 23-SEP-2013      Time: 12:25

Lab File ID: 0923A03      Init. Calib. Date(s): 11-SEP-2      11-SEP-2

Sample No: 8260 CCAL      Init. Calib. Times : 09:49      12:59

Compound	RRF	RRF	MIN RRF	%D	MAX %D	
dichlorodifluoromethane	.33971	.41454	.1	-22	20	F
chloromethane	.51412	.48156	.1	6	20	
vinyl chloride	.38808	.43979	.1	-13	20	
bromomethane	.20169	.19212	.1	5	20	
chloroethane	.30006	.3012	.1	0	20	
trichlorofluoromethane	.60073	.67843	.1	-13	20	
ethyl ether	.23428	.20882	.05	11	20	
acrolein	.06636	.05966	.05	10	20	
freon-113	.41686	.45588	.1	-9	20	
acetone	.1319	.17082	.1	-30	20	F
1,1,-dichloroethene	.40031	.41245	.1	-3	20	
tert-butyl alcohol	.02696	.01996	.05	26	20	F
iodomethane	.32407	.32588	.05	-1	20	
methyl acetate	.26882	.23445	.01	13	30	
methylene chloride	.52777	.46368	.1	12	20	
carbon disulfide	1.1364	1.1515	.1	-1	20	
acrylonitrile	.13379	.11454	.05	14	20	
methyl tert butyl ether	1.0167	.86267	.1	15	20	
Halothane	.2634	.26971	.05	-2	20	
trans-1,2-dichloroethene	.45409	.44373	.1	2	20	
Diisopropyl Ether	1.9960	1.7786	.05	11	20	
vinyl acetate	.91646	.70766	.05	23	20	F
1,1-dichloroethane	.91737	.87257	.2	5	20	
Ethyl-Tert-Butyl-Ether	1.4842	1.2536	.05	16	20	
2-butanone	.17468	.20312	.1	-16	20	
2,2-dichloropropane	.64341	.57136	.05	11	20	
ethyl acetate	.35414	.30918	.05	13	20	
cis-1,2-dichloroethene	.50996	.48121	.1	6	20	
chloroform	.82175	.79154	.2	4	20	
bromochloromethane	.21693	.2046	.05	6	20	
tetrahydrofuran	.11631	.09564	.05	18	20	
1,1,1-trichloroethane	.68647	.68548	.1	0	20	
cyclohexane	.99255	1.0296	.01	-4	30	
1,1-dichloropropene	.65708	.67194	.05	-2	20	
carbontetrachloride	.49561	.54428	.1	-10	20	
Tertiary-Amyl Methyl Ether	1.1173	.91087	.05	18	20	
1,2-dichloroethane	.59802	.57331	.1	4	20	
benzene	2.0154	1.8967	.5	6	20	

FORM VII MCP-8260-10

7A  
CONTINUING CALIBRATION CHECK

Lab Name: Alpha Analytical Labs

SDG No.: L1318330

Instrument ID: Quimby.i      Calibration Date: 23-SEP-2013      Time: 12:25

Lab File ID: 0923A03      Init. Calib. Date(s): 11-SEP-2      11-SEP-2

Sample No: 8260 CCAL      Init. Calib. Times : 09:49      12:59

Compound	RRF	RRF	MIN RRF	%D	MAX %D
trichloroethene	.46786	.45283	.2	3	20
methyl cyclohexane	.76723	.85801	.01	-12	30
1,2-dichloropropane	.54882	.48428	.1	12	20
bromodichloromethane	.60005	.55592	.2	7	20
1,4-dioxane	.00232	.0024	.05	-3	20
dibromomethane	.22877	.21368	.05	7	20
2-chloroethylvinyl ether	.16231	.03743	.05	77	20
4-methyl-2-pentanone	.13094	.10564	.1	19	20
cis-1,3-dichloropropene	.73248	.62425	.2	15	20
toluene	1.5944	1.5253	.4	4	20
ethyl-methacrylate	.58942	.49135	.01	17	30
trans-1,3-dichloropropene	.70425	.60927	.1	13	20
2-hexanone	.29445	.34397	.1	-17	20
1,1,2-trichloroethane	.33963	.32262	.1	5	20
1,3-dichloropropane	.76381	.70711	.05	7	20
tetrachloroethene	.63231	.68852	.2	-9	20
chlorodibromomethane	.46362	.43838	.1	5	20
1,2-dibromoethane	.3969	.38108	.1	4	20
chlorobenzene	1.7170	1.6865	.5	2	20
1,1,1,2-tetrachloroethane	.54591	.50411	.05	8	20
ethyl benzene	2.9011	2.9797	.1	-3	20
p/m xylene	1.1862	1.2035	.1	-1	20
o xylene	1.1535	1.1467	.3	1	20
styrene	1.8659	1.8379	.31	2	20
isopropylbenzene	2.9478	3.0995	.1	-5	20
bromoform	.48814	.42308	.1	13	20
1,4-dichlorobutane	1.6712	1.4810	.01	11	30
1,1,2,2,-tetrachloroethane	.88708	.80744	.3	9	20
1,2,3-trichloropropane	.7027	.63725	.05	9	20
trans-1,4-dichloro-2-butene	.30865	.26219	.05	15	20
n-propylbenzene	5.799	6.1316	.05	-6	20
bromobenzene	1.3295	1.3011	.05	2	20
4-ethyltoluene	2.5449	2.5019	.05	2	20
1,3,5-trimethylbenzene	4.4752	4.6341	.05	-4	20
2-chlorotoluene	4.2232	4.2127	.05	0	20
4-chlorotoluene	3.9938	3.9306	.05	2	20
tert-butylbenzene	3.7761	3.9886	.05	-6	20
1,2,4-trimethylbenzene	4.3017	4.3285	.05	-1	20

F  
F

FORM VII MCP-8260-10

7A  
CONTINUING CALIBRATION CHECK

Lab Name: Alpha Analytical Labs

SDG No.: L1318330

Instrument ID: Quimby.i      Calibration Date: 23-SEP-2013      Time: 12:25

Lab File ID: 0923A03      Init. Calib. Date(s): 11-SEP-2      11-SEP-2

Sample No: 8260 CCAL      Init. Calib. Times    : 09:49                    12:59

Compound	RRF	RRF	MIN RRF	%D	MAX %D
sec-butylbenzene	5.3237	5.8031	.05	-9	20
p-isopropyltoluene	4.3830	4.6902	.05	-7	20
1,3-dichlorobenzene	2.6338	2.5972	.6	1	20
1,4-dichlorobenzene	2.6015	2.5494	.5	2	20
n-butylbenzene	4.1122	4.5131	.05	-10	20
1,2,4,5-tetramethylbenzene	1.1695	1.1817	.05	-1	20
1,2-dichlorobenzene	2.3667	2.3028	.4	3	20
p-diethylbenzene	1.6627	1.6242	.05	2	20
1,2-dibromo-3-chloropropane	.1325	.11281	.05	15	20
1,3,5-trichlorobenzene	1.5296	1.5860	.01	-4	30
1,2,4-trichlorobenzene	1.1982	1.2196	.2	-2	20
hexachlorobutadiene	.45527	.52041	.05	-14	20
naphthalene	2.1204	1.9221	.05	9	20
1,2,3-trichlorobenzene	.9887	1.0044	.05	-2	20
dibromofluoromethane	.23641	.24159	.05	-2	20
1,2-dichloroethane-d4	.25589	.271	.05	-6	20
toluene-d8	1.2040	1.2372	.05	-3	20
4-bromofluorobenzene	.93821	.91904	.05	2	20

FORM VII MCP-8260-10

7A  
CONTINUING CALIBRATION CHECK

Lab Name: Alpha Analytical Labs

SDG No.: L1318330

Instrument ID: Quimby.i      Calibration Date: 24-SEP-2013      Time: 05:33

Lab File ID: 0924A03      Init. Calib. Date(s): 11-SEP-2      11-SEP-2

Sample No: 8260 CCAL      Init. Calib. Times : 09:49      12:59

Compound	RRF	RRF	MIN RRF	%D	MAX %D	
=====	=====	=====	=====	=====	=====	
dichlorodifluoromethane	.33971	.38792	.1	-14	20	
chloromethane	.51412	.4178	.1	19	20	
vinyl chloride	.38808	.36489	.1	6	20	
bromomethane	.20169	.13503	.1	33	20	F
chloroethane	.30006	.26315	.1	12	20	
trichlorofluoromethane	.60073	.59958	.1	0	20	
ethyl ether	.23428	.19328	.05	18	20	
acrolein	.06636	.05739	.05	14	20	
freon-113	.41686	.40294	.1	3	20	
acetone	.1319	.17094	.1	-30	20	F
1,1,-dichloroethene	.40031	.35163	.1	12	20	
tert-butyl alcohol	.02696	.01659	.05	38	20	F
iodomethane	.32407	.28411	.05	12	20	
methyl acetate	.26882	.21251	.01	21	30	
methylene chloride	.52777	.41435	.1	21	20	F
carbon disulfide	1.1364	.98336	.1	13	20	
acrylonitrile	.13379	.10737	.05	20	20	
methyl tert butyl ether	1.0167	.78468	.1	23	20	F
Halothane	.2634	.23485	.05	11	20	
trans-1,2-dichloroethene	.45409	.39632	.1	13	20	
Diisopropyl Ether	1.9960	1.6273	.05	18	20	
vinyl acetate	.91646	.65488	.05	29	20	F
1,1-dichloroethane	.91737	.78747	.2	14	20	
Ethyl-Tert-Butyl-Ether	1.4842	1.1300	.05	24	20	F
2-butanone	.17468	.2271	.1	-30	20	F
2,2-dichloropropane	.64341	.48827	.05	24	20	F
ethyl acetate	.35414	.29317	.05	17	20	
cis-1,2-dichloroethene	.50996	.44055	.1	14	20	
chloroform	.82175	.73194	.2	11	20	
bromochloromethane	.21693	.18796	.05	13	20	
tetrahydrofuran	.11631	.08638	.05	26	20	F
1,1,1-trichloroethane	.68647	.60371	.1	12	20	
cyclohexane	.99255	.87776	.01	12	30	
1,1-dichloropropene	.65708	.57915	.05	12	20	
carbontetrachloride	.49561	.48133	.1	3	20	
Tertiary-Amyl Methyl Ether	1.1173	.8212	.05	27	20	F
1,2-dichloroethane	.59802	.54194	.1	9	20	
benzene	2.0154	1.7070	.5	15	20	

FORM VII MCP-8260-10

7A  
CONTINUING CALIBRATION CHECK

Lab Name: Alpha Analytical Labs

SDG No.: L1318330

Instrument ID: Quimby.i      Calibration Date: 24-SEP-2013      Time: 05:33

Lab File ID: 0924A03      Init. Calib. Date(s): 11-SEP-2      11-SEP-2

Sample No: 8260 CCAL      Init. Calib. Times : 09:49      12:59

Compound	RRF	RRF	MIN RRF	%D	MAX %D	
=====	=====	=====	=====	=====	=====	
trichloroethene	.46786	.40129	.2	14	20	
methyl cyclohexane	.76723	.7013	.01	9	30	
1,2-dichloropropane	.54882	.44754	.1	18	20	
bromodichloromethane	.60005	.52701	.2	12	20	
1,4-dioxane	.00232	.00223	.05	4	20	F
dibromomethane	.22877	.20189	.05	12	20	
2-chloroethylvinyl ether	.16231	.03292	.05	80	20	F
4-methyl-2-pentanone	.13094	.09388	.1	28	20	F
cis-1,3-dichloropropene	.73248	.57736	.2	21	20	F
toluene	1.5944	1.3692	.4	14	20	
ethyl-methacrylate	.58942	.46356	.01	21	30	
trans-1,3-dichloropropene	.70425	.57025	.1	19	20	
2-hexanone	.29445	.32878	.1	-12	20	
1,1,2-trichloroethane	.33963	.30252	.1	11	20	
1,3-dichloropropane	.76381	.67098	.05	12	20	
tetrachloroethene	.63231	.59518	.2	6	20	
chlorodibromomethane	.46362	.4195	.1	10	20	
1,2-dibromoethane	.3969	.35881	.1	10	20	
chlorobenzene	1.7170	1.5573	.5	9	20	
1,1,1,2-tetrachloroethane	.54591	.48072	.05	12	20	
ethyl benzene	2.9011	2.7044	.1	7	20	
p/m xylene	1.1862	1.0798	.1	9	20	
o xylene	1.1535	1.0542	.3	9	20	
styrene	1.8659	1.7108	.31	8	20	
isopropylbenzene	2.9478	2.7427	.1	7	20	
bromoform	.48814	.40436	.1	17	20	
1,4-dichlorobutane	1.6712	1.378	.01	18	30	
1,1,2,2,-tetrachloroethane	.88708	.75388	.3	15	20	
1,2,3-trichloropropane	.7027	.58775	.05	16	20	
trans-1,4-dichloro-2-butene	.30865	.24518	.05	21	20	F
n-propylbenzene	5.799	5.3631	.05	8	20	
bromobenzene	1.3295	1.1945	.05	10	20	
4-ethyltoluene	2.5449	2.2231	.05	13	20	
1,3,5-trimethylbenzene	4.4752	4.1141	.05	8	20	
2-chlorotoluene	4.2232	3.812	.05	10	20	
4-chlorotoluene	3.9938	3.6031	.05	10	20	
tert-butylbenzene	3.7761	3.4526	.05	9	20	
1,2,4-trimethylbenzene	4.3017	3.8870	.05	10	20	

FORM VII MCP-8260-10

7A  
CONTINUING CALIBRATION CHECK

Lab Name: Alpha Analytical Labs

SDG No.: L1318330

Instrument ID: Quimby.i Calibration Date: 24-SEP-2013 Time: 05:33

Lab File ID: 0924A03 Init. Calib. Date(s): 11-SEP-2 11-SEP-2

Sample No: 8260 CCAL Init. Calib. Times : 09:49 12:59

Compound	RRF	RRF	MIN RRF	%D	MAX %D
sec-butylbenzene	5.3237	4.9025	.05	8	20
p-isopropyltoluene	4.3830	4.0788	.05	7	20
1,3-dichlorobenzene	2.6338	2.3779	.6	10	20
1,4-dichlorobenzene	2.6015	2.3344	.5	10	20
n-butylbenzene	4.1122	3.9302	.05	4	20
1,2,4,5-tetramethylbenzene	1.1695	1.0460	.05	11	20
1,2-dichlorobenzene	2.3667	2.1401	.4	10	20
p-diethylbenzene	1.6627	1.4825	.05	11	20
1,2-dibromo-3-chloropropane	.1325	.10932	.05	17	20
1,3,5-trichlorobenzene	1.5296	1.4507	.01	5	30
1,2,4-trichlorobenzene	1.1982	1.1111	.2	7	20
hexachlorobutadiene	.45527	.44453	.05	2	20
naphthalene	2.1204	1.7694	.05	17	20
1,2,3-trichlorobenzene	.9887	.92376	.05	7	20
dibromofluoromethane	.23641	.24215	.05	-2	20
1,2-dichloroethane-d4	.25589	.27003	.05	-6	20
toluene-d8	1.2040	1.2531	.05	-4	20
4-bromofluorobenzene	.93821	.90455	.05	4	20





## ANALYTICAL REPORT

Lab Number:	L1324863
Client:	Haley & Aldrich, Inc. 465 Medford Street, Suite 2200 Charlestown, MA 02129-1400
ATTN:	Rebecca Higgins
Phone:	(617) 886-7326
Project Name:	100 BINNEY ST
Project Number:	34250-021
Report Date:	12/12/13

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

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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:** 100 BINNEY ST  
**Project Number:** 34250-021

**Lab Number:** L1324863  
**Report Date:** 12/12/13

<b>Alpha Sample ID</b>	<b>Client ID</b>	<b>Sample Location</b>	<b>Collection Date/Time</b>
L1324863-01	HA-401 (OW)	Not Specified	12/06/13 10:05
L1324863-02	HA-402 (OW)	Not Specified	12/06/13 12:00
L1324863-03	TRIP BLANK	Not Specified	12/06/13 00:00

**Project Name:** 100 BINNEY ST  
**Project Number:** 34250-021

**Lab Number:** L1324863  
**Report Date:** 12/12/13

### MADEP MCP Response Action Analytical Report Certification

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

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

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



**Project Name:** 100 BINNEY ST  
**Project Number:** 34250-021

**Lab Number:** L1324863  
**Report Date:** 12/12/13

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

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

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**Project Name:** 100 BINNEY ST  
**Project Number:** 34250-021

**Lab Number:** L1324863  
**Report Date:** 12/12/13

### Case Narrative (continued)

#### MCP Related Narratives

##### Volatile Organics

In reference to question G:

L1324863-01 and -02 (HA-401 (OW) and HA-402 (OW)): One or more of the target analytes did not achieve the requested CAM reporting limits.

In reference to question H:

The initial calibration, associated with L1324863-01, -02 and -03 (all submitted samples) did not meet the method required minimum response factor on the lowest calibration standard for 4-methyl-2-pentanone (0.06504) and 1,4-dioxane (0.00253), as well as the average response factor for 4-methyl-2-pentanone and 1,4-dioxane. In addition, a quadratic fit was utilized for bromoform.

The continuing calibration standard, associated with L1324863-01, -02 and -03 (all submitted samples), is outside the acceptance criteria for several compounds; however, it is within overall method allowances. A copy of the continuing calibration standard is included as an addendum to this report.

##### EPH

In reference to question I:

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

##### VPH

In reference to question G:

L1324863-01 and -02 (HA-401 (OW) and HA-402 (OW)): One or more of the target analytes did not achieve the requested CAM reporting limits.

In reference to question I:

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

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

Authorized Signature:

 Lisa Westerlind

Title: Technical Director/Representative

Date: 12/12/13

# ORGANICS

# VOLATILES

**Project Name:** 100 BINNEY ST**Lab Number:** L1324863**Project Number:** 34250-021**Report Date:** 12/12/13**SAMPLE RESULTS**

Lab ID: L1324863-01 D  
 Client ID: HA-401 (OW)  
 Sample Location: Not Specified  
 Matrix: Water  
 Analytical Method: 97,8260C  
 Analytical Date: 12/11/13 13:16  
 Analyst: MM

Date Collected: 12/06/13 10:05  
 Date Received: 12/06/13  
 Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
<b>MCP Volatile Organics - Westborough Lab</b>						
Methylene chloride	ND		ug/l	400	--	200
1,1-Dichloroethane	ND		ug/l	200	--	200
Chloroform	ND		ug/l	200	--	200
Carbon tetrachloride	ND		ug/l	200	--	200
1,2-Dichloropropane	ND		ug/l	200	--	200
Dibromochloromethane	ND		ug/l	200	--	200
1,1,2-Trichloroethane	ND		ug/l	200	--	200
Tetrachloroethene	ND		ug/l	200	--	200
Chlorobenzene	ND		ug/l	200	--	200
Trichlorofluoromethane	ND		ug/l	400	--	200
1,2-Dichloroethane	ND		ug/l	200	--	200
1,1,1-Trichloroethane	ND		ug/l	200	--	200
Bromodichloromethane	ND		ug/l	200	--	200
trans-1,3-Dichloropropene	ND		ug/l	100	--	200
cis-1,3-Dichloropropene	ND		ug/l	100	--	200
1,1-Dichloropropene	ND		ug/l	400	--	200
Bromoform	ND		ug/l	400	--	200
1,1,2,2-Tetrachloroethane	ND		ug/l	200	--	200
Benzene	6600		ug/l	100	--	200
Toluene	ND		ug/l	200	--	200
Ethylbenzene	580		ug/l	200	--	200
Chloromethane	ND		ug/l	400	--	200
Bromomethane	ND		ug/l	400	--	200
Vinyl chloride	ND		ug/l	200	--	200
Chloroethane	ND		ug/l	400	--	200
1,1-Dichloroethene	ND		ug/l	200	--	200
trans-1,2-Dichloroethene	ND		ug/l	200	--	200
Trichloroethene	ND		ug/l	200	--	200
1,2-Dichlorobenzene	ND		ug/l	200	--	200
1,3-Dichlorobenzene	ND		ug/l	200	--	200
1,4-Dichlorobenzene	ND		ug/l	200	--	200



Project Name: 100 BINNEY ST

Lab Number: L1324863

Project Number: 34250-021

Report Date: 12/12/13

## SAMPLE RESULTS

Lab ID: L1324863-01 D  
 Client ID: HA-401 (OW)  
 Sample Location: Not Specified

Date Collected: 12/06/13 10:05  
 Date Received: 12/06/13  
 Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
<b>MCP Volatile Organics - Westborough Lab</b>						
Methyl tert butyl ether	ND		ug/l	400	--	200
p/m-Xylene	ND		ug/l	400	--	200
o-Xylene	ND		ug/l	200	--	200
cis-1,2-Dichloroethene	ND		ug/l	200	--	200
Dibromomethane	ND		ug/l	400	--	200
1,2,3-Trichloropropane	ND		ug/l	400	--	200
Styrene	ND		ug/l	200	--	200
Dichlorodifluoromethane	ND		ug/l	400	--	200
Acetone	ND		ug/l	1000	--	200
Carbon disulfide	ND		ug/l	400	--	200
2-Butanone	ND		ug/l	1000	--	200
4-Methyl-2-pentanone	ND		ug/l	1000	--	200
2-Hexanone	ND		ug/l	1000	--	200
Bromochloromethane	ND		ug/l	400	--	200
Tetrahydrofuran	ND		ug/l	400	--	200
2,2-Dichloropropane	ND		ug/l	400	--	200
1,2-Dibromoethane	ND		ug/l	400	--	200
1,3-Dichloropropane	ND		ug/l	400	--	200
1,1,1,2-Tetrachloroethane	ND		ug/l	200	--	200
Bromobenzene	ND		ug/l	400	--	200
n-Butylbenzene	ND		ug/l	400	--	200
sec-Butylbenzene	ND		ug/l	400	--	200
tert-Butylbenzene	ND		ug/l	400	--	200
o-Chlorotoluene	ND		ug/l	400	--	200
p-Chlorotoluene	ND		ug/l	400	--	200
1,2-Dibromo-3-chloropropane	ND		ug/l	400	--	200
Hexachlorobutadiene	ND		ug/l	120	--	200
Isopropylbenzene	ND		ug/l	400	--	200
p-Isopropyltoluene	ND		ug/l	400	--	200
Naphthalene	ND		ug/l	400	--	200
n-Propylbenzene	ND		ug/l	400	--	200
1,2,3-Trichlorobenzene	ND		ug/l	400	--	200
1,2,4-Trichlorobenzene	ND		ug/l	400	--	200
1,3,5-Trimethylbenzene	ND		ug/l	400	--	200
1,2,4-Trimethylbenzene	ND		ug/l	400	--	200
Ethyl ether	ND		ug/l	400	--	200
Isopropyl Ether	ND		ug/l	400	--	200
Ethyl-Tert-Butyl-Ether	ND		ug/l	400	--	200
Tertiary-Amyl Methyl Ether	ND		ug/l	400	--	200



Project Name: 100 BINNEY ST

Lab Number: L1324863

Project Number: 34250-021

Report Date: 12/12/13

## SAMPLE RESULTS

Lab ID: L1324863-01 D

Date Collected: 12/06/13 10:05

Client ID: HA-401 (OW)

Date Received: 12/06/13

Sample Location: Not Specified

Field Prep: Not Specified

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

## MCP Volatile Organics - Westborough Lab

1,4-Dioxane	ND		ug/l	50000	--	200
-------------	----	--	------	-------	----	-----

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	114		70-130
Toluene-d8	104		70-130
4-Bromofluorobenzene	102		70-130
Dibromofluoromethane	100		70-130

**Project Name:** 100 BINNEY ST**Lab Number:** L1324863**Project Number:** 34250-021**Report Date:** 12/12/13**SAMPLE RESULTS**

Lab ID: L1324863-02 D  
 Client ID: HA-402 (OW)  
 Sample Location: Not Specified  
 Matrix: Water  
 Analytical Method: 97,8260C  
 Analytical Date: 12/11/13 07:30  
 Analyst: MM

Date Collected: 12/06/13 12:00  
 Date Received: 12/06/13  
 Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
<b>MCP Volatile Organics - Westborough Lab</b>						
Methylene chloride	ND		ug/l	20	--	10
1,1-Dichloroethane	ND		ug/l	10	--	10
Chloroform	ND		ug/l	10	--	10
Carbon tetrachloride	ND		ug/l	10	--	10
1,2-Dichloropropane	ND		ug/l	10	--	10
Dibromochloromethane	ND		ug/l	10	--	10
1,1,2-Trichloroethane	ND		ug/l	10	--	10
Tetrachloroethene	ND		ug/l	10	--	10
Chlorobenzene	ND		ug/l	10	--	10
Trichlorofluoromethane	ND		ug/l	20	--	10
1,2-Dichloroethane	ND		ug/l	10	--	10
1,1,1-Trichloroethane	ND		ug/l	10	--	10
Bromodichloromethane	ND		ug/l	10	--	10
trans-1,3-Dichloropropene	ND		ug/l	5.0	--	10
cis-1,3-Dichloropropene	ND		ug/l	5.0	--	10
1,1-Dichloropropene	ND		ug/l	20	--	10
Bromoform	ND		ug/l	20	--	10
1,1,2,2-Tetrachloroethane	ND		ug/l	10	--	10
Benzene	660		ug/l	5.0	--	10
Toluene	ND		ug/l	10	--	10
Ethylbenzene	17		ug/l	10	--	10
Chloromethane	ND		ug/l	20	--	10
Bromomethane	ND		ug/l	20	--	10
Vinyl chloride	ND		ug/l	10	--	10
Chloroethane	ND		ug/l	20	--	10
1,1-Dichloroethene	ND		ug/l	10	--	10
trans-1,2-Dichloroethene	ND		ug/l	10	--	10
Trichloroethene	ND		ug/l	10	--	10
1,2-Dichlorobenzene	ND		ug/l	10	--	10
1,3-Dichlorobenzene	ND		ug/l	10	--	10
1,4-Dichlorobenzene	ND		ug/l	10	--	10

Project Name: 100 BINNEY ST

Lab Number: L1324863

Project Number: 34250-021

Report Date: 12/12/13

## SAMPLE RESULTS

Lab ID: L1324863-02  
 Client ID: HA-402 (OW)  
 Sample Location: Not Specified

D

Date Collected: 12/06/13 12:00  
 Date Received: 12/06/13  
 Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
<b>MCP Volatile Organics - Westborough Lab</b>						
Methyl tert butyl ether	ND		ug/l	20	--	10
p/m-Xylene	ND		ug/l	20	--	10
o-Xylene	ND		ug/l	10	--	10
cis-1,2-Dichloroethene	ND		ug/l	10	--	10
Dibromomethane	ND		ug/l	20	--	10
1,2,3-Trichloropropane	ND		ug/l	20	--	10
Styrene	ND		ug/l	10	--	10
Dichlorodifluoromethane	ND		ug/l	20	--	10
Acetone	ND		ug/l	50	--	10
Carbon disulfide	ND		ug/l	20	--	10
2-Butanone	ND		ug/l	50	--	10
4-Methyl-2-pentanone	ND		ug/l	50	--	10
2-Hexanone	ND		ug/l	50	--	10
Bromochloromethane	ND		ug/l	20	--	10
Tetrahydrofuran	ND		ug/l	20	--	10
2,2-Dichloropropane	ND		ug/l	20	--	10
1,2-Dibromoethane	ND		ug/l	20	--	10
1,3-Dichloropropane	ND		ug/l	20	--	10
1,1,1,2-Tetrachloroethane	ND		ug/l	10	--	10
Bromobenzene	ND		ug/l	20	--	10
n-Butylbenzene	ND		ug/l	20	--	10
sec-Butylbenzene	ND		ug/l	20	--	10
tert-Butylbenzene	ND		ug/l	20	--	10
o-Chlorotoluene	ND		ug/l	20	--	10
p-Chlorotoluene	ND		ug/l	20	--	10
1,2-Dibromo-3-chloropropane	ND		ug/l	20	--	10
Hexachlorobutadiene	ND		ug/l	6.0	--	10
Isopropylbenzene	ND		ug/l	20	--	10
p-Isopropyltoluene	ND		ug/l	20	--	10
Naphthalene	ND		ug/l	20	--	10
n-Propylbenzene	ND		ug/l	20	--	10
1,2,3-Trichlorobenzene	ND		ug/l	20	--	10
1,2,4-Trichlorobenzene	ND		ug/l	20	--	10
1,3,5-Trimethylbenzene	ND		ug/l	20	--	10
1,2,4-Trimethylbenzene	ND		ug/l	20	--	10
Ethyl ether	ND		ug/l	20	--	10
Isopropyl Ether	ND		ug/l	20	--	10
Ethyl-Tert-Butyl-Ether	ND		ug/l	20	--	10
Tertiary-Amyl Methyl Ether	ND		ug/l	20	--	10

**Project Name:** 100 BINNEY ST**Lab Number:** L1324863**Project Number:** 34250-021**Report Date:** 12/12/13**SAMPLE RESULTS**

Lab ID: L1324863-02

D

Date Collected: 12/06/13 12:00

Client ID: HA-402 (OW)

Date Received: 12/06/13

Sample Location: Not Specified

Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
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## MCP Volatile Organics - Westborough Lab

1,4-Dioxane	ND		ug/l	2500	--	10
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Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	112		70-130
Toluene-d8	103		70-130
4-Bromofluorobenzene	104		70-130
Dibromofluoromethane	99		70-130

Project Name: 100 BINNEY ST

Lab Number: L1324863

Project Number: 34250-021

Report Date: 12/12/13

## SAMPLE RESULTS

Lab ID: L1324863-03  
 Client ID: TRIP BLANK  
 Sample Location: Not Specified  
 Matrix: Water  
 Analytical Method: 97,8260C  
 Analytical Date: 12/11/13 06:59  
 Analyst: MM

Date Collected: 12/06/13 00:00  
 Date Received: 12/06/13  
 Field Prep: Not Specified

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

Project Name: 100 BINNEY ST

Lab Number: L1324863

Project Number: 34250-021

Report Date: 12/12/13

## SAMPLE RESULTS

Lab ID: L1324863-03

Date Collected: 12/06/13 00:00

Client ID: TRIP BLANK

Date Received: 12/06/13

Sample Location: Not Specified

Field Prep: Not Specified

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

**Project Name:** 100 BINNEY ST**Lab Number:** L1324863**Project Number:** 34250-021**Report Date:** 12/12/13**SAMPLE RESULTS**

Lab ID: L1324863-03

Date Collected: 12/06/13 00:00

Client ID: TRIP BLANK

Date Received: 12/06/13

Sample Location: Not Specified

Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
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## MCP Volatile Organics - Westborough Lab

1,4-Dioxane	ND		ug/l	250	--	1
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Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	115		70-130
Toluene-d8	103		70-130
4-Bromofluorobenzene	105		70-130
Dibromofluoromethane	99		70-130



**Project Name:** 100 BINNEY ST  
**Project Number:** 34250-021

**Lab Number:** L1324863  
**Report Date:** 12/12/13

**Method Blank Analysis**  
**Batch Quality Control**

Analytical Method: 97,8260C  
Analytical Date: 12/11/13 06:27  
Analyst: MM

Parameter	Result	Qualifier	Units	RL	MDL
MCP Volatile Organics - Westborough Lab for sample(s): 01-03 Batch: WG658038-3					
Methylene chloride	ND		ug/l	2.0	--
1,1-Dichloroethane	ND		ug/l	1.0	--
Chloroform	ND		ug/l	1.0	--
Carbon tetrachloride	ND		ug/l	1.0	--
1,2-Dichloropropane	ND		ug/l	1.0	--
Dibromochloromethane	ND		ug/l	1.0	--
1,1,2-Trichloroethane	ND		ug/l	1.0	--
Tetrachloroethene	ND		ug/l	1.0	--
Chlorobenzene	ND		ug/l	1.0	--
Trichlorofluoromethane	ND		ug/l	2.0	--
1,2-Dichloroethane	ND		ug/l	1.0	--
1,1,1-Trichloroethane	ND		ug/l	1.0	--
Bromodichloromethane	ND		ug/l	1.0	--
trans-1,3-Dichloropropene	ND		ug/l	0.50	--
cis-1,3-Dichloropropene	ND		ug/l	0.50	--
1,1-Dichloropropene	ND		ug/l	2.0	--
Bromoform	ND		ug/l	2.0	--
1,1,2,2-Tetrachloroethane	ND		ug/l	1.0	--
Benzene	ND		ug/l	0.50	--
Toluene	ND		ug/l	1.0	--
Ethylbenzene	ND		ug/l	1.0	--
Chloromethane	ND		ug/l	2.0	--
Bromomethane	ND		ug/l	2.0	--
Vinyl chloride	ND		ug/l	1.0	--
Chloroethane	ND		ug/l	2.0	--
1,1-Dichloroethene	ND		ug/l	1.0	--
trans-1,2-Dichloroethene	ND		ug/l	1.0	--
Trichloroethene	ND		ug/l	1.0	--
1,2-Dichlorobenzene	ND		ug/l	1.0	--
1,3-Dichlorobenzene	ND		ug/l	1.0	--
1,4-Dichlorobenzene	ND		ug/l	1.0	--



**Project Name:** 100 BINNEY ST  
**Project Number:** 34250-021

**Lab Number:** L1324863  
**Report Date:** 12/12/13

**Method Blank Analysis**  
**Batch Quality Control**

Analytical Method: 97,8260C  
Analytical Date: 12/11/13 06:27  
Analyst: MM

Parameter	Result	Qualifier	Units	RL	MDL
MCP Volatile Organics - Westborough Lab for sample(s): 01-03 Batch: WG658038-3					
Methyl tert butyl ether	ND		ug/l	2.0	--
p/m-Xylene	ND		ug/l	2.0	--
o-Xylene	ND		ug/l	1.0	--
cis-1,2-Dichloroethene	ND		ug/l	1.0	--
Dibromomethane	ND		ug/l	2.0	--
1,2,3-Trichloropropane	ND		ug/l	2.0	--
Styrene	ND		ug/l	1.0	--
Dichlorodifluoromethane	ND		ug/l	2.0	--
Acetone	ND		ug/l	5.0	--
Carbon disulfide	ND		ug/l	2.0	--
2-Butanone	ND		ug/l	5.0	--
4-Methyl-2-pentanone	ND		ug/l	5.0	--
2-Hexanone	ND		ug/l	5.0	--
Bromochloromethane	ND		ug/l	2.0	--
Tetrahydrofuran	ND		ug/l	2.0	--
2,2-Dichloropropane	ND		ug/l	2.0	--
1,2-Dibromoethane	ND		ug/l	2.0	--
1,3-Dichloropropane	ND		ug/l	2.0	--
1,1,1,2-Tetrachloroethane	ND		ug/l	1.0	--
Bromobenzene	ND		ug/l	2.0	--
n-Butylbenzene	ND		ug/l	2.0	--
sec-Butylbenzene	ND		ug/l	2.0	--
tert-Butylbenzene	ND		ug/l	2.0	--
o-Chlorotoluene	ND		ug/l	2.0	--
p-Chlorotoluene	ND		ug/l	2.0	--
1,2-Dibromo-3-chloropropane	ND		ug/l	2.0	--
Hexachlorobutadiene	ND		ug/l	0.60	--
Isopropylbenzene	ND		ug/l	2.0	--
p-Isopropyltoluene	ND		ug/l	2.0	--
Naphthalene	ND		ug/l	2.0	--
n-Propylbenzene	ND		ug/l	2.0	--



**Project Name:** 100 BINNEY ST  
**Project Number:** 34250-021

**Lab Number:** L1324863  
**Report Date:** 12/12/13

**Method Blank Analysis**  
**Batch Quality Control**

Analytical Method: 97,8260C  
 Analytical Date: 12/11/13 06:27  
 Analyst: MM

Parameter	Result	Qualifier	Units	RL	MDL
MCP Volatile Organics - Westborough Lab for sample(s): 01-03 Batch: WG658038-3					
1,2,3-Trichlorobenzene	ND		ug/l	2.0	--
1,2,4-Trichlorobenzene	ND		ug/l	2.0	--
1,3,5-Trimethylbenzene	ND		ug/l	2.0	--
1,2,4-Trimethylbenzene	ND		ug/l	2.0	--
Ethyl ether	ND		ug/l	2.0	--
Isopropyl Ether	ND		ug/l	2.0	--
Ethyl-Tert-Butyl-Ether	ND		ug/l	2.0	--
Tertiary-Amyl Methyl Ether	ND		ug/l	2.0	--
1,4-Dioxane	ND		ug/l	250	--

Surrogate	%Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	116		70-130
Toluene-d8	104		70-130
4-Bromofluorobenzene	102		70-130
Dibromofluoromethane	103		70-130

## Lab Control Sample Analysis

### Batch Quality Control

Project Name: 100 BINNEY ST

Project Number: 34250-021

Lab Number: L1324863

Report Date: 12/12/13

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
MCP Volatile Organics - Westborough Lab Associated sample(s): 01-03 Batch: WG658038-1 WG658038-2								
Methylene chloride	97		97		70-130	0		20
1,1-Dichloroethane	98		99		70-130	1		20
Chloroform	99		100		70-130	1		20
Carbon tetrachloride	99		101		70-130	2		20
1,2-Dichloropropane	96		97		70-130	1		20
Dibromochloromethane	104		105		70-130	1		20
1,1,2-Trichloroethane	99		101		70-130	2		20
Tetrachloroethene	95		95		70-130	0		20
Chlorobenzene	93		94		70-130	1		20
Trichlorofluoromethane	115		115		70-130	0		20
1,2-Dichloroethane	107		110		70-130	3		20
1,1,1-Trichloroethane	94		94		70-130	0		20
Bromodichloromethane	102		104		70-130	2		20
trans-1,3-Dichloropropene	77		79		70-130	3		20
cis-1,3-Dichloropropene	84		86		70-130	2		20
1,1-Dichloropropene	100		101		70-130	1		20
Bromoform	115		121		70-130	5		20
1,1,2,2-Tetrachloroethane	98		99		70-130	1		20
Benzene	96		97		70-130	1		20
Toluene	95		96		70-130	1		20
Ethylbenzene	102		103		70-130	1		20

## Lab Control Sample Analysis

### Batch Quality Control

Project Name: 100 BINNEY ST

Lab Number: L1324863

Project Number: 34250-021

Report Date: 12/12/13

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
MCP Volatile Organics - Westborough Lab Associated sample(s): 01-03 Batch: WG658038-1 WG658038-2								
Chloromethane	100		101		70-130	1		20
Bromomethane	104		103		70-130	1		20
Vinyl chloride	114		114		70-130	0		20
Chloroethane	101		103		70-130	2		20
1,1-Dichloroethene	90		89		70-130	1		20
trans-1,2-Dichloroethene	92		91		70-130	1		20
Trichloroethene	96		95		70-130	1		20
1,2-Dichlorobenzene	95		94		70-130	1		20
1,3-Dichlorobenzene	94		94		70-130	0		20
1,4-Dichlorobenzene	93		93		70-130	0		20
Methyl tert butyl ether	83		85		70-130	2		20
p/m-Xylene	97		99		70-130	2		20
o-Xylene	97		98		70-130	1		20
cis-1,2-Dichloroethene	92		92		70-130	0		20
Dibromomethane	95		95		70-130	0		20
1,2,3-Trichloropropane	100		100		70-130	0		20
Styrene	100		101		70-130	1		20
Dichlorodifluoromethane	58	Q	57	Q	70-130	2		20
Acetone	142	Q	132	Q	70-130	7		20
Carbon disulfide	90		89		70-130	1		20
2-Butanone	115		111		70-130	4		20

## Lab Control Sample Analysis

### Batch Quality Control

Project Name: 100 BINNEY ST

Project Number: 34250-021

Lab Number: L1324863

Report Date: 12/12/13

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
MCP Volatile Organics - Westborough Lab Associated sample(s): 01-03 Batch: WG658038-1 WG658038-2								
4-Methyl-2-pentanone	96		99		70-130	3		20
2-Hexanone	122		126		70-130	3		20
Bromochloromethane	88		90		70-130	2		20
Tetrahydrofuran	120		125		70-130	4		20
2,2-Dichloropropane	62	Q	60	Q	70-130	3		20
1,2-Dibromoethane	86		87		70-130	1		20
1,3-Dichloropropane	98		100		70-130	2		20
1,1,1,2-Tetrachloroethane	92		94		70-130	2		20
Bromobenzene	92		93		70-130	1		20
n-Butylbenzene	103		103		70-130	0		20
sec-Butylbenzene	100		101		70-130	1		20
tert-Butylbenzene	97		97		70-130	0		20
o-Chlorotoluene	100		100		70-130	0		20
p-Chlorotoluene	99		99		70-130	0		20
1,2-Dibromo-3-chloropropane	90		92		70-130	2		20
Hexachlorobutadiene	91		86		70-130	6		20
Isopropylbenzene	101		101		70-130	0		20
p-Isopropyltoluene	99		98		70-130	1		20
Naphthalene	91		91		70-130	0		20
n-Propylbenzene	103		102		70-130	1		20
1,2,3-Trichlorobenzene	90		90		70-130	0		20

## Lab Control Sample Analysis

### Batch Quality Control

Project Name: 100 BINNEY ST

Project Number: 34250-021

Lab Number: L1324863

Report Date: 12/12/13

Parameter	LCS		LCSD		%Recovery Limits	RPD	Qual	RPD Limits
	%Recovery	Qual	%Recovery	Qual				
MCP Volatile Organics - Westborough Lab Associated sample(s): 01-03 Batch: WG658038-1 WG658038-2								
1,2,4-Trichlorobenzene	90		89		70-130	1		20
1,3,5-Trimethylbenzene	100		99		70-130	1		20
1,2,4-Trimethylbenzene	99		98		70-130	1		20
Ethyl ether	94		95		70-130	1		20
Isopropyl Ether	117		119		70-130	2		20
Ethyl-Tert-Butyl-Ether	80		81		70-130	1		20
Tertiary-Amyl Methyl Ether	76		76		70-130	0		20
1,4-Dioxane	98		102		70-130	4		20

Surrogate	LCS		LCSD		Acceptance Criteria
	%Recovery	Qual	%Recovery	Qual	
1,2-Dichloroethane-d4	113		115		70-130
Toluene-d8	102		103		70-130
4-Bromofluorobenzene	100		100		70-130
Dibromofluoromethane	100		102		70-130

# SEMIVOLATILES



Project Name: 100 BINNEY ST

Lab Number: L1324863

Project Number: 34250-021

Report Date: 12/12/13

## SAMPLE RESULTS

Lab ID: L1324863-01  
 Client ID: HA-401 (OW)  
 Sample Location: Not Specified  
 Matrix: Water  
 Analytical Method: 97,8270D  
 Analytical Date: 12/10/13 21:21  
 Analyst: RC

Date Collected: 12/06/13 10:05  
 Date Received: 12/06/13  
 Field Prep: Not Specified  
 Extraction Method: EPA 3510C  
 Extraction Date: 12/07/13 11:05

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
<b>MCP Semivolatile Organics - Westborough Lab</b>						
1,2,4-Trichlorobenzene	ND		ug/l	5.0	--	1
Bis(2-chloroethyl)ether	ND		ug/l	2.0	--	1
1,2-Dichlorobenzene	ND		ug/l	2.0	--	1
1,3-Dichlorobenzene	ND		ug/l	2.0	--	1
1,4-Dichlorobenzene	ND		ug/l	2.0	--	1
3,3'-Dichlorobenzidine	ND		ug/l	5.0	--	1
2,4-Dinitrotoluene	ND		ug/l	5.0	--	1
2,6-Dinitrotoluene	ND		ug/l	5.0	--	1
Azobenzene	ND		ug/l	2.0	--	1
4-Bromophenyl phenyl ether	ND		ug/l	2.0	--	1
Bis(2-chloroisopropyl)ether	ND		ug/l	2.0	--	1
Bis(2-chloroethoxy)methane	ND		ug/l	5.0	--	1
Isophorone	ND		ug/l	5.0	--	1
Nitrobenzene	ND		ug/l	2.0	--	1
Bis(2-Ethylhexyl)phthalate	ND		ug/l	3.0	--	1
Butyl benzyl phthalate	ND		ug/l	5.0	--	1
Di-n-butylphthalate	ND		ug/l	5.0	--	1
Di-n-octylphthalate	ND		ug/l	5.0	--	1
Diethyl phthalate	ND		ug/l	5.0	--	1
Dimethyl phthalate	ND		ug/l	5.0	--	1
Aniline	ND		ug/l	2.0	--	1
4-Chloroaniline	ND		ug/l	5.0	--	1
Dibenzofuran	ND		ug/l	2.0	--	1
Acetophenone	ND		ug/l	5.0	--	1
2,4,6-Trichlorophenol	ND		ug/l	5.0	--	1
2-Chlorophenol	ND		ug/l	2.0	--	1
2,4-Dichlorophenol	ND		ug/l	5.0	--	1
2,4-Dimethylphenol	ND		ug/l	5.0	--	1
2-Nitrophenol	ND		ug/l	10	--	1
4-Nitrophenol	ND		ug/l	10	--	1
2,4-Dinitrophenol	ND		ug/l	20	--	1

Project Name: 100 BINNEY ST

Lab Number: L1324863

Project Number: 34250-021

Report Date: 12/12/13

## SAMPLE RESULTS

Lab ID: L1324863-01

Date Collected: 12/06/13 10:05

Client ID: HA-401 (OW)

Date Received: 12/06/13

Sample Location: Not Specified

Field Prep: Not Specified

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

Surrogate	% Recovery	Qualifier	Acceptance Criteria
2-Fluorophenol	41		15-110
Phenol-d6	28		15-110
Nitrobenzene-d5	58		30-130
2-Fluorobiphenyl	71		30-130
2,4,6-Tribromophenol	99		15-110
4-Terphenyl-d14	81		30-130

Project Name: 100 BINNEY ST

Lab Number: L1324863

Project Number: 34250-021

Report Date: 12/12/13

## SAMPLE RESULTS

Lab ID: L1324863-01  
 Client ID: HA-401 (OW)  
 Sample Location: Not Specified  
 Matrix: Water  
 Analytical Method: 97,8270D-SIM  
 Analytical Date: 12/09/13 11:21  
 Analyst: AS

Date Collected: 12/06/13 10:05  
 Date Received: 12/06/13  
 Field Prep: Not Specified  
 Extraction Method: EPA 3510C  
 Extraction Date: 12/07/13 11:05

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
<b>MCP Semivolatile Organics by SIM - Westborough Lab</b>						
Acenaphthene	12		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	1.5		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	1.1		ug/l	0.20	--	1
Anthracene	ND		ug/l	0.20	--	1
Benzo(ghi)perylene	ND		ug/l	0.20	--	1
Fluorene	ND		ug/l	0.20	--	1
Phenanthrene	ND		ug/l	0.20	--	1
Dibenzo(a,h)anthracene	ND		ug/l	0.20	--	1
Indeno(1,2,3-cd)Pyrene	ND		ug/l	0.20	--	1
Pyrene	ND		ug/l	0.20	--	1
2-Methylnaphthalene	ND		ug/l	0.20	--	1
Pentachlorophenol	ND		ug/l	0.80	--	1
Hexachlorobenzene	ND		ug/l	0.80	--	1
Hexachloroethane	ND		ug/l	0.80	--	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
2-Fluorophenol	42		15-110
Phenol-d6	29		15-110
Nitrobenzene-d5	61		30-130
2-Fluorobiphenyl	66		30-130
2,4,6-Tribromophenol	83		15-110
4-Terphenyl-d14	84		30-130

Project Name: 100 BINNEY ST

Lab Number: L1324863

Project Number: 34250-021

Report Date: 12/12/13

## SAMPLE RESULTS

Lab ID: L1324863-02  
 Client ID: HA-402 (OW)  
 Sample Location: Not Specified  
 Matrix: Water  
 Analytical Method: 97,8270D  
 Analytical Date: 12/10/13 21:48  
 Analyst: RC

Date Collected: 12/06/13 12:00  
 Date Received: 12/06/13  
 Field Prep: Not Specified  
 Extraction Method: EPA 3510C  
 Extraction Date: 12/07/13 11:05

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
<b>MCP Semivolatile Organics - Westborough Lab</b>						
1,2,4-Trichlorobenzene	ND		ug/l	5.0	--	1
Bis(2-chloroethyl)ether	ND		ug/l	2.0	--	1
1,2-Dichlorobenzene	ND		ug/l	2.0	--	1
1,3-Dichlorobenzene	ND		ug/l	2.0	--	1
1,4-Dichlorobenzene	ND		ug/l	2.0	--	1
3,3'-Dichlorobenzidine	ND		ug/l	5.0	--	1
2,4-Dinitrotoluene	ND		ug/l	5.0	--	1
2,6-Dinitrotoluene	ND		ug/l	5.0	--	1
Azobenzene	ND		ug/l	2.0	--	1
4-Bromophenyl phenyl ether	ND		ug/l	2.0	--	1
Bis(2-chloroisopropyl)ether	ND		ug/l	2.0	--	1
Bis(2-chloroethoxy)methane	ND		ug/l	5.0	--	1
Isophorone	ND		ug/l	5.0	--	1
Nitrobenzene	ND		ug/l	2.0	--	1
Bis(2-Ethylhexyl)phthalate	ND		ug/l	3.0	--	1
Butyl benzyl phthalate	ND		ug/l	5.0	--	1
Di-n-butylphthalate	ND		ug/l	5.0	--	1
Di-n-octylphthalate	ND		ug/l	5.0	--	1
Diethyl phthalate	ND		ug/l	5.0	--	1
Dimethyl phthalate	ND		ug/l	5.0	--	1
Aniline	ND		ug/l	2.0	--	1
4-Chloroaniline	ND		ug/l	5.0	--	1
Dibenzofuran	ND		ug/l	2.0	--	1
Acetophenone	ND		ug/l	5.0	--	1
2,4,6-Trichlorophenol	ND		ug/l	5.0	--	1
2-Chlorophenol	ND		ug/l	2.0	--	1
2,4-Dichlorophenol	ND		ug/l	5.0	--	1
2,4-Dimethylphenol	ND		ug/l	5.0	--	1
2-Nitrophenol	ND		ug/l	10	--	1
4-Nitrophenol	ND		ug/l	10	--	1
2,4-Dinitrophenol	ND		ug/l	20	--	1

Project Name: 100 BINNEY ST

Lab Number: L1324863

Project Number: 34250-021

Report Date: 12/12/13

## SAMPLE RESULTS

Lab ID: L1324863-02

Date Collected: 12/06/13 12:00

Client ID: HA-402 (OW)

Date Received: 12/06/13

Sample Location: Not Specified

Field Prep: Not Specified

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

Surrogate	% Recovery	Qualifier	Acceptance Criteria
2-Fluorophenol	36		15-110
Phenol-d6	23		15-110
Nitrobenzene-d5	50		30-130
2-Fluorobiphenyl	60		30-130
2,4,6-Tribromophenol	86		15-110
4-Terphenyl-d14	73		30-130

**Project Name:** 100 BINNEY ST**Lab Number:** L1324863**Project Number:** 34250-021**Report Date:** 12/12/13**SAMPLE RESULTS**

Lab ID: L1324863-02  
 Client ID: HA-402 (OW)  
 Sample Location: Not Specified  
 Matrix: Water  
 Analytical Method: 97,8270D-SIM  
 Analytical Date: 12/09/13 11:46  
 Analyst: AS

Date Collected: 12/06/13 12:00  
 Date Received: 12/06/13  
 Field Prep: Not Specified  
 Extraction Method: EPA 3510C  
 Extraction Date: 12/07/13 11:05

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
<b>MCP Semivolatile Organics by SIM - Westborough Lab</b>						
Acenaphthene	1.5		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	0.34		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	4.8		ug/l	0.20	--	1
Anthracene	ND		ug/l	0.20	--	1
Benzo(ghi)perylene	ND		ug/l	0.20	--	1
Fluorene	ND		ug/l	0.20	--	1
Phenanthrene	ND		ug/l	0.20	--	1
Dibenzo(a,h)anthracene	ND		ug/l	0.20	--	1
Indeno(1,2,3-cd)Pyrene	ND		ug/l	0.20	--	1
Pyrene	ND		ug/l	0.20	--	1
2-Methylnaphthalene	ND		ug/l	0.20	--	1
Pentachlorophenol	ND		ug/l	0.80	--	1
Hexachlorobenzene	ND		ug/l	0.80	--	1
Hexachloroethane	ND		ug/l	0.80	--	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
2-Fluorophenol	35		15-110
Phenol-d6	25		15-110
Nitrobenzene-d5	54		30-130
2-Fluorobiphenyl	59		30-130
2,4,6-Tribromophenol	77		15-110
4-Terphenyl-d14	73		30-130

**Project Name:** 100 BINNEY ST  
**Project Number:** 34250-021

**Lab Number:** L1324863  
**Report Date:** 12/12/13

**Method Blank Analysis**  
**Batch Quality Control**

**Analytical Method:** 97,8270D  
**Analytical Date:** 12/10/13 17:46  
**Analyst:** RC

**Extraction Method:** EPA 3510C  
**Extraction Date:** 12/07/13 11:05

Parameter	Result	Qualifier	Units	RL	MDL
MCP Semivolatile Organics - Westborough Lab for sample(s): 01-02 Batch: WG657021-1					
1,2,4-Trichlorobenzene	ND		ug/l	5.0	--
Bis(2-chloroethyl)ether	ND		ug/l	2.0	--
1,2-Dichlorobenzene	ND		ug/l	2.0	--
1,3-Dichlorobenzene	ND		ug/l	2.0	--
1,4-Dichlorobenzene	ND		ug/l	2.0	--
3,3'-Dichlorobenzidine	ND		ug/l	5.0	--
2,4-Dinitrotoluene	ND		ug/l	5.0	--
2,6-Dinitrotoluene	ND		ug/l	5.0	--
Azobenzene	ND		ug/l	2.0	--
4-Bromophenyl phenyl ether	ND		ug/l	2.0	--
Bis(2-chloroisopropyl)ether	ND		ug/l	2.0	--
Bis(2-chloroethoxy)methane	ND		ug/l	5.0	--
Isophorone	ND		ug/l	5.0	--
Nitrobenzene	ND		ug/l	2.0	--
Bis(2-Ethylhexyl)phthalate	ND		ug/l	3.0	--
Butyl benzyl phthalate	ND		ug/l	5.0	--
Di-n-butylphthalate	ND		ug/l	5.0	--
Di-n-octylphthalate	ND		ug/l	5.0	--
Diethyl phthalate	ND		ug/l	5.0	--
Dimethyl phthalate	ND		ug/l	5.0	--
Aniline	ND		ug/l	2.0	--
4-Chloroaniline	ND		ug/l	5.0	--
Dibenzofuran	ND		ug/l	2.0	--
Acetophenone	ND		ug/l	5.0	--
2,4,6-Trichlorophenol	ND		ug/l	5.0	--
2-Chlorophenol	ND		ug/l	2.0	--
2,4-Dichlorophenol	ND		ug/l	5.0	--
2,4-Dimethylphenol	ND		ug/l	5.0	--
2-Nitrophenol	ND		ug/l	10	--
4-Nitrophenol	ND		ug/l	10	--
2,4-Dinitrophenol	ND		ug/l	20	--



**Project Name:** 100 BINNEY ST  
**Project Number:** 34250-021

**Lab Number:** L1324863  
**Report Date:** 12/12/13

**Method Blank Analysis**  
**Batch Quality Control**

**Analytical Method:** 97,8270D  
**Analytical Date:** 12/10/13 17:46  
**Analyst:** RC

**Extraction Method:** EPA 3510C  
**Extraction Date:** 12/07/13 11:05

Parameter	Result	Qualifier	Units	RL	MDL
MCP Semivolatile Organics - Westborough Lab for sample(s): 01-02 Batch: WG657021-1					
Phenol	ND		ug/l	5.0	--
2-Methylphenol	ND		ug/l	5.0	--
3-Methylphenol/4-Methylphenol	ND		ug/l	5.0	--
2,4,5-Trichlorophenol	ND		ug/l	5.0	--

Surrogate	%Recovery	Qualifier	Acceptance Criteria
2-Fluorophenol	29		15-110
Phenol-d6	19		15-110
Nitrobenzene-d5	38		30-130
2-Fluorobiphenyl	49		30-130
2,4,6-Tribromophenol	48		15-110
4-Terphenyl-d14	64		30-130



**Project Name:** 100 BINNEY ST  
**Project Number:** 34250-021

**Lab Number:** L1324863  
**Report Date:** 12/12/13

**Method Blank Analysis**  
**Batch Quality Control**

**Analytical Method:** 97,8270D-SIM  
**Analytical Date:** 12/09/13 09:27  
**Analyst:** AS

**Extraction Method:** EPA 3510C  
**Extraction Date:** 12/07/13 11:05

Parameter	Result	Qualifier	Units	RL	MDL
MCP Semivolatile Organics by SIM - Westborough Lab for sample(s): 01-02 Batch: WG657023-1					
Acenaphthene	ND		ug/l	0.20	--
2-Chloronaphthalene	ND		ug/l	0.20	--
Fluoranthene	ND		ug/l	0.20	--
Hexachlorobutadiene	ND		ug/l	0.50	--
Naphthalene	ND		ug/l	0.20	--
Benzo(a)anthracene	ND		ug/l	0.20	--
Benzo(a)pyrene	ND		ug/l	0.20	--
Benzo(b)fluoranthene	ND		ug/l	0.20	--
Benzo(k)fluoranthene	ND		ug/l	0.20	--
Chrysene	ND		ug/l	0.20	--
Acenaphthylene	ND		ug/l	0.20	--
Anthracene	ND		ug/l	0.20	--
Benzo(ghi)perylene	ND		ug/l	0.20	--
Fluorene	ND		ug/l	0.20	--
Phenanthrene	ND		ug/l	0.20	--
Dibenzo(a,h)anthracene	ND		ug/l	0.20	--
Indeno(1,2,3-cd)Pyrene	ND		ug/l	0.20	--
Pyrene	ND		ug/l	0.20	--
2-Methylnaphthalene	ND		ug/l	0.20	--
Pentachlorophenol	ND		ug/l	0.80	--
Hexachlorobenzene	ND		ug/l	0.80	--
Hexachloroethane	ND		ug/l	0.80	--

**Project Name:** 100 BINNEY ST  
**Project Number:** 34250-021

**Lab Number:** L1324863  
**Report Date:** 12/12/13

**Method Blank Analysis**  
**Batch Quality Control**

Analytical Method: 97,8270D-SIM  
Analytical Date: 12/09/13 09:27  
Analyst: AS

Extraction Method: EPA 3510C  
Extraction Date: 12/07/13 11:05

Parameter	Result	Qualifier	Units	RL	MDL
MCP Semivolatile Organics by SIM - Westborough Lab for sample(s): 01-02 Batch: WG657023-1					

Surrogate	%Recovery	Qualifier	Acceptance Criteria
2-Fluorophenol	33		15-110
Phenol-d6	23		15-110
Nitrobenzene-d5	48		30-130
2-Fluorobiphenyl	51		30-130
2,4,6-Tribromophenol	53		15-110
4-Terphenyl-d14	70		30-130

## Lab Control Sample Analysis

### Batch Quality Control

Project Name: 100 BINNEY ST

Project Number: 34250-021

Lab Number: L1324863

Report Date: 12/12/13

Parameter	LCS		LCSD		%Recovery Limits	RPD	Qual	RPD Limits
	%Recovery	Qual	%Recovery	Qual				
MCP Semivolatile Organics - Westborough Lab Associated sample(s): 01-02 Batch: WG657021-2 WG657021-3								
1,2,4-Trichlorobenzene	63		71		40-140	12		20
Bis(2-chloroethyl)ether	52		60		40-140	14		20
1,2-Dichlorobenzene	58		62		40-140	7		20
1,3-Dichlorobenzene	56		60		40-140	7		20
1,4-Dichlorobenzene	58		62		40-140	7		20
3,3'-Dichlorobenzidine	41		42		40-140	2		20
2,4-Dinitrotoluene	84		88		40-140	5		20
2,6-Dinitrotoluene	81		93		40-140	14		20
Azobenzene	61		68		40-140	11		20
4-Bromophenyl phenyl ether	86		96		40-140	11		20
Bis(2-chloroisopropyl)ether	36	Q	39	Q	40-140	8		20
Bis(2-chloroethoxy)methane	60		64		40-140	6		20
Isophorone	58		62		40-140	7		20
Nitrobenzene	55		62		40-140	12		20
Bis(2-Ethylhexyl)phthalate	71		80		40-140	12		20
Butyl benzyl phthalate	81		87		40-140	7		20
Di-n-butylphthalate	76		83		40-140	9		20
Di-n-octylphthalate	74		82		40-140	10		20
Diethyl phthalate	80		86		40-140	7		20
Dimethyl phthalate	78		84		40-140	7		20
Aniline	15	Q	15	Q	40-140	0		20

## Lab Control Sample Analysis

### Batch Quality Control

Project Name: 100 BINNEY ST

Project Number: 34250-021

Lab Number: L1324863

Report Date: 12/12/13

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
MCP Semivolatile Organics - Westborough Lab Associated sample(s): 01-02 Batch: WG657021-2 WG657021-3								
4-Chloroaniline	27	Q	24	Q	40-140	12		20
Dibenzofuran	74		80		40-140	8		20
Acetophenone	63		70		40-140	11		20
2,4,6-Trichlorophenol	78		88		30-130	12		20
2-Chlorophenol	63		68		30-130	8		20
2,4-Dichlorophenol	74		82		30-130	10		20
2,4-Dimethylphenol	52		38		30-130	31	Q	20
2-Nitrophenol	68		75		30-130	10		20
4-Nitrophenol	39		45		30-130	14		20
2,4-Dinitrophenol	65		74		30-130	13		20
Phenol	31		33		30-130	6		20
2-Methylphenol	58		58		30-130	0		20
3-Methylphenol/4-Methylphenol	56		59		30-130	5		20
2,4,5-Trichlorophenol	88		99		30-130	12		20

## Lab Control Sample Analysis

### Batch Quality Control

Project Name: 100 BINNEY ST

Project Number: 34250-021

Lab Number: L1324863

Report Date: 12/12/13

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
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MCP Semivolatile Organics - Westborough Lab Associated sample(s): 01-02 Batch: WG657021-2 WG657021-3

Surrogate	LCS %Recovery	Qual	LCSD %Recovery	Qual	Acceptance Criteria
2-Fluorophenol	44		45		15-110
Phenol-d6	31		33		15-110
Nitrobenzene-d5	61		64		30-130
2-Fluorobiphenyl	72		82		30-130
2,4,6-Tribromophenol	95		101		15-110
4-Terphenyl-d14	89		95		30-130

## Lab Control Sample Analysis

### Batch Quality Control

Project Name: 100 BINNEY ST

Lab Number: L1324863

Project Number: 34250-021

Report Date: 12/12/13

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
MCP Semivolatile Organics by SIM - Westborough Lab Associated sample(s): 01-02 Batch: WG657023-2 WG657023-3								
Acenaphthene	63		66		40-140	5		20
2-Chloronaphthalene	60		63		40-140	5		20
Fluoranthene	72		75		40-140	4		20
Hexachlorobutadiene	57		61		40-140	7		20
Naphthalene	60		63		40-140	5		20
Benzo(a)anthracene	71		73		40-140	3		20
Benzo(a)pyrene	68		72		40-140	6		20
Benzo(b)fluoranthene	69		81		40-140	16		20
Benzo(k)fluoranthene	84		74		40-140	13		20
Chrysene	70		72		40-140	3		20
Acenaphthylene	63		65		40-140	3		20
Anthracene	66		68		40-140	3		20
Benzo(ghi)perylene	70		75		40-140	7		20
Fluorene	65		72		40-140	10		20
Phenanthrene	68		68		40-140	0		20
Dibenzo(a,h)anthracene	72		76		40-140	5		20
Indeno(1,2,3-cd)Pyrene	72		76		40-140	5		20
Pyrene	70		73		40-140	4		20
2-Methylnaphthalene	59		63		40-140	7		20
Pentachlorophenol	74		76		30-130	3		20
Hexachlorobenzene	64		73		40-140	13		20

### Lab Control Sample Analysis Batch Quality Control

**Project Name:** 100 BINNEY ST  
**Project Number:** 34250-021

**Lab Number:** L1324863  
**Report Date:** 12/12/13

<b>Parameter</b>	<b>LCS %Recovery</b>	<b>Qual</b>	<b>LCSD %Recovery</b>	<b>Qual</b>	<b>%Recovery Limits</b>	<b>RPD</b>	<b>Qual</b>	<b>RPD Limits</b>
MCP Semivolatile Organics by SIM - Westborough Lab Associated sample(s): 01-02 Batch: WG657023-2 WG657023-3								
Hexachloroethane	54		57		40-140	5		20

<b>Surrogate</b>	<b>LCS %Recovery</b>	<b>Qual</b>	<b>LCSD %Recovery</b>	<b>Qual</b>	<b>Acceptance Criteria</b>
2-Fluorophenol	41		42		15-110
Phenol-d6	29		31		15-110
Nitrobenzene-d5	57		61		30-130
2-Fluorobiphenyl	61		64		30-130
2,4,6-Tribromophenol	73		75		15-110
4-Terphenyl-d14	77		81		30-130



# PETROLEUM HYDROCARBONS



Project Name: 100 BINNEY ST

Lab Number: L1324863

Project Number: 34250-021

Report Date: 12/12/13

**SAMPLE RESULTS**

Lab ID: L1324863-01  
 Client ID: HA-401 (OW)  
 Sample Location: Not Specified  
 Matrix: Water  
 Analytical Method: 98,EPH-04-1.1  
 Analytical Date: 12/10/13 19:25  
 Analyst: MW

Date Collected: 12/06/13 10:05  
 Date Received: 12/06/13  
 Field Prep: Not Specified  
 Extraction Method: EPA 3510C  
 Extraction Date: 12/07/13 16:29  
 Cleanup Method1: EPH-04-1  
 Cleanup Date1: 12/09/13

**Quality Control Information**

Condition of sample received: Satisfactory  
 Aqueous Preservative: Laboratory Provided Preserved Container  
 Sample Temperature upon receipt: Received on Ice  
 Sample Extraction method: Extracted Per the Method

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
<b>Extractable Petroleum Hydrocarbons - Westborough Lab</b>						
C9-C18 Aliphatics	ND		ug/l	100	--	1
C19-C36 Aliphatics	ND		ug/l	100	--	1
C11-C22 Aromatics	164		ug/l	100	--	1
C11-C22 Aromatics, Adjusted	153		ug/l	100	--	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
Chloro-Octadecane	72		40-140
o-Terphenyl	77		40-140
2-Fluorobiphenyl	77		40-140
2-Bromonaphthalene	76		40-140



Project Name: 100 BINNEY ST

Lab Number: L1324863

Project Number: 34250-021

Report Date: 12/12/13

**SAMPLE RESULTS**

Lab ID: L1324863-01 D  
 Client ID: HA-401 (OW)  
 Sample Location: Not Specified  
 Matrix: Water  
 Analytical Method: 100, VPH-04-1.1  
 Analytical Date: 12/11/13 12:57  
 Analyst: GT

Date Collected: 12/06/13 10:05  
 Date Received: 12/06/13  
 Field Prep: Not Specified

**Quality Control Information**

Condition of sample received: Satisfactory  
 Aqueous Preservative: Laboratory Provided Preserved Container  
 Sample Temperature upon receipt: Received on Ice

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
<b>Volatile Petroleum Hydrocarbons - Westborough Lab</b>						
C5-C8 Aliphatics	12200		ug/l	2500	--	50
C9-C12 Aliphatics	ND		ug/l	2500	--	50
C9-C10 Aromatics	ND		ug/l	2500	--	50
C5-C8 Aliphatics, Adjusted	4000		ug/l	2500	--	50
C9-C12 Aliphatics, Adjusted	ND		ug/l	2500	--	50

Surrogate	% Recovery	Qualifier	Acceptance Criteria
2,5-Dibromotoluene-PID	109		70-130
2,5-Dibromotoluene-FID	111		70-130



**Project Name:** 100 BINNEY ST  
**Project Number:** 34250-021

**Lab Number:** L1324863  
**Report Date:** 12/12/13

**SAMPLE RESULTS**

Lab ID: L1324863-02  
 Client ID: HA-402 (OW)  
 Sample Location: Not Specified  
 Matrix: Water  
 Analytical Method: 98,EPH-04-1.1  
 Analytical Date: 12/10/13 22:11  
 Analyst: MW

Date Collected: 12/06/13 12:00  
 Date Received: 12/06/13  
 Field Prep: Not Specified  
 Extraction Method: EPA 3510C  
 Extraction Date: 12/07/13 16:29  
 Cleanup Method1: EPH-04-1  
 Cleanup Date1: 12/10/13

**Quality Control Information**

Condition of sample received: Satisfactory  
 Aqueous Preservative: Laboratory Provided Preserved Container  
 Sample Temperature upon receipt: Received on Ice  
 Sample Extraction method: Extracted Per the Method

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
<b>Extractable Petroleum Hydrocarbons - Westborough Lab</b>						
C9-C18 Aliphatics	ND		ug/l	100	--	1
C19-C36 Aliphatics	ND		ug/l	100	--	1
C11-C22 Aromatics	ND		ug/l	100	--	1
C11-C22 Aromatics, Adjusted	ND		ug/l	100	--	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
Chloro-Octadecane	56		40-140
o-Terphenyl	72		40-140
2-Fluorobiphenyl	74		40-140
2-Bromonaphthalene	74		40-140



Project Name: 100 BINNEY ST

Lab Number: L1324863

Project Number: 34250-021

Report Date: 12/12/13

## SAMPLE RESULTS

Lab ID: L1324863-02 D  
 Client ID: HA-402 (OW)  
 Sample Location: Not Specified  
 Matrix: Water  
 Analytical Method: 100, VPH-04-1.1  
 Analytical Date: 12/11/13 12:17  
 Analyst: GT

Date Collected: 12/06/13 12:00  
 Date Received: 12/06/13  
 Field Prep: Not Specified

## Quality Control Information

Condition of sample received: Satisfactory  
 Aqueous Preservative: Laboratory Provided Preserved Container  
 Sample Temperature upon receipt: Received on Ice

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
<b>Volatile Petroleum Hydrocarbons - Westborough Lab</b>						
C5-C8 Aliphatics	742		ug/l	250	--	5
C9-C12 Aliphatics	ND		ug/l	250	--	5
C9-C10 Aromatics	ND		ug/l	250	--	5
C5-C8 Aliphatics, Adjusted	295		ug/l	250	--	5
C9-C12 Aliphatics, Adjusted	ND		ug/l	250	--	5

Surrogate	% Recovery	Qualifier	Acceptance Criteria
2,5-Dibromotoluene-PID	106		70-130
2,5-Dibromotoluene-FID	108		70-130

**Project Name:** 100 BINNEY ST  
**Project Number:** 34250-021

**Lab Number:** L1324863  
**Report Date:** 12/12/13

**Method Blank Analysis**  
**Batch Quality Control**

**Analytical Method:** 98,EPH-04-1.1  
**Analytical Date:** 12/10/13 16:39  
**Analyst:** MW

**Extraction Method:** EPA 3510C  
**Extraction Date:** 12/07/13 16:29  
**Cleanup Method1:** EPH-04-1  
**Cleanup Date1:** 12/09/13

Parameter	Result	Qualifier	Units	RL	MDL
Extractable Petroleum Hydrocarbons - Westborough Lab for sample(s): 01-02 Batch: WG657073-1					
C9-C18 Aliphatics	ND		ug/l	100	--
C19-C36 Aliphatics	ND		ug/l	100	--
C11-C22 Aromatics	ND		ug/l	100	--
C11-C22 Aromatics, Adjusted	ND		ug/l	100	--

Surrogate	%Recovery	Qualifier	Acceptance Criteria
Chloro-Octadecane	84		40-140
o-Terphenyl	87		40-140
2-Fluorobiphenyl	88		40-140
2-Bromonaphthalene	88		40-140

**Project Name:** 100 BINNEY ST  
**Project Number:** 34250-021

**Lab Number:** L1324863  
**Report Date:** 12/12/13

**Method Blank Analysis**  
**Batch Quality Control**

**Analytical Method:** 100, VPH-04-1.1  
**Analytical Date:** 12/11/13 09:38  
**Analyst:** GT

Parameter	Result	Qualifier	Units	RL	MDL
Volatile Petroleum Hydrocarbons - Westborough Lab for sample(s): 01-02 Batch: WG658443-3					
C5-C8 Aliphatics	ND		ug/l	50.0	--
C9-C12 Aliphatics	ND		ug/l	50.0	--
C9-C10 Aromatics	ND		ug/l	50.0	--
C5-C8 Aliphatics, Adjusted	ND		ug/l	50.0	--
C9-C12 Aliphatics, Adjusted	ND		ug/l	50.0	--

Surrogate	%Recovery	Qualifier	Acceptance Criteria
2,5-Dibromotoluene-PID	107		70-130
2,5-Dibromotoluene-FID	112		70-130

## Lab Control Sample Analysis

### Batch Quality Control

Project Name: 100 BINNEY ST

Project Number: 34250-021

Lab Number: L1324863

Report Date: 12/12/13

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Extractable Petroleum Hydrocarbons - Westborough Lab Associated sample(s): 01-02 Batch: WG657073-2 WG657073-3								
C9-C18 Aliphatics	86		82		40-140	5		25
C19-C36 Aliphatics	107		112		40-140	5		25
C11-C22 Aromatics	98		106		40-140	8		25
Naphthalene	76		78		40-140	3		25
2-Methylnaphthalene	86		90		40-140	5		25
Acenaphthylene	83		89		40-140	7		25
Acenaphthene	89		96		40-140	8		25
Fluorene	93		100		40-140	7		25
Phenanthrene	99		108		40-140	9		25
Anthracene	94		102		40-140	8		25
Fluoranthene	95		104		40-140	9		25
Pyrene	96		105		40-140	9		25
Benzo(a)anthracene	91		101		40-140	10		25
Chrysene	90		100		40-140	11		25
Benzo(b)fluoranthene	96		108		40-140	12		25
Benzo(k)fluoranthene	92		102		40-140	10		25
Benzo(a)pyrene	92		104		40-140	12		25
Indeno(1,2,3-cd)Pyrene	97		108		40-140	11		25
Dibenzo(a,h)anthracene	78		87		40-140	11		25
Benzo(ghi)perylene	93		103		40-140	10		25
Nonane (C9)	49		36		30-140	31	Q	25

## Lab Control Sample Analysis Batch Quality Control

**Project Name:** 100 BINNEY ST  
**Project Number:** 34250-021

**Lab Number:** L1324863  
**Report Date:** 12/12/13

Parameter	LCS		LCSD		%Recovery Limits	RPD	RPD	
	%Recovery	Qual	%Recovery	Qual			Qual	Limits
Extractable Petroleum Hydrocarbons - Westborough Lab Associated sample(s): 01-02 Batch: WG657073-2 WG657073-3								
Decane (C10)	63		52		40-140	19		25
Dodecane (C12)	83		77		40-140	8		25
Tetradecane (C14)	92		91		40-140	1		25
Hexadecane (C16)	97		98		40-140	1		25
Octadecane (C18)	100		102		40-140	2		25
Nonadecane (C19)	99		103		40-140	4		25
Eicosane (C20)	102		105		40-140	3		25
Docosane (C22)	102		106		40-140	4		25
Tetracosane (C24)	100		105		40-140	5		25
Hexacosane (C26)	103		107		40-140	4		25
Octacosane (C28)	100		104		40-140	4		25
Triacontane (C30)	105		109		40-140	4		25
Hexatriacontane (C36)	110		111		40-140	1		25

Surrogate	LCS		LCSD		Acceptance Criteria
	%Recovery	Qual	%Recovery	Qual	
Chloro-Octadecane	81		92		40-140
o-Terphenyl	94		100		40-140
2-Fluorobiphenyl	86		94		40-140
2-Bromonaphthalene	87		95		40-140
% Naphthalene Breakthrough	0		0		
% 2-Methylnaphthalene Breakthrough	0		0		





## Lab Control Sample Analysis

### Batch Quality Control

Project Name: 100 BINNEY ST

Project Number: 34250-021

Lab Number: L1324863

Report Date: 12/12/13

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Volatile Petroleum Hydrocarbons - Westborough Lab Associated sample(s): 01-02 Batch: WG658443-1 WG658443-2								
C5-C8 Aliphatics	90		88		70-130	2		25
C9-C12 Aliphatics	95		91		70-130	5		25
C9-C10 Aromatics	96		93		70-130	3		25
Benzene	90		89		70-130	2		25
Toluene	93		91		70-130	2		25
Ethylbenzene	94		92		70-130	2		25
p/m-Xylene	95		93		70-130	2		25
o-Xylene	96		94		70-130	2		25
Methyl tert butyl ether	97		98		70-130	1		25
Naphthalene	110		112		70-130	2		25
1,2,4-Trimethylbenzene	96		93		70-130	3		25
Pentane	85		83		70-130	2		25
2-Methylpentane	92		90		70-130	2		25
2,2,4-Trimethylpentane	94		92		70-130	2		25
n-Nonane	97		93		30-130	4		25
n-Decane	86		82		70-130	5		25
n-Butylcyclohexane	103		99		70-130	4		25

## Lab Control Sample Analysis

Batch Quality Control

**Project Name:** 100 BINNEY ST  
**Project Number:** 34250-021

**Lab Number:** L1324863  
**Report Date:** 12/12/13

Parameter	<i>LCS</i> %Recovery	<i>Qual</i>	<i>LCSD</i> %Recovery	<i>Qual</i>	<i>%Recovery</i> Limits	<i>RPD</i>	<i>Qual</i>	<i>RPD</i> Limits
Volatile Petroleum Hydrocarbons - Westborough Lab Associated sample(s): 01-02 Batch: WG658443-1 WG658443-2								

<i>Surrogate</i>	<i>LCS</i> %Recovery	<i>Qual</i>	<i>LCSD</i> %Recovery	<i>Qual</i>	<i>Acceptance</i> <i>Criteria</i>
2,5-Dibromotoluene-PID	102		99		70-130
2,5-Dibromotoluene-FID	102		100		70-130



**Project Name:** 100 BINNEY ST  
**Project Number:** 34250-021

**Lab Number:** L1324863  
**Report Date:** 12/12/13

### 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

#### Container Information

Container ID	Container Type	Cooler	pH	Temp deg C	Pres	Seal	Analysis(*)
L1324863-01A	Vial HCl preserved	A	N/A	4.1	Y	Absent	MCP-8260-10(14)
L1324863-01B	Vial HCl preserved	A	N/A	4.1	Y	Absent	MCP-8260-10(14)
L1324863-01C	Vial HCl preserved	A	N/A	4.1	Y	Absent	MCP-8260-10(14)
L1324863-01D	Vial HCl preserved	A	N/A	4.1	Y	Absent	VPH-10(14)
L1324863-01E	Vial HCl preserved	A	N/A	4.1	Y	Absent	VPH-10(14)
L1324863-01F	Vial HCl preserved	A	N/A	4.1	Y	Absent	VPH-10(14)
L1324863-01G	Amber 1000ml unpreserved	A	7	4.1	Y	Absent	MCP-8270-10(7),MCP-8270SIM-10(7)
L1324863-01H	Amber 1000ml unpreserved	A	7	4.1	Y	Absent	MCP-8270-10(7),MCP-8270SIM-10(7)
L1324863-01I	Amber 1000ml HCl preserved	A	<2	4.1	Y	Absent	EPH-10(14)
L1324863-01J	Amber 1000ml HCl preserved	A	<2	4.1	Y	Absent	EPH-10(14)
L1324863-02A	Vial HCl preserved	A	N/A	4.1	Y	Absent	MCP-8260-10(14)
L1324863-02B	Vial HCl preserved	A	N/A	4.1	Y	Absent	MCP-8260-10(14)
L1324863-02C	Vial HCl preserved	A	N/A	4.1	Y	Absent	MCP-8260-10(14)
L1324863-02D	Vial HCl preserved	A	N/A	4.1	Y	Absent	VPH-10(14)
L1324863-02E	Vial HCl preserved	A	N/A	4.1	Y	Absent	VPH-10(14)
L1324863-02F	Vial HCl preserved	A	N/A	4.1	Y	Absent	VPH-10(14)
L1324863-02G	Amber 1000ml unpreserved	A	7	4.1	Y	Absent	MCP-8270-10(7),MCP-8270SIM-10(7)
L1324863-02H	Amber 1000ml unpreserved	A	7	4.1	Y	Absent	MCP-8270-10(7),MCP-8270SIM-10(7)
L1324863-02I	Amber 1000ml HCl preserved	A	<2	4.1	Y	Absent	EPH-10(14)
L1324863-02J	Amber 1000ml HCl preserved	A	<2	4.1	Y	Absent	EPH-10(14)
L1324863-03A	Vial HCl preserved	A	N/A	4.1	Y	Absent	MCP-8260-10(14)

\*Values in parentheses indicate holding time in days

**Project Name:** 100 BINNEY ST  
**Project Number:** 34250-021

**Lab Number:** L1324863  
**Report Date:** 12/12/13

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

**Report Format:** Data Usability Report



**Project Name:** 100 BINNEY ST  
**Project Number:** 34250-021

**Lab Number:** L1324863  
**Report Date:** 12/12/13

**Data Qualifiers**

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

**Project Name:** 100 BINNEY ST  
**Project Number:** 34250-021

**Lab Number:** L1324863  
**Report Date:** 12/12/13

## REFERENCES

- 97 EPA Test Methods (SW-846) with QC Requirements & Performance Standards for the Analysis of EPA SW-846 Methods under the Massachusetts Contingency Plan, WSC-CAM-IIA, IIB, IIIA, IIIB, IIIC, IIID, VA, VB, VC, VIA, VIB, VIIIA and VIIIB, July 2010.
- 98 Method for the Determination of Extractable Petroleum Hydrocarbons (EPH), MassDEP, May 2004, Revision 1.1 with QC Requirements & Performance Standards for the Analysis of EPH under the Massachusetts Contingency Plan, WSC-CAM-IVB, July 2010.
- 100 Method for the Determination of Volatile Petroleum Hydrocarbons (VPH), MassDEP, May 2004, Revision 1.1 with QC Requirements & Performance Standards for the Analysis of VPH under the Massachusetts Contingency Plan, WSC-CAM-IVA, July 2010.

## LIMITATION OF LIABILITIES

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

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



## Certification Information

Last revised December 11, 2013

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

#### Westborough Facility

**EPA 524.2:** Acetone, 2-Butanone (Methyl ethyl ketone (MEK)), Tert-butyl alcohol, 2-Hexanone, Tetrahydrofuran, 1,3,5-Trichlorobenzene, 4-Methyl-2-pentanone (MIBK), Carbon disulfide, Diethyl ether.

**EPA 8260C:** 1,2,4,5-Tetramethylbenzene, 4-Ethyltoluene, Iodomethane (methyl iodide), Methyl methacrylate, Azobenzene.

**EPA 8330A/B:** PETN, Picric Acid, Nitroglycerine, 2,6-DANT, 2,4-DANT.

**EPA 8270D:** 1-Methylnaphthalene, Dimethylnaphthalene, 1,4-Diphenylhydrazine.

**EPA 625:** 4-Chloroaniline, 4-Methylphenol.

**SM4500:** Soil: Total Phosphorus, TKN, NO<sub>2</sub>, NO<sub>3</sub>.

**EPA 9071:** Total Petroleum Hydrocarbons, Oil & Grease.

#### Mansfield Facility

**EPA 8270D:** Biphenyl.

**EPA TO-15:** Halothane, 2,4,4-Trimethyl-2-pentene, 2,4,4-Trimethyl-1-pentene, Thiophene, 2-Methylthiophene, 3-Methylthiophene, 2-Ethylthiophene, 1,2,3-Trimethylbenzene, Indan, Indene, 1,2,4,5-Tetramethylbenzene, Benzothiophene, 1-Methylnaphthalene.

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

#### Drinking Water

**EPA 200.8:** Sb,As,Ba,Be,Cd,Cr,Cu,Pb,Ni,Se,Tl; **EPA 200.7:** Ba,Be,Ca,Cd,Cr,Cu,Na; **EPA 245.1:** Mercury;

**EPA 300.0:** Nitrate-N, Fluoride, Sulfate; **EPA 353.2:** Nitrate-N, Nitrite-N; **SM4500NO3-F:** Nitrate-N, Nitrite-N; **SM4500F-C, SM4500CN-CE, EPA 180.1, SM2130B, SM4500CI-D, SM2320B, SM2540C, SM4500H-B**

**EPA 332:** Perchlorate.

**Microbiology:** **SM9215B; SM9223-P/A, SM9223B-Colilert-QT, Enterolert-QT.**

#### Non-Potable Water

**EPA 200.8:** Al,Sb,As,Be,Cd,Cr,Cu,Pb,Mn,Ni,Se,Ag,Tl,Zn;

**EPA 200.7:** Al,Sb,As,Be,Cd,Ca,Cr,Co,Cu,Fe,Pb,Mg,Mn,Mo,Ni,K,Se,Ag,Na,Sr,Ti,Tl,V,Zn;

**EPA 245.1, SM4500H,B, EPA 120.1, SM2510B, SM2540C, SM2340B, SM2320B, SM4500CL-E, SM4500F-BC, SM426C, SM4500NH3-BH, EPA 350.1:** Ammonia-N, **LACHAT 10-107-06-1-B:** Ammonia-N, **SM4500NO3-F, EPA 353.2:** Nitrate-N, **SM4500NH3-BC-NES, EPA 351.1, SM4500P-E, SM4500P-B, E, SM5220D, EPA 410.4, SM5210B, SM5310C, SM4500CL-D, EPA 1664, SM14 510AC, EPA 420.1, SM4500-CN-CE, SM2540D.**

**EPA 624:** Volatile Halocarbons & Aromatics,

**EPA 608:** Chlordane, Toxaphene, Aldrin, alpha-BHC, beta-BHC, gamma-BHC, delta-BHC, Dieldrin, DDD, DDE, DDT, Endosulfan I, Endosulfan II, Endosulfan sulfate, Endrin, Endrin Aldehyde, Heptachlor, Heptachlor Epoxide, PCBs

**EPA 625:** SVOC (Acid/Base/Neutral Extractables), **EPA 600/4-81-045:** PCB-Oil.

**Microbiology:** **SM9223B-Colilert-QT; Enterolert-QT, SM9222D-MF.**

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



Haley & Aldrich, Inc.  
465 Medford St.,  
Suite 2200,  
Boston, MA 02129-1400

# CHAIN OF CUSTODY RECORD

Phone (617) 886-7400  
Fax (617) 886-7600  
Page 1 of 1

H&A FILE NO. 34250-021 LABORATORY Alpha DELIVERY DATE 12/6/13  
PROJECT NAME 100 Binney St ADDRESS Westboro TURNAROUND TIME STD  
H&A CONTACT R. Higgins CONTACT Gina PROJECT MANAGER R. Higgins

Sample No.	Date	Time	Depth	Type	Analysis Requested												Number of Containers	Comments (special instructions, precautions, additional method numbers, etc.)	
					VOA	§270	MCP Metals	Pesticides PCBs	VPH	C-ranges only	EPH	C-ranges only	TPH (specifc)	TCLP (specifc)	Reactivity	Stability			Commissibility
HA-401 (bw)	12/6/13	1005	-	AD	X	X				X	X							10	Laboratory to use applicable DEP CAM methods, unless otherwise directed. VOCs 8260 SVOCs 8270 EPH C-Ranges only VPH C-Ranges only
HA-402 (bw)	↓	1200	-	↓	X	X				X	X							10	
Trip blank	-	-	-	AD	X													1	

Sampled and Relinquished by \_\_\_\_\_ Received by \_\_\_\_\_ LIQUID \_\_\_\_\_ Sampling Comments \_\_\_\_\_

Sign S. Poverini Sign M. Cullen  
Print S. Poverini Print M. Cullen  
Firm H&A Firm Alpha  
Date 12/6/13 Time \_\_\_\_\_ Date 12/6/13 Time 16:30  
Relinquished by \_\_\_\_\_ Received by \_\_\_\_\_  
Sign M. Cullen Sign Wayne Pinner  
Print M. Cullen Print Wayne Pinner  
Firm H&A Firm Alpha  
Date 12/6/13 Time 16:30 Date 12/6/13 Time 16:30

Relinquished by \_\_\_\_\_ Received by \_\_\_\_\_  
Sign Wayne Pinner Sign Elizabeth Pinner  
Print Wayne Pinner Print Elizabeth Pinner  
Firm Alpha Firm Alpha  
Date 12/6/13 Time 18:55 Date 12/6/13 Time 18:55

Presumptive Certainty Data Package (Laboratory to use applicable DEP CAM methods)

A Sample chilled C NaOH E H<sub>2</sub>SO<sub>4</sub> G Methanol  
B Sample filtered D HNO<sub>3</sub> F HCL H Water/NaHSO<sub>4</sub> (circle)

If Presumptive Certainty Data Package is needed, initial all sections:  
The required minimum field QC samples, as designated in BWSC CAM-VII have been or will be collected, as appropriate, to meet the requirements of Presumptive Certainty.  
Matrix Spike (MS) samples for MCP Metals and/or Cyanide are included and identified herein.  
This Chain of Custody Record (specify) \_\_\_\_\_ includes \_\_\_\_\_ does not include samples defined as Drinking Water Samples.  
If this Chain of Custody Record identifies samples defined as Drinking Water Samples, Trip Blanks and Field Duplicates are included and identified and analysis of TICs are required, as appropriate. Laboratory should (specify if applicable) \_\_\_\_\_ analyze

Required Reporting Limits and Data Quality Objectives

RC-S1  S1  GW1  
 RC-S2  S2  GW2  
 RC-GW1  S3  GW3  
 RC-GW2



7A  
Volatile Organics CONTINUING CALIBRATION CHECK

Lab Name: Alpha Analytical Labs

SDG No.: L1324863

Instrument ID: Quimby.i      Calibration Date: 11-DEC-2013      Time: 04:53

Lab File ID: 1211A03      Init. Calib. Date(s): 02-DEC-2      02-DEC-2

Sample No: CCAL      Init. Calib. Times : 10:03      15:50

Compound	RRF	RRF	MIN RRF	%D	MAX %D	
dichlorodifluoromethane	.33667	.19413	.1	42	20	F
chloromethane	.6764	.6756	.1	0	20	
vinyl chloride	.43903	.50028	.1	-14	20	
bromomethane	100	104	.1	-4	20	
chloroethane	.32771	.3317	.1	-1	20	
trichlorofluoromethane	.51775	.59364	.1	-15	20	
ethyl ether	.19326	.18169	.05	6	20	
acrolein	.06022	.07119	.05	-18	20	
freon-113	.38743	.37555	.1	3	20	
acetone	100	142	.1	-42	20	F
1,1,-dichloroethene	.37169	.3349	.1	10	20	
tert-butyl alcohol	.02481	.01691	.05	32	20	F
iodomethane	.55083	.37612	.05	32	20	F
methyl acetate	.22623	.2495	.01	-10	20	
methylene chloride	.42705	.41367	.1	3	20	
carbon disulfide	1.1174	.99995	.1	11	20	
acrylonitrile	.13122	.14825	.05	-13	20	
methyl tert butyl ether	.85883	.7164	.1	17	20	
Halothane	.29836	.28428	.05	5	20	
trans-1,2-dichloroethene	.41007	.37519	.1	9	20	
Diisopropyl Ether	1.7709	2.0740	.05	-17	20	
vinyl acetate	100	105	.05	-5	20	
1,1-dichloroethane	.91641	.90097	.2	2	20	
Ethyl-Tert-Butyl-Ether	1.4665	1.1759	.05	20	20	
2-butanone	.15206	.1746	.1	-15	20	
2,2-dichloropropane	.52151	.32525	.05	38	20	F
ethyl acetate	.28868	.35374	.05	-23	20	F
cis-1,2-dichloroethene	.45034	.41272	.1	8	20	
chloroform	.73865	.72956	.2	1	20	
bromochloromethane	.18701	.1648	.05	12	20	
tetrahydrofuran	.08819	.10598	.05	-20	20	F
1,1,1-trichloroethane	.59425	.56081	.1	6	20	
cyclohexane	1.1204	1.1694	.01	-4	30	
1,1-dichloropropene	.59915	.60034	.05	0	20	
carbontetrachloride	.36057	.35599	.1	1	20	
Tertiary-Amyl Methyl Ether	.94321	.71606	.05	24	20	F
1,2-dichloroethane	.5889	.63189	.1	-7	20	
benzene	1.7558	1.6911	.5	4	20	

FORM VII MCP-8260-10

7A  
CONTINUING CALIBRATION CHECK

Lab Name: Alpha Analytical Labs

SDG No.: L1324863

Instrument ID: Quimby.i      Calibration Date: 11-DEC-2013      Time: 04:53

Lab File ID: 1211A03      Init. Calib. Date(s): 02-DEC-2      02-DEC-2

Sample No: CCAL      Init. Calib. Times : 10:03      15:50

Compound	RRF	RRF	MIN RRF	%D	MAX %D
=====	=====	=====	=====	=====	=====
trichloroethene	.42209	.4059	.2	4	20
methyl cyclohexane	.78824	.75099	.01	5	30
1,2-dichloropropane	.51808	.49638	.1	4	20
bromodichloromethane	.47704	.48663	.2	-2	20
1,4-dioxane	.00234	.00229	.05	2	20
dibromomethane	.20258	.19293	.05	5	20
2-chloroethylvinyl ether	.18487	.14808	.05	20	20
4-methyl-2-pentanone	.1253	.12054	.1	4	20
cis-1,3-dichloropropene	.59794	.50156	.2	16	20
toluene	1.3913	1.325	.4	5	20
ethyl-methacrylate	.4801	.42469	.01	12	30
trans-1,3-dichloropropene	.57918	.4447	.1	23	20
2-hexanone	.25077	.30535	.1	-22	20
1,1,2-trichloroethane	.29534	.29326	.1	1	20
1,3-dichloropropane	.66908	.65442	.05	2	20
tetrachloroethene	.56268	.5337	.2	5	20
chlorodibromomethane	.33124	.34389	.1	-4	20
1,2-dibromoethane	.35544	.30583	.1	14	20
chlorobenzene	1.5267	1.4225	.5	7	20
1,1,1,2-tetrachloroethane	.41885	.38538	.05	8	20
ethyl benzene	2.6823	2.7417	.1	-2	20
p/m xylene	1.0951	1.0653	.1	3	20
o xylene	1.0459	1.0128	.3	3	20
styrene	1.6684	1.6775	.31	-1	20
isopropylbenzene	2.8195	2.8445	.1	-1	20
bromoform	100	115	.1	-15	20
1,4-dichlorobutane	1.6483	1.7296	.01	-5	30
1,1,2,2,-tetrachloroethane	.74851	.73144	.3	2	20
1,2,3-trichloropropane	.59717	.59498	.05	0	20
trans-1,4-dichloro-2-butene	.29726	.30376	.05	-2	20
n-propylbenzene	5.6512	5.8039	.05	-3	20
bromobenzene	1.1381	1.0461	.05	8	20
4-ethyltoluene	2.4665	2.4121	.05	2	20
1,3,5-trimethylbenzene	4.3212	4.2985	.05	1	20
2-chlorotoluene	3.9490	3.9299	.05	0	20
4-chlorotoluene	3.6734	3.6299	.05	1	20
tert-butylbenzene	3.7036	3.5810	.05	3	20
1,2,4-trimethylbenzene	4.1448	4.0997	.05	1	20

F

F

F

FORM VII MCP-8260-10

7A  
CONTINUING CALIBRATION CHECK

Lab Name: Alpha Analytical Labs

SDG No.: L1324863

Instrument ID: Quimby.i      Calibration Date: 11-DEC-2013    Time: 04:53

Lab File ID: 1211A03      Init. Calib. Date(s): 02-DEC-2    02-DEC-2

Sample No: CCAL      Init. Calib. Times : 10:03      15:50

Compound	RRF	RRF	MIN RRF	%D	MAX %D
sec-butylbenzene	5.5130	5.5403	.05	0	20
p-isopropyltoluene	4.4733	4.4459	.05	1	20
1,3-dichlorobenzene	2.3282	2.1914	.6	6	20
1,4-dichlorobenzene	2.2891	2.1214	.5	7	20
n-butylbenzene	4.6800	4.8421	.05	-3	20
1,2,4,5-tetramethylbenzene	1.2129	1.1713	.05	3	20
1,2-dichlorobenzene	2.0433	1.9368	.4	5	20
p-diethylbenzene	1.6886	1.6202	.05	4	20
1,2-dibromo-3-chloropropane	.10417	.09329	.05	10	20
1,3,5-trichlorobenzene	1.4038	1.3216	.01	6	30
1,2,4-trichlorobenzene	1.1310	1.0209	.2	10	20
hexachlorobutadiene	.48876	.44463	.05	9	20
naphthalene	2.0500	1.872	.05	9	20
1,2,3-trichlorobenzene	.88242	.79132	.05	10	20
dibromofluoromethane	.23515	.23555	.05	0	20
1,2-dichloroethane-d4	.28931	.32598	.05	-13	20
toluene-d8	1.2050	1.2324	.05	-2	20
4-bromofluorobenzene	.95478	.95648	.05	0	20



## ANALYTICAL REPORT

Lab Number:	L1325310
Client:	Haley & Aldrich, Inc. 465 Medford Street, Suite 2200 Charlestown, MA 02129-1400
ATTN:	Rebecca Higgins
Phone:	(617) 886-7326
Project Name:	100 BINNEY STREET
Project Number:	34250-021
Report Date:	12/18/13

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.

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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:** 100 BINNEY STREET  
**Project Number:** 34250-021

**Lab Number:** L1325310  
**Report Date:** 12/18/13

<b>Alpha Sample ID</b>	<b>Client ID</b>	<b>Sample Location</b>	<b>Collection Date/Time</b>
L1325310-01	HA-403 (OW)	Not Specified	12/12/13 13:30
L1325310-02	TRIP BLANK	Not Specified	12/12/13 00:00

Project Name: 100 BINNEY STREET

Lab Number: L1325310

Project Number: 34250-021

Report Date: 12/18/13

**MADEP MCP Response Action Analytical Report Certification**

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

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

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



**Project Name:** 100 BINNEY STREET  
**Project Number:** 34250-021

**Lab Number:** L1325310  
**Report Date:** 12/18/13

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

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

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**Project Name:** 100 BINNEY STREET  
**Project Number:** 34250-021

**Lab Number:** L1325310  
**Report Date:** 12/18/13

### Case Narrative (continued)

#### MCP Related Narratives

##### Volatile Organics

In reference to question H:

The initial calibration, associated with L1325310-01 and -02 (all submitted samples), did not meet the method required minimum response factor on the lowest calibration standard for 4-methyl-2-pentanone (0.06504) and 1,4-dioxane (0.00253), as well as the average response factor for 4-methyl-2-pentanone and 1,4-dioxane. In addition, a quadratic fit was utilized for bromoform.

The continuing calibration standard, associated with L1325310-01 and -02 (all submitted samples), is outside the acceptance criteria for several compounds; however, it is within overall method allowances. A copy of the continuing calibration standard is included as an addendum to this report.

##### Semivolatile Organics

In reference to question H:

The WG659040-2/-3 LCS/LCSD recoveries, associated with L1325310-01 (HA-403 (OW)), are above the acceptance criteria for bis(2-chloroethyl)ether (LCS at 141%), 2,4-dinitrotoluene (158%/145%), 2,6-dinitrotoluene (LCS at 152%), azobenzene (LCS at 147%), 4-bromophenyl phenyl ether (LCS at 151%), bis(2-chloroisopropyl)ether (LCS at 148%), bis(2-chloroethoxy)methane (LCS at 143%), nitrobenzene (159%/147%), bis(2-ethylhexyl)phthalate (164%/150%), butyl benzyl phthalate (LCS at 146%), di-n-butylphthalate (158%/146%), di-n-octylphthalate (165%/151%), diethyl phthalate (155%/146%), dimethyl phthalate (165%/152%), dibenzofuran (154%/141%), acetophenone (163%/154%), 2,4,6-trichlorophenol (143%/133%), 2-chlorophenol (156%/146%), 2,4-dichlorophenol (154%/143%), 2-nitrophenol (145%/138%), 2,4-dinitrophenol (158%/150%), 2-methylphenol (LCS at 135%), 3-methylphenol/4-methylphenol (LCS at 131%) and 2,4,5-trichlorophenol (142%/132%); however, the associated sample is non-detect for these target compounds. The results of the original analysis are reported.

##### Semivolatile Organics - SIM

In reference to question H:

The WG659042-2/-3 LCS/LCSD recoveries, associated with L1325310-01, are above the acceptance criteria



**Project Name:** 100 BINNEY STREET  
**Project Number:** 34250-021

**Lab Number:** L1325310  
**Report Date:** 12/18/13

**Case Narrative (continued)**

for benzo(a)anthracene (LCS at 141%), benzo(b)fluoranthene (LCS at 141%), benzo(k)fluoranthene (LCS at 144%) and pentachlorophenol (162%/152%); however, the associated sample is non-detect for these target compounds. The results of the original analysis are reported.

VPH

In reference to question I:

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

EPH

In reference to question I:

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

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

Authorized Signature:  Cynthia McQueen

Title: Technical Director/Representative

Date: 12/18/13

# ORGANICS

# VOLATILES

**Project Name:** 100 BINNEY STREET**Lab Number:** L1325310**Project Number:** 34250-021**Report Date:** 12/18/13**SAMPLE RESULTS**

**Lab ID:** L1325310-01  
**Client ID:** HA-403 (OW)  
**Sample Location:** Not Specified  
**Matrix:** Water  
**Analytical Method:** 97,8260C  
**Analytical Date:** 12/16/13 10:30  
**Analyst:** MM

**Date Collected:** 12/12/13 13:30  
**Date Received:** 12/12/13  
**Field Prep:** Not Specified

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

Project Name: 100 BINNEY STREET

Lab Number: L1325310

Project Number: 34250-021

Report Date: 12/18/13

## SAMPLE RESULTS

Lab ID: L1325310-01

Date Collected: 12/12/13 13:30

Client ID: HA-403 (OW)

Date Received: 12/12/13

Sample Location: Not Specified

Field Prep: Not Specified

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

**Project Name:** 100 BINNEY STREET**Lab Number:** L1325310**Project Number:** 34250-021**Report Date:** 12/18/13**SAMPLE RESULTS**

Lab ID: L1325310-01

Date Collected: 12/12/13 13:30

Client ID: HA-403 (OW)

Date Received: 12/12/13

Sample Location: Not Specified

Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
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## MCP Volatile Organics - Westborough Lab

1,4-Dioxane	ND		ug/l	250	--	1
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Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	117		70-130
Toluene-d8	102		70-130
4-Bromofluorobenzene	102		70-130
Dibromofluoromethane	103		70-130

**Project Name:** 100 BINNEY STREET**Lab Number:** L1325310**Project Number:** 34250-021**Report Date:** 12/18/13**SAMPLE RESULTS**

Lab ID: L1325310-02  
 Client ID: TRIP BLANK  
 Sample Location: Not Specified  
 Matrix: Water  
 Analytical Method: 97,8260C  
 Analytical Date: 12/16/13 09:58  
 Analyst: MM

Date Collected: 12/12/13 00:00  
 Date Received: 12/12/13  
 Field Prep: Not Specified

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

Project Name: 100 BINNEY STREET

Lab Number: L1325310

Project Number: 34250-021

Report Date: 12/18/13

## SAMPLE RESULTS

Lab ID: L1325310-02

Date Collected: 12/12/13 00:00

Client ID: TRIP BLANK

Date Received: 12/12/13

Sample Location: Not Specified

Field Prep: Not Specified

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



**Project Name:** 100 BINNEY STREET**Lab Number:** L1325310**Project Number:** 34250-021**Report Date:** 12/18/13**SAMPLE RESULTS**

Lab ID: L1325310-02

Date Collected: 12/12/13 00:00

Client ID: TRIP BLANK

Date Received: 12/12/13

Sample Location: Not Specified

Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
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## MCP Volatile Organics - Westborough Lab

1,4-Dioxane	ND		ug/l	250	--	1
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Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	116		70-130
Toluene-d8	101		70-130
4-Bromofluorobenzene	102		70-130
Dibromofluoromethane	103		70-130

**Project Name:** 100 BINNEY STREET  
**Project Number:** 34250-021

**Lab Number:** L1325310  
**Report Date:** 12/18/13

**Method Blank Analysis**  
**Batch Quality Control**

Analytical Method: 97,8260C  
Analytical Date: 12/16/13 07:20  
Analyst: MM

Parameter	Result	Qualifier	Units	RL	MDL
MCP Volatile Organics - Westborough Lab for sample(s): 01-02 Batch: WG659260-3					
Methylene chloride	ND		ug/l	2.0	--
1,1-Dichloroethane	ND		ug/l	1.0	--
Chloroform	ND		ug/l	1.0	--
Carbon tetrachloride	ND		ug/l	1.0	--
1,2-Dichloropropane	ND		ug/l	1.0	--
Dibromochloromethane	ND		ug/l	1.0	--
1,1,2-Trichloroethane	ND		ug/l	1.0	--
Tetrachloroethene	ND		ug/l	1.0	--
Chlorobenzene	ND		ug/l	1.0	--
Trichlorofluoromethane	ND		ug/l	2.0	--
1,2-Dichloroethane	ND		ug/l	1.0	--
1,1,1-Trichloroethane	ND		ug/l	1.0	--
Bromodichloromethane	ND		ug/l	1.0	--
trans-1,3-Dichloropropene	ND		ug/l	0.50	--
cis-1,3-Dichloropropene	ND		ug/l	0.50	--
1,1-Dichloropropene	ND		ug/l	2.0	--
Bromoform	ND		ug/l	2.0	--
1,1,2,2-Tetrachloroethane	ND		ug/l	1.0	--
Benzene	ND		ug/l	0.50	--
Toluene	ND		ug/l	1.0	--
Ethylbenzene	ND		ug/l	1.0	--
Chloromethane	ND		ug/l	2.0	--
Bromomethane	ND		ug/l	2.0	--
Vinyl chloride	ND		ug/l	1.0	--
Chloroethane	ND		ug/l	2.0	--
1,1-Dichloroethene	ND		ug/l	1.0	--
trans-1,2-Dichloroethene	ND		ug/l	1.0	--
Trichloroethene	ND		ug/l	1.0	--
1,2-Dichlorobenzene	ND		ug/l	1.0	--
1,3-Dichlorobenzene	ND		ug/l	1.0	--
1,4-Dichlorobenzene	ND		ug/l	1.0	--



**Project Name:** 100 BINNEY STREET  
**Project Number:** 34250-021

**Lab Number:** L1325310  
**Report Date:** 12/18/13

**Method Blank Analysis**  
**Batch Quality Control**

Analytical Method: 97,8260C  
Analytical Date: 12/16/13 07:20  
Analyst: MM

Parameter	Result	Qualifier	Units	RL	MDL
MCP Volatile Organics - Westborough Lab for sample(s): 01-02 Batch: WG659260-3					
Methyl tert butyl ether	ND		ug/l	2.0	--
p/m-Xylene	ND		ug/l	2.0	--
o-Xylene	ND		ug/l	1.0	--
cis-1,2-Dichloroethene	ND		ug/l	1.0	--
Dibromomethane	ND		ug/l	2.0	--
1,2,3-Trichloropropane	ND		ug/l	2.0	--
Styrene	ND		ug/l	1.0	--
Dichlorodifluoromethane	ND		ug/l	2.0	--
Acetone	ND		ug/l	5.0	--
Carbon disulfide	ND		ug/l	2.0	--
2-Butanone	ND		ug/l	5.0	--
4-Methyl-2-pentanone	ND		ug/l	5.0	--
2-Hexanone	ND		ug/l	5.0	--
Bromochloromethane	ND		ug/l	2.0	--
Tetrahydrofuran	ND		ug/l	2.0	--
2,2-Dichloropropane	ND		ug/l	2.0	--
1,2-Dibromoethane	ND		ug/l	2.0	--
1,3-Dichloropropane	ND		ug/l	2.0	--
1,1,1,2-Tetrachloroethane	ND		ug/l	1.0	--
Bromobenzene	ND		ug/l	2.0	--
n-Butylbenzene	ND		ug/l	2.0	--
sec-Butylbenzene	ND		ug/l	2.0	--
tert-Butylbenzene	ND		ug/l	2.0	--
o-Chlorotoluene	ND		ug/l	2.0	--
p-Chlorotoluene	ND		ug/l	2.0	--
1,2-Dibromo-3-chloropropane	ND		ug/l	2.0	--
Hexachlorobutadiene	ND		ug/l	0.60	--
Isopropylbenzene	ND		ug/l	2.0	--
p-Isopropyltoluene	ND		ug/l	2.0	--
Naphthalene	ND		ug/l	2.0	--
n-Propylbenzene	ND		ug/l	2.0	--



**Project Name:** 100 BINNEY STREET  
**Project Number:** 34250-021

**Lab Number:** L1325310  
**Report Date:** 12/18/13

**Method Blank Analysis**  
**Batch Quality Control**

Analytical Method: 97,8260C  
 Analytical Date: 12/16/13 07:20  
 Analyst: MM

Parameter	Result	Qualifier	Units	RL	MDL
MCP Volatile Organics - Westborough Lab for sample(s): 01-02 Batch: WG659260-3					
1,2,3-Trichlorobenzene	ND		ug/l	2.0	--
1,2,4-Trichlorobenzene	ND		ug/l	2.0	--
1,3,5-Trimethylbenzene	ND		ug/l	2.0	--
1,2,4-Trimethylbenzene	ND		ug/l	2.0	--
Ethyl ether	ND		ug/l	2.0	--
Isopropyl Ether	ND		ug/l	2.0	--
Ethyl-Tert-Butyl-Ether	ND		ug/l	2.0	--
Tertiary-Amyl Methyl Ether	ND		ug/l	2.0	--
1,4-Dioxane	ND		ug/l	250	--

Surrogate	%Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	114		70-130
Toluene-d8	102		70-130
4-Bromofluorobenzene	104		70-130
Dibromofluoromethane	102		70-130

## Lab Control Sample Analysis

### Batch Quality Control

Project Name: 100 BINNEY STREET

Lab Number: L1325310

Project Number: 34250-021

Report Date: 12/18/13

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
MCP Volatile Organics - Westborough Lab Associated sample(s): 01-02 Batch: WG659260-1 WG659260-2								
Methylene chloride	93		92		70-130	1		20
1,1-Dichloroethane	103		102		70-130	1		20
Chloroform	102		102		70-130	0		20
Carbon tetrachloride	83		93		70-130	11		20
1,2-Dichloropropane	99		101		70-130	2		20
Dibromochloromethane	100		106		70-130	6		20
1,1,2-Trichloroethane	105		105		70-130	0		20
Tetrachloroethene	98		95		70-130	3		20
Chlorobenzene	100		98		70-130	2		20
Trichlorofluoromethane	112		112		70-130	0		20
1,2-Dichloroethane	107		108		70-130	1		20
1,1,1-Trichloroethane	92		96		70-130	4		20
Bromodichloromethane	104		108		70-130	4		20
trans-1,3-Dichloropropene	76		80		70-130	5		20
cis-1,3-Dichloropropene	84		88		70-130	5		20
1,1-Dichloropropene	94		92		70-130	2		20
Bromoform	112		120		70-130	7		20
1,1,2,2-Tetrachloroethane	98		99		70-130	1		20
Benzene	98		97		70-130	1		20
Toluene	99		96		70-130	3		20
Ethylbenzene	107		105		70-130	2		20

## Lab Control Sample Analysis

### Batch Quality Control

Project Name: 100 BINNEY STREET

Lab Number: L1325310

Project Number: 34250-021

Report Date: 12/18/13

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
MCP Volatile Organics - Westborough Lab Associated sample(s): 01-02 Batch: WG659260-1 WG659260-2								
Chloromethane	112		108		70-130	4		20
Bromomethane	116		116		70-130	0		20
Vinyl chloride	107		104		70-130	3		20
Chloroethane	99		96		70-130	3		20
1,1-Dichloroethene	94		93		70-130	1		20
trans-1,2-Dichloroethene	95		95		70-130	0		20
Trichloroethene	102		101		70-130	1		20
1,2-Dichlorobenzene	97		96		70-130	1		20
1,3-Dichlorobenzene	97		95		70-130	2		20
1,4-Dichlorobenzene	96		94		70-130	2		20
Methyl tert butyl ether	92		93		70-130	1		20
p/m-Xylene	102		100		70-130	2		20
o-Xylene	104		102		70-130	2		20
cis-1,2-Dichloroethene	93		92		70-130	1		20
Dibromomethane	92		95		70-130	3		20
1,2,3-Trichloropropane	102		102		70-130	0		20
Styrene	109		108		70-130	1		20
Dichlorodifluoromethane	78		74		70-130	5		20
Acetone	130		126		70-130	3		20
Carbon disulfide	83		83		70-130	0		20
2-Butanone	114		116		70-130	2		20

## Lab Control Sample Analysis

### Batch Quality Control

Project Name: 100 BINNEY STREET

Lab Number: L1325310

Project Number: 34250-021

Report Date: 12/18/13

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
MCP Volatile Organics - Westborough Lab Associated sample(s): 01-02 Batch: WG659260-1 WG659260-2								
4-Methyl-2-pentanone	107		112		70-130	5		20
2-Hexanone	133	Q	138	Q	70-130	4		20
Bromochloromethane	88		88		70-130	0		20
Tetrahydrofuran	128		129		70-130	1		20
2,2-Dichloropropane	56	Q	60	Q	70-130	7		20
1,2-Dibromoethane	84		85		70-130	1		20
1,3-Dichloropropane	100		100		70-130	0		20
1,1,1,2-Tetrachloroethane	92		98		70-130	6		20
Bromobenzene	98		96		70-130	2		20
n-Butylbenzene	111		108		70-130	3		20
sec-Butylbenzene	104		101		70-130	3		20
tert-Butylbenzene	101		98		70-130	3		20
o-Chlorotoluene	104		102		70-130	2		20
p-Chlorotoluene	103		100		70-130	3		20
1,2-Dibromo-3-chloropropane	84		96		70-130	13		20
Hexachlorobutadiene	94		91		70-130	3		20
Isopropylbenzene	105		103		70-130	2		20
p-Isopropyltoluene	104		102		70-130	2		20
Naphthalene	88		89		70-130	1		20
n-Propylbenzene	112		109		70-130	3		20
1,2,3-Trichlorobenzene	89		89		70-130	0		20

## Lab Control Sample Analysis

### Batch Quality Control

Project Name: 100 BINNEY STREET

Lab Number: L1325310

Project Number: 34250-021

Report Date: 12/18/13

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
MCP Volatile Organics - Westborough Lab Associated sample(s): 01-02 Batch: WG659260-1 WG659260-2								
1,2,4-Trichlorobenzene	89		89		70-130	0		20
1,3,5-Trimethylbenzene	104		102		70-130	2		20
1,2,4-Trimethylbenzene	107		105		70-130	2		20
Ethyl ether	108		107		70-130	1		20
Isopropyl Ether	124		126		70-130	2		20
Ethyl-Tert-Butyl-Ether	86		87		70-130	1		20
Tertiary-Amyl Methyl Ether	82		83		70-130	1		20
1,4-Dioxane	105		101		70-130	4		20

Surrogate	LCS %Recovery	Qual	LCSD %Recovery	Qual	Acceptance Criteria
1,2-Dichloroethane-d4	111		111		70-130
Toluene-d8	103		102		70-130
4-Bromofluorobenzene	100		99		70-130
Dibromofluoromethane	103		103		70-130



# SEMIVOLATILES

**Project Name:** 100 BINNEY STREET**Lab Number:** L1325310**Project Number:** 34250-021**Report Date:** 12/18/13**SAMPLE RESULTS**

**Lab ID:** L1325310-01  
**Client ID:** HA-403 (OW)  
**Sample Location:** Not Specified  
**Matrix:** Water  
**Analytical Method:** 97,8270D  
**Analytical Date:** 12/16/13 17:20  
**Analyst:** JB

**Date Collected:** 12/12/13 13:30  
**Date Received:** 12/12/13  
**Field Prep:** Not Specified  
**Extraction Method:** EPA 3510C  
**Extraction Date:** 12/14/13 08:53

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
<b>MCP Semivolatile Organics - Westborough Lab</b>						
1,2,4-Trichlorobenzene	ND		ug/l	5.0	--	1
Bis(2-chloroethyl)ether	ND		ug/l	2.0	--	1
1,2-Dichlorobenzene	ND		ug/l	2.0	--	1
1,3-Dichlorobenzene	ND		ug/l	2.0	--	1
1,4-Dichlorobenzene	ND		ug/l	2.0	--	1
3,3'-Dichlorobenzidine	ND		ug/l	5.0	--	1
2,4-Dinitrotoluene	ND		ug/l	5.0	--	1
2,6-Dinitrotoluene	ND		ug/l	5.0	--	1
Azobenzene	ND		ug/l	2.0	--	1
4-Bromophenyl phenyl ether	ND		ug/l	2.0	--	1
Bis(2-chloroisopropyl)ether	ND		ug/l	2.0	--	1
Bis(2-chloroethoxy)methane	ND		ug/l	5.0	--	1
Isophorone	ND		ug/l	5.0	--	1
Nitrobenzene	ND		ug/l	2.0	--	1
Bis(2-Ethylhexyl)phthalate	ND		ug/l	3.0	--	1
Butyl benzyl phthalate	ND		ug/l	5.0	--	1
Di-n-butylphthalate	ND		ug/l	5.0	--	1
Di-n-octylphthalate	ND		ug/l	5.0	--	1
Diethyl phthalate	ND		ug/l	5.0	--	1
Dimethyl phthalate	ND		ug/l	5.0	--	1
Aniline	ND		ug/l	2.0	--	1
4-Chloroaniline	ND		ug/l	5.0	--	1
Dibenzofuran	ND		ug/l	2.0	--	1
Acetophenone	ND		ug/l	5.0	--	1
2,4,6-Trichlorophenol	ND		ug/l	5.0	--	1
2-Chlorophenol	ND		ug/l	2.0	--	1
2,4-Dichlorophenol	ND		ug/l	5.0	--	1
2,4-Dimethylphenol	ND		ug/l	5.0	--	1
2-Nitrophenol	ND		ug/l	10	--	1
4-Nitrophenol	ND		ug/l	10	--	1
2,4-Dinitrophenol	ND		ug/l	20	--	1

**Project Name:** 100 BINNEY STREET**Lab Number:** L1325310**Project Number:** 34250-021**Report Date:** 12/18/13**SAMPLE RESULTS**

Lab ID: L1325310-01

Date Collected: 12/12/13 13:30

Client ID: HA-403 (OW)

Date Received: 12/12/13

Sample Location: Not Specified

Field Prep: Not Specified

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

Surrogate	% Recovery	Qualifier	Acceptance Criteria
2-Fluorophenol	72		15-110
Phenol-d6	50		15-110
Nitrobenzene-d5	129		30-130
2-Fluorobiphenyl	118		30-130
2,4,6-Tribromophenol	105		15-110
4-Terphenyl-d14	<b>139</b>	Q	30-130

**Project Name:** 100 BINNEY STREET  
**Project Number:** 34250-021

**Lab Number:** L1325310  
**Report Date:** 12/18/13

**SAMPLE RESULTS**

Lab ID: L1325310-01  
 Client ID: HA-403 (OW)  
 Sample Location: Not Specified  
 Matrix: Water  
 Analytical Method: 97,8270D-SIM  
 Analytical Date: 12/16/13 13:58  
 Analyst: HL

Date Collected: 12/12/13 13:30  
 Date Received: 12/12/13  
 Field Prep: Not Specified  
 Extraction Method: EPA 3510C  
 Extraction Date: 12/14/13 08:51

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

Surrogate	% Recovery	Qualifier	Acceptance Criteria
2-Fluorophenol	55		15-110
Phenol-d6	41		15-110
Nitrobenzene-d5	111		30-130
2-Fluorobiphenyl	98		30-130
2,4,6-Tribromophenol	102		15-110
4-Terphenyl-d14	122		30-130

**Project Name:** 100 BINNEY STREET  
**Project Number:** 34250-021

**Lab Number:** L1325310  
**Report Date:** 12/18/13

**Method Blank Analysis**  
**Batch Quality Control**

**Analytical Method:** 97,8270D  
**Analytical Date:** 12/16/13 14:15  
**Analyst:** JB

**Extraction Method:** EPA 3510C  
**Extraction Date:** 12/14/13 08:53

Parameter	Result	Qualifier	Units	RL	MDL
MCP Semivolatile Organics - Westborough Lab for sample(s): 01 Batch: WG659040-1					
1,2,4-Trichlorobenzene	ND		ug/l	5.0	--
Bis(2-chloroethyl)ether	ND		ug/l	2.0	--
1,2-Dichlorobenzene	ND		ug/l	2.0	--
1,3-Dichlorobenzene	ND		ug/l	2.0	--
1,4-Dichlorobenzene	ND		ug/l	2.0	--
3,3'-Dichlorobenzidine	ND		ug/l	5.0	--
2,4-Dinitrotoluene	ND		ug/l	5.0	--
2,6-Dinitrotoluene	ND		ug/l	5.0	--
Azobenzene	ND		ug/l	2.0	--
4-Bromophenyl phenyl ether	ND		ug/l	2.0	--
Bis(2-chloroisopropyl)ether	ND		ug/l	2.0	--
Bis(2-chloroethoxy)methane	ND		ug/l	5.0	--
Isophorone	ND		ug/l	5.0	--
Nitrobenzene	ND		ug/l	2.0	--
Bis(2-Ethylhexyl)phthalate	ND		ug/l	3.0	--
Butyl benzyl phthalate	ND		ug/l	5.0	--
Di-n-butylphthalate	ND		ug/l	5.0	--
Di-n-octylphthalate	ND		ug/l	5.0	--
Diethyl phthalate	ND		ug/l	5.0	--
Dimethyl phthalate	ND		ug/l	5.0	--
Aniline	ND		ug/l	2.0	--
4-Chloroaniline	ND		ug/l	5.0	--
Dibenzofuran	ND		ug/l	2.0	--
Acetophenone	ND		ug/l	5.0	--
2,4,6-Trichlorophenol	ND		ug/l	5.0	--
2-Chlorophenol	ND		ug/l	2.0	--
2,4-Dichlorophenol	ND		ug/l	5.0	--
2,4-Dimethylphenol	ND		ug/l	5.0	--
2-Nitrophenol	ND		ug/l	10	--
4-Nitrophenol	ND		ug/l	10	--
2,4-Dinitrophenol	ND		ug/l	20	--



**Project Name:** 100 BINNEY STREET  
**Project Number:** 34250-021

**Lab Number:** L1325310  
**Report Date:** 12/18/13

**Method Blank Analysis  
 Batch Quality Control**

**Analytical Method:** 97,8270D  
**Analytical Date:** 12/16/13 14:15  
**Analyst:** JB

**Extraction Method:** EPA 3510C  
**Extraction Date:** 12/14/13 08:53

Parameter	Result	Qualifier	Units	RL	MDL
MCP Semivolatile Organics - Westborough Lab for sample(s): 01 Batch: WG659040-1					
Phenol	ND		ug/l	5.0	--
2-Methylphenol	ND		ug/l	5.0	--
3-Methylphenol/4-Methylphenol	ND		ug/l	5.0	--
2,4,5-Trichlorophenol	ND		ug/l	5.0	--

Surrogate	%Recovery	Qualifier	Acceptance Criteria
2-Fluorophenol	86		15-110
Phenol-d6	47		15-110
Nitrobenzene-d5	125		30-130
2-Fluorobiphenyl	116		30-130
2,4,6-Tribromophenol	108		15-110
4-Terphenyl-d14	129		30-130

**Project Name:** 100 BINNEY STREET  
**Project Number:** 34250-021

**Lab Number:** L1325310  
**Report Date:** 12/18/13

**Method Blank Analysis**  
**Batch Quality Control**

**Analytical Method:** 97,8270D-SIM  
**Analytical Date:** 12/16/13 11:00  
**Analyst:** HL

**Extraction Method:** EPA 3510C  
**Extraction Date:** 12/14/13 08:51

Parameter	Result	Qualifier	Units	RL	MDL
MCP Semivolatile Organics by SIM - Westborough Lab for sample(s): 01 Batch: WG659042-1					
Acenaphthene	ND		ug/l	0.20	--
2-Chloronaphthalene	ND		ug/l	0.20	--
Fluoranthene	ND		ug/l	0.20	--
Hexachlorobutadiene	ND		ug/l	0.50	--
Naphthalene	ND		ug/l	0.20	--
Benzo(a)anthracene	ND		ug/l	0.20	--
Benzo(a)pyrene	ND		ug/l	0.20	--
Benzo(b)fluoranthene	ND		ug/l	0.20	--
Benzo(k)fluoranthene	ND		ug/l	0.20	--
Chrysene	ND		ug/l	0.20	--
Acenaphthylene	ND		ug/l	0.20	--
Anthracene	ND		ug/l	0.20	--
Benzo(ghi)perylene	ND		ug/l	0.20	--
Fluorene	ND		ug/l	0.20	--
Phenanthrene	ND		ug/l	0.20	--
Dibenzo(a,h)anthracene	ND		ug/l	0.20	--
Indeno(1,2,3-cd)Pyrene	ND		ug/l	0.20	--
Pyrene	ND		ug/l	0.20	--
2-Methylnaphthalene	ND		ug/l	0.20	--
Pentachlorophenol	ND		ug/l	0.80	--
Hexachlorobenzene	ND		ug/l	0.80	--
Hexachloroethane	ND		ug/l	0.80	--

Project Name: 100 BINNEY STREET

Lab Number: L1325310

Project Number: 34250-021

Report Date: 12/18/13

**Method Blank Analysis**  
**Batch Quality Control**

Analytical Method: 97,8270D-SIM

Extraction Method: EPA 3510C

Analytical Date: 12/16/13 11:00

Extraction Date: 12/14/13 08:51

Analyst: HL

Parameter	Result	Qualifier	Units	RL	MDL
MCP Semivolatile Organics by SIM - Westborough Lab for sample(s): 01 Batch: WG659042-1					

Surrogate	%Recovery	Qualifier	Acceptance Criteria
2-Fluorophenol	61		15-110
Phenol-d6	42		15-110
Nitrobenzene-d5	113		30-130
2-Fluorobiphenyl	106		30-130
2,4,6-Tribromophenol	<b>112</b>	Q	15-110
4-Terphenyl-d14	119		30-130



## Lab Control Sample Analysis

### Batch Quality Control

Project Name: 100 BINNEY STREET

Lab Number: L1325310

Project Number: 34250-021

Report Date: 12/18/13

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
MCP Semivolatile Organics - Westborough Lab Associated sample(s): 01 Batch: WG659040-2 WG659040-3								
1,2,4-Trichlorobenzene	135		126		40-140	7		20
Bis(2-chloroethyl)ether	141	Q	130		40-140	8		20
1,2-Dichlorobenzene	128		122		40-140	5		20
1,3-Dichlorobenzene	124		118		40-140	5		20
1,4-Dichlorobenzene	125		120		40-140	4		20
3,3'-Dichlorobenzidine	84		82		40-140	2		20
2,4-Dinitrotoluene	158	Q	145	Q	40-140	9		20
2,6-Dinitrotoluene	152	Q	139		40-140	9		20
Azobenzene	147	Q	137		40-140	7		20
4-Bromophenyl phenyl ether	151	Q	140		40-140	8		20
Bis(2-chloroisopropyl)ether	148	Q	139		40-140	6		20
Bis(2-chloroethoxy)methane	143	Q	134		40-140	6		20
Isophorone	140		133		40-140	5		20
Nitrobenzene	159	Q	147	Q	40-140	8		20
Bis(2-Ethylhexyl)phthalate	164	Q	150	Q	40-140	9		20
Butyl benzyl phthalate	146	Q	133		40-140	9		20
Di-n-butylphthalate	158	Q	146	Q	40-140	8		20
Di-n-octylphthalate	165	Q	151	Q	40-140	9		20
Diethyl phthalate	155	Q	146	Q	40-140	6		20
Dimethyl phthalate	165	Q	152	Q	40-140	8		20
Aniline	47		48		40-140	2		20

## Lab Control Sample Analysis

### Batch Quality Control

Project Name: 100 BINNEY STREET

Project Number: 34250-021

Lab Number: L1325310

Report Date: 12/18/13

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
MCP Semivolatile Organics - Westborough Lab Associated sample(s): 01 Batch: WG659040-2 WG659040-3								
4-Chloroaniline	92		83		40-140	10		20
Dibenzofuran	154	Q	141	Q	40-140	9		20
Acetophenone	163	Q	154	Q	40-140	6		20
2,4,6-Trichlorophenol	143	Q	133	Q	30-130	7		20
2-Chlorophenol	156	Q	146	Q	30-130	7		20
2,4-Dichlorophenol	154	Q	143	Q	30-130	7		20
2,4-Dimethylphenol	120		97		30-130	21	Q	20
2-Nitrophenol	145	Q	138	Q	30-130	5		20
4-Nitrophenol	100		92		30-130	8		20
2,4-Dinitrophenol	158	Q	150	Q	30-130	5		20
Phenol	79		74		30-130	7		20
2-Methylphenol	135	Q	125		30-130	8		20
3-Methylphenol/4-Methylphenol	131	Q	122		30-130	7		20
2,4,5-Trichlorophenol	142	Q	132	Q	30-130	7		20

## Lab Control Sample Analysis

### Batch Quality Control

Project Name: 100 BINNEY STREET

Lab Number: L1325310

Project Number: 34250-021

Report Date: 12/18/13

Parameter	<i>LCS</i> %Recovery	<i>Qual</i>	<i>LCSD</i> %Recovery	<i>Qual</i>	<i>%Recovery</i> Limits	<i>RPD</i>	<i>Qual</i>	<i>RPD</i> Limits
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MCP Semivolatile Organics - Westborough Lab Associated sample(s): 01 Batch: WG659040-2 WG659040-3

<i>Surrogate</i>	<i>LCS</i> %Recovery	<i>Qual</i>	<i>LCSD</i> %Recovery	<i>Qual</i>	<i>Acceptance</i> <i>Criteria</i>
2-Fluorophenol	109		103		15-110
Phenol-d6	62		59		15-110
Nitrobenzene-d5	<b>144</b>	Q	<b>138</b>	Q	30-130
2-Fluorobiphenyl	<b>131</b>	Q	125		30-130
2,4,6-Tribromophenol	<b>146</b>	Q	<b>134</b>	Q	15-110
4-Terphenyl-d14	<b>148</b>	Q	<b>137</b>	Q	30-130

## Lab Control Sample Analysis

### Batch Quality Control

Project Name: 100 BINNEY STREET

Lab Number: L1325310

Project Number: 34250-021

Report Date: 12/18/13

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
MCP Semivolatile Organics by SIM - Westborough Lab Associated sample(s): 01 Batch: WG659042-2 WG659042-3								
Acenaphthene	110		99		40-140	11		20
2-Chloronaphthalene	118		107		40-140	10		20
Fluoranthene	131		130		40-140	1		20
Hexachlorobutadiene	106		96		40-140	10		20
Naphthalene	110		102		40-140	8		20
Benzo(a)anthracene	141	Q	133		40-140	6		20
Benzo(a)pyrene	126		112		40-140	12		20
Benzo(b)fluoranthene	141	Q	124		40-140	13		20
Benzo(k)fluoranthene	144	Q	128		40-140	12		20
Chrysene	118		112		40-140	5		20
Acenaphthylene	116		108		40-140	7		20
Anthracene	115		116		40-140	1		20
Benzo(ghi)perylene	137		96		40-140	35	Q	20
Fluorene	121		113		40-140	7		20
Phenanthrene	122		114		40-140	7		20
Dibenzo(a,h)anthracene	138		108		40-140	24	Q	20
Indeno(1,2,3-cd)Pyrene	137		103		40-140	28	Q	20
Pyrene	123		122		40-140	1		20
2-Methylnaphthalene	117		104		40-140	12		20
Pentachlorophenol	162	Q	152	Q	30-130	6		20
Hexachlorobenzene	112		106		40-140	6		20

## Lab Control Sample Analysis

Batch Quality Control

Project Name: 100 BINNEY STREET

Lab Number: L1325310

Project Number: 34250-021

Report Date: 12/18/13

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
MCP Semivolatile Organics by SIM - Westborough Lab Associated sample(s): 01 Batch: WG659042-2 WG659042-3								
Hexachloroethane	114		104		40-140	9		20

Surrogate	LCS %Recovery	Qual	LCSD %Recovery	Qual	Acceptance Criteria
2-Fluorophenol	62		64		15-110
Phenol-d6	48		49		15-110
Nitrobenzene-d5	121		118		30-130
2-Fluorobiphenyl	124		107		30-130
2,4,6-Tribromophenol	<b>138</b>	Q	<b>126</b>	Q	15-110
4-Terphenyl-d14	<b>137</b>	Q	<b>136</b>	Q	30-130

# PETROLEUM HYDROCARBONS

**Project Name:** 100 BINNEY STREET  
**Project Number:** 34250-021

**Lab Number:** L1325310  
**Report Date:** 12/18/13

**SAMPLE RESULTS**

Lab ID: L1325310-01  
 Client ID: HA-403 (OW)  
 Sample Location: Not Specified  
 Matrix: Water  
 Analytical Method: 100, VPH-04-1.1  
 Analytical Date: 12/16/13 11:38  
 Analyst: BS

Date Collected: 12/12/13 13:30  
 Date Received: 12/12/13  
 Field Prep: Not Specified

**Quality Control Information**

Condition of sample received: Satisfactory  
 Aqueous Preservative: Laboratory Provided Preserved Container  
 Sample Temperature upon receipt: Received on Ice

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
<b>Volatile Petroleum Hydrocarbons - Westborough Lab</b>						
C5-C8 Aliphatics	ND		ug/l	50.0	--	1
C9-C12 Aliphatics	ND		ug/l	50.0	--	1
C9-C10 Aromatics	ND		ug/l	50.0	--	1
C5-C8 Aliphatics, Adjusted	ND		ug/l	50.0	--	1
C9-C12 Aliphatics, Adjusted	ND		ug/l	50.0	--	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
2,5-Dibromotoluene-PID	113		70-130
2,5-Dibromotoluene-FID	115		70-130



**Project Name:** 100 BINNEY STREET**Lab Number:** L1325310**Project Number:** 34250-021**Report Date:** 12/18/13**SAMPLE RESULTS**

Lab ID: L1325310-01  
 Client ID: HA-403 (OW)  
 Sample Location: Not Specified  
 Matrix: Water  
 Analytical Method: 98,EPH-04-1.1  
 Analytical Date: 12/16/13 17:01  
 Analyst: MW

Date Collected: 12/12/13 13:30  
 Date Received: 12/12/13  
 Field Prep: Not Specified  
 Extraction Method: EPA 3510C  
 Extraction Date: 12/13/13 21:30  
 Cleanup Method1: EPH-04-1  
 Cleanup Date1: 12/14/13

**Quality Control Information**

Condition of sample received: Satisfactory  
 Aqueous Preservative: Laboratory Provided Preserved Container  
 Sample Temperature upon receipt: Received on Ice  
 Sample Extraction method: Extracted Per the Method

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
<b>Extractable Petroleum Hydrocarbons - Westborough Lab</b>						
C9-C18 Aliphatics	ND		ug/l	100	--	1
C19-C36 Aliphatics	ND		ug/l	100	--	1
C11-C22 Aromatics	ND		ug/l	100	--	1
C11-C22 Aromatics, Adjusted	ND		ug/l	100	--	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
Chloro-Octadecane	45		40-140
o-Terphenyl	63		40-140
2-Fluorobiphenyl	75		40-140
2-Bromonaphthalene	73		40-140



**Project Name:** 100 BINNEY STREET  
**Project Number:** 34250-021

**Lab Number:** L1325310  
**Report Date:** 12/18/13

**Method Blank Analysis**  
**Batch Quality Control**

**Analytical Method:** 98,EPH-04-1.1  
**Analytical Date:** 12/16/13 11:22  
**Analyst:** MW

**Extraction Method:** EPA 3510C  
**Extraction Date:** 12/13/13 21:30  
**Cleanup Method1:** EPH-04-1  
**Cleanup Date1:** 12/14/13

Parameter	Result	Qualifier	Units	RL	MDL
Extractable Petroleum Hydrocarbons - Westborough Lab for sample(s): 01 Batch: WG658958-1					
C9-C18 Aliphatics	ND		ug/l	100	--
C19-C36 Aliphatics	ND		ug/l	100	--
C11-C22 Aromatics	ND		ug/l	100	--
C11-C22 Aromatics, Adjusted	ND		ug/l	100	--

Surrogate	%Recovery	Qualifier	Acceptance Criteria
Chloro-Octadecane	60		40-140
o-Terphenyl	67		40-140
2-Fluorobiphenyl	84		40-140
2-Bromonaphthalene	82		40-140

**Project Name:** 100 BINNEY STREET  
**Project Number:** 34250-021

**Lab Number:** L1325310  
**Report Date:** 12/18/13

**Method Blank Analysis**  
**Batch Quality Control**

Analytical Method: 100, VPH-04-1.1  
 Analytical Date: 12/16/13 10:58  
 Analyst: BS

Parameter	Result	Qualifier	Units	RL	MDL
Volatile Petroleum Hydrocarbons - Westborough Lab for sample(s): 01 Batch: WG659545-3					
C5-C8 Aliphatics	ND		ug/l	50.0	--
C9-C12 Aliphatics	ND		ug/l	50.0	--
C9-C10 Aromatics	ND		ug/l	50.0	--
C5-C8 Aliphatics, Adjusted	ND		ug/l	50.0	--
C9-C12 Aliphatics, Adjusted	ND		ug/l	50.0	--

Surrogate	%Recovery	Qualifier	Acceptance Criteria
2,5-Dibromotoluene-PID	117		70-130
2,5-Dibromotoluene-FID	115		70-130

## Lab Control Sample Analysis

### Batch Quality Control

Project Name: 100 BINNEY STREET

Lab Number: L1325310

Project Number: 34250-021

Report Date: 12/18/13

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Extractable Petroleum Hydrocarbons - Westborough Lab Associated sample(s): 01 Batch: WG658958-2 WG658958-3								
C9-C18 Aliphatics	51		54		40-140	6		25
C19-C36 Aliphatics	66		69		40-140	4		25
C11-C22 Aromatics	60		68		40-140	13		25
Naphthalene	52		59		40-140	13		25
2-Methylnaphthalene	55		62		40-140	12		25
Acenaphthylene	50		58		40-140	15		25
Acenaphthene	54		62		40-140	14		25
Fluorene	56		64		40-140	13		25
Phenanthrene	59		67		40-140	13		25
Anthracene	62		70		40-140	12		25
Fluoranthene	61		69		40-140	12		25
Pyrene	62		70		40-140	12		25
Benzo(a)anthracene	59		66		40-140	11		25
Chrysene	60		67		40-140	11		25
Benzo(b)fluoranthene	59		66		40-140	11		25
Benzo(k)fluoranthene	64		71		40-140	10		25
Benzo(a)pyrene	58		66		40-140	13		25
Indeno(1,2,3-cd)Pyrene	60		68		40-140	13		25
Dibenzo(a,h)anthracene	58		66		40-140	13		25
Benzo(ghi)perylene	58		67		40-140	14		25
Nonane (C9)	42		45		30-140	7		25

## Lab Control Sample Analysis

### Batch Quality Control

**Project Name:** 100 BINNEY STREET  
**Project Number:** 34250-021

**Lab Number:** L1325310  
**Report Date:** 12/18/13

Parameter	LCS		LCSD		%Recovery Limits	RPD	RPD	
	%Recovery	Qual	%Recovery	Qual			Qual	Limits
Extractable Petroleum Hydrocarbons - Westborough Lab Associated sample(s): 01 Batch: WG658958-2 WG658958-3								
Decane (C10)	50		53		40-140	6		25
Dodecane (C12)	55		58		40-140	5		25
Tetradecane (C14)	57		60		40-140	5		25
Hexadecane (C16)	60		64		40-140	6		25
Octadecane (C18)	65		68		40-140	5		25
Nonadecane (C19)	63		69		40-140	9		25
Eicosane (C20)	66		69		40-140	4		25
Docosane (C22)	67		70		40-140	4		25
Tetracosane (C24)	68		71		40-140	4		25
Hexacosane (C26)	68		71		40-140	4		25
Octacosane (C28)	67		70		40-140	4		25
Triacontane (C30)	68		72		40-140	6		25
Hexatriacontane (C36)	64		71		40-140	10		25

Surrogate	LCS		LCSD		Acceptance Criteria
	%Recovery	Qual	%Recovery	Qual	
Chloro-Octadecane	59		62		40-140
o-Terphenyl	68		75		40-140
2-Fluorobiphenyl	72		78		40-140
2-Bromonaphthalene	71		76		40-140
% Naphthalene Breakthrough	0		0		
% 2-Methylnaphthalene Breakthrough	0		0		



## Lab Control Sample Analysis

### Batch Quality Control

Project Name: 100 BINNEY STREET

Lab Number: L1325310

Project Number: 34250-021

Report Date: 12/18/13

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Volatile Petroleum Hydrocarbons - Westborough Lab Associated sample(s): 01 Batch: WG659545-1 WG659545-2								
C5-C8 Aliphatics	98		92		70-130	7		25
C9-C12 Aliphatics	98		89		70-130	10		25
C9-C10 Aromatics	96		91		70-130	5		25
Benzene	91		87		70-130	5		25
Toluene	93		89		70-130	5		25
Ethylbenzene	95		90		70-130	5		25
p/m-Xylene	95		91		70-130	5		25
o-Xylene	96		92		70-130	5		25
Methyl tert butyl ether	101		96		70-130	5		25
Naphthalene	116		108		70-130	7		25
1,2,4-Trimethylbenzene	96		91		70-130	5		25
Pentane	97		91		70-130	7		25
2-Methylpentane	100		94		70-130	6		25
2,2,4-Trimethylpentane	99		92		70-130	7		25
n-Nonane	100		92		30-130	8		25
n-Decane	90		79		70-130	12		25
n-Butylcyclohexane	106		98		70-130	8		25

## Lab Control Sample Analysis

Batch Quality Control

**Project Name:** 100 BINNEY STREET  
**Project Number:** 34250-021

**Lab Number:** L1325310  
**Report Date:** 12/18/13

Parameter	<i>LCS</i> %Recovery	<i>Qual</i>	<i>LCSD</i> %Recovery	<i>Qual</i>	<i>%Recovery</i> Limits	<i>RPD</i>	<i>Qual</i>	<i>RPD</i> Limits
Volatile Petroleum Hydrocarbons - Westborough Lab Associated sample(s): 01 Batch: WG659545-1 WG659545-2								

<i>Surrogate</i>	<i>LCS</i> %Recovery	<i>Qual</i>	<i>LCSD</i> %Recovery	<i>Qual</i>	<i>Acceptance</i> Criteria
2,5-Dibromotoluene-PID	102		97		70-130
2,5-Dibromotoluene-FID	104		99		70-130



Project Name: 100 BINNEY STREET

Lab Number: L1325310

Project Number: 34250-021

Report Date: 12/18/13

**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

**Container Information**

Container ID	Container Type	Cooler	pH	Temp deg C	Pres	Seal	Analysis(*)
L1325310-01A	Vial HCl preserved	A	N/A	3.0	Y	Absent	MCP-8260-10(14)
L1325310-01B	Vial HCl preserved	A	N/A	3.0	Y	Absent	MCP-8260-10(14)
L1325310-01C	Vial HCl preserved	A	N/A	3.0	Y	Absent	MCP-8260-10(14)
L1325310-01D	Vial HCl preserved	A	N/A	3.0	Y	Absent	VPH-10(14)
L1325310-01E	Vial HCl preserved	A	N/A	3.0	Y	Absent	VPH-10(14)
L1325310-01F	Vial HCl preserved	A	N/A	3.0	Y	Absent	VPH-10(14)
L1325310-01G	Amber 1000ml unpreserved	A	>12	3.0	Y	Absent	MCP-8270-10(7),MCP-8270SIM-10(7)
L1325310-01H	Amber 1000ml unpreserved	A	>12	3.0	Y	Absent	MCP-8270-10(7),MCP-8270SIM-10(7)
L1325310-01I	Amber 1000ml HCl preserved	A	<2	3.0	Y	Absent	EPH-10(14)
L1325310-01J	Amber 1000ml HCl preserved	A	<2	3.0	Y	Absent	EPH-10(14)
L1325310-02A	Vial HCl preserved	A	N/A	3.0	Y	Absent	MCP-8260-10(14)

\*Values in parentheses indicate holding time in days



**Project Name:** 100 BINNEY STREET  
**Project Number:** 34250-021

**Lab Number:** L1325310  
**Report Date:** 12/18/13

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

**Report Format:** Data Usability Report





**Project Name:** 100 BINNEY STREET  
**Project Number:** 34250-021

**Lab Number:** L1325310  
**Report Date:** 12/18/13

**Data Qualifiers**

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

**Project Name:** 100 BINNEY STREET  
**Project Number:** 34250-021

**Lab Number:** L1325310  
**Report Date:** 12/18/13

## REFERENCES

- 97 EPA Test Methods (SW-846) with QC Requirements & Performance Standards for the Analysis of EPA SW-846 Methods under the Massachusetts Contingency Plan, WSC-CAM-IIA, IIB, IIIA, IIIB, IIIC, IIID, VA, VB, VC, VIA, VIB, VIIIA and VIIIB, July 2010.
- 98 Method for the Determination of Extractable Petroleum Hydrocarbons (EPH), MassDEP, May 2004, Revision 1.1 with QC Requirements & Performance Standards for the Analysis of EPH under the Massachusetts Contingency Plan, WSC-CAM-IVB, July 2010.
- 100 Method for the Determination of Volatile Petroleum Hydrocarbons (VPH), MassDEP, May 2004, Revision 1.1 with QC Requirements & Performance Standards for the Analysis of VPH under the Massachusetts Contingency Plan, WSC-CAM-IVA, July 2010.

## LIMITATION OF LIABILITIES

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

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



## Certification Information

Last revised December 11, 2013

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

#### Westborough Facility

**EPA 524.2:** Acetone, 2-Butanone (Methyl ethyl ketone (MEK)), Tert-butyl alcohol, 2-Hexanone, Tetrahydrofuran, 1,3,5-Trichlorobenzene, 4-Methyl-2-pentanone (MIBK), Carbon disulfide, Diethyl ether.

**EPA 8260C:** 1,2,4,5-Tetramethylbenzene, 4-Ethyltoluene, Iodomethane (methyl iodide), Methyl methacrylate, Azobenzene.

**EPA 8330A/B:** PETN, Picric Acid, Nitroglycerine, 2,6-DANT, 2,4-DANT.

**EPA 8270D:** 1-Methylnaphthalene, Dimethylnaphthalene, 1,4-Diphenylhydrazine.

**EPA 625:** 4-Chloroaniline, 4-Methylphenol.

**SM4500:** Soil: Total Phosphorus, TKN, NO<sub>2</sub>, NO<sub>3</sub>.

**EPA 9071:** Total Petroleum Hydrocarbons, Oil & Grease.

#### Mansfield Facility

**EPA 8270D:** Biphenyl.

**EPA TO-15:** Halothane, 2,4,4-Trimethyl-2-pentene, 2,4,4-Trimethyl-1-pentene, Thiophene, 2-Methylthiophene, 3-Methylthiophene, 2-Ethylthiophene, 1,2,3-Trimethylbenzene, Indan, Indene, 1,2,4,5-Tetramethylbenzene, Benzothiophene, 1-Methylnaphthalene.

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

#### Drinking Water

**EPA 200.8:** Sb,As,Ba,Be,Cd,Cr,Cu,Pb,Ni,Se,Tl; **EPA 200.7:** Ba,Be,Ca,Cd,Cr,Cu,Na; **EPA 245.1:** Mercury;

**EPA 300.0:** Nitrate-N, Fluoride, Sulfate; **EPA 353.2:** Nitrate-N, Nitrite-N; **SM4500NO3-F:** Nitrate-N, Nitrite-N; **SM4500F-C, SM4500CN-CE, EPA 180.1, SM2130B, SM4500CI-D, SM2320B, SM2540C, SM4500H-B**

**EPA 332:** Perchlorate.

**Microbiology:** **SM9215B; SM9223-P/A, SM9223B-Colilert-QT, Enterolert-QT.**

#### Non-Potable Water

**EPA 200.8:** Al,Sb,As,Be,Cd,Cr,Cu,Pb,Mn,Ni,Se,Ag,Tl,Zn;

**EPA 200.7:** Al,Sb,As,Be,Cd,Ca,Cr,Co,Cu,Fe,Pb,Mg,Mn,Mo,Ni,K,Se,Ag,Na,Sr,Ti,Tl,V,Zn;

**EPA 245.1, SM4500H,B, EPA 120.1, SM2510B, SM2540C, SM2340B, SM2320B, SM4500CL-E, SM4500F-BC, SM426C, SM4500NH3-BH, EPA 350.1:** Ammonia-N, **LACHAT 10-107-06-1-B:** Ammonia-N, **SM4500NO3-F, EPA 353.2:** Nitrate-N, **SM4500NH3-BC-NES, EPA 351.1, SM4500P-E, SM4500P-B, E, SM5220D, EPA 410.4, SM5210B, SM5310C, SM4500CL-D, EPA 1664, SM14 510AC, EPA 420.1, SM4500-CN-CE, SM2540D.**

**EPA 624:** Volatile Halocarbons & Aromatics,

**EPA 608:** Chlordane, Toxaphene, Aldrin, alpha-BHC, beta-BHC, gamma-BHC, delta-BHC, Dieldrin, DDD, DDE, DDT, Endosulfan I, Endosulfan II, Endosulfan sulfate, Endrin, Endrin Aldehyde, Heptachlor, Heptachlor Epoxide, PCBs

**EPA 625:** SVOC (Acid/Base/Neutral Extractables), **EPA 600/4-81-045:** PCB-Oil.

**Microbiology:** **SM9223B-Colilert-QT; Enterolert-QT, SM9222D-MF.**

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

**HALEY & ALDRICH**

Haley & Aldrich, Inc.  
465 Medford St.,  
Suite 2200,  
Boston, MA 02129-1402

# CHAIN OF CUSTODY RECORD

Phone (617) 886-7400  
Fax (617) 886-7600

Page 1 of 1

H&A FILE NO.	34250-021	LABORATORY	ALPHA ANALYTICAL	DELIVERY DATE	12/12/13
PROJECT NAME	100 BINNEY STREET	ADDRESS	WESTBOROUGH, MA	TURNAROUND TIME	5-DAY TAT
H&A CONTACT	J. THIBAUT	CONTACT	GINA HALL	PROJECT MANAGER	R. HIGGINS

Sample No.	Date	Time	Depth	Type	Analysis Requested								Number of Containers	Comments (special instructions, precautions, additional method numbers, etc.)	
					1. VOCs (8260)	2. SVOCs (8270)	3. EPH	4. VPH							
HA-403(OW)	12/12/13	1330	-	AQ	X	X	X	X						10	Laboratory to use applicable DEP CAM methods, unless otherwise directed.  3. Carbon Ranges Only 4. Carbon Ranges Only
Tripblank	-	-	-	AQ	X									1	

Sampled and Relinquished by	Received by	LIQUID	Sampling Comments
Sign: <i>Dastjerdi</i> Print: Negar Dastjerdi Firm: H&A Date: 12/12/13 Time: 1530	Sign: <i>M. Arzoo</i> Print: M. Arzoo Firm: H&A Date: 12/12/13 Time: 1630	X X X X AF A AF AF 40 1000, 1000 40	VOA Vial Amber Glass Plastic Bottle Preservative Volume
Relinquished by	Received by	SOLID	Evidence samples were tampered with? YES NO
Sign: <i>M. Arzoo</i> Print: M. Arzoo Firm: H&A Date: 12/12/13 Time: 1630	Sign: <i>J. D'Amico</i> Print: J. D'Amico Firm: ALPHA Date: 12-12-13 Time: 16:30		VOA Vial Amber Glass Clear Glass Preservative Volume
Relinquished by	Received by	PRESERVATION KEY	If YES, please explain in section below.
Sign: <i>J. D'Amico</i> Print: J. D'Amico Firm: ALPHA Date: 12-12-13 Time: 19:25	Sign: <i>Blake Bucaloni</i> Print: Blake Bucaloni Firm: ALPHA Date: 12-12-13 Time: 1925	A Sample chilled    C NaOH    E H <sub>2</sub> SO <sub>4</sub> G Methanol B Sample filtered    D HNO <sub>3</sub> F HCL    H Water/NaHSO <sub>4</sub> (circle)	

**Presumptive Certainty Data Package (Laboratory to use applicable DEP CAM methods)**

If Presumptive Certainty Data Package is needed, Initial all sections:

The required minimum field QC samples, as designated in BWSC CAM-VII have been or will be collected, as appropriate, to meet the requirements of Presumptive Certainty.

Matrix Spike (MS) samples for MCP Metals and/or Cyanide are included and identified herein.

This Chain of Custody Record (specify) \_\_\_\_\_ includes \_\_\_\_\_ X does not include samples defined as Drinking Water Samples.

If this Chain of Custody Record identifies samples defined as Drinking Water Samples, Trip Blanks and Field Duplicates are included and identified and analysis of TICs are required, as appropriate. Laboratory should (specify if applicable) \_\_\_\_\_ analyze

**Required Reporting Limits and Data Quality Objectives**

<input type="checkbox"/> RC-S1	<input type="checkbox"/> S1	<input type="checkbox"/> GW1
<input type="checkbox"/> RC-S2	<input type="checkbox"/> S2	<input type="checkbox"/> GW2
<input type="checkbox"/> RC-GW1	<input type="checkbox"/> S3	<input type="checkbox"/> GW3
<input type="checkbox"/> RC-GW2		

7A  
CONTINUING CALIBRATION CHECK

Lab Name: Alpha Analytical Labs

SDG No.: L1325310

Instrument ID: Quimby.i      Calibration Date: 16-DEC-2013      Time: 05:14

Lab File ID: 1216A01      Init. Calib. Date(s): 02-DEC-2      02-DEC-2

Sample No: CCAL      Init. Calib. Times : 10:03      15:50

Compound	RRF	RRF	MIN RRF	%D	MAX %D	
dichlorodifluoromethane	.33667	.26107	.1	22	20	F
chloromethane	.6764	.75614	.1	-12	20	
vinyl chloride	.43903	.47031	.1	-7	20	
bromomethane	100	116	.1	-16	20	
chloroethane	.32771	.32558	.1	1	20	
trichlorofluoromethane	.51775	.5819	.1	-12	20	
ethyl ether	.19326	.20941	.05	-8	20	
acrolein	.06022	.06116	.05	-2	20	
freon-113	.38743	.42468	.1	-10	20	
acetone	100	130	.1	-30	20	F
1,1,-dichloroethene	.37169	.35061	.1	6	20	
tert-butyl alcohol	.02481	.02	.05	19	20	F
iodomethane	.55083	.24631	.05	55	20	F
methyl acetate	.22623	.28216	.01	-25	20	F
methylene chloride	.42705	.39705	.1	7	20	
carbon disulfide	1.1174	.9246	.1	17	20	
acrylonitrile	.13122	.15751	.05	-20	20	F
methyl tert butyl ether	.85883	.79141	.1	8	20	
Halothane	.29836	.30959	.05	-4	20	
trans-1,2-dichloroethene	.41007	.39023	.1	5	20	
Diisopropyl Ether	1.7709	2.2065	.05	-25	20	F
vinyl acetate	100	97.535	.05	2	20	
1,1-dichloroethane	.91641	.94163	.2	-3	20	
Ethyl-Tert-Butyl-Ether	1.4665	1.2634	.05	14	20	
2-butanone	.15206	.17277	.1	-14	20	
2,2-dichloropropane	.52151	.29328	.05	44	20	F
ethyl acetate	.28868	.40638	.05	-41	20	F
cis-1,2-dichloroethene	.45034	.42028	.1	7	20	
chloroform	.73865	.75408	.2	-2	20	
bromochloromethane	.18701	.16487	.05	12	20	
tetrahydrofuran	.08819	.11304	.05	-28	20	F
1,1,1-trichloroethane	.59425	.54447	.1	8	20	
cyclohexane	1.1204	1.3577	.01	-21	30	
1,1-dichloropropene	.59915	.56282	.05	6	20	
carbontetrachloride	.36057	.3003	.1	17	20	
Tertiary-Amyl Methyl Ether	.94321	.77074	.05	18	20	
1,2-dichloroethane	.5889	.62819	.1	-7	20	
benzene	1.7558	1.7223	.5	2	20	

FORM VII MCP-8260-10

7A  
CONTINUING CALIBRATION CHECK

Lab Name: Alpha Analytical Labs

SDG No.: L1325310

Instrument ID: Quimby.i      Calibration Date: 16-DEC-2013      Time: 05:14

Lab File ID: 1216A01      Init. Calib. Date(s): 02-DEC-2      02-DEC-2

Sample No: CCAL      Init. Calib. Times : 10:03      15:50

Compound	RRF	RRF	MIN RRF	%D	MAX %D
=====	=====	=====	=====	=====	=====
trichloroethene	.42209	.42995	.2	-2	20
methyl cyclohexane	.78824	.90366	.01	-15	30
1,2-dichloropropane	.51808	.51205	.1	1	20
bromodichloromethane	.47704	.49627	.2	-4	20
1,4-dioxane	.00234	.00246	.05	-5	20
dibromomethane	.20258	.18681	.05	8	20
2-chloroethylvinyl ether	.18487	.16247	.05	12	20
4-methyl-2-pentanone	.1253	.1346	.1	-7	20
cis-1,3-dichloropropene	.59794	.50043	.2	16	20
toluene	1.3913	1.3754	.4	1	20
ethyl-methacrylate	.4801	.42495	.01	11	30
trans-1,3-dichloropropene	.57918	.43783	.1	24	20
2-hexanone	.25077	.33274	.1	-33	20
1,1,2-trichloroethane	.29534	.31024	.1	-5	20
1,3-dichloropropane	.66908	.66848	.05	0	20
tetrachloroethene	.56268	.54868	.2	2	20
chlorodibromomethane	.33124	.33309	.1	-1	20
1,2-dibromoethane	.35544	.29978	.1	16	20
chlorobenzene	1.5267	1.5215	.5	0	20
1,1,1,2-tetrachloroethane	.41885	.38662	.05	8	20
ethyl benzene	2.6823	2.8774	.1	-7	20
p/m xylene	1.0951	1.1142	.1	-2	20
o xylene	1.0459	1.0900	.3	-4	20
styrene	1.6684	1.8136	.31	-9	20
isopropylbenzene	2.8195	2.9531	.1	-5	20
bromoform	100	112	.1	-12	20
1,4-dichlorobutane	1.6483	1.8684	.01	-13	30
1,1,2,2,-tetrachloroethane	.74851	.7352	.3	2	20
1,2,3-trichloropropane	.59717	.60782	.05	-2	20
trans-1,4-dichloro-2-butene	.29726	.27625	.05	7	20
n-propylbenzene	5.6512	6.3193	.05	-12	20
bromobenzene	1.1381	1.1178	.05	2	20
4-ethyltoluene	2.4665	2.6339	.05	-7	20
1,3,5-trimethylbenzene	4.3212	4.4963	.05	-4	20
2-chlorotoluene	3.9490	4.1092	.05	-4	20
4-chlorotoluene	3.6734	3.7756	.05	-3	20
tert-butylbenzene	3.7036	3.7477	.05	-1	20
1,2,4-trimethylbenzene	4.1448	4.4426	.05	-7	20

F

F

F

FORM VII MCP-8260-10





## ANALYTICAL REPORT

Lab Number:	L1405831
Client:	Haley & Aldrich, Inc. 465 Medford Street, Suite 2200 Charlestown, MA 02129-1400
ATTN:	Rebecca Higgins
Phone:	(617) 886-7326
Project Name:	100 BINNEY STREET
Project Number:	34250-021
Report Date:	03/26/14

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.

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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:** 100 BINNEY STREET  
**Project Number:** 34250-021

**Lab Number:** L1405831  
**Report Date:** 03/26/14

<b>Alpha Sample ID</b>	<b>Client ID</b>	<b>Sample Location</b>	<b>Collection Date/Time</b>
L1405831-01	MW-S1-03202014	Not Specified	03/20/14 10:40
L1405831-02	HA-B10-03202014	Not Specified	03/20/14 12:15

**Project Name:** 100 BINNEY STREET  
**Project Number:** 34250-021

**Lab Number:** L1405831  
**Report Date:** 03/26/14

### MADEP MCP Response Action Analytical Report Certification

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

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

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



**Project Name:** 100 BINNEY STREET  
**Project Number:** 34250-021

**Lab Number:** L1405831  
**Report Date:** 03/26/14

### Case Narrative

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

Results contained within this report relate only to the samples submitted under this Alpha Lab Number and meet all of the requirements of NELAC, for all NELAC accredited parameters. The data presented in this report is organized by parameter (i.e. VOC, SVOC, etc.). Sample specific Quality Control data (i.e. Surrogate Spike Recovery) is reported at the end of the target analyte list for each individual sample, followed by the Laboratory Batch Quality Control at the end of each parameter. If a sample was re-analyzed or re-extracted due to a required quality control corrective action and if both sets of data are reported, the Laboratory ID of the re-analysis or re-extraction is designated with an "R" or "RE", respectively. When multiple Batch Quality Control elements are reported (e.g. more than one LCS), the associated samples for each element are noted in the grey shaded header line of each data table. Any Laboratory Batch, Sample Specific % recovery or RPD value that is outside the listed Acceptance Criteria is bolded in the report. 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 (with the exception of Air canisters) free of charge for 21 calendar days from the date the project is completed. After 21 calendar days, we will dispose of all samples submitted including those put on hold unless you have contacted your Client Service Representative and made arrangements for Alpha to continue to hold the samples. Air canisters will be disposed after 3 business days from the date the project is completed.

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

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**Project Name:** 100 BINNEY STREET  
**Project Number:** 34250-021

**Lab Number:** L1405831  
**Report Date:** 03/26/14

### Case Narrative (continued)

#### Report Submission

The analysis of TPH-PHI is being performed at our Mansfield facility. The results will be issued under separate cover.

#### MCP Related Narratives

##### Volatile Organics

In reference to question G:

L1405831-01 (MW-S1-03202014): One or more of the target analytes did not achieve the requested CAM reporting limits.

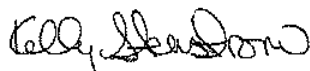
In reference to question H:

The initial calibration, associated with L1405831-01 (MW-S1-03202014) and -02 (HA-B10-03202014), did not meet the method required minimum response factor on the lowest calibration standard for 1,4-dioxane (0.00364), as well as the average response factor for 1,4-dioxane.

The continuing calibration standards, associated with L1405831-01 (MW-S1-03202014) and -02 (HA-B10-03202014), are outside the acceptance criteria for several compounds; however, they are within overall method allowances. Copies of the continuing calibration standards are included as an addendum to this report.

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

Authorized Signature:

 Kelly Stenstrom

Title: Technical Director/Representative

Date: 03/26/14

# ORGANICS

# VOLATILES

**Project Name:** 100 BINNEY STREET**Lab Number:** L1405831**Project Number:** 34250-021**Report Date:** 03/26/14**SAMPLE RESULTS**

Lab ID: L1405831-01 D  
 Client ID: MW-S1-03202014  
 Sample Location: Not Specified  
 Matrix: Water  
 Analytical Method: 97,8260C  
 Analytical Date: 03/25/14 16:34  
 Analyst: MM

Date Collected: 03/20/14 10:40  
 Date Received: 03/20/14  
 Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
<b>MCP Volatile Organics - Westborough Lab</b>						
Methylene chloride	ND		ug/l	40	--	20
1,1-Dichloroethane	ND		ug/l	20	--	20
Chloroform	ND		ug/l	20	--	20
Carbon tetrachloride	ND		ug/l	20	--	20
1,2-Dichloropropane	ND		ug/l	20	--	20
Dibromochloromethane	ND		ug/l	20	--	20
1,1,2-Trichloroethane	ND		ug/l	20	--	20
Tetrachloroethene	ND		ug/l	20	--	20
Chlorobenzene	ND		ug/l	20	--	20
Trichlorofluoromethane	ND		ug/l	40	--	20
1,2-Dichloroethane	ND		ug/l	20	--	20
1,1,1-Trichloroethane	ND		ug/l	20	--	20
Bromodichloromethane	ND		ug/l	20	--	20
trans-1,3-Dichloropropene	ND		ug/l	10	--	20
cis-1,3-Dichloropropene	ND		ug/l	10	--	20
1,1-Dichloropropene	ND		ug/l	40	--	20
Bromoform	ND		ug/l	40	--	20
1,1,2,2-Tetrachloroethane	ND		ug/l	20	--	20
Benzene	920		ug/l	10	--	20
Toluene	ND		ug/l	20	--	20
Ethylbenzene	400		ug/l	20	--	20
Chloromethane	ND		ug/l	40	--	20
Bromomethane	ND		ug/l	40	--	20
Vinyl chloride	ND		ug/l	20	--	20
Chloroethane	ND		ug/l	40	--	20
1,1-Dichloroethene	ND		ug/l	20	--	20
trans-1,2-Dichloroethene	ND		ug/l	20	--	20
Trichloroethene	ND		ug/l	20	--	20
1,2-Dichlorobenzene	ND		ug/l	20	--	20
1,3-Dichlorobenzene	ND		ug/l	20	--	20
1,4-Dichlorobenzene	ND		ug/l	20	--	20

Project Name: 100 BINNEY STREET

Lab Number: L1405831

Project Number: 34250-021

Report Date: 03/26/14

## SAMPLE RESULTS

Lab ID: L1405831-01 D  
 Client ID: MW-S1-03202014  
 Sample Location: Not Specified

Date Collected: 03/20/14 10:40  
 Date Received: 03/20/14  
 Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
<b>MCP Volatile Organics - Westborough Lab</b>						
Methyl tert butyl ether	ND		ug/l	40	--	20
p/m-Xylene	45		ug/l	40	--	20
o-Xylene	86		ug/l	20	--	20
cis-1,2-Dichloroethene	ND		ug/l	20	--	20
Dibromomethane	ND		ug/l	40	--	20
1,2,3-Trichloropropane	ND		ug/l	40	--	20
Styrene	ND		ug/l	20	--	20
Dichlorodifluoromethane	ND		ug/l	40	--	20
Acetone	ND		ug/l	100	--	20
Carbon disulfide	ND		ug/l	40	--	20
2-Butanone	ND		ug/l	100	--	20
4-Methyl-2-pentanone	ND		ug/l	100	--	20
2-Hexanone	ND		ug/l	100	--	20
Bromochloromethane	ND		ug/l	40	--	20
Tetrahydrofuran	ND		ug/l	40	--	20
2,2-Dichloropropane	ND		ug/l	40	--	20
1,2-Dibromoethane	ND		ug/l	40	--	20
1,3-Dichloropropane	ND		ug/l	40	--	20
1,1,1,2-Tetrachloroethane	ND		ug/l	20	--	20
Bromobenzene	ND		ug/l	40	--	20
n-Butylbenzene	ND		ug/l	40	--	20
sec-Butylbenzene	ND		ug/l	40	--	20
tert-Butylbenzene	ND		ug/l	40	--	20
o-Chlorotoluene	ND		ug/l	40	--	20
p-Chlorotoluene	ND		ug/l	40	--	20
1,2-Dibromo-3-chloropropane	ND		ug/l	40	--	20
Hexachlorobutadiene	ND		ug/l	12	--	20
Isopropylbenzene	ND		ug/l	40	--	20
p-Isopropyltoluene	ND		ug/l	40	--	20
Naphthalene	51		ug/l	40	--	20
n-Propylbenzene	ND		ug/l	40	--	20
1,2,3-Trichlorobenzene	ND		ug/l	40	--	20
1,2,4-Trichlorobenzene	ND		ug/l	40	--	20
1,3,5-Trimethylbenzene	ND		ug/l	40	--	20
1,2,4-Trimethylbenzene	ND		ug/l	40	--	20
Ethyl ether	ND		ug/l	40	--	20
Isopropyl Ether	ND		ug/l	40	--	20
Ethyl-Tert-Butyl-Ether	ND		ug/l	40	--	20
Tertiary-Amyl Methyl Ether	ND		ug/l	40	--	20



**Project Name:** 100 BINNEY STREET  
**Project Number:** 34250-021

**Lab Number:** L1405831  
**Report Date:** 03/26/14

**SAMPLE RESULTS**

Lab ID: L1405831-01 D  
 Client ID: MW-S1-03202014  
 Sample Location: Not Specified

Date Collected: 03/20/14 10:40  
 Date Received: 03/20/14  
 Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
<b>MCP Volatile Organics - Westborough Lab</b>						
1,4-Dioxane	ND		ug/l	5000	--	20

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	97		70-130
Toluene-d8	96		70-130
4-Bromofluorobenzene	95		70-130
Dibromofluoromethane	111		70-130



**Project Name:** 100 BINNEY STREET**Lab Number:** L1405831**Project Number:** 34250-021**Report Date:** 03/26/14**SAMPLE RESULTS**

**Lab ID:** L1405831-02  
**Client ID:** HA-B10-03202014  
**Sample Location:** Not Specified  
**Matrix:** Water  
**Analytical Method:** 97,8260C  
**Analytical Date:** 03/26/14 08:27  
**Analyst:** MM

**Date Collected:** 03/20/14 12:15  
**Date Received:** 03/20/14  
**Field Prep:** Not Specified

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

Project Name: 100 BINNEY STREET

Lab Number: L1405831

Project Number: 34250-021

Report Date: 03/26/14

## SAMPLE RESULTS

Lab ID: L1405831-02  
 Client ID: HA-B10-03202014  
 Sample Location: Not Specified

Date Collected: 03/20/14 12:15  
 Date Received: 03/20/14  
 Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
<b>MCP Volatile Organics - Westborough Lab</b>						
Methyl tert butyl ether	ND		ug/l	2.0	--	1
p/m-Xylene	ND		ug/l	2.0	--	1
o-Xylene	ND		ug/l	1.0	--	1
cis-1,2-Dichloroethene	ND		ug/l	1.0	--	1
Dibromomethane	ND		ug/l	2.0	--	1
1,2,3-Trichloropropane	ND		ug/l	2.0	--	1
Styrene	ND		ug/l	1.0	--	1
Dichlorodifluoromethane	ND		ug/l	2.0	--	1
Acetone	ND		ug/l	5.0	--	1
Carbon disulfide	ND		ug/l	2.0	--	1
2-Butanone	ND		ug/l	5.0	--	1
4-Methyl-2-pentanone	ND		ug/l	5.0	--	1
2-Hexanone	ND		ug/l	5.0	--	1
Bromochloromethane	ND		ug/l	2.0	--	1
Tetrahydrofuran	ND		ug/l	2.0	--	1
2,2-Dichloropropane	ND		ug/l	2.0	--	1
1,2-Dibromoethane	ND		ug/l	2.0	--	1
1,3-Dichloropropane	ND		ug/l	2.0	--	1
1,1,1,2-Tetrachloroethane	ND		ug/l	1.0	--	1
Bromobenzene	ND		ug/l	2.0	--	1
n-Butylbenzene	ND		ug/l	2.0	--	1
sec-Butylbenzene	ND		ug/l	2.0	--	1
tert-Butylbenzene	ND		ug/l	2.0	--	1
o-Chlorotoluene	ND		ug/l	2.0	--	1
p-Chlorotoluene	ND		ug/l	2.0	--	1
1,2-Dibromo-3-chloropropane	ND		ug/l	2.0	--	1
Hexachlorobutadiene	ND		ug/l	0.60	--	1
Isopropylbenzene	3.5		ug/l	2.0	--	1
p-Isopropyltoluene	ND		ug/l	2.0	--	1
Naphthalene	ND		ug/l	2.0	--	1
n-Propylbenzene	ND		ug/l	2.0	--	1
1,2,3-Trichlorobenzene	ND		ug/l	2.0	--	1
1,2,4-Trichlorobenzene	ND		ug/l	2.0	--	1
1,3,5-Trimethylbenzene	ND		ug/l	2.0	--	1
1,2,4-Trimethylbenzene	ND		ug/l	2.0	--	1
Ethyl ether	ND		ug/l	2.0	--	1
Isopropyl Ether	ND		ug/l	2.0	--	1
Ethyl-Tert-Butyl-Ether	ND		ug/l	2.0	--	1
Tertiary-Amyl Methyl Ether	ND		ug/l	2.0	--	1

**Project Name:** 100 BINNEY STREET**Lab Number:** L1405831**Project Number:** 34250-021**Report Date:** 03/26/14**SAMPLE RESULTS**

Lab ID: L1405831-02  
 Client ID: HA-B10-03202014  
 Sample Location: Not Specified

Date Collected: 03/20/14 12:15  
 Date Received: 03/20/14  
 Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
MCP Volatile Organics - Westborough Lab						
1,4-Dioxane	ND		ug/l	250	--	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	106		70-130
Toluene-d8	98		70-130
4-Bromofluorobenzene	99		70-130
Dibromofluoromethane	118		70-130

**Project Name:** 100 BINNEY STREET  
**Project Number:** 34250-021

**Lab Number:** L1405831  
**Report Date:** 03/26/14

**Method Blank Analysis**  
**Batch Quality Control**

Analytical Method: 97,8260C  
Analytical Date: 03/25/14 09:31  
Analyst: MM

Parameter	Result	Qualifier	Units	RL	MDL
MCP Volatile Organics - Westborough Lab for sample(s): 01 Batch: WG677971-3					
Methylene chloride	ND		ug/l	2.0	--
1,1-Dichloroethane	ND		ug/l	1.0	--
Chloroform	ND		ug/l	1.0	--
Carbon tetrachloride	ND		ug/l	1.0	--
1,2-Dichloropropane	ND		ug/l	1.0	--
Dibromochloromethane	ND		ug/l	1.0	--
1,1,2-Trichloroethane	ND		ug/l	1.0	--
Tetrachloroethene	ND		ug/l	1.0	--
Chlorobenzene	ND		ug/l	1.0	--
Trichlorofluoromethane	ND		ug/l	2.0	--
1,2-Dichloroethane	ND		ug/l	1.0	--
1,1,1-Trichloroethane	ND		ug/l	1.0	--
Bromodichloromethane	ND		ug/l	1.0	--
trans-1,3-Dichloropropene	ND		ug/l	0.50	--
cis-1,3-Dichloropropene	ND		ug/l	0.50	--
1,1-Dichloropropene	ND		ug/l	2.0	--
Bromoform	ND		ug/l	2.0	--
1,1,2,2-Tetrachloroethane	ND		ug/l	1.0	--
Benzene	ND		ug/l	0.50	--
Toluene	ND		ug/l	1.0	--
Ethylbenzene	ND		ug/l	1.0	--
Chloromethane	ND		ug/l	2.0	--
Bromomethane	ND		ug/l	2.0	--
Vinyl chloride	ND		ug/l	1.0	--
Chloroethane	ND		ug/l	2.0	--
1,1-Dichloroethene	ND		ug/l	1.0	--
trans-1,2-Dichloroethene	ND		ug/l	1.0	--
Trichloroethene	ND		ug/l	1.0	--
1,2-Dichlorobenzene	ND		ug/l	1.0	--
1,3-Dichlorobenzene	ND		ug/l	1.0	--
1,4-Dichlorobenzene	ND		ug/l	1.0	--



**Project Name:** 100 BINNEY STREET  
**Project Number:** 34250-021

**Lab Number:** L1405831  
**Report Date:** 03/26/14

**Method Blank Analysis**  
**Batch Quality Control**

Analytical Method: 97,8260C  
Analytical Date: 03/25/14 09:31  
Analyst: MM

Parameter	Result	Qualifier	Units	RL	MDL
MCP Volatile Organics - Westborough Lab for sample(s): 01 Batch: WG677971-3					
Methyl tert butyl ether	ND		ug/l	2.0	--
p/m-Xylene	ND		ug/l	2.0	--
o-Xylene	ND		ug/l	1.0	--
cis-1,2-Dichloroethene	ND		ug/l	1.0	--
Dibromomethane	ND		ug/l	2.0	--
1,2,3-Trichloropropane	ND		ug/l	2.0	--
Styrene	ND		ug/l	1.0	--
Dichlorodifluoromethane	ND		ug/l	2.0	--
Acetone	ND		ug/l	5.0	--
Carbon disulfide	ND		ug/l	2.0	--
2-Butanone	ND		ug/l	5.0	--
4-Methyl-2-pentanone	ND		ug/l	5.0	--
2-Hexanone	ND		ug/l	5.0	--
Bromochloromethane	ND		ug/l	2.0	--
Tetrahydrofuran	ND		ug/l	2.0	--
2,2-Dichloropropane	ND		ug/l	2.0	--
1,2-Dibromoethane	ND		ug/l	2.0	--
1,3-Dichloropropane	ND		ug/l	2.0	--
1,1,1,2-Tetrachloroethane	ND		ug/l	1.0	--
Bromobenzene	ND		ug/l	2.0	--
n-Butylbenzene	ND		ug/l	2.0	--
sec-Butylbenzene	ND		ug/l	2.0	--
tert-Butylbenzene	ND		ug/l	2.0	--
o-Chlorotoluene	ND		ug/l	2.0	--
p-Chlorotoluene	ND		ug/l	2.0	--
1,2-Dibromo-3-chloropropane	ND		ug/l	2.0	--
Hexachlorobutadiene	ND		ug/l	0.60	--
Isopropylbenzene	ND		ug/l	2.0	--
p-Isopropyltoluene	ND		ug/l	2.0	--
Naphthalene	ND		ug/l	2.0	--
n-Propylbenzene	ND		ug/l	2.0	--



**Project Name:** 100 BINNEY STREET  
**Project Number:** 34250-021

**Lab Number:** L1405831  
**Report Date:** 03/26/14

**Method Blank Analysis**  
**Batch Quality Control**

Analytical Method: 97,8260C  
 Analytical Date: 03/25/14 09:31  
 Analyst: MM

Parameter	Result	Qualifier	Units	RL	MDL
MCP Volatile Organics - Westborough Lab for sample(s): 01 Batch: WG677971-3					
1,2,3-Trichlorobenzene	ND		ug/l	2.0	--
1,2,4-Trichlorobenzene	ND		ug/l	2.0	--
1,3,5-Trimethylbenzene	ND		ug/l	2.0	--
1,2,4-Trimethylbenzene	ND		ug/l	2.0	--
Ethyl ether	ND		ug/l	2.0	--
Isopropyl Ether	ND		ug/l	2.0	--
Ethyl-Tert-Butyl-Ether	ND		ug/l	2.0	--
Tertiary-Amyl Methyl Ether	ND		ug/l	2.0	--
1,4-Dioxane	ND		ug/l	250	--

Surrogate	%Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	102		70-130
Toluene-d8	95		70-130
4-Bromofluorobenzene	95		70-130
Dibromofluoromethane	113		70-130

**Project Name:** 100 BINNEY STREET  
**Project Number:** 34250-021

**Lab Number:** L1405831  
**Report Date:** 03/26/14

**Method Blank Analysis  
Batch Quality Control**

Analytical Method: 97,8260C  
Analytical Date: 03/26/14 07:54  
Analyst: MM

Parameter	Result	Qualifier	Units	RL	MDL
MCP Volatile Organics - Westborough Lab for sample(s): 02 Batch: WG678130-3					
Methylene chloride	ND		ug/l	2.0	--
1,1-Dichloroethane	ND		ug/l	1.0	--
Chloroform	ND		ug/l	1.0	--
Carbon tetrachloride	ND		ug/l	1.0	--
1,2-Dichloropropane	ND		ug/l	1.0	--
Dibromochloromethane	ND		ug/l	1.0	--
1,1,2-Trichloroethane	ND		ug/l	1.0	--
Tetrachloroethene	ND		ug/l	1.0	--
Chlorobenzene	ND		ug/l	1.0	--
Trichlorofluoromethane	ND		ug/l	2.0	--
1,2-Dichloroethane	ND		ug/l	1.0	--
1,1,1-Trichloroethane	ND		ug/l	1.0	--
Bromodichloromethane	ND		ug/l	1.0	--
trans-1,3-Dichloropropene	ND		ug/l	0.50	--
cis-1,3-Dichloropropene	ND		ug/l	0.50	--
1,1-Dichloropropene	ND		ug/l	2.0	--
Bromoform	ND		ug/l	2.0	--
1,1,2,2-Tetrachloroethane	ND		ug/l	1.0	--
Benzene	ND		ug/l	0.50	--
Toluene	ND		ug/l	1.0	--
Ethylbenzene	ND		ug/l	1.0	--
Chloromethane	ND		ug/l	2.0	--
Bromomethane	ND		ug/l	2.0	--
Vinyl chloride	ND		ug/l	1.0	--
Chloroethane	ND		ug/l	2.0	--
1,1-Dichloroethene	ND		ug/l	1.0	--
trans-1,2-Dichloroethene	ND		ug/l	1.0	--
Trichloroethene	ND		ug/l	1.0	--
1,2-Dichlorobenzene	ND		ug/l	1.0	--
1,3-Dichlorobenzene	ND		ug/l	1.0	--
1,4-Dichlorobenzene	ND		ug/l	1.0	--





**Project Name:** 100 BINNEY STREET  
**Project Number:** 34250-021

**Lab Number:** L1405831  
**Report Date:** 03/26/14

**Method Blank Analysis**  
**Batch Quality Control**

Analytical Method: 97,8260C  
Analytical Date: 03/26/14 07:54  
Analyst: MM

Parameter	Result	Qualifier	Units	RL	MDL
MCP Volatile Organics - Westborough Lab for sample(s): 02 Batch: WG678130-3					
Methyl tert butyl ether	ND		ug/l	2.0	--
p/m-Xylene	ND		ug/l	2.0	--
o-Xylene	ND		ug/l	1.0	--
cis-1,2-Dichloroethene	ND		ug/l	1.0	--
Dibromomethane	ND		ug/l	2.0	--
1,2,3-Trichloropropane	ND		ug/l	2.0	--
Styrene	ND		ug/l	1.0	--
Dichlorodifluoromethane	ND		ug/l	2.0	--
Acetone	ND		ug/l	5.0	--
Carbon disulfide	ND		ug/l	2.0	--
2-Butanone	ND		ug/l	5.0	--
4-Methyl-2-pentanone	ND		ug/l	5.0	--
2-Hexanone	ND		ug/l	5.0	--
Bromochloromethane	ND		ug/l	2.0	--
Tetrahydrofuran	ND		ug/l	2.0	--
2,2-Dichloropropane	ND		ug/l	2.0	--
1,2-Dibromoethane	ND		ug/l	2.0	--
1,3-Dichloropropane	ND		ug/l	2.0	--
1,1,1,2-Tetrachloroethane	ND		ug/l	1.0	--
Bromobenzene	ND		ug/l	2.0	--
n-Butylbenzene	ND		ug/l	2.0	--
sec-Butylbenzene	ND		ug/l	2.0	--
tert-Butylbenzene	ND		ug/l	2.0	--
o-Chlorotoluene	ND		ug/l	2.0	--
p-Chlorotoluene	ND		ug/l	2.0	--
1,2-Dibromo-3-chloropropane	ND		ug/l	2.0	--
Hexachlorobutadiene	ND		ug/l	0.60	--
Isopropylbenzene	ND		ug/l	2.0	--
p-Isopropyltoluene	ND		ug/l	2.0	--
Naphthalene	ND		ug/l	2.0	--
n-Propylbenzene	ND		ug/l	2.0	--



**Project Name:** 100 BINNEY STREET  
**Project Number:** 34250-021

**Lab Number:** L1405831  
**Report Date:** 03/26/14

**Method Blank Analysis  
Batch Quality Control**

Analytical Method: 97,8260C  
Analytical Date: 03/26/14 07:54  
Analyst: MM

Parameter	Result	Qualifier	Units	RL	MDL
MCP Volatile Organics - Westborough Lab for sample(s): 02 Batch: WG678130-3					
1,2,3-Trichlorobenzene	ND		ug/l	2.0	--
1,2,4-Trichlorobenzene	ND		ug/l	2.0	--
1,3,5-Trimethylbenzene	ND		ug/l	2.0	--
1,2,4-Trimethylbenzene	ND		ug/l	2.0	--
Ethyl ether	ND		ug/l	2.0	--
Isopropyl Ether	ND		ug/l	2.0	--
Ethyl-Tert-Butyl-Ether	ND		ug/l	2.0	--
Tertiary-Amyl Methyl Ether	ND		ug/l	2.0	--
1,4-Dioxane	ND		ug/l	250	--

Surrogate	%Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	104		70-130
Toluene-d8	95		70-130
4-Bromofluorobenzene	102		70-130
Dibromofluoromethane	115		70-130

## Lab Control Sample Analysis

### Batch Quality Control

Project Name: 100 BINNEY STREET

Project Number: 34250-021

Lab Number: L1405831

Report Date: 03/26/14

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
MCP Volatile Organics - Westborough Lab Associated sample(s): 01 Batch: WG677971-1 WG677971-2								
Methylene chloride	101		91		70-130	10		20
1,1-Dichloroethane	94		100		70-130	6		20
Chloroform	96		99		70-130	3		20
Carbon tetrachloride	100		104		70-130	4		20
1,2-Dichloropropane	101		108		70-130	7		20
Dibromochloromethane	113		115		70-130	2		20
1,1,2-Trichloroethane	109		112		70-130	3		20
Tetrachloroethene	108		109		70-130	1		20
Chlorobenzene	106		104		70-130	2		20
Trichlorofluoromethane	92		97		70-130	5		20
1,2-Dichloroethane	93		99		70-130	6		20
1,1,1-Trichloroethane	97		103		70-130	6		20
Bromodichloromethane	101		106		70-130	5		20
trans-1,3-Dichloropropene	115		118		70-130	3		20
cis-1,3-Dichloropropene	105		112		70-130	6		20
1,1-Dichloropropene	103		110		70-130	7		20
Bromoform	101		128		70-130	24	Q	20
1,1,2,2-Tetrachloroethane	95		104		70-130	9		20
Benzene	102		108		70-130	6		20
Toluene	107		108		70-130	1		20
Ethylbenzene	108		106		70-130	2		20

## Lab Control Sample Analysis

### Batch Quality Control

Project Name: 100 BINNEY STREET

Lab Number: L1405831

Project Number: 34250-021

Report Date: 03/26/14

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
MCP Volatile Organics - Westborough Lab Associated sample(s): 01 Batch: WG677971-1 WG677971-2								
Chloromethane	104		110		70-130	6		20
Bromomethane	108		120		70-130	11		20
Vinyl chloride	102		107		70-130	5		20
Chloroethane	106		110		70-130	4		20
1,1-Dichloroethene	95		100		70-130	5		20
trans-1,2-Dichloroethene	95		100		70-130	5		20
Trichloroethene	102		108		70-130	6		20
1,2-Dichlorobenzene	108		110		70-130	2		20
1,3-Dichlorobenzene	104		109		70-130	5		20
1,4-Dichlorobenzene	102		106		70-130	4		20
Methyl tert butyl ether	103		112		70-130	8		20
p/m-Xylene	105		106		70-130	1		20
o-Xylene	106		105		70-130	1		20
cis-1,2-Dichloroethene	92		98		70-130	6		20
Dibromomethane	97		103		70-130	6		20
1,2,3-Trichloropropane	100		110		70-130	10		20
Styrene	106		105		70-130	1		20
Dichlorodifluoromethane	108		115		70-130	6		20
Acetone	107		112		70-130	5		20
Carbon disulfide	97		99		70-130	2		20
2-Butanone	100		110		70-130	10		20

## Lab Control Sample Analysis

### Batch Quality Control

Project Name: 100 BINNEY STREET

Lab Number: L1405831

Project Number: 34250-021

Report Date: 03/26/14

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
MCP Volatile Organics - Westborough Lab Associated sample(s): 01 Batch: WG677971-1 WG677971-2								
4-Methyl-2-pentanone	93		105		70-130	12		20
2-Hexanone	102		110		70-130	8		20
Bromochloromethane	96		103		70-130	7		20
Tetrahydrofuran	86		100		70-130	15		20
2,2-Dichloropropane	102		108		70-130	6		20
1,2-Dibromoethane	106		111		70-130	5		20
1,3-Dichloropropane	110		113		70-130	3		20
1,1,1,2-Tetrachloroethane	110		109		70-130	1		20
Bromobenzene	100		105		70-130	5		20
n-Butylbenzene	108		111		70-130	3		20
sec-Butylbenzene	107		110		70-130	3		20
tert-Butylbenzene	103		106		70-130	3		20
o-Chlorotoluene	103		108		70-130	5		20
p-Chlorotoluene	104		108		70-130	4		20
1,2-Dibromo-3-chloropropane	99		109		70-130	10		20
Hexachlorobutadiene	105		108		70-130	3		20
Isopropylbenzene	105		109		70-130	4		20
p-Isopropyltoluene	107		110		70-130	3		20
Naphthalene	101		111		70-130	9		20
n-Propylbenzene	106		111		70-130	5		20
1,2,3-Trichlorobenzene	101		106		70-130	5		20

## Lab Control Sample Analysis

### Batch Quality Control

Project Name: 100 BINNEY STREET

Project Number: 34250-021

Lab Number: L1405831

Report Date: 03/26/14

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
MCP Volatile Organics - Westborough Lab Associated sample(s): 01 Batch: WG677971-1 WG677971-2								
1,2,4-Trichlorobenzene	106		111		70-130	5		20
1,3,5-Trimethylbenzene	105		109		70-130	4		20
1,2,4-Trimethylbenzene	103		108		70-130	5		20
Ethyl ether	96		105		70-130	9		20
Isopropyl Ether	100		108		70-130	8		20
Ethyl-Tert-Butyl-Ether	104		113		70-130	8		20
Tertiary-Amyl Methyl Ether	103		113		70-130	9		20
1,4-Dioxane	88		111		70-130	23	Q	20

Surrogate	LCS %Recovery	Qual	LCSD %Recovery	Qual	Acceptance Criteria
1,2-Dichloroethane-d4	93		94		70-130
Toluene-d8	104		101		70-130
4-Bromofluorobenzene	99		99		70-130
Dibromofluoromethane	91		97		70-130

## Lab Control Sample Analysis

### Batch Quality Control

Project Name: 100 BINNEY STREET

Lab Number: L1405831

Project Number: 34250-021

Report Date: 03/26/14

Parameter	LCS		LCSD		%Recovery Limits	RPD	Qual	RPD Limits
	%Recovery	Qual	%Recovery	Qual				
MCP Volatile Organics - Westborough Lab Associated sample(s): 02 Batch: WG678130-1 WG678130-2								
Methylene chloride	89		114		70-130	25	Q	20
1,1-Dichloroethane	101		104		70-130	3		20
Chloroform	100		102		70-130	2		20
Carbon tetrachloride	98		102		70-130	4		20
1,2-Dichloropropane	100		98		70-130	2		20
Dibromochloromethane	95		95		70-130	0		20
1,1,2-Trichloroethane	96		97		70-130	1		20
Tetrachloroethene	104		101		70-130	3		20
Chlorobenzene	107		105		70-130	2		20
Trichlorofluoromethane	102		104		70-130	2		20
1,2-Dichloroethane	100		100		70-130	0		20
1,1,1-Trichloroethane	103		103		70-130	0		20
Bromodichloromethane	96		99		70-130	3		20
trans-1,3-Dichloropropene	98		98		70-130	0		20
cis-1,3-Dichloropropene	95		97		70-130	2		20
1,1-Dichloropropene	100		100		70-130	0		20
Bromoform	89		90		70-130	1		20
1,1,2,2-Tetrachloroethane	101		104		70-130	3		20
Benzene	100		98		70-130	2		20
Toluene	104		104		70-130	0		20
Ethylbenzene	106		105		70-130	1		20

## Lab Control Sample Analysis

### Batch Quality Control

Project Name: 100 BINNEY STREET

Lab Number: L1405831

Project Number: 34250-021

Report Date: 03/26/14

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
MCP Volatile Organics - Westborough Lab Associated sample(s): 02 Batch: WG678130-1 WG678130-2								
Chloromethane	103		106		70-130	3		20
Bromomethane	95		103		70-130	8		20
Vinyl chloride	114		115		70-130	1		20
Chloroethane	130		129		70-130	1		20
1,1-Dichloroethene	108		107		70-130	1		20
trans-1,2-Dichloroethene	106		106		70-130	0		20
Trichloroethene	100		101		70-130	1		20
1,2-Dichlorobenzene	97		98		70-130	1		20
1,3-Dichlorobenzene	104		104		70-130	0		20
1,4-Dichlorobenzene	101		104		70-130	3		20
Methyl tert butyl ether	99		100		70-130	1		20
p/m-Xylene	108		107		70-130	1		20
o-Xylene	110		106		70-130	4		20
cis-1,2-Dichloroethene	101		104		70-130	3		20
Dibromomethane	103		101		70-130	2		20
1,2,3-Trichloropropane	106		108		70-130	2		20
Styrene	119		122		70-130	2		20
Dichlorodifluoromethane	126		126		70-130	0		20
Acetone	112		113		70-130	1		20
Carbon disulfide	115		119		70-130	3		20
2-Butanone	105		102		70-130	3		20



## Lab Control Sample Analysis

### Batch Quality Control

Project Name: 100 BINNEY STREET

Project Number: 34250-021

Lab Number: L1405831

Report Date: 03/26/14

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
MCP Volatile Organics - Westborough Lab Associated sample(s): 02 Batch: WG678130-1 WG678130-2								
4-Methyl-2-pentanone	100		106		70-130	6		20
2-Hexanone	103		105		70-130	2		20
Bromochloromethane	106		105		70-130	1		20
Tetrahydrofuran	101		101		70-130	0		20
2,2-Dichloropropane	101		101		70-130	0		20
1,2-Dibromoethane	98		100		70-130	2		20
1,3-Dichloropropane	103		103		70-130	0		20
1,1,1,2-Tetrachloroethane	93		93		70-130	0		20
Bromobenzene	102		105		70-130	3		20
n-Butylbenzene	103		103		70-130	0		20
sec-Butylbenzene	105		104		70-130	1		20
tert-Butylbenzene	102		102		70-130	0		20
o-Chlorotoluene	103		102		70-130	1		20
p-Chlorotoluene	103		104		70-130	1		20
1,2-Dibromo-3-chloropropane	113		99		70-130	13		20
Hexachlorobutadiene	108		100		70-130	8		20
Isopropylbenzene	104		103		70-130	1		20
p-Isopropyltoluene	104		104		70-130	0		20
Naphthalene	103		104		70-130	1		20
n-Propylbenzene	105		103		70-130	2		20
1,2,3-Trichlorobenzene	102		104		70-130	2		20

## Lab Control Sample Analysis

### Batch Quality Control

Project Name: 100 BINNEY STREET

Project Number: 34250-021

Lab Number: L1405831

Report Date: 03/26/14

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
MCP Volatile Organics - Westborough Lab Associated sample(s): 02 Batch: WG678130-1 WG678130-2								
1,2,4-Trichlorobenzene	102		108		70-130	6		20
1,3,5-Trimethylbenzene	101		103		70-130	2		20
1,2,4-Trimethylbenzene	103		102		70-130	1		20
Ethyl ether	104		105		70-130	1		20
Isopropyl Ether	96		97		70-130	1		20
Ethyl-Tert-Butyl-Ether	96		96		70-130	0		20
Tertiary-Amyl Methyl Ether	94		98		70-130	4		20
1,4-Dioxane	84		109		70-130	26	Q	20

Surrogate	LCS %Recovery	Qual	LCSD %Recovery	Qual	Acceptance Criteria
1,2-Dichloroethane-d4	95		93		70-130
Toluene-d8	102		99		70-130
4-Bromofluorobenzene	98		95		70-130
Dibromofluoromethane	101		98		70-130

Project Name: 100 BINNEY STREET

Lab Number: L1405831

Project Number: 34250-021

Report Date: 03/26/14

**Sample Receipt and Container Information**

Were project specific reporting limits specified? YES

Reagent H2O Preserved Vials Frozen on: NA

**Cooler Information Custody Seal****Cooler**

A Absent

**Container Information**

Container ID	Container Type	Cooler	pH	Temp deg C	Pres	Seal	Analysis(*)
L1405831-01A	Vial HCl preserved	A	N/A	4.3	Y	Absent	MCP-8260-10(14)
L1405831-01B	Vial HCl preserved	A	N/A	4.3	Y	Absent	MCP-8260-10(14)
L1405831-01C	Vial HCl preserved	A	N/A	4.3	Y	Absent	MCP-8260-10(14)
L1405831-02A	Vial HCl preserved	A	N/A	4.3	Y	Absent	MCP-8260-10(14)
L1405831-02B	Vial HCl preserved	A	N/A	4.3	Y	Absent	MCP-8260-10(14)
L1405831-02C	Vial HCl preserved	A	N/A	4.3	Y	Absent	MCP-8260-10(14)

\*Values in parentheses indicate holding time in days

**Project Name:** 100 BINNEY STREET  
**Project Number:** 34250-021

**Lab Number:** L1405831  
**Report Date:** 03/26/14

## GLOSSARY

### Acronyms

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

### Footnotes

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

### Terms

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

### Data Qualifiers

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

**Report Format:** Data Usability Report



**Project Name:** 100 BINNEY STREET  
**Project Number:** 34250-021

**Lab Number:** L1405831  
**Report Date:** 03/26/14

**Data Qualifiers**

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

**Project Name:** 100 BINNEY STREET  
**Project Number:** 34250-021

**Lab Number:** L1405831  
**Report Date:** 03/26/14

## REFERENCES

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

## LIMITATION OF LIABILITIES

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

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



## Certification Information

Last revised December 11, 2013

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

#### Westborough Facility

**EPA 524.2:** Acetone, 2-Butanone (Methyl ethyl ketone (MEK)), Tert-butyl alcohol, 2-Hexanone, Tetrahydrofuran, 1,3,5-Trichlorobenzene, 4-Methyl-2-pentanone (MIBK), Carbon disulfide, Diethyl ether.

**EPA 8260C:** 1,2,4,5-Tetramethylbenzene, 4-Ethyltoluene, Iodomethane (methyl iodide), Methyl methacrylate, Azobenzene.

**EPA 8330A/B:** PETN, Picric Acid, Nitroglycerine, 2,6-DANT, 2,4-DANT.

**EPA 8270D:** 1-Methylnaphthalene, Dimethylnaphthalene, 1,4-Diphenylhydrazine.

**EPA 625:** 4-Chloroaniline, 4-Methylphenol.

**SM4500:** Soil: Total Phosphorus, TKN, NO<sub>2</sub>, NO<sub>3</sub>.

**EPA 9071:** Total Petroleum Hydrocarbons, Oil & Grease.

#### Mansfield Facility

**EPA 8270D:** Biphenyl.

**EPA TO-15:** Halothane, 2,4,4-Trimethyl-2-pentene, 2,4,4-Trimethyl-1-pentene, Thiophene, 2-Methylthiophene, 3-Methylthiophene, 2-Ethylthiophene, 1,2,3-Trimethylbenzene, Indan, Indene, 1,2,4,5-Tetramethylbenzene, Benzothiophene, 1-Methylnaphthalene.

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

#### Drinking Water

**EPA 200.8:** Sb,As,Ba,Be,Cd,Cr,Cu,Pb,Ni,Se,Tl; **EPA 200.7:** Ba,Be,Ca,Cd,Cr,Cu,Na; **EPA 245.1:** Mercury;

**EPA 300.0:** Nitrate-N, Fluoride, Sulfate; **EPA 353.2:** Nitrate-N, Nitrite-N; **SM4500NO3-F:** Nitrate-N, Nitrite-N; **SM4500F-C, SM4500CN-CE, EPA 180.1, SM2130B, SM4500CI-D, SM2320B, SM2540C, SM4500H-B**

**EPA 332:** Perchlorate.

**Microbiology:** **SM9215B; SM9223-P/A, SM9223B-Colilert-QT, Enterolert-QT.**

#### Non-Potable Water

**EPA 200.8:** Al,Sb,As,Be,Cd,Cr,Cu,Pb,Mn,Ni,Se,Ag,Tl,Zn;

**EPA 200.7:** Al,Sb,As,Be,Cd,Ca,Cr,Co,Cu,Fe,Pb,Mg,Mn,Mo,Ni,K,Se,Ag,Na,Sr,Ti,Tl,V,Zn;

**EPA 245.1, SM4500H,B, EPA 120.1, SM2510B, SM2540C, SM2340B, SM2320B, SM4500CL-E, SM4500F-BC, SM426C, SM4500NH3-BH, EPA 350.1:** Ammonia-N, **LACHAT 10-107-06-1-B:** Ammonia-N, **SM4500NO3-F, EPA 353.2:** Nitrate-N, **SM4500NH3-BC-NES, EPA 351.1, SM4500P-E, SM4500P-B, E, SM5220D, EPA 410.4, SM5210B, SM5310C, SM4500CL-D, EPA 1664, SM14 510AC, EPA 420.1, SM4500-CN-CE, SM2540D.**

**EPA 624:** Volatile Halocarbons & Aromatics,

**EPA 608:** Chlordane, Toxaphene, Aldrin, alpha-BHC, beta-BHC, gamma-BHC, delta-BHC, Dieldrin, DDD, DDE, DDT, Endosulfan I, Endosulfan II, Endosulfan sulfate, Endrin, Endrin Aldehyde, Heptachlor, Heptachlor Epoxide, PCBs

**EPA 625:** SVOC (Acid/Base/Neutral Extractables), **EPA 600/4-81-045:** PCB-Oil.

**Microbiology:** **SM9223B-Colilert-QT; Enterolert-QT, SM9222D-MF.**

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



Haley & Aldrich, Inc.  
465 Medford St.,  
Suite 2200,  
Boston, MA 02129-1402

# CHAIN OF CUSTODY RECORD

Phone (617) 886-7400  
Fax (617) 886-7600  
Page 1 of 1

H&A FILE NO: 34250-021      LABORATORY: ALPHA ANALYTICAL      DELIVERY DATE: 3-20-14  
PROJECT NAME: 100 BINNEY STREET      ADDRESS: WESTBOROUGH, MA      TURNAROUND TIME: 5-DAY TAT  
H&A CONTACT: F. THIBAUT      CONTACT: GINA HALL      PROJECT MANAGER: R. HIGGINS

Sample No.	Date	Time	Depth	Type	Analysis Requested										Number of Containers	Comments (special instructions, precautions, additional method numbers, etc.)	
					1. VOCs (8260)	2. TPH-PH											
<del>HA-B10-MM-DD-YYYY</del>																	Laboratory to use applicable DEP CAM methods, unless otherwise directed.
<del>MW-S1-MM-DD-YYYY</del>																	
<del>MW-S3-MM-DD-YYYY</del>																	
MW-S1-03202014	3/20/14	1040	GW	AQ	X	X										5	
HA-B10-03202014	↓	1215	"	"	X	X										5	

<b>Sampled and Relinquished by</b> Sign: <i>[Signature]</i> Print: Dagher Warren Firm: H&A Date: 3-20-14 Time:		<b>Received by</b> Sign: <i>[Signature]</i> Print: M. Dysta Firm: H&A Date: 3/20/14 Time: 16:30		<b>LIQUID 10 TOTAL</b> X X A/F A/B 40ml 1L		<b>Sampling Comments</b> VOA Vial Amber Glass Plastic Bottle Preservative Volume	
<b>Relinquished by</b> Sign: <i>[Signature]</i> Print: M. Dysta Firm: H&A Date: 3/20/14 Time: 16:30		<b>Received by</b> Sign: <i>[Signature]</i> Print: P. Varquez Firm: alpha Date: 3-20-14 Time: 16:30		<b>SOLID</b> (Crossed out)		VOA Vial Amber Glass Clear Glass Preservative Volume	
<b>Relinquished by</b> Sign: <i>[Signature]</i> Print: P. Varquez Firm: alpha Date: 3-20-14 Time: 17:41		<b>Received by</b> Sign: <i>[Signature]</i> Print: Elizabeth Ryan Firm: Alpha Date: 3/20/14 Time: 17:41		<b>PRESERVATION KEY</b> A Sample chilled      C NaOH      E H <sub>2</sub> SO <sub>4</sub> G Methanol B Sample filtered      D HNO <sub>3</sub> F HCL      H Water/NaHSO <sub>4</sub> (circle)		Evidence samples were tampered with? YES NO If YES, please explain in section below.	

**Presumptive Certainty Data Package (Laboratory to use applicable DEP CAM methods)**

If Presumptive Certainty Data Package is needed, initial all sections:

The required minimum field QC samples, as designated in BWSC CAM-VII have been or will be collected, as appropriate, to meet the requirements of Presumptive Certainty.

Matrix Spike (MS) samples for MCP Metals and/or Cyanide are included and identified herein.

This Chain of Custody Record (specify) \_\_\_\_\_ includes \_\_\_\_\_ X does not include samples defined as Drinking Water Samples.

If this Chain of Custody Record identifies samples defined as Drinking Water Samples, Trip Blanks and Field Duplicates are included and identified and analysis of TICs are required, as appropriate. Laboratory should (specify if applicable) \_\_\_\_\_ analyze

**Required Reporting Limits and Data Quality Objectives**

<input type="checkbox"/> RC-S1	<input type="checkbox"/> S1	<input type="checkbox"/> GW1
<input type="checkbox"/> RC-S2	<input type="checkbox"/> S2	<input type="checkbox"/> GW2
<input type="checkbox"/> RC-GW1	<input type="checkbox"/> S3	<input type="checkbox"/> GW3
<input type="checkbox"/> RC-GW2		



7A  
Volatile Organics CONTINUING CALIBRATION CHECK

Lab Name: Alpha Analytical Labs

SDG No.: L1405831

Instrument ID: Jack.i                      Calibration Date: 26-MAR-2014    Time: 06:16

Lab File ID: 0326A02                      Init. Calib. Date(s): 24-MAR-2      24-MAR-2

Sample No: 8260 CCAL                      Init. Calib. Times    : 06:20                      13:58

Compound	RRF	RRF	MIN RRF	%D	MAX %D	
=====	=====	=====	=====	=====	=====	
dichlorodifluoromethane	.49527	.62696	.1	27	20	F
chloromethane	100	103	.1	3	20	
vinyl chloride	.91218	1.0424	.1	14	20	
bromomethane	.29117	.27735	.1	-5	20	
chloroethane	.44462	.57811	.1	30	20	F
trichlorofluoromethane	.96972	.98498	.1	2	20	
ethyl ether	.2816	.29452	.05	5	20	
1,1,-dichloroethene	.57317	.61646	.1	8	20	
carbon disulfide	1.3889	1.5942	.1	15	20	
freon-113	.63314	.68185	.1	8	20	
iodomethane	.37278	.32764	.05	-12	20	
acrolein	.14016	.15495	.05	11	20	
methylene chloride	.59834	.53424	.1	-11	20	
acetone	100	112	.1	12	20	
trans-1,2-dichloroethene	.65128	.68887	.1	6	20	
methyl acetate	.43017	.4413	.1	3	20	
methyl tert butyl ether	1.3014	1.2840	.1	-1	20	
tert butyl alcohol	.04678	.04777	.05	2	20	F
Diisopropyl Ether	2.8471	2.7236	.01	-4	20	
1,1-dichloroethane	1.5632	1.5727	.2	1	20	
acrylonitrile	.21841	.24047	.05	10	20	
Halothane	.49604	.51152	.05	3	20	
Ethyl-Tert-Butyl-Ether	2.2696	2.1753	.05	-4	20	
vinyl acetate	1.5145	1.4833	.05	-2	20	
cis-1,2-dichloroethene	.71409	.72347	.1	1	20	
2,2-dichloropropane	.97271	.97984	.05	1	20	
cyclohexane	1.8338	1.9695	.01	7	30	
bromochloromethane	.3082	.32668	.05	6	20	
chloroform	1.1828	1.1791	.2	0	20	
carbontetrachloride	.89326	.87688	.1	-2	20	
tetrahydrofuran	.20231	.20496	.05	1	20	
ethyl acetate	.5616	.5442	.05	-3	20	
1,1,1-trichloroethane	1.0162	1.0440	.1	3	20	
1,1-dichloropropene	.92538	.92654	.05	0	20	
2-butanone	.24149	.25354	.1	5	20	
benzene	2.6154	2.6024	.5	0	20	
Tertiary-Amyl Methyl Ether	1.3454	1.2627	.05	-6	20	
1,2-dichloroethane	.93584	.93947	.1	0	20	

FORM VII MCP-8260-10

7A  
CONTINUING CALIBRATION CHECK

Lab Name: Alpha Analytical Labs

SDG No.: L1405831

Instrument ID: Jack.i                      Calibration Date: 26-MAR-2014    Time: 06:16

Lab File ID: 0326A02                      Init. Calib. Date(s): 24-MAR-2      24-MAR-2

Sample No: 8260 CCAL                      Init. Calib. Times    : 06:20                      13:58

Compound	RRF	RRF	MIN RRF	%D	MAX %D
=====	=====	=====	=====	=====	=====
methyl cyclohexane	.9805	1.0299	.01	5	30
trichloroethene	.63791	.64171	.2	1	20
dibromomethane	.31962	.32828	.05	3	20
1,2-dichloropropane	.83876	.83655	.1	0	20
bromodichloromethane	.82605	.79699	.2	-4	20
1,4-dioxane	.00423	.00354	.05	-16	20
2-chloroethylvinyl ether	.3725	.37605	.05	1	20
cis-1,3-dichloropropene	.98705	.93344	.2	-5	20
toluene	2.0122	2.0886	.4	4	20
tetrachloroethene	.87149	.90573	.2	4	20
4-methyl-2-pentanone	.20046	.19988	.1	0	20
trans-1,3-dichloropropene	.97089	.94628	.1	-3	20
1,1,2-trichloroethane	.46399	.44354	.1	-4	20
ethyl-methacrylate	.72397	.81426	.01	12	30
chlorodibromomethane	.65484	.62249	.1	-5	20
1,3-dichloropropane	.97005	.99608	.05	3	20
1,2-dibromoethane	.56653	.55269	.1	-2	20
2-hexanone	.42284	.43538	.1	3	20
chlorobenzene	2.1785	2.3302	.5	7	20
ethyl benzene	3.8004	4.0269	.1	6	20
1,1,1,2-tetrachloroethane	.77297	.72035	.05	-7	20
p/m xylene	1.4987	1.6204	.1	8	20
o xylene	1.3908	1.5229	.3	10	20
bromoform	.65445	.58021	.1	-11	20
styrene	2.3580	2.8088	.3	19	20
isopropylbenzene	6.7198	6.9939	.1	4	20
bromobenzene	1.6180	1.6552	.05	2	20
n-propylbenzene	7.1776	7.5190	.05	5	20
1,4-dichlorobutane	2.5333	2.6350	.01	4	20
1,1,2,2,-tetrachloroethane	1.0971	1.1124	.3	1	20
4-ethyltoluene	6.6232	6.8966	.05	4	20
2-chlorotoluene	5.0164	5.1533	.05	3	20
1,2,3-trichloropropane	.87607	.92907	.05	6	20
1,3,5-trimethylbenzene	5.2320	5.3055	.05	1	20
trans-1,4-dichloro-2-butene	.19049	.18874	.05	-1	20
4-chlorotoluene	4.4812	4.6268	.05	3	20
tert-butylbenzene	4.3508	4.4598	.05	3	20
1,2,4-trimethylbenzene	5.2492	5.3986	.05	3	20

F

FORM VII MCP-8260-10



7A  
CONTINUING CALIBRATION CHECK

Lab Name: Alpha Analytical Labs

SDG No.: L1405831

Instrument ID: Jack.i                      Calibration Date: 25-MAR-2014    Time: 06:47

Lab File ID: 0325A02                      Init. Calib. Date(s): 24-MAR-2      24-MAR-2

Sample No: 8260 CCAL                      Init. Calib. Times    : 06:20                      13:58

Compound	RRF	RRF	MIN RRF	%D	MAX %D
=====	=====	=====	=====	=====	=====
dichlorodifluoromethane	.49527	.5356	.1	8	20
chloromethane	800	830	.1	4	20
vinyl chloride	.91218	.92606	.1	2	20
bromomethane	.29117	.31588	.1	8	20
chloroethane	.44462	.46979	.1	6	20
trichlorofluoromethane	.96972	.8961	.1	-8	20
ethyl ether	.2816	.26926	.05	-4	20
1,1,-dichloroethene	.57317	.54417	.1	-5	20
carbon disulfide	1.3889	1.3516	.1	-3	20
freon-113	.63314	.61613	.1	-3	20
iodomethane	.37278	.41812	.05	12	20
acrolein	.14016	.13054	.05	-7	20
methylene chloride	.59834	.60547	.1	1	20
acetone	800	855	.1	7	20
trans-1,2-dichloroethene	.65128	.61746	.1	-5	20
methyl acetate	.43017	.37994	.1	-12	20
methyl tert butyl ether	1.3014	1.3366	.1	3	20
tert butyl alcohol	.04678	.04434	.05	-5	20
Diisopropyl Ether	2.8471	2.8511	.01	0	20
1,1-dichloroethane	1.5632	1.4624	.2	-6	20
acrylonitrile	.21841	.19666	.05	-10	20
Halothane	.49604	.49126	.05	-1	20
Ethyl-Tert-Butyl-Ether	2.2696	2.3563	.05	4	20
vinyl acetate	1.5145	1.5648	.05	3	20
cis-1,2-dichloroethene	.71409	.66019	.1	-8	20
2,2-dichloropropane	.97271	.9892	.05	2	20
cyclohexane	1.8338	1.8070	.01	-1	30
bromochloromethane	.3082	.29724	.05	-4	20
chloroform	1.1828	1.1305	.2	-4	20
carbontetrachloride	.89326	.89072	.1	0	20
tetrahydrofuran	.20231	.17482	.05	-14	20
ethyl acetate	.5616	.54353	.05	-3	20
1,1,1-trichloroethane	1.0162	.98815	.1	-3	20
1,1-dichloropropene	.92538	.95332	.05	3	20
2-butanone	.24149	.24091	.1	0	20
benzene	2.6154	2.6603	.5	2	20
Tertiary-Amyl Methyl Ether	1.3454	1.3866	.05	3	20
1,2-dichloroethane	.93584	.87444	.1	-7	20

F

FORM VII MCP-8260-10

7A  
CONTINUING CALIBRATION CHECK

Lab Name: Alpha Analytical Labs

SDG No.: L1405831

Instrument ID: Jack.i                      Calibration Date: 25-MAR-2014    Time: 06:47

Lab File ID: 0325A02                      Init. Calib. Date(s): 24-MAR-2      24-MAR-2

Sample No: 8260 CCAL                      Init. Calib. Times    : 06:20                      13:58

Compound	RRF	RRF	MIN RRF	%D	MAX %D
=====	=====	=====	=====	=====	=====
methyl cyclohexane	.9805	1.0236	.01	4	30
trichloroethene	.63791	.6533	.2	2	20
dibromomethane	.31962	.31102	.05	-3	20
1,2-dichloropropane	.83876	.84888	.1	1	20
bromodichloromethane	.82605	.83114	.2	1	20
1,4-dioxane	.00423	.00374	.05	-12	20
2-chloroethylvinyl ether	.3725	.36785	.05	-1	20
cis-1,3-dichloropropene	.98705	1.0392	.2	5	20
toluene	2.0122	2.1583	.4	7	20
tetrachloroethene	.87149	.94503	.2	8	20
4-methyl-2-pentanone	.20046	.18721	.1	-7	20
trans-1,3-dichloropropene	.97089	1.1157	.1	15	20
1,1,2-trichloroethane	.46399	.50454	.1	9	20
ethyl-methacrylate	.72397	.76156	.01	5	30
chlorodibromomethane	.65484	.74213	.1	13	20
1,3-dichloropropane	.97005	1.0703	.05	10	20
1,2-dibromoethane	.56653	.59929	.1	6	20
2-hexanone	.42284	.42971	.1	2	20
chlorobenzene	2.1785	2.3088	.5	6	20
ethyl benzene	3.8004	4.0882	.1	8	20
1,1,1,2-tetrachloroethane	.77297	.84864	.05	10	20
p/m xylene	1.4987	1.5766	.1	5	20
o xylene	1.3908	1.4763	.3	6	20
bromoform	.65445	.65999	.1	1	20
styrene	2.3580	2.4879	.3	6	20
isopropylbenzene	6.7198	7.0602	.1	5	20
bromobenzene	1.6180	1.6220	.05	0	20
n-propylbenzene	7.1776	7.5944	.05	6	20
1,4-dichlorobutane	2.5333	2.4622	.01	-3	20
1,1,2,2,-tetrachloroethane	1.0971	1.0456	.3	-5	20
4-ethyltoluene	6.6232	6.9960	.05	6	20
2-chlorotoluene	5.0164	5.1902	.05	3	20
1,2,3-trichloropropane	.87607	.87551	.05	0	20
1,3,5-trimethylbenzene	5.2320	5.4990	.05	5	20
trans-1,4-dichloro-2-butene	.19049	.19585	.05	3	20
4-chlorotoluene	4.4812	4.6676	.05	4	20
tert-butylbenzene	4.3508	4.4977	.05	3	20
1,2,4-trimethylbenzene	5.2492	5.4269	.05	3	20

F

FORM VII MCP-8260-10





## ANALYTICAL REPORT

Lab Number:	L1405832
Client:	Haley & Aldrich, Inc. 465 Medford Street, Suite 2200 Charlestown, MA 02129-1400
ATTN:	Rebecca Higgins
Phone:	(617) 886-7326
Project Name:	100 BINNEY STREET
Project Number:	34250-021
Report Date:	03/31/14

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.

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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:** 100 BINNEY STREET  
**Project Number:** 34250-021

**Lab Number:** L1405832  
**Report Date:** 03/31/14

<b>Alpha Sample ID</b>	<b>Client ID</b>	<b>Sample Location</b>	<b>Collection Date/Time</b>
L1405832-01	MW-S1-03202014	Not Specified	03/20/14 10:40
L1405832-02	HA-B10-03202014	Not Specified	03/20/14 12:15



**Project Name:** 100 BINNEY STREET  
**Project Number:** 34250-021

**Lab Number:** L1405832  
**Report Date:** 03/31/14

### Case Narrative

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

Results contained within this report relate only to the samples submitted under this Alpha Lab Number and meet all of the requirements of NELAC, for all NELAC accredited parameters. The data presented in this report is organized by parameter (i.e. VOC, SVOC, etc.). Sample specific Quality Control data (i.e. Surrogate Spike Recovery) is reported at the end of the target analyte list for each individual sample, followed by the Laboratory Batch Quality Control at the end of each parameter. If a sample was re-analyzed or re-extracted due to a required quality control corrective action and if both sets of data are reported, the Laboratory ID of the re-analysis or re-extraction is designated with an "R" or "RE", respectively. When multiple Batch Quality Control elements are reported (e.g. more than one LCS), the associated samples for each element are noted in the grey shaded header line of each data table. Any Laboratory Batch, Sample Specific % recovery or RPD value that is outside the listed Acceptance Criteria is bolded in the report. 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 (with the exception of Air canisters) free of charge for 21 calendar days from the date the project is completed. After 21 calendar days, we will dispose of all samples submitted including those put on hold unless you have contacted your Client Service Representative and made arrangements for Alpha to continue to hold the samples. Air canisters will be disposed after 3 business days from the date the project is completed.

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

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**Project Name:** 100 BINNEY STREET  
**Project Number:** 34250-021

**Lab Number:** L1405832  
**Report Date:** 03/31/14

### Case Narrative (continued)

#### Total Petroleum Hydrocarbons (TPH) by GC/FID

The sample was extracted and then analyzed using a gas chromatograph equipped with a flame ionization detector (GC/FID). The temperature program and associated experimental conditions were optimized to obtain maximum resolution in an eighty minute chromatographic run representative of hydrocarbons in the n-Octane (C8) to n-Tetracontane (C40) range. Qualitative evaluation of the sample is conducted by reviewing the sample chromatogram in conjunction with a chromatogram of a normal alkane series generated with the same chromatographic conditions. Chromatograms of hydrocarbon reference materials obtained from our library of 74 reference standards are also utilized to provide the best possible sample match. Quantitative determination of the sample hydrocarbon concentration is performed in accordance with EPA Method 8015M. The sample total hydrocarbon concentration and all associated quality control data are included in the report.

All quality control parameters met the specified criteria.

The following qualitative information is based on a tentative interpretation of chromatographic pattern recognition and boiling point ranges:

#### Total Petroleum Hydrocarbon Identification

Sample MW-S1-03202014 (L1405832-01) contains hydrocarbons eluting in the range prior to the elution of n-Nonane (C9) to just after the elution of n-Octacosane (C28).

Based on the data generated sample, MW-S1-03202014 (L1405832-01) contains material eluting in the low and mid molecular weight ranges of the chromatogram. The material appears to be similar to a Fuel Oil #2/Diesel Fuel. In addition there are resolved peaks present in the low molecular weight range of the chromatogram which were not a match to any petroleum standard contained in the reference library. In an analysis of an undegraded product the n-alkanes are typically the dominant constituents, as seen in the petroleum reference chromatogram. As the product deteriorates, the n-alkanes are preferentially degraded, leaving behind other constituents such as isoprenoids.

**Project Name:** 100 BINNEY STREET  
**Project Number:** 34250-021

**Lab Number:** L1405832  
**Report Date:** 03/31/14

### Case Narrative (continued)

The analytical testing of the sample identified a pattern of isoprenoids. The absence of alkanes and presence of isoprenoids indicate that the fuel oil has undergone degradation and is weathered.

Sample HA-B10-03202014 (L1405832-02) contains hydrocarbons eluting in the range prior to the elution of n-Nonane (C9) to just after the elution of n-Octacosane (C28).

Based on the data generated sample, HA-B10-03202014 (L1405832-02) contains material eluting in the low and mid molecular weight ranges of the chromatogram. The material appears to be similar to a Fuel Oil #2/Diesel Fuel. In an analysis of an undegraded product the n-alkanes are typically the dominant constituents, as seen in the petroleum reference chromatogram. As the product deteriorates, the n-alkanes are preferentially degraded, leaving behind other constituents such as isoprenoids.

The analytical testing of the sample identified a pattern of isoprenoids. The absence of alkanes and presence of isoprenoids indicate that the fuel oil has undergone degradation and is weathered.

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:  Elizabeth Porta

Title: Technical Director/Representative

Date: 03/31/14

# ORGANICS

# **PETROLEUM HYDROCARBONS**

**Project Name:** 100 BINNEY STREET**Lab Number:** L1405832**Project Number:** 34250-021**Report Date:** 03/31/14**SAMPLE RESULTS**

**Lab ID:** L1405832-01  
**Client ID:** MW-S1-03202014  
**Sample Location:** Not Specified  
**Matrix:** Water  
**Analytical Method:** 1,8015D(M)  
**Analytical Date:** 03/27/14 07:52  
**Analyst:** AC

**Date Collected:** 03/20/14 10:40  
**Date Received:** 03/20/14  
**Field Prep:** Not Specified  
**Extraction Method:** EPA 3510C  
**Extraction Date:** 03/26/14 14:29

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
<b>Petroleum Hydrocarbon Identification by GC-FID - Mansfield Lab</b>						
Total Petroleum Hydrocarbons (C9-C44)	1.18		mg/l	0.033	--	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
o-Terphenyl	89		50-130
d50-Tetracosane	86		50-130

**Project Name:** 100 BINNEY STREET**Lab Number:** L1405832**Project Number:** 34250-021**Report Date:** 03/31/14**SAMPLE RESULTS**

**Lab ID:** L1405832-02  
**Client ID:** HA-B10-03202014  
**Sample Location:** Not Specified  
**Matrix:** Water  
**Analytical Method:** 1,8015D(M)  
**Analytical Date:** 03/27/14 09:20  
**Analyst:** AC

**Date Collected:** 03/20/14 12:15  
**Date Received:** 03/20/14  
**Field Prep:** Not Specified  
**Extraction Method:** EPA 3510C  
**Extraction Date:** 03/26/14 14:29

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

Petroleum Hydrocarbon Identification by GC-FID - Mansfield Lab						
--	--	--	--	--	--	--

Total Petroleum Hydrocarbons (C9-C44)	1.28		mg/l	0.033	--	1
---------------------------------------	------	--	------	-------	----	---

Surrogate	% Recovery	Qualifier	Acceptance Criteria
o-Terphenyl	90		50-130
d50-Tetracosane	86		50-130

Project Name: 100 BINNEY STREET

Lab Number: L1405832

Project Number: 34250-021

Report Date: 03/31/14

**Method Blank Analysis**  
**Batch Quality Control**

Analytical Method: 1,8015D(M)  
 Analytical Date: 03/27/14 03:28  
 Analyst: AC

Extraction Method: EPA 3510C  
 Extraction Date: 03/26/14 14:29

Parameter	Result	Qualifier	Units	RL	MDL
Petroleum Hydrocarbon Identification by GC-FID - Mansfield Lab for sample(s): 01-02 Batch: WG677872-1					
Total Petroleum Hydrocarbons (C9-C44)	ND		mg/l	0.033	--

Surrogate	%Recovery	Qualifier	Acceptance Criteria
o-Terphenyl	91		50-130
d50-Tetracosane	89		50-130



## Lab Control Sample Analysis

### Batch Quality Control

Project Name: 100 BINNEY STREET

Project Number: 34250-021

Lab Number: L1405832

Report Date: 03/31/14

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Petroleum Hydrocarbon Identification by GC-FID - Mansfield Lab Associated sample(s): 01-02 Batch: WG677872-2 WG677872-3								
Nonane (C9)	54		63		50-130	15		30
Decane (C10)	56		66		50-130	16		30
Dodecane (C12)	68		78		50-130	14		30
Tetradecane (C14)	72		79		50-130	9		30
Hexadecane (C16)	90		93		50-130	3		30
Octadecane (C18)	97		100		50-130	3		30
Nonadecane (C19)	87		89		50-130	2		30
Eicosane (C20)	88		90		50-130	2		30
Docosane (C22)	88		90		50-130	2		30
Tetracosane (C24)	89		92		50-130	3		30
Hexacosane (C26)	87		89		50-130	2		30
Octacosane (C28)	88		91		50-130	3		30
Triacontane (C30)	87		90		50-130	3		30
Hexatriacontane (C36)	73		87		50-130	18		30

Surrogate	LCS %Recovery	Qual	LCSD %Recovery	Qual	Acceptance Criteria
o-Terphenyl	88		89		50-130
d50-Tetracosane	87		87		50-130

Project Name: 100 BINNEY STREET

Lab Number: L1405832

Project Number: 34250-021

Report Date: 03/31/14

**Sample Receipt and Container Information**

Were project specific reporting limits specified? YES

Reagent H2O Preserved Vials Frozen on: NA

**Cooler Information Custody Seal****Cooler**

A Absent

**Container Information**

Container ID	Container Type	Cooler	pH	Temp deg C	Pres	Seal	Analysis(*)
L1405832-01A	Amber 1000ml unpreserved	A	7	4.3	Y	Absent	A2-PHI(7)
L1405832-01B	Amber 1000ml unpreserved	A	7	4.3	Y	Absent	A2-PHI(7)
L1405832-02A	Amber 1000ml unpreserved	A	8	4.3	Y	Absent	A2-PHI(7)
L1405832-02B	Amber 1000ml unpreserved	A	8	4.3	Y	Absent	A2-PHI(7)

\*Values in parentheses indicate holding time in days

**Project Name:** 100 BINNEY STREET  
**Project Number:** 34250-021

**Lab Number:** L1405832  
**Report Date:** 03/31/14

## GLOSSARY

### Acronyms

EDL	- Estimated Detection Limit: This value represents the level to which target analyte concentrations are reported as estimated values, when those target analyte concentrations are quantified below the reporting limit (RL). The EDL includes any adjustments from dilutions, concentrations or moisture content, where applicable. The use of EDLs is specific to the analysis of PAHs using Solid-Phase Microextraction (SPME).
EPA	- Environmental Protection Agency.
LCS	- Laboratory Control Sample: A sample matrix, free from the analytes of interest, spiked with verified known amounts of analytes or a material containing known and verified amounts of analytes.
LCS D	- 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 ten times (10x) the concentration found in the blank. For MCP-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank. For DOD-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank AND the analyte was detected above one-half the reporting limit (or above the reporting limit for common lab contaminants) in the associated method blank. For NJ-Air-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte above the reporting limit.
- C** - Co-elution: The target analyte co-elutes with a known lab standard (i.e. surrogate, internal standards, etc.) for co-extracted analyses.
- D** - Concentration of analyte was quantified from diluted analysis. Flag only applies to field samples that have detectable concentrations of the analyte.
- E** - Concentration of analyte exceeds the range of the calibration curve and/or linear range of the instrument.
- G** - The concentration may be biased high due to matrix interferences (i.e. co-elution) with non-target compound(s). The result should be considered estimated.
- H** - The analysis of pH was performed beyond the regulatory-required holding time of 15 minutes from the time of sample collection.
- I** - The lower value for the two columns has been reported due to obvious interference.

**Report Format:** Data Usability Report



**Project Name:** 100 BINNEY STREET  
**Project Number:** 34250-021

**Lab Number:** L1405832  
**Report Date:** 03/31/14

**Data Qualifiers**

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

**Project Name:** 100 BINNEY STREET  
**Project Number:** 34250-021

**Lab Number:** L1405832  
**Report Date:** 03/31/14

## REFERENCES

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

## LIMITATION OF LIABILITIES

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

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



## Certification Information

Last revised December 11, 2013

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

#### Westborough Facility

**EPA 524.2:** Acetone, 2-Butanone (Methyl ethyl ketone (MEK)), Tert-butyl alcohol, 2-Hexanone, Tetrahydrofuran, 1,3,5-Trichlorobenzene, 4-Methyl-2-pentanone (MIBK), Carbon disulfide, Diethyl ether.

**EPA 8260C:** 1,2,4,5-Tetramethylbenzene, 4-Ethyltoluene, Iodomethane (methyl iodide), Methyl methacrylate, Azobenzene.

**EPA 8330A/B:** PETN, Picric Acid, Nitroglycerine, 2,6-DANT, 2,4-DANT.

**EPA 8270D:** 1-Methylnaphthalene, Dimethylnaphthalene, 1,4-Diphenylhydrazine.

**EPA 625:** 4-Chloroaniline, 4-Methylphenol.

**SM4500:** Soil: Total Phosphorus, TKN, NO<sub>2</sub>, NO<sub>3</sub>.

**EPA 9071:** Total Petroleum Hydrocarbons, Oil & Grease.

#### Mansfield Facility

**EPA 8270D:** Biphenyl.

**EPA TO-15:** Halothane, 2,4,4-Trimethyl-2-pentene, 2,4,4-Trimethyl-1-pentene, Thiophene, 2-Methylthiophene, 3-Methylthiophene, 2-Ethylthiophene, 1,2,3-Trimethylbenzene, Indan, Indene, 1,2,4,5-Tetramethylbenzene, Benzothiophene, 1-Methylnaphthalene.

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

#### Drinking Water

**EPA 200.8:** Sb,As,Ba,Be,Cd,Cr,Cu,Pb,Ni,Se,Tl; **EPA 200.7:** Ba,Be,Ca,Cd,Cr,Cu,Na; **EPA 245.1:** Mercury;

**EPA 300.0:** Nitrate-N, Fluoride, Sulfate; **EPA 353.2:** Nitrate-N, Nitrite-N; **SM4500NO3-F:** Nitrate-N, Nitrite-N; **SM4500F-C, SM4500CN-CE, EPA 180.1, SM2130B, SM4500CI-D, SM2320B, SM2540C, SM4500H-B**

**EPA 332:** Perchlorate.

**Microbiology:** **SM9215B; SM9223-P/A, SM9223B-Colilert-QT, Enterolert-QT.**

#### Non-Potable Water

**EPA 200.8:** Al,Sb,As,Be,Cd,Cr,Cu,Pb,Mn,Ni,Se,Ag,Tl,Zn;

**EPA 200.7:** Al,Sb,As,Be,Cd,Ca,Cr,Co,Cu,Fe,Pb,Mg,Mn,Mo,Ni,K,Se,Ag,Na,Sr,Ti,Tl,V,Zn;

**EPA 245.1, SM4500H,B, EPA 120.1, SM2510B, SM2540C, SM2340B, SM2320B, SM4500CL-E, SM4500F-BC, SM426C, SM4500NH3-BH, EPA 350.1:** Ammonia-N, **LACHAT 10-107-06-1-B:** Ammonia-N, **SM4500NO3-F, EPA 353.2:** Nitrate-N, **SM4500NH3-BC-NES, EPA 351.1, SM4500P-E, SM4500P-B, E, SM5220D, EPA 410.4, SM5210B, SM5310C, SM4500CL-D, EPA 1664, SM14 510AC, EPA 420.1, SM4500-CN-CE, SM2540D.**

**EPA 624:** Volatile Halocarbons & Aromatics,

**EPA 608:** Chlordane, Toxaphene, Aldrin, alpha-BHC, beta-BHC, gamma-BHC, delta-BHC, Dieldrin, DDD, DDE, DDT, Endosulfan I, Endosulfan II, Endosulfan sulfate, Endrin, Endrin Aldehyde, Heptachlor, Heptachlor Epoxide, PCBs

**EPA 625:** SVOC (Acid/Base/Neutral Extractables), **EPA 600/4-81-045:** PCB-Oil.

**Microbiology:** **SM9223B-Colilert-QT; Enterolert-QT, SM9222D-MF.**

---

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



Haley & Aldrich, Inc.  
465 Medford St.,  
Suite 2200,  
Boston, MA 02129-1402

# CHAIN OF CUSTODY RECORD

Serial 1405-832  
Phone (617) 886-7400  
Fax (617) 886-7600  
Page 1 of 1

H&A FILE NO. 34250-021  
PROJECT NAME 100 BINNEY STREET  
H&A CONTACT J. THIBAUT

LABORATORY ALPHA ANALYTICAL  
ADDRESS WESTBOROUGH, MA  
CONTACT GINA HALL

DELIVERY DATE 3-20-14  
TURNAROUND TIME 5-DAY TAT  
PROJECT MANAGER R. HIGGINS

Sample No.	Date	Time	Depth	Type	Analysis Requested										Number of Containers	Comments (special instructions, precautions, additional method numbers, etc.)	
					1. VOCs (8260)	2. TPH-TPH											
<del>HA-B10-MM-DD-YYYY</del>																	Laboratory to use applicable DEP CAM methods, unless otherwise directed.
<del>MW-51-MM-DD-YYYY</del>																	
<del>MW-53-MM-DD-YYYY</del>																	
<u>MW-51-03202014</u>	<u>3/20/14</u>	<u>1040</u>	<u>6W</u>	<u>AQ</u>	<u>X</u>	<u>X</u>										<u>5</u>	
<u>HA-B10-03202014</u>	<u>↓</u>	<u>1215</u>	<u>"</u>	<u>"</u>	<u>X</u>	<u>X</u>										<u>5</u>	

Sampled and Relinquished by		Received by		LIQUID <u>10 TOTAL</u>										Sampling Comments				
Sign <u>[Signature]</u> Print <u>Dwight Warren</u> Firm <u>H&amp;A</u> Date <u>3-20-14</u> Time	Sign <u>[Signature]</u> Print <u>M. Buss</u> Firm <u>HPA</u> Date <u>3/20/14</u> Time <u>16:30</u>	<u>X</u>	<u>X</u>															
				SOLID														
Sign <u>[Signature]</u> Print <u>M. Buss</u> Firm <u>HPA</u> Date <u>3/20/14</u> Time <u>16:30</u>	Sign <u>[Signature]</u> Print <u>P. Varquez</u> Firm <u>alpha</u> Date <u>3-20-14</u> Time <u>16:30</u>																	
				PRESERVATION KEY														
				A Sample chilled    C NaOH    E H <sub>2</sub> SO <sub>4</sub> G Methanol B Sample filtered    D HNO <sub>3</sub> F HCL    H Water/NaHSO <sub>4</sub> (circle)														

**Presumptive Certainty Data Package (Laboratory to use applicable DEP CAM methods)**

If Presumptive Certainty Data Package is needed, initial all sections:

The required minimum field QC samples, as designated in BWSC CAM-VII have been or will be collected, as appropriate, to meet the requirements of Presumptive Certainty.

Matrix Spike (MS) samples for MCP Metals and/or Cyanide are included and identified herein.

This Chain of Custody Record (specify) \_\_\_\_\_ includes \_\_\_\_\_ X does not include samples defined as Drinking Water Samples.

If this Chain of Custody Record identifies samples defined as Drinking Water Samples, Trip Blanks and Field Duplicates are included and identified and analysis of TICs are required, as appropriate. Laboratory should (specify if applicable) \_\_\_\_\_ analyze

**Required Reporting Limits and Data Quality Objectives**

RC-S1     S1     GW1  
 RC-S2     S2     GW2  
 RC-GW1     S3     GW3  
 RC-GW2



Haley & Aldrich, Inc.  
465 Medford St.,  
Suite 2200,  
Boston, MA 02129-1402

# CHAIN OF CUSTODY RECORD

Phone (617) 886-7400  
Fax (617) 886-7600  
Page 1 of 1

H&A FILE NO. 34250-021 LABORATORY ALPHA ANALYTICAL DELIVERY DATE 3-20-14  
PROJECT NAME 100 BINNEY STREET ADDRESS WESTBOROUGH, MA TURNAROUND TIME 5-DAY TAT  
H&A CONTACT J. THIBAUT CONTACT GINA HALL PROJECT MANAGER R. HIGGINS

Sample No.	Date	Time	Depth	Type	Analysis Requested										Number of Containers	Comments (special instructions, precautions, additional method numbers, etc.)	
					1. VOCs (8260)	2. TPH-PH											
<del>HA-B10-MM-DD-YYYY</del>																	Laboratory to use applicable DEP CAM methods, unless otherwise directed.
<del>MW-51-MM-DD-YYYY</del>																	
<del>MW-53-MM-DD-YYYY</del>																	
MW-51-03202014	3/20/14	1040	6W	AA	X	X										5	
HA-B10-03202014	↓	1215	"	"	X	X										5	

Sampled and Relinquished by: *[Signature]* Received by: *[Signature]* LIQUID 10 TOTAL  
 Sign: *[Signature]* Print: *[Signature]* Firm: H&A Date: 3-20-14 Time: 16:30  
 Sign: *[Signature]* Print: *[Signature]* Firm: H&A Date: 3/20/14 Time: 16:30  
 Date: 3-20-14 Time: 16:30 AF AB 40% IL

Relinquished by: *[Signature]* Received by: *[Signature]* SOLID  
 Sign: *[Signature]* Print: *[Signature]* Firm: alpha Date: 3/20/14 Time: 16:30  
 Sign: *[Signature]* Print: *[Signature]* Firm: alpha Date: 3-20-14 Time: 16:30

Relinquished by: *[Signature]* Received by: *[Signature]*  
 Sign: *[Signature]* Print: *[Signature]* Firm: alpha Date: 3-20-14 Time: 17:41  
 Sign: *[Signature]* Print: *[Signature]* Firm: alpha Date: 3/20/14 Time: 17:41

- PRESERVATION KEY**
- A Sample chilled
  - B Sample filtered
  - C NaOH
  - D HNO<sub>3</sub>
  - E H<sub>2</sub>SO<sub>4</sub>
  - F HCL
  - G Methanol
  - H Water/NaHSO<sub>4</sub> (circle)

**Presumptive Certainty Data Package (Laboratory to use applicable DEP CAM methods)**

If Presumptive Certainty Data Package is needed, initial all sections:  
 The required minimum field QC samples, as designated in BWSC CAM-VII have been or will be collected, as appropriate, to meet the requirements of Presumptive Certainty.  
 Matrix Spike (MS) samples for MCP Metals and/or Cyanide are included and identified herein.  
 This Chain of Custody Record (specify) \_\_\_\_\_ includes \_\_\_\_\_ X does not include samples defined as Drinking Water Samples.  
 If this Chain of Custody Record identifies samples defined as Drinking Water Samples, Trip Blanks and Field Duplicates are included and identified and analysis of TICs are required, as appropriate. Laboratory should (specify if applicable) \_\_\_\_\_ analyze

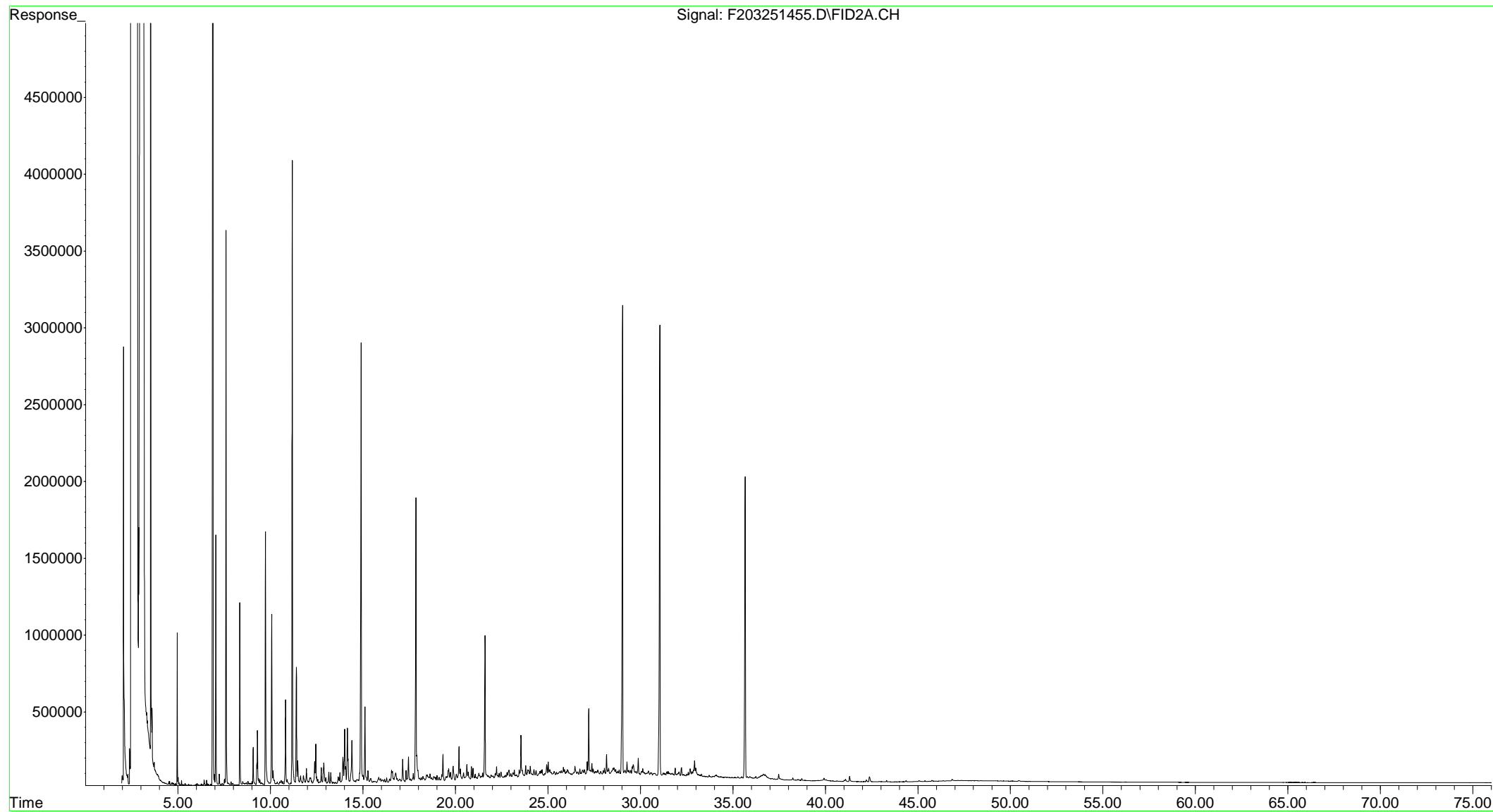
**Required Reporting Limits and Data Quality Objectives**

- RC-S1  S1  GW1
- RC-S2  S2  GW2
- RC-GW1  S3  GW3
- RC-GW2

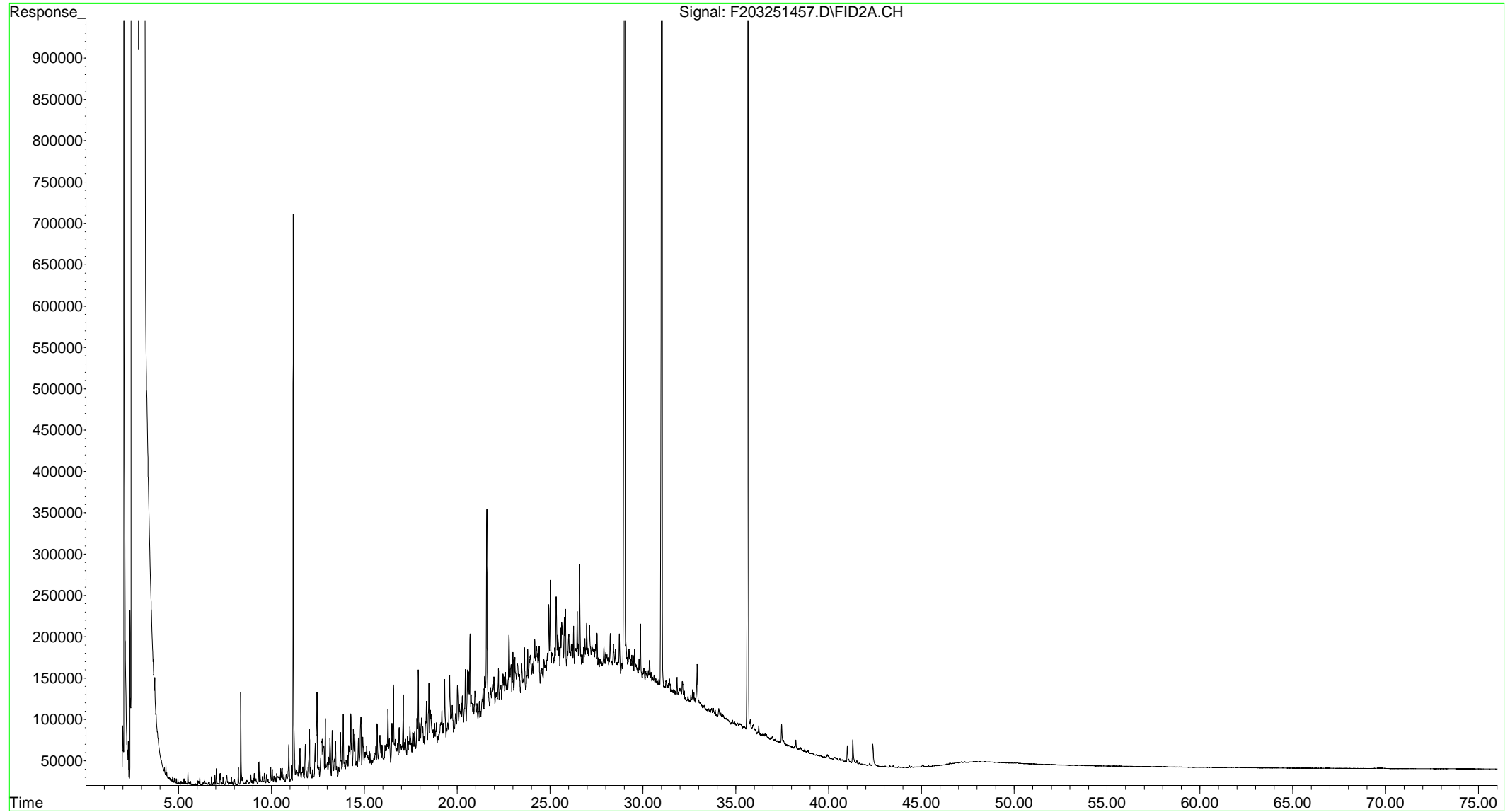


# **GC-FID Chromatogram**

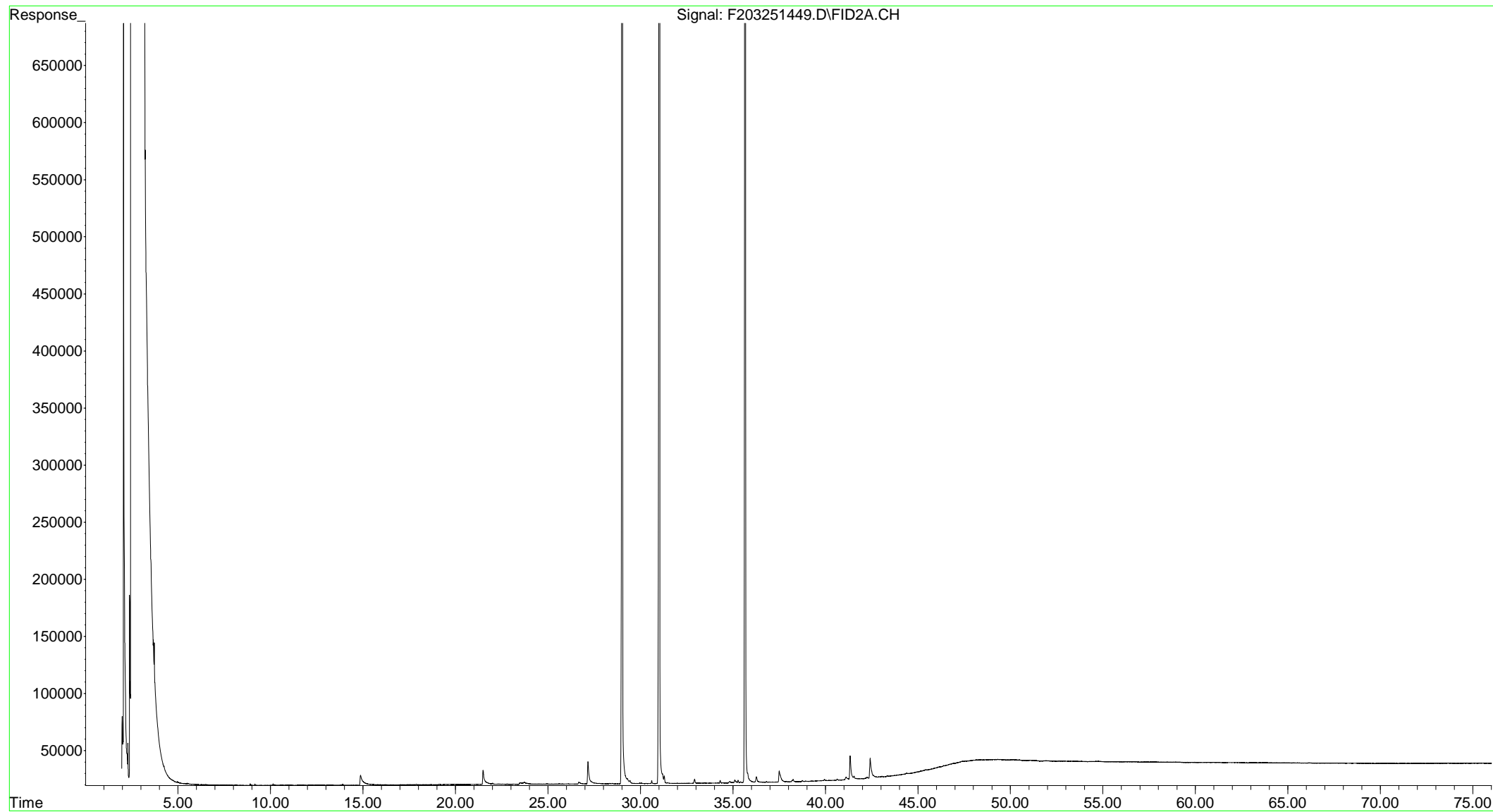
File :O:\Forensics\Data\PAH2\2014\March14\MARCH25.SEC\F203251455.D  
Operator : PAH2:AC  
Acquired : 27 Mar 2014 7:52 am using AcqMethod FRNC2A.M  
Instrument : PAH2  
Sample : L1405832-01,42  
Misc Info : WG678199,WG677872  
ALS Vial : 59



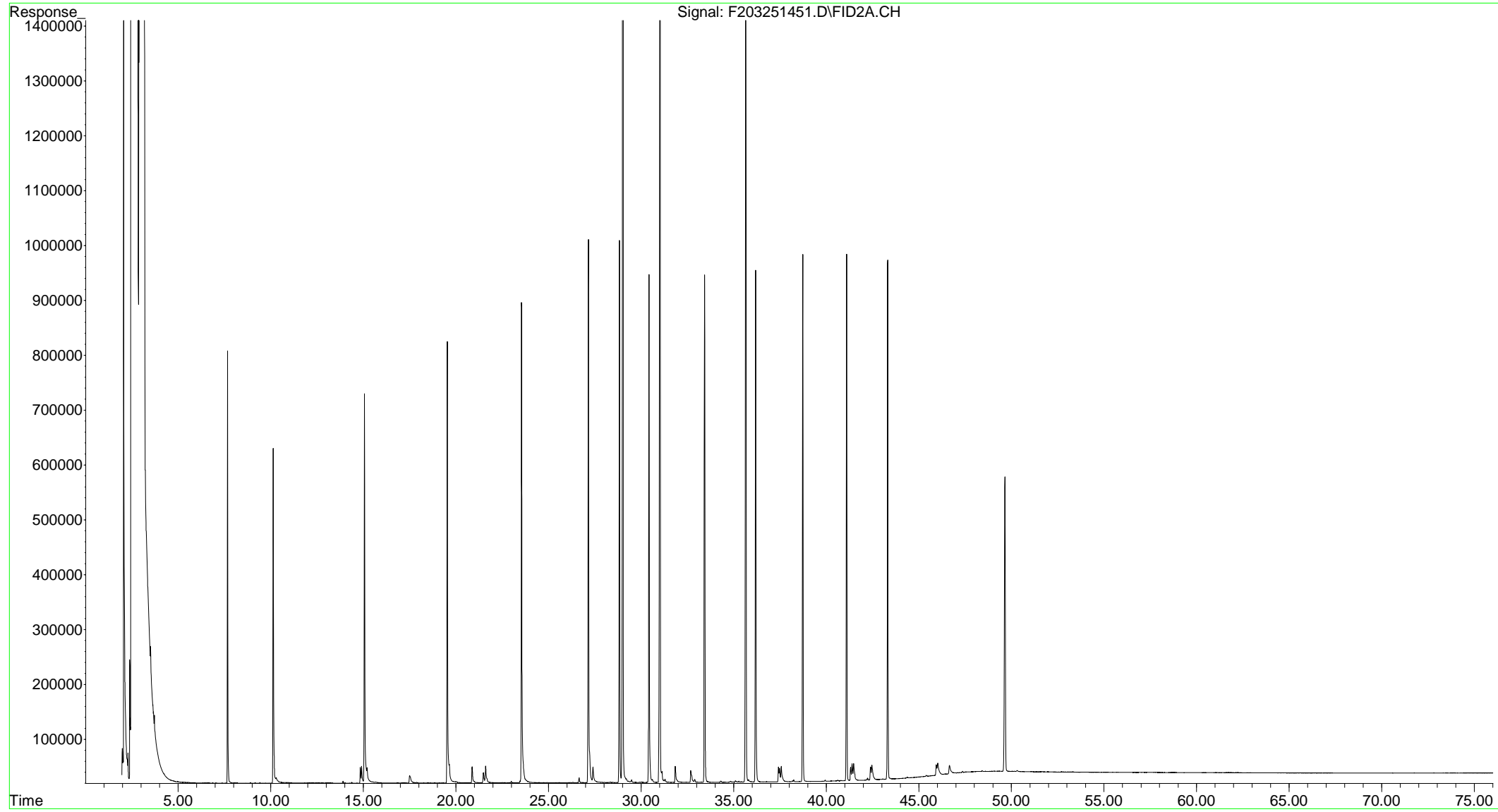
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Operator : PAH2:AC  
Acquired : 27 Mar 2014 9:20 am using AcqMethod FRNC2A.M  
Instrument : PAH2  
Sample : L1405832-02,42  
Misc Info : WG678199,WG677872  
ALS Vial : 60



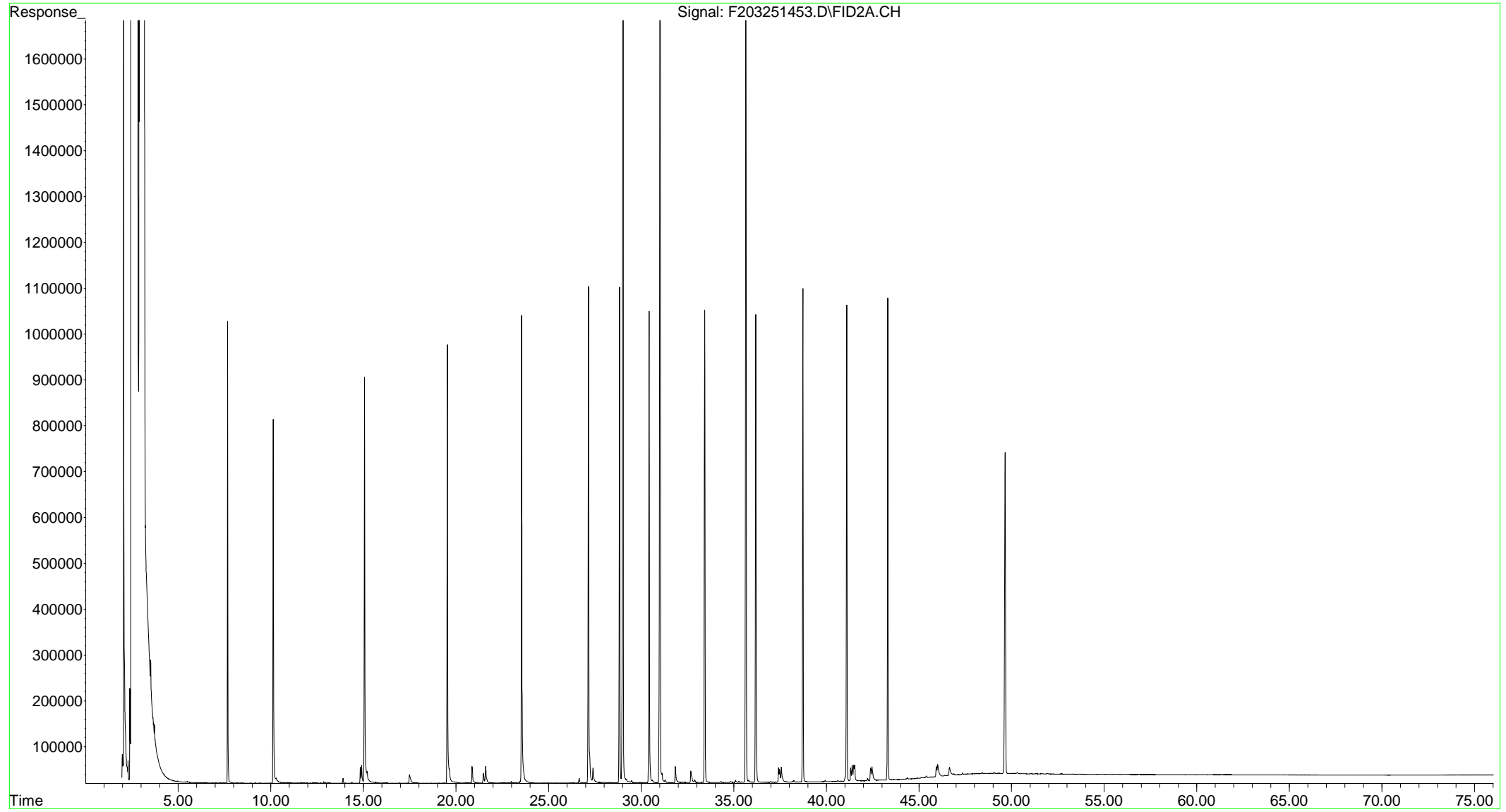
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Operator : PAH2:AC  
Acquired : 27 Mar 2014 3:28 am using AcqMethod FRNC2A.M  
Instrument : PAH2  
Sample : WG677872-1,42  
Misc Info : WG678199,WG677872  
ALS Vial : 56



File :O:\Forensics\Data\PAH2\2014\March14\MARCH25.SEC\F203251451.D  
Operator : PAH2:AC  
Acquired : 27 Mar 2014 4:56 am using AcqMethod FRNC2A.M  
Instrument : PAH2  
Sample : WG677872-2,42  
Misc Info : WG678199,WG677872  
ALS Vial : 57



File :O:\Forensics\Data\PAH2\2014\March14\MARCH25.SEC\F203251453.D  
Operator : PAH2:AC  
Acquired : 27 Mar 2014 6:23 am using AcqMethod FRNC2A.M  
Instrument : PAH2  
Sample : WG677872-3,42  
Misc Info : WG678199,WG677872  
ALS Vial : 58



# **Petroleum Reference Standards**

Data Path : O:\Forensics\Data\PAH2\2014\March14\MARCH25.SEC\  
 Data File : F203251443.D  
 Signal(s) : FID2A.CH  
 Acq On : 26 Mar 2014 11:03 pm  
 Operator : PAH2:AC  
 Sample : Alkane Reference Standard (C8 - C40)  
 Misc : WG678199  
 ALS Vial : 53 Sample Multiplier: 1

Integration File: SHCINT2.E  
 Quant Time: Mar 27 08:57:44 2014  
 Quant Method : O:\Forensics\Data\PAH2\2014\March14\MARCH25.SEC\HC2103113R.M  
 Quant Title : FID Forensics  
 QLast Update : Tue Mar 18 15:01:24 2014  
 Response via : Initial Calibration  
 Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 1.0  
 Signal Phase : Rtx-5MS  
 Signal Info : 0.25mm

Sub List : CCAL - CCAL

Compound	R.T.	Response	Conc	Units
Internal Standards				
1) I 5-alpha-androstane	31.031	61290264	50.000	ug/mL M4
System Monitoring Compounds				
19) s ortho-terphenyl	29.026	67361986	50.822	ug/mL M4
Spiked Amount 50.000	Range 50 - 130	Recovery =	101.64%	
24) s d50-Tetracosane	35.662	53686695	52.064	ug/mL M4
Spiked Amount 50.000	Range 50 - 130	Recovery =	104.13%	
Target Compounds				
2) t n-Octane (C8)	5.523	53130040	52.093	ug/mL M4
3) t n-Nonane (C9)	7.696	54789043	51.097	ug/mL M4
4) t n-Decane (C10)	10.153	58433204	50.937	ug/mL M4
5) t n-Undecane (C11)	12.653	58028911	51.773	ug/mL M4
6) t n-Dodecane (C12)	15.073	58526485	51.822	ug/mL M4
7) t n-Tridecane (C13)	17.373	58524079	51.614	ug/mL M4
9) t n-Tetradecane (C14)	19.551	60745623	51.984	ug/mL M4
11) t n-Pentadecane (C15)	21.610	60201938	51.980	ug/mL M4
12) t n-Hexadecane (C16)	23.560	60804614	52.093	ug/mL M4
14) t n-Heptadecane (C17)	25.413	60970132	52.055	ug/mL M4
15) t Pristane	25.522	62673641	52.917	ug/mL M4
16) t n-Octadecane (C18)	27.174	61122764	52.306	ug/mL M4
17) t Phytane	27.338	62645520	52.562	ug/mL M4
18) t n-Nonadecane (C19)	28.852	60975872	52.253	ug/mL M4
20) t n-Eicosane (C20)	30.452	61241219	52.234	ug/mL M4
21) t n-Heneicosane (C21)	31.982	61745811	52.111	ug/mL M4
22) t n-Docosane (C22)	33.448	61970733	52.060	ug/mL M4
23) t n-Tricosane (C23)	34.856	62013046	51.948	ug/mL M4
25) t n-Tetracosane (C24)	36.208	61773729	51.805	ug/mL M4
26) t n-Pentacosane (C25)	37.506	61774059	51.492	ug/mL M4
27) t n-Hexacosane (C26)	38.757	62745679	51.786	ug/mL M4
28) t n-Heptacosane (C27)	39.963	61964969	51.745	ug/mL M4
29) t n-Octacosane (C28)	41.128	61902143	51.660	ug/mL M4
30) t n-Nonacosane (C29)	42.253	62194385	51.671	ug/mL M4
31) t n-Triacontane (C30)	43.342	62147225	51.915	ug/mL M4
32) t n-Hentriacontane (C31)	44.397	62298558	51.843	ug/mL M4
33) t n-Dotriacontane (C32)	45.417	61544361	51.921	ug/mL M4
34) t n-Tritriacontane (C33)	46.406	59437721	52.056	ug/mL M4
35) t n-tetratriacontane (C34)	47.386	62560022	52.558	ug/mL M4
36) t n-Pentatriacontane (C35)	48.463	62267421	52.622	ug/mL M4
37) t n-Hexatriacontane (C36)	49.694	66533383	53.270	ug/mL M4
38) t n-Heptatriacontane (C37)	51.112	61897181	53.163	ug/mL M4
39) t n-Octatriacontane (C38)	52.768	61182757	53.309	ug/mL M4
41) t n-Tetracontane (C40)	56.977	57301083	54.502	ug/mL M4

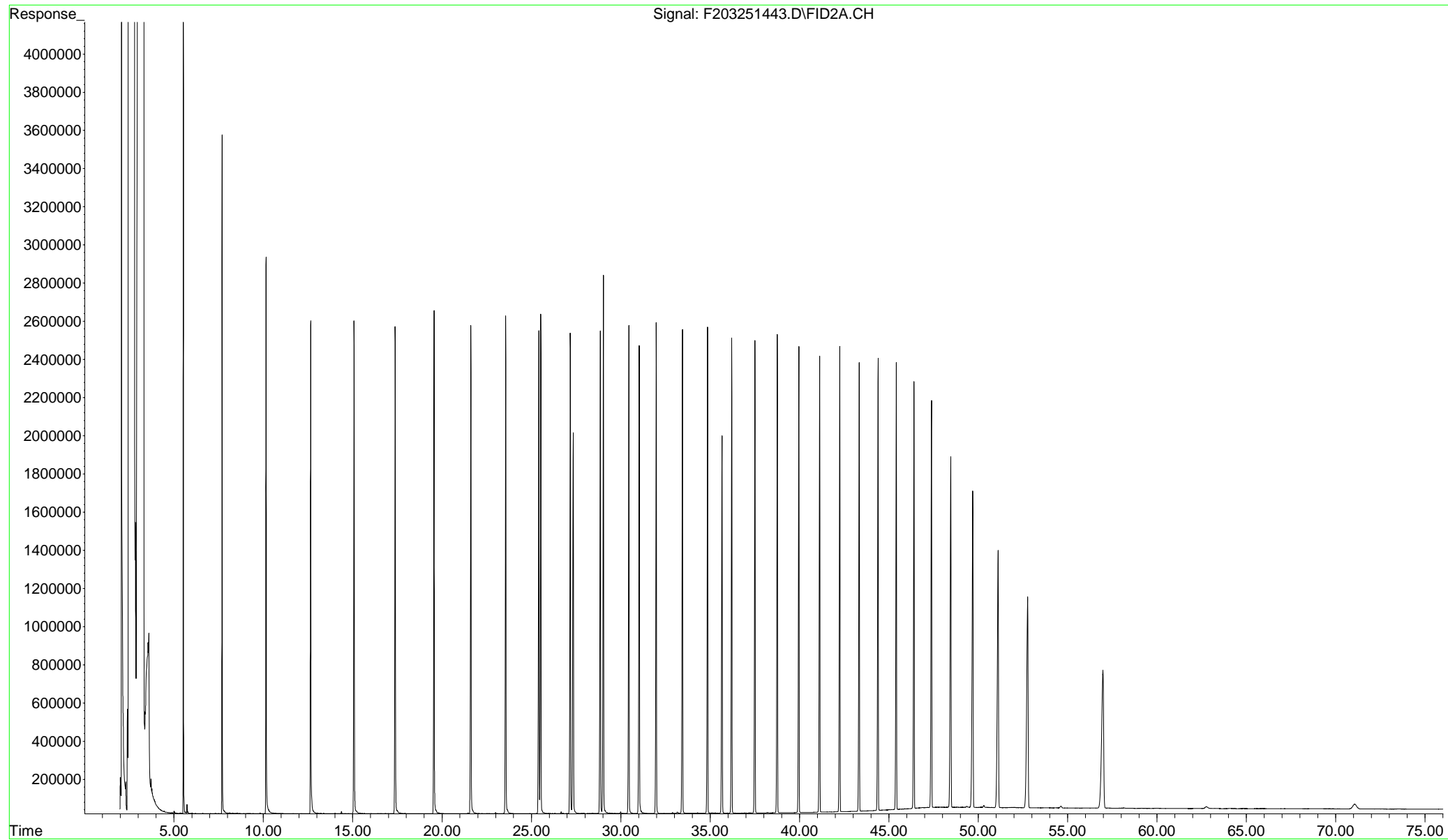
SemiQuant Compounds - Not Calibrated on this Instrument

(f)=RT Delta > 1/2 Window

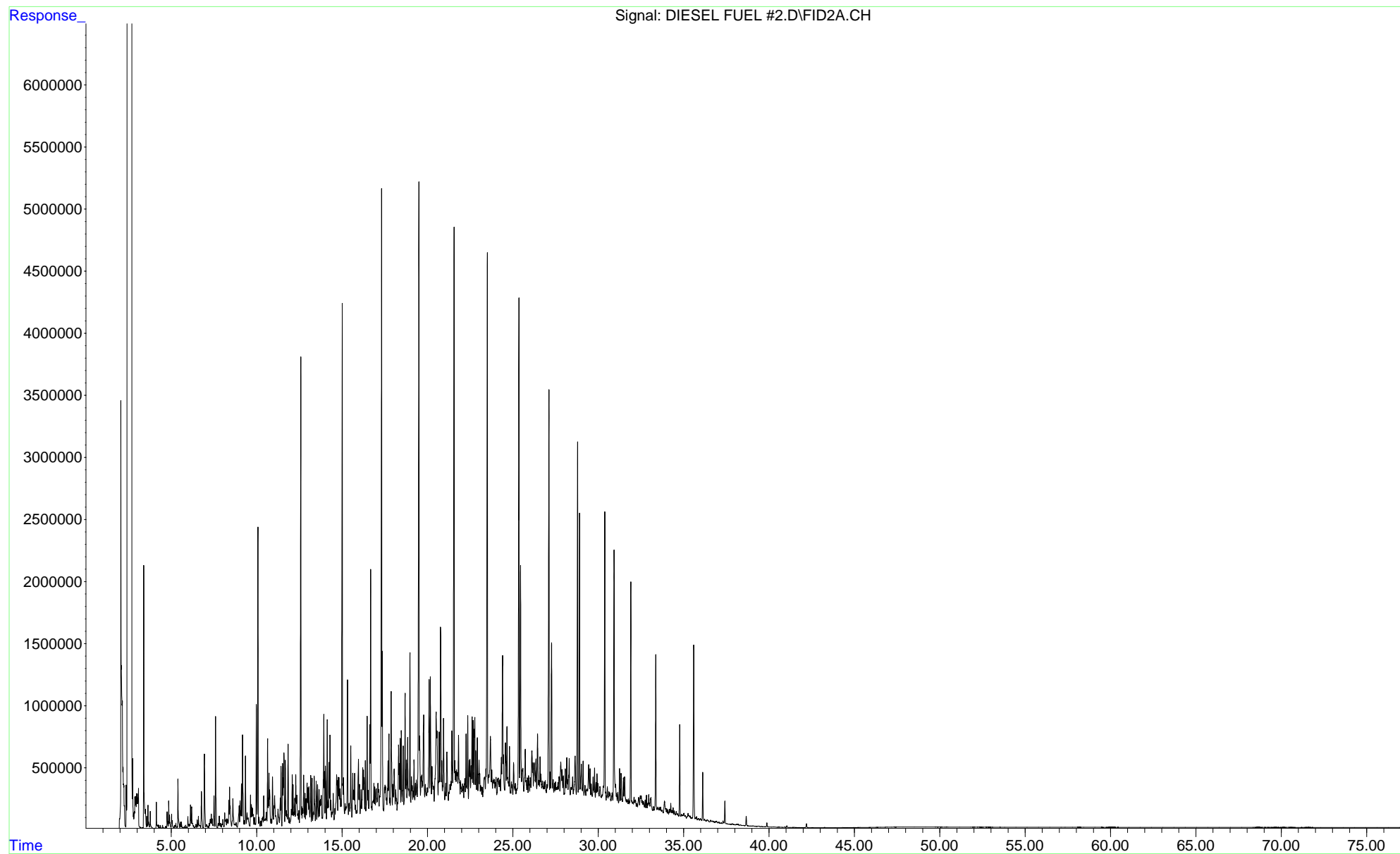
(m)=manual int.



Data Path : O:\Forensics\Data\PAH2\2014\March14\MARCH25.SEC\  
 Data File : F203251443.D  
 Operator : PAH2:AC  
 Acquired : 26 Mar 2014 11:03 pm using AcqMethod FRNC2A.M  
 Instrument: PAH2  
 Sample : Alkane Reference Standard (C8 - C40)  
 Misc Info : WG678199  
 ALS Vial : 53



File :O:\FORENSICS\LIBRARY\HYDROCARBON REFERENCE STANDARDS\DIESEL  
... FUEL #2.D  
Operator : PAH2:AC  
Instrument : PAH 2  
Acquired : 18 Nov 2011 8:19 pm using AcqMethod FRNC2AF.M  
Sample : #2 DIESEL FUEL  
Misc Info : F050410A





## ANALYTICAL REPORT

Lab Number:	L1405989
Client:	Haley & Aldrich, Inc. 465 Medford Street, Suite 2200 Charlestown, MA 02129-1400
ATTN:	Rebecca Higgins
Phone:	(617) 886-7326
Project Name:	100 BINNEY STREET
Project Number:	34250-040
Report Date:	03/28/14

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:** 100 BINNEY STREET  
**Project Number:** 34250-040

**Lab Number:** L1405989  
**Report Date:** 03/28/14

<b>Alpha Sample ID</b>	<b>Client ID</b>	<b>Sample Location</b>	<b>Collection Date/Time</b>
L1405989-01	ENV-19-03-21-2014	Not Specified	03/21/14 14:00

**Project Name:** 100 BINNEY STREET  
**Project Number:** 34250-040

**Lab Number:** L1405989  
**Report Date:** 03/28/14

### Case Narrative

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

Results contained within this report relate only to the samples submitted under this Alpha Lab Number and meet all of the requirements of NELAC, for all NELAC accredited parameters. The data presented in this report is organized by parameter (i.e. VOC, SVOC, etc.). Sample specific Quality Control data (i.e. Surrogate Spike Recovery) is reported at the end of the target analyte list for each individual sample, followed by the Laboratory Batch Quality Control at the end of each parameter. If a sample was re-analyzed or re-extracted due to a required quality control corrective action and if both sets of data are reported, the Laboratory ID of the re-analysis or re-extraction is designated with an "R" or "RE", respectively. When multiple Batch Quality Control elements are reported (e.g. more than one LCS), the associated samples for each element are noted in the grey shaded header line of each data table. Any Laboratory Batch, Sample Specific % recovery or RPD value that is outside the listed Acceptance Criteria is bolded in the report. 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 (with the exception of Air canisters) free of charge for 21 calendar days from the date the project is completed. After 21 calendar days, we will dispose of all samples submitted including those put on hold unless you have contacted your Client Service Representative and made arrangements for Alpha to continue to hold the samples. Air canisters will be disposed after 3 business days from the date the project is completed.

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

---

**Project Name:** 100 BINNEY STREET  
**Project Number:** 34250-040

**Lab Number:** L1405989  
**Report Date:** 03/28/14

### Case Narrative (continued)

#### Semivolatile Organics

L1405989-01 (ENV-19-03-21-2014) has elevated detection limits due to the dilution required by the matrix interferences encountered during the concentration of the sample and the analytical dilution required by the sample matrix.

The surrogate recoveries for L1405989-01 (ENV-19-03-21-2014) are below the acceptance criteria for 2-fluorophenol, phenol-d6, nitrobenzene-d5, 2-fluorobiphenyl, 2,4,6-tribromophenol, and 4-terphenyl-d14 (all 0%) due to the dilution required to quantitate the sample. Re-extraction was not required; therefore, the results of the original analysis are reported.

#### Semivolatile Organics by SIM

L1405989-01 (ENV-19-03-21-2014) has elevated detection limits due to the dilution required by the matrix interferences encountered during the concentration of the sample and the analytical dilution required by the sample matrix.

The surrogate recoveries for L1405989-01 (ENV-19-03-21-2014) are below the acceptance criteria for 2-fluorophenol, phenol-d6, nitrobenzene-d5, 2-fluorobiphenyl, 2,4,6-tribromophenol, and 4-terphenyl-d14 (all 0%) due to the dilution required to quantitate the sample. Re-extraction was not required; therefore, the results of the original analysis are reported.

#### Total Metals

L1405989-01 (ENV-19-03-21-2014) has elevated detection limits for all elements, except iron and mercury, due to the dilution required by matrix interferences encountered during analysis.

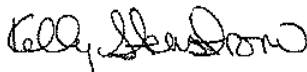
The WG678047-4 MS recovery for iron (0%), performed on L1405989-01 (ENV-19-03-21-2014), does not apply because the sample concentration is greater than four times the spike amount added.

#### Solids, Total Suspended

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

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

Authorized Signature:

 Kelly Stenstrom

Title: Technical Director/Representative

Date: 03/28/14

# ORGANICS

# VOLATILES



**Project Name:** 100 BINNEY STREET**Lab Number:** L1405989**Project Number:** 34250-040**Report Date:** 03/28/14**SAMPLE RESULTS**

**Lab ID:** L1405989-01  
**Client ID:** ENV-19-03-21-2014  
**Sample Location:** Not Specified  
**Matrix:** Water  
**Analytical Method:** 1,8260C  
**Analytical Date:** 03/27/14 07:46  
**Analyst:** MM

**Date Collected:** 03/21/14 14:00  
**Date Received:** 03/21/14  
**Field Prep:** Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
<b>Volatile Organics by GC/MS - Westborough Lab</b>						
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: 100 BINNEY STREET

Lab Number: L1405989

Project Number: 34250-040

Report Date: 03/28/14

## SAMPLE RESULTS

Lab ID: L1405989-01

Date Collected: 03/21/14 14:00

Client ID: ENV-19-03-21-2014

Date Received: 03/21/14

Sample Location: Not Specified

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
cis-1,2-Dichloroethene	ND		ug/l	0.50	--	1
Dibromomethane	ND		ug/l	5.0	--	1
1,4-Dichlorobutane	ND		ug/l	5.0	--	1
1,2,3-Trichloropropane	ND		ug/l	5.0	--	1
Styrene	ND		ug/l	1.0	--	1
Dichlorodifluoromethane	ND		ug/l	5.0	--	1
Acetone	ND		ug/l	5.0	--	1
Carbon disulfide	ND		ug/l	5.0	--	1
2-Butanone	ND		ug/l	5.0	--	1
Vinyl acetate	ND		ug/l	5.0	--	1
4-Methyl-2-pentanone	ND		ug/l	5.0	--	1
2-Hexanone	ND		ug/l	5.0	--	1
Ethyl methacrylate	ND		ug/l	5.0	--	1
Acrylonitrile	ND		ug/l	5.0	--	1
Bromochloromethane	ND		ug/l	2.5	--	1
Tetrahydrofuran	ND		ug/l	5.0	--	1
2,2-Dichloropropane	ND		ug/l	2.5	--	1
1,2-Dibromoethane	ND		ug/l	2.0	--	1
1,3-Dichloropropane	ND		ug/l	2.5	--	1
1,1,1,2-Tetrachloroethane	ND		ug/l	0.50	--	1
Bromobenzene	ND		ug/l	2.5	--	1
n-Butylbenzene	ND		ug/l	0.50	--	1
sec-Butylbenzene	2.6		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	2.8		ug/l	0.50	--	1
p-Isopropyltoluene	ND		ug/l	0.50	--	1
Naphthalene	ND		ug/l	2.5	--	1
n-Propylbenzene	0.97		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:** 100 BINNEY STREET**Lab Number:** L1405989**Project Number:** 34250-040**Report Date:** 03/28/14**SAMPLE RESULTS**

Lab ID: L1405989-01

Date Collected: 03/21/14 14:00

Client ID: ENV-19-03-21-2014

Date Received: 03/21/14

Sample Location: Not Specified

Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
<b>Volatile Organics by GC/MS - Westborough Lab</b>						
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	94		70-130
Toluene-d8	103		70-130
4-Bromofluorobenzene	114		70-130
Dibromofluoromethane	96		70-130

**Project Name:** 100 BINNEY STREET**Lab Number:** L1405989**Project Number:** 34250-040**Report Date:** 03/28/14**SAMPLE RESULTS**

**Lab ID:** L1405989-01  
**Client ID:** ENV-19-03-21-2014  
**Sample Location:** Not Specified  
**Matrix:** Water  
**Analytical Method:** 1,8260C-SIM(M)  
**Analytical Date:** 03/27/14 07:46  
**Analyst:** MM

**Date Collected:** 03/21/14 14:00  
**Date Received:** 03/21/14  
**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:** 100 BINNEY STREET**Lab Number:** L1405989**Project Number:** 34250-040**Report Date:** 03/28/14**SAMPLE RESULTS**

**Lab ID:** L1405989-01  
**Client ID:** ENV-19-03-21-2014  
**Sample Location:** Not Specified  
**Matrix:** Water  
**Analytical Method:** 14,504.1  
**Analytical Date:** 03/25/14 13:35  
**Analyst:** GP

**Date Collected:** 03/21/14 14:00  
**Date Received:** 03/21/14  
**Field Prep:** Not Specified  
**Extraction Date:** 03/25/14 10:30

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

**Project Name:** 100 BINNEY STREET**Lab Number:** L1405989**Project Number:** 34250-040**Report Date:** 03/28/14**Method Blank Analysis  
Batch Quality Control**

Analytical Method: 14,504.1

Analytical Date: 03/25/14 12:47

Analyst: GP

Extraction Date: 03/25/14 10:30

Parameter	Result	Qualifier	Units	RL	MDL
Microextractables by GC - Westborough Lab for sample(s): 01 Batch: WG677719-1					
1,2-Dibromoethane	ND		ug/l	0.010	-- A
1,2-Dibromo-3-chloropropane	ND		ug/l	0.010	-- A

**Project Name:** 100 BINNEY STREET**Lab Number:** L1405989**Project Number:** 34250-040**Report Date:** 03/28/14**Method Blank Analysis  
Batch Quality Control**

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

Analytical Date: 03/27/14 07:13

Analyst: MM

<b>Parameter</b>	<b>Result</b>	<b>Qualifier</b>	<b>Units</b>	<b>RL</b>	<b>MDL</b>
Volatile Organics by GC/MS-SIM - Westborough Lab for sample(s): 01 Batch: WG678349-3					
1,4-Dioxane	ND		ug/l	3.0	--

**Project Name:** 100 BINNEY STREET  
**Project Number:** 34250-040

**Lab Number:** L1405989  
**Report Date:** 03/28/14

**Method Blank Analysis**  
**Batch Quality Control**

Analytical Method: 1,8260C  
Analytical Date: 03/27/14 07:13  
Analyst: MM

Parameter	Result	Qualifier	Units	RL	MDL
Volatile Organics by GC/MS - Westborough Lab for sample(s): 01 Batch: WG678350-3					
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:** 100 BINNEY STREET  
**Project Number:** 34250-040

**Lab Number:** L1405989  
**Report Date:** 03/28/14

**Method Blank Analysis**  
**Batch Quality Control**

Analytical Method: 1,8260C  
Analytical Date: 03/27/14 07:13  
Analyst: MM

Parameter	Result	Qualifier	Units	RL	MDL
Volatile Organics by GC/MS - Westborough Lab for sample(s): 01 Batch: WG678350-3					
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	--
cis-1,2-Dichloroethene	ND		ug/l	0.50	--
Dibromomethane	ND		ug/l	5.0	--
1,4-Dichlorobutane	ND		ug/l	5.0	--
1,2,3-Trichloropropane	ND		ug/l	5.0	--
Styrene	ND		ug/l	1.0	--
Dichlorodifluoromethane	ND		ug/l	5.0	--
Acetone	ND		ug/l	5.0	--
Carbon disulfide	ND		ug/l	5.0	--
2-Butanone	ND		ug/l	5.0	--
Vinyl acetate	ND		ug/l	5.0	--
4-Methyl-2-pentanone	ND		ug/l	5.0	--
2-Hexanone	ND		ug/l	5.0	--
Ethyl methacrylate	ND		ug/l	5.0	--
Acrylonitrile	ND		ug/l	5.0	--
Bromochloromethane	ND		ug/l	2.5	--
Tetrahydrofuran	ND		ug/l	5.0	--
2,2-Dichloropropane	ND		ug/l	2.5	--
1,2-Dibromoethane	ND		ug/l	2.0	--
1,3-Dichloropropane	ND		ug/l	2.5	--
1,1,1,2-Tetrachloroethane	ND		ug/l	0.50	--
Bromobenzene	ND		ug/l	2.5	--
n-Butylbenzene	ND		ug/l	0.50	--
sec-Butylbenzene	ND		ug/l	0.50	--
tert-Butylbenzene	ND		ug/l	2.5	--
o-Chlorotoluene	ND		ug/l	2.5	--
p-Chlorotoluene	ND		ug/l	2.5	--
1,2-Dibromo-3-chloropropane	ND		ug/l	2.5	--



**Project Name:** 100 BINNEY STREET  
**Project Number:** 34250-040

**Lab Number:** L1405989  
**Report Date:** 03/28/14

**Method Blank Analysis**  
**Batch Quality Control**

Analytical Method: 1,8260C  
 Analytical Date: 03/27/14 07:13  
 Analyst: MM

Parameter	Result	Qualifier	Units	RL	MDL
Volatile Organics by GC/MS - Westborough Lab for sample(s): 01 Batch: WG678350-3					
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: 100 BINNEY STREET

Lab Number: L1405989

Project Number: 34250-040

Report Date: 03/28/14

**Method Blank Analysis**  
**Batch Quality Control**

Analytical Method: 1,8260C  
 Analytical Date: 03/27/14 07:13  
 Analyst: MM

Parameter	Result	Qualifier	Units	RL	MDL
Volatile Organics by GC/MS - Westborough Lab for sample(s): 01 Batch: WG678350-3					

Surrogate	%Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	91		70-130
Toluene-d8	98		70-130
4-Bromofluorobenzene	99		70-130
Dibromofluoromethane	98		70-130

## Lab Control Sample Analysis

Batch Quality Control

**Project Name:** 100 BINNEY STREET

**Project Number:** 34250-040

**Lab Number:** L1405989

**Report Date:** 03/28/14

<b>Parameter</b>	<b>LCS %Recovery</b>	<b>Qual</b>	<b>LCSD %Recovery</b>	<b>Qual</b>	<b>%Recovery Limits</b>	<b>RPD</b>	<b>Qual</b>	<b>RPD Limits</b>	<b>Column</b>
Microextractables by GC - Westborough Lab Associated sample(s): 01 Batch: WG677719-2									
1,2-Dibromoethane	105		-		70-130	-		20	A
1,2-Dibromo-3-chloropropane	97		-		70-130	-		20	A

### Lab Control Sample Analysis Batch Quality Control

**Project Name:** 100 BINNEY STREET  
**Project Number:** 34250-040

**Lab Number:** L1405989  
**Report Date:** 03/28/14

Parameter	<i>LCS</i> %Recovery	<i>Qual</i>	<i>LCSD</i> %Recovery	<i>Qual</i>	<i>%Recovery</i> Limits	<i>RPD</i>	<i>Qual</i>	<i>RPD</i> Limits
Volatile Organics by GC/MS-SIM - Westborough Lab Associated sample(s): 01 Batch: WG678349-1 WG678349-2								
1,4-Dioxane	97		99		70-130	2		25



## Lab Control Sample Analysis

### Batch Quality Control

Project Name: 100 BINNEY STREET

Lab Number: L1405989

Project Number: 34250-040

Report Date: 03/28/14

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Volatile Organics by GC/MS - Westborough Lab Associated sample(s): 01 Batch: WG678350-1 WG678350-2								
Methylene chloride	107		108		70-130	1		20
1,1-Dichloroethane	99		101		70-130	2		20
Chloroform	99		103		70-130	4		20
Carbon tetrachloride	95		96		63-132	1		20
1,2-Dichloropropane	103		105		70-130	2		20
Dibromochloromethane	90		92		63-130	2		20
1,1,2-Trichloroethane	100		98		70-130	2		20
2-Chloroethylvinyl ether	102		104		70-130	2		20
Tetrachloroethene	99		95		70-130	4		20
Chlorobenzene	100		98		75-130	2		25
Trichlorofluoromethane	106		105		62-150	1		20
1,2-Dichloroethane	100		100		70-130	0		20
1,1,1-Trichloroethane	97		101		67-130	4		20
Bromodichloromethane	95		100		67-130	5		20
trans-1,3-Dichloropropene	95		97		70-130	2		20
cis-1,3-Dichloropropene	99		102		70-130	3		20
1,1-Dichloropropene	102		104		70-130	2		20
Bromoform	84		89		54-136	6		20
1,1,2,2-Tetrachloroethane	102		106		67-130	4		20
Benzene	102		103		70-130	1		25
Toluene	98		95		70-130	3		25

## Lab Control Sample Analysis

### Batch Quality Control

Project Name: 100 BINNEY STREET

Lab Number: L1405989

Project Number: 34250-040

Report Date: 03/28/14

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Volatile Organics by GC/MS - Westborough Lab Associated sample(s): 01 Batch: WG678350-1 WG678350-2								
Ethylbenzene	101		101		70-130	0		20
Chloromethane	106		102		64-130	4		20
Bromomethane	86		89		39-139	3		20
Vinyl chloride	101		108		55-140	7		20
Chloroethane	120		127		55-138	6		20
1,1-Dichloroethene	102		105		61-145	3		25
trans-1,2-Dichloroethene	107		107		70-130	0		20
Trichloroethene	106		106		70-130	0		25
1,2-Dichlorobenzene	94		95		70-130	1		20
1,3-Dichlorobenzene	104		101		70-130	3		20
1,4-Dichlorobenzene	104		105		70-130	1		20
Methyl tert butyl ether	102		108		63-130	6		20
p/m-Xylene	101		100		70-130	1		20
o-Xylene	104		100		70-130	4		20
cis-1,2-Dichloroethene	99		102		70-130	3		20
Dibromomethane	101		110		70-130	9		20
1,4-Dichlorobutane	100		103		70-130	3		20
1,2,3-Trichloropropane	97		100		64-130	3		20
Styrene	118		107		70-130	10		20
Dichlorodifluoromethane	119		120		36-147	1		20
Acetone	122		112		58-148	9		20

## Lab Control Sample Analysis

### Batch Quality Control

Project Name: 100 BINNEY STREET

Lab Number: L1405989

Project Number: 34250-040

Report Date: 03/28/14

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Volatile Organics by GC/MS - Westborough Lab Associated sample(s): 01 Batch: WG678350-1 WG678350-2								
Carbon disulfide	100		108		51-130	8		20
2-Butanone	106		108		63-138	2		20
Vinyl acetate	96		103		70-130	7		20
4-Methyl-2-pentanone	101		106		59-130	5		20
2-Hexanone	96		100		57-130	4		20
Ethyl methacrylate	101		99		70-130	2		20
Acrylonitrile	95		104		70-130	9		20
Bromochloromethane	108		106		70-130	2		20
Tetrahydrofuran	94		100		58-130	6		20
2,2-Dichloropropane	102		102		63-133	0		20
1,2-Dibromoethane	99		99		70-130	0		20
1,3-Dichloropropane	99		101		70-130	2		20
1,1,1,2-Tetrachloroethane	97		98		64-130	1		20
Bromobenzene	103		104		70-130	1		20
n-Butylbenzene	106		103		53-136	3		20
sec-Butylbenzene	106		104		70-130	2		20
tert-Butylbenzene	106		103		70-130	3		20
o-Chlorotoluene	104		103		70-130	1		20
p-Chlorotoluene	103		101		70-130	2		20
1,2-Dibromo-3-chloropropane	107		105		41-144	2		20
Hexachlorobutadiene	107		107		63-130	0		20



## Lab Control Sample Analysis

### Batch Quality Control

Project Name: 100 BINNEY STREET

Lab Number: L1405989

Project Number: 34250-040

Report Date: 03/28/14

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Volatile Organics by GC/MS - Westborough Lab Associated sample(s): 01 Batch: WG678350-1 WG678350-2								
Isopropylbenzene	104		102		70-130	2		20
p-Isopropyltoluene	106		101		70-130	5		20
Naphthalene	100		105		70-130	5		20
n-Propylbenzene	107		104		69-130	3		20
1,2,3-Trichlorobenzene	101		100		70-130	1		20
1,2,4-Trichlorobenzene	103		104		70-130	1		20
1,3,5-Trimethylbenzene	104		104		64-130	0		20
1,3,5-Trichlorobenzene	106		105		70-130	1		20
1,2,4-Trimethylbenzene	102		100		70-130	2		20
trans-1,4-Dichloro-2-butene	91		104		70-130	13		20
Ethyl ether	108		108		59-134	0		20
Methyl Acetate	107		102		70-130	5		20
Ethyl Acetate	97		102		70-130	5		20
Isopropyl Ether	100		102		70-130	2		20
Cyclohexane	105		104		70-130	1		20
Tert-Butyl Alcohol	104		123		70-130	17		20
Ethyl-Tert-Butyl-Ether	100		105		70-130	5		20
Tertiary-Amyl Methyl Ether	100		105		66-130	5		20
1,1,2-Trichloro-1,2,2-Trifluoroethane	104		105		70-130	1		20
Methyl cyclohexane	102		106		70-130	4		20
p-Diethylbenzene	103		104		70-130	1		20

## Lab Control Sample Analysis

### Batch Quality Control

Project Name: 100 BINNEY STREET

Lab Number: L1405989

Project Number: 34250-040

Report Date: 03/28/14

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Volatile Organics by GC/MS - Westborough Lab Associated sample(s): 01 Batch: WG678350-1 WG678350-2								
4-Ethyltoluene	103		105		70-130	2		20
1,2,4,5-Tetramethylbenzene	101		102		70-130	1		20

Surrogate	LCS %Recovery	Qual	LCSD %Recovery	Qual	Acceptance Criteria
1,2-Dichloroethane-d4	94		96		70-130
Toluene-d8	100		96		70-130
4-Bromofluorobenzene	100		103		70-130
Dibromofluoromethane	97		102		70-130

## Matrix Spike Analysis

Batch Quality Control

**Project Name:** 100 BINNEY STREET

**Lab Number:** L1405989

**Project Number:** 34250-040

**Report Date:** 03/28/14

<i>Parameter</i>	<i>Native Sample</i>	<i>MS Added</i>	<i>MS Found</i>	<i>MS %Recovery</i>	<i>Qual</i>	<i>MSD Found</i>	<i>MSD %Recovery</i>	<i>Qual</i>	<i>Recovery Limits</i>	<i>RPD</i>	<i>Qual</i>	<i>RPD Limits</i>	<i>Column</i>
Microextractables by GC - Westborough Lab Associated sample(s): 01 QC Batch ID: WG677719-3 QC Sample: L1405989-01 Client ID: ENV-19-03-21-2014													
1,2-Dibromoethane	ND	0.252	0.251	99		-	-		70-130	-		20	A

# SEMIVOLATILES

**Project Name:** 100 BINNEY STREET**Lab Number:** L1405989**Project Number:** 34250-040**Report Date:** 03/28/14**SAMPLE RESULTS**

Lab ID: L1405989-01 D  
 Client ID: ENV-19-03-21-2014  
 Sample Location: Not Specified  
 Matrix: Water  
 Analytical Method: 1,8270D  
 Analytical Date: 03/24/14 22:39  
 Analyst: JB

Date Collected: 03/21/14 14:00  
 Date Received: 03/21/14  
 Field Prep: Not Specified  
 Extraction Method: EPA 3510C  
 Extraction Date: 03/22/14 01:00

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
<b>Semivolatile Organics by GC/MS - Westborough Lab</b>						
Acenaphthene	ND		ug/l	40	--	20
Benzidine	ND		ug/l	400	--	20
1,2,4-Trichlorobenzene	ND		ug/l	100	--	20
Hexachlorobenzene	ND		ug/l	40	--	20
Bis(2-chloroethyl)ether	ND		ug/l	40	--	20
2-Chloronaphthalene	ND		ug/l	40	--	20
1,2-Dichlorobenzene	ND		ug/l	40	--	20
1,3-Dichlorobenzene	ND		ug/l	40	--	20
1,4-Dichlorobenzene	ND		ug/l	40	--	20
3,3'-Dichlorobenzidine	ND		ug/l	100	--	20
2,4-Dinitrotoluene	ND		ug/l	100	--	20
2,6-Dinitrotoluene	ND		ug/l	100	--	20
Azobenzene	ND		ug/l	40	--	20
Fluoranthene	67		ug/l	40	--	20
4-Chlorophenyl phenyl ether	ND		ug/l	40	--	20
4-Bromophenyl phenyl ether	ND		ug/l	40	--	20
Bis(2-chloroisopropyl)ether	ND		ug/l	40	--	20
Bis(2-chloroethoxy)methane	ND		ug/l	100	--	20
Hexachlorobutadiene	ND		ug/l	40	--	20
Hexachlorocyclopentadiene	ND		ug/l	400	--	20
Hexachloroethane	ND		ug/l	40	--	20
Isophorone	ND		ug/l	100	--	20
Naphthalene	ND		ug/l	40	--	20
Nitrobenzene	ND		ug/l	40	--	20
NDPA/DPA	ND		ug/l	40	--	20
n-Nitrosodi-n-propylamine	ND		ug/l	100	--	20
Bis(2-ethylhexyl)phthalate	ND		ug/l	60	--	20
Butyl benzyl phthalate	ND		ug/l	100	--	20
Di-n-butylphthalate	ND		ug/l	100	--	20
Di-n-octylphthalate	ND		ug/l	100	--	20
Diethyl phthalate	ND		ug/l	100	--	20

Project Name: 100 BINNEY STREET

Lab Number: L1405989

Project Number: 34250-040

Report Date: 03/28/14

## SAMPLE RESULTS

Lab ID: L1405989-01 D

Date Collected: 03/21/14 14:00

Client ID: ENV-19-03-21-2014

Date Received: 03/21/14

Sample Location: Not Specified

Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Semivolatile Organics by GC/MS - Westborough Lab						
Dimethyl phthalate	ND		ug/l	100	--	20
Benzo(a)anthracene	ND		ug/l	40	--	20
Benzo(a)pyrene	ND		ug/l	40	--	20
Benzo(b)fluoranthene	ND		ug/l	40	--	20
Benzo(k)fluoranthene	ND		ug/l	40	--	20
Chrysene	ND		ug/l	40	--	20
Acenaphthylene	ND		ug/l	40	--	20
Anthracene	ND		ug/l	40	--	20
Benzo(ghi)perylene	ND		ug/l	40	--	20
Fluorene	ND		ug/l	40	--	20
Phenanthrene	57		ug/l	40	--	20
Dibenzo(a,h)anthracene	ND		ug/l	40	--	20
Indeno(1,2,3-cd)pyrene	ND		ug/l	40	--	20
Pyrene	57		ug/l	40	--	20
Biphenyl	ND		ug/l	40	--	20
Aniline	ND		ug/l	40	--	20
4-Chloroaniline	ND		ug/l	100	--	20
1-Methylnaphthalene	ND		ug/l	40	--	20
2-Nitroaniline	ND		ug/l	100	--	20
3-Nitroaniline	ND		ug/l	100	--	20
4-Nitroaniline	ND		ug/l	100	--	20
Dibenzofuran	ND		ug/l	40	--	20
2-Methylnaphthalene	ND		ug/l	40	--	20
Acetophenone	ND		ug/l	100	--	20
n-Nitrosodimethylamine	ND		ug/l	40	--	20
2,4,6-Trichlorophenol	ND		ug/l	100	--	20
p-Chloro-m-cresol	ND		ug/l	40	--	20
2-Chlorophenol	ND		ug/l	40	--	20
2,4-Dichlorophenol	ND		ug/l	100	--	20
2,4-Dimethylphenol	ND		ug/l	100	--	20
2-Nitrophenol	ND		ug/l	200	--	20
4-Nitrophenol	ND		ug/l	200	--	20
2,4-Dinitrophenol	ND		ug/l	400	--	20
4,6-Dinitro-o-cresol	ND		ug/l	200	--	20
Pentachlorophenol	ND		ug/l	200	--	20
Phenol	ND		ug/l	100	--	20
2-Methylphenol	ND		ug/l	100	--	20
3-Methylphenol/4-Methylphenol	ND		ug/l	100	--	20
2,4,5-Trichlorophenol	ND		ug/l	100	--	20

**Project Name:** 100 BINNEY STREET**Lab Number:** L1405989**Project Number:** 34250-040**Report Date:** 03/28/14**SAMPLE RESULTS**

Lab ID: L1405989-01 D

Date Collected: 03/21/14 14:00

Client ID: ENV-19-03-21-2014

Date Received: 03/21/14

Sample Location: Not Specified

Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Semivolatile Organics by GC/MS - Westborough Lab						
Benzoic Acid	ND		ug/l	1000	--	20
Benzyl Alcohol	ND		ug/l	40	--	20
Carbazole	ND		ug/l	40	--	20
Pyridine	ND		ug/l	100	--	20

Surrogate	% Recovery	Qualifier	Acceptance Criteria
2-Fluorophenol	0	Q	21-120
Phenol-d6	0	Q	10-120
Nitrobenzene-d5	0	Q	23-120
2-Fluorobiphenyl	0	Q	15-120
2,4,6-Tribromophenol	0	Q	10-120
4-Terphenyl-d14	0	Q	41-149

**Project Name:** 100 BINNEY STREET**Lab Number:** L1405989**Project Number:** 34250-040**Report Date:** 03/28/14**SAMPLE RESULTS**

Lab ID: L1405989-01 D  
 Client ID: ENV-19-03-21-2014  
 Sample Location: Not Specified  
 Matrix: Water  
 Analytical Method: 1,8270D-SIM  
 Analytical Date: 03/27/14 01:32  
 Analyst: MW

Date Collected: 03/21/14 14:00  
 Date Received: 03/21/14  
 Field Prep: Not Specified  
 Extraction Method: EPA 3510C  
 Extraction Date: 03/22/14 00:59

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
<b>Semivolatile Organics by GC/MS-SIM - Westborough Lab</b>						
Acenaphthene	92		ug/l	20	--	100
2-Chloronaphthalene	ND		ug/l	20	--	100
Fluoranthene	49		ug/l	20	--	100
Hexachlorobutadiene	ND		ug/l	50	--	100
Naphthalene	ND		ug/l	20	--	100
Benzo(a)anthracene	ND		ug/l	20	--	100
Benzo(a)pyrene	22		ug/l	20	--	100
Benzo(b)fluoranthene	22		ug/l	20	--	100
Benzo(k)fluoranthene	ND		ug/l	20	--	100
Chrysene	ND		ug/l	20	--	100
Acenaphthylene	ND		ug/l	20	--	100
Anthracene	30		ug/l	20	--	100
Benzo(ghi)perylene	ND		ug/l	20	--	100
Fluorene	78		ug/l	20	--	100
Phenanthrene	62		ug/l	20	--	100
Dibenzo(a,h)anthracene	ND		ug/l	20	--	100
Indeno(1,2,3-cd)Pyrene	22		ug/l	20	--	100
Pyrene	41		ug/l	20	--	100
1-Methylnaphthalene	300		ug/l	20	--	100
2-Methylnaphthalene	ND		ug/l	20	--	100
Pentachlorophenol	ND		ug/l	80	--	100
Hexachlorobenzene	ND		ug/l	80	--	100
Hexachloroethane	ND		ug/l	80	--	100

Surrogate	% Recovery	Qualifier	Acceptance Criteria
2-Fluorophenol	0	Q	21-120
Phenol-d6	0	Q	10-120
Nitrobenzene-d5	0	Q	23-120
2-Fluorobiphenyl	0	Q	15-120
2,4,6-Tribromophenol	0	Q	10-120
4-Terphenyl-d14	0	Q	41-149





**Project Name:** 100 BINNEY STREET  
**Project Number:** 34250-040

**Lab Number:** L1405989  
**Report Date:** 03/28/14

**Method Blank Analysis**  
**Batch Quality Control**

**Analytical Method:** 1,8270D  
**Analytical Date:** 03/23/14 12:32  
**Analyst:** JB

**Extraction Method:** EPA 3510C  
**Extraction Date:** 03/22/14 01:00

Parameter	Result	Qualifier	Units	RL	MDL
Semivolatile Organics by GC/MS - Westborough Lab for sample(s): 01 Batch: WG677219-1					
Acenaphthene	ND		ug/l	2.0	--
Benzidine	ND		ug/l	20	--
1,2,4-Trichlorobenzene	ND		ug/l	5.0	--
Hexachlorobenzene	ND		ug/l	2.0	--
Bis(2-chloroethyl)ether	ND		ug/l	2.0	--
2-Chloronaphthalene	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	--
Fluoranthene	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	--
Hexachlorobutadiene	ND		ug/l	2.0	--
Hexachlorocyclopentadiene	ND		ug/l	20	--
Hexachloroethane	ND		ug/l	2.0	--
Isophorone	ND		ug/l	5.0	--
Naphthalene	ND		ug/l	2.0	--
Nitrobenzene	ND		ug/l	2.0	--
NDPA/DPA	ND		ug/l	2.0	--
n-Nitrosodi-n-propylamine	ND		ug/l	5.0	--
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	--



**Project Name:** 100 BINNEY STREET  
**Project Number:** 34250-040

**Lab Number:** L1405989  
**Report Date:** 03/28/14

**Method Blank Analysis**  
**Batch Quality Control**

**Analytical Method:** 1,8270D  
**Analytical Date:** 03/23/14 12:32  
**Analyst:** JB

**Extraction Method:** EPA 3510C  
**Extraction Date:** 03/22/14 01:00

Parameter	Result	Qualifier	Units	RL	MDL
Semivolatile Organics by GC/MS - Westborough Lab for sample(s): 01 Batch: WG677219-1					
Dimethyl phthalate	ND		ug/l	5.0	--
Benzo(a)anthracene	ND		ug/l	2.0	--
Benzo(a)pyrene	ND		ug/l	2.0	--
Benzo(b)fluoranthene	ND		ug/l	2.0	--
Benzo(k)fluoranthene	ND		ug/l	2.0	--
Chrysene	ND		ug/l	2.0	--
Acenaphthylene	ND		ug/l	2.0	--
Anthracene	ND		ug/l	2.0	--
Benzo(ghi)perylene	ND		ug/l	2.0	--
Fluorene	ND		ug/l	2.0	--
Phenanthrene	ND		ug/l	2.0	--
Dibenzo(a,h)anthracene	ND		ug/l	2.0	--
Indeno(1,2,3-cd)pyrene	ND		ug/l	2.0	--
Pyrene	ND		ug/l	2.0	--
Biphenyl	ND		ug/l	2.0	--
Aniline	ND		ug/l	2.0	--
4-Chloroaniline	ND		ug/l	5.0	--
1-Methylnaphthalene	ND		ug/l	2.0	--
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	--
2-Methylnaphthalene	ND		ug/l	2.0	--
Acetophenone	ND		ug/l	5.0	--
n-Nitrosodimethylamine	ND		ug/l	2.0	--
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	--



**Project Name:** 100 BINNEY STREET  
**Project Number:** 34250-040

**Lab Number:** L1405989  
**Report Date:** 03/28/14

**Method Blank Analysis  
Batch Quality Control**

**Analytical Method:** 1,8270D  
**Analytical Date:** 03/23/14 12:32  
**Analyst:** JB

**Extraction Method:** EPA 3510C  
**Extraction Date:** 03/22/14 01:00

Parameter	Result	Qualifier	Units	RL	MDL
Semivolatile Organics by GC/MS - Westborough Lab for sample(s): 01 Batch: WG677219-1					
4-Nitrophenol	ND		ug/l	10	--
2,4-Dinitrophenol	ND		ug/l	20	--
4,6-Dinitro-o-cresol	ND		ug/l	10	--
Pentachlorophenol	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	31		21-120
Phenol-d6	19		10-120
Nitrobenzene-d5	76		23-120
2-Fluorobiphenyl	61		15-120
2,4,6-Tribromophenol	83		10-120
4-Terphenyl-d14	96		41-149

**Project Name:** 100 BINNEY STREET  
**Project Number:** 34250-040

**Lab Number:** L1405989  
**Report Date:** 03/28/14

**Method Blank Analysis**  
**Batch Quality Control**

**Analytical Method:** 1,8270D-SIM  
**Analytical Date:** 03/24/14 15:47  
**Analyst:** MW

**Extraction Method:** EPA 3510C  
**Extraction Date:** 03/22/14 00:59

Parameter	Result	Qualifier	Units	RL	MDL
Semivolatile Organics by GC/MS-SIM - Westborough Lab for sample(s): 01 Batch: WG677220-1					
Acenaphthene	ND		ug/l	0.20	--
2-Chloronaphthalene	ND		ug/l	0.20	--
Fluoranthene	ND		ug/l	0.20	--
Hexachlorobutadiene	ND		ug/l	0.50	--
Naphthalene	ND		ug/l	0.20	--
Benzo(a)anthracene	ND		ug/l	0.20	--
Benzo(a)pyrene	ND		ug/l	0.20	--
Benzo(b)fluoranthene	ND		ug/l	0.20	--
Benzo(k)fluoranthene	ND		ug/l	0.20	--
Chrysene	ND		ug/l	0.20	--
Acenaphthylene	ND		ug/l	0.20	--
Anthracene	ND		ug/l	0.20	--
Benzo(ghi)perylene	ND		ug/l	0.20	--
Fluorene	ND		ug/l	0.20	--
Phenanthrene	ND		ug/l	0.20	--
Dibenzo(a,h)anthracene	ND		ug/l	0.20	--
Indeno(1,2,3-cd)Pyrene	ND		ug/l	0.20	--
Pyrene	ND		ug/l	0.20	--
2-Methylnaphthalene	ND		ug/l	0.20	--
Pentachlorophenol	ND		ug/l	0.80	--
Hexachlorobenzene	ND		ug/l	0.80	--
Hexachloroethane	ND		ug/l	0.80	--

Project Name: 100 BINNEY STREET

Lab Number: L1405989

Project Number: 34250-040

Report Date: 03/28/14

**Method Blank Analysis**  
**Batch Quality Control**

Analytical Method: 1,8270D-SIM  
 Analytical Date: 03/24/14 15:47  
 Analyst: MW

Extraction Method: EPA 3510C  
 Extraction Date: 03/22/14 00:59

Parameter	Result	Qualifier	Units	RL	MDL
Semivolatile Organics by GC/MS-SIM - Westborough Lab for sample(s): 01 Batch: WG677220-1					

Surrogate	%Recovery	Qualifier	Acceptance Criteria
2-Fluorophenol	36		21-120
Phenol-d6	25		10-120
Nitrobenzene-d5	85		23-120
2-Fluorobiphenyl	65		15-120
2,4,6-Tribromophenol	87		10-120
4-Terphenyl-d14	88		41-149

## Lab Control Sample Analysis

### Batch Quality Control

Project Name: 100 BINNEY STREET

Lab Number: L1405989

Project Number: 34250-040

Report Date: 03/28/14

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Semivolatile Organics by GC/MS - Westborough Lab Associated sample(s): 01 Batch: WG677219-2 WG677219-3								
Acenaphthene	73		66		37-111	10		30
Benidine	24		29		10-75	19		30
1,2,4-Trichlorobenzene	53		45		39-98	16		30
Hexachlorobenzene	97		87		40-140	11		30
Bis(2-chloroethyl)ether	82		57		40-140	36	Q	30
2-Chloronaphthalene	71		66		40-140	7		30
1,2-Dichlorobenzene	58		46		40-140	23		30
1,3-Dichlorobenzene	54		42		40-140	25		30
1,4-Dichlorobenzene	55		44		36-97	22		30
3,3'-Dichlorobenzidine	74		66		40-140	11		30
2,4-Dinitrotoluene	113	Q	102	Q	24-96	10		30
2,6-Dinitrotoluene	112		99		40-140	12		30
Azobenzene	87		78		40-140	11		30
Fluoranthene	98		84		40-140	15		30
4-Chlorophenyl phenyl ether	80		76		40-140	5		30
4-Bromophenyl phenyl ether	94		84		40-140	11		30
Bis(2-chloroisopropyl)ether	79		60		40-140	27		30
Bis(2-chloroethoxy)methane	92		71		40-140	26		30
Hexachlorobutadiene	50		43		40-140	15		30
Hexachlorocyclopentadiene	28	Q	25	Q	40-140	11		30
Hexachloroethane	52		41		40-140	24		30

## Lab Control Sample Analysis

### Batch Quality Control

Project Name: 100 BINNEY STREET

Project Number: 34250-040

Lab Number: L1405989

Report Date: 03/28/14

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Semivolatile Organics by GC/MS - Westborough Lab Associated sample(s): 01 Batch: WG677219-2 WG677219-3								
Isophorone	98		75		40-140	27		30
Naphthalene	60		51		40-140	16		30
Nitrobenzene	82		69		40-140	17		30
NDPA/DPA	92		83		40-140	10		30
n-Nitrosodi-n-propylamine	88		69		29-132	24		30
Bis(2-ethylhexyl)phthalate	99		81		40-140	20		30
Butyl benzyl phthalate	110		93		40-140	17		30
Di-n-butylphthalate	101		85		40-140	17		30
Di-n-octylphthalate	105		89		40-140	16		30
Diethyl phthalate	94		82		40-140	14		30
Dimethyl phthalate	93		80		40-140	15		30
Benzo(a)anthracene	92		79		40-140	15		30
Benzo(a)pyrene	92		80		40-140	14		30
Benzo(b)fluoranthene	92		78		40-140	16		30
Benzo(k)fluoranthene	94		80		40-140	16		30
Chrysene	94		79		40-140	17		30
Acenaphthylene	86		79		45-123	8		30
Anthracene	91		79		40-140	14		30
Benzo(ghi)perylene	93		79		40-140	16		30
Fluorene	85		80		40-140	6		30
Phenanthrene	91		79		40-140	14		30

## Lab Control Sample Analysis

### Batch Quality Control

Project Name: 100 BINNEY STREET

Lab Number: L1405989

Project Number: 34250-040

Report Date: 03/28/14

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Semivolatile Organics by GC/MS - Westborough Lab Associated sample(s): 01 Batch: WG677219-2 WG677219-3								
Dibenzo(a,h)anthracene	91		79		40-140	14		30
Indeno(1,2,3-cd)pyrene	91		77		40-140	17		30
Pyrene	97		84		26-127	14		30
Biphenyl	66		61		40-140	8		30
Aniline	47		34	Q	40-140	32	Q	30
4-Chloroaniline	51		53		40-140	4		30
1-Methylnaphthalene	63		56		41-103	12		30
2-Nitroaniline	121		102		52-143	17		30
3-Nitroaniline	70		59		25-145	17		30
4-Nitroaniline	95		84		51-143	12		30
Dibenzofuran	80		73		40-140	9		30
2-Methylnaphthalene	66		58		40-140	13		30
1,2,4,5-Tetrachlorobenzene	57		53		2-134	7		30
Acetophenone	89		70		39-129	24		30
n-Nitrosodimethylamine	38		28		22-74	30		30
2,4,6-Trichlorophenol	103		88		30-130	16		30
p-Chloro-m-cresol	96		80		23-97	18		30
2-Chlorophenol	74		55		27-123	29		30
2,4-Dichlorophenol	88		70		30-130	23		30
2,4-Dimethylphenol	95		72		30-130	28		30
2-Nitrophenol	109		87		30-130	22		30



## Lab Control Sample Analysis

### Batch Quality Control

Project Name: 100 BINNEY STREET

Project Number: 34250-040

Lab Number: L1405989

Report Date: 03/28/14

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Semivolatile Organics by GC/MS - Westborough Lab Associated sample(s): 01 Batch: WG677219-2 WG677219-3								
4-Nitrophenol	50		44		10-80	13		30
2,4-Dinitrophenol	135	Q	120		20-130	12		30
4,6-Dinitro-o-cresol	130		122		20-164	6		30
Pentachlorophenol	102		87		9-103	16		30
Phenol	31		23		12-110	30		30
2-Methylphenol	69		50		30-130	32	Q	30
3-Methylphenol/4-Methylphenol	64		49		30-130	27		30
2,4,5-Trichlorophenol	111		91		30-130	20		30
Benzoic Acid	48		45		10-164	6		30
Benzyl Alcohol	64		47		26-116	31	Q	30
Carbazole	96		81		55-144	17		30
Pyridine	27		20		10-66	30		30
Parathion, ethyl	215		189			13		30
Atrazine	111		91		40-140	20		30
Benzaldehyde	86		64		40-140	29		30
Caprolactam	25		20		10-130	22		30
2,3,4,6-Tetrachlorophenol	104		91		40-140	13		30

## Lab Control Sample Analysis

### Batch Quality Control

Project Name: 100 BINNEY STREET

Lab Number: L1405989

Project Number: 34250-040

Report Date: 03/28/14

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
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Semivolatile Organics by GC/MS - Westborough Lab Associated sample(s): 01 Batch: WG677219-2 WG677219-3

Surrogate	LCS %Recovery	Qual	LCSD %Recovery	Qual	Acceptance Criteria
2-Fluorophenol	41		31		21-120
Phenol-d6	28		22		10-120
Nitrobenzene-d5	101		77		23-120
2-Fluorobiphenyl	82		66		15-120
2,4,6-Tribromophenol	103		88		10-120
4-Terphenyl-d14	96		84		41-149

## Lab Control Sample Analysis

### Batch Quality Control

Project Name: 100 BINNEY STREET

Project Number: 34250-040

Lab Number: L1405989

Report Date: 03/28/14

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Semivolatile Organics by GC/MS-SIM - Westborough Lab Associated sample(s): 01 Batch: WG677220-2 WG677220-3								
Acenaphthene	106		78		37-111	30		40
2-Chloronaphthalene	98		74		40-140	28		40
Fluoranthene	133		98		40-140	30		40
Hexachlorobutadiene	87		63		40-140	32		40
Naphthalene	94		69		40-140	31		40
Benzo(a)anthracene	142	Q	105		40-140	30		40
Benzo(a)pyrene	112		86		40-140	26		40
Benzo(b)fluoranthene	126		82		40-140	42	Q	40
Benzo(k)fluoranthene	112		102		40-140	9		40
Chrysene	117		87		40-140	29		40
Acenaphthylene	117		85		40-140	32		40
Anthracene	119		93		40-140	25		40
Benzo(ghi)perylene	106		74		40-140	36		40
Fluorene	126		92		40-140	31		40
Phenanthrene	118		84		40-140	34		40
Dibenzo(a,h)anthracene	105		77		40-140	31		40
Indeno(1,2,3-cd)pyrene	110		79		40-140	33		40
Pyrene	126		92		26-127	31		40
2-Methylnaphthalene	107		77		40-140	33		40
Pentachlorophenol	104	Q	85		9-103	20		40
Hexachlorobenzene	112		79		40-140	35		40

### Lab Control Sample Analysis Batch Quality Control

**Project Name:** 100 BINNEY STREET  
**Project Number:** 34250-040

**Lab Number:** L1405989  
**Report Date:** 03/28/14

<b>Parameter</b>	<b>LCS %Recovery</b>	<b>Qual</b>	<b>LCSD %Recovery</b>	<b>Qual</b>	<b>%Recovery Limits</b>	<b>RPD</b>	<b>Qual</b>	<b>RPD Limits</b>
Semivolatile Organics by GC/MS-SIM - Westborough Lab Associated sample(s): 01 Batch: WG677220-2 WG677220-3								
Hexachloroethane	94		67		40-140	34		40

<b>Surrogate</b>	<b>LCS %Recovery</b>	<b>Qual</b>	<b>LCSD %Recovery</b>	<b>Qual</b>	<b>Acceptance Criteria</b>
2-Fluorophenol	53		39		21-120
Phenol-d6	38		27		10-120
Nitrobenzene-d5	<b>125</b>	Q	91		23-120
2-Fluorobiphenyl	95		68		15-120
2,4,6-Tribromophenol	113		89		10-120
4-Terphenyl-d14	113		82		41-149



# PCBS

**Project Name:** 100 BINNEY STREET**Lab Number:** L1405989**Project Number:** 34250-040**Report Date:** 03/28/14**SAMPLE RESULTS**

**Lab ID:** L1405989-01  
**Client ID:** ENV-19-03-21-2014  
**Sample Location:** Not Specified  
**Matrix:** Water  
**Analytical Method:** 5,608  
**Analytical Date:** 03/24/14 15:59  
**Analyst:** JW

**Date Collected:** 03/21/14 14:00  
**Date Received:** 03/21/14  
**Field Prep:** Not Specified  
**Extraction Method:** EPA 608  
**Extraction Date:** 03/22/14 04:27  
**Cleanup Method1:** EPA 3665A  
**Cleanup Date1:** 03/24/14  
**Cleanup Method2:** EPA 3660B  
**Cleanup Date2:** 03/24/14

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

Surrogate	% Recovery	Qualifier	Acceptance Criteria	Column
2,4,5,6-Tetrachloro-m-xylene	83		30-150	A
Decachlorobiphenyl	65		30-150	A

**Project Name:** 100 BINNEY STREET  
**Project Number:** 34250-040

**Lab Number:** L1405989  
**Report Date:** 03/28/14

**Method Blank Analysis  
 Batch Quality Control**

Analytical Method: 5,608  
 Analytical Date: 03/24/14 16:11  
 Analyst: JW

Extraction Method: EPA 608  
 Extraction Date: 03/22/14 04:27  
 Cleanup Method1: EPA 3665A  
 Cleanup Date1: 03/24/14  
 Cleanup Method2: EPA 3660B  
 Cleanup Date2: 03/24/14

Parameter	Result	Qualifier	Units	RL	MDL	Column
Polychlorinated Biphenyls by GC - Westborough Lab for sample(s): 01 Batch: WG677249-1						
Aroclor 1016	ND		ug/l	0.250	--	A
Aroclor 1221	ND		ug/l	0.250	--	A
Aroclor 1232	ND		ug/l	0.250	--	A
Aroclor 1242	ND		ug/l	0.250	--	A
Aroclor 1248	ND		ug/l	0.250	--	A
Aroclor 1254	ND		ug/l	0.250	--	A
Aroclor 1260	ND		ug/l	0.200	--	A

Surrogate	%Recovery	Qualifier	Acceptance	
			Criteria	Column
2,4,5,6-Tetrachloro-m-xylene	68		30-150	A
Decachlorobiphenyl	87		30-150	A



### Matrix Spike Analysis Batch Quality Control

**Project Name:** 100 BINNEY STREET  
**Project Number:** 34250-040

**Lab Number:** L1405989  
**Report Date:** 03/28/14

<i>Parameter</i>	<i>Native Sample</i>	<i>MS Added</i>	<i>MS Found</i>	<i>MS %Recovery</i>	<i>Qual</i>	<i>MSD Found</i>	<i>MSD %Recovery</i>	<i>Qual</i>	<i>Recovery Limits</i>	<i>RPD</i>	<i>Qual</i>	<i>RPD Limits</i>	<i>Column</i>
Polychlorinated Biphenyls by GC - Westborough Lab Associated sample(s): 01 QC Batch ID: WG677249-3 QC Sample: L1405989-01 Client ID: ENV-19-03-21-2014													
Aroclor 1016	ND	2	0.838	42		-	-		40-140	-		50	A
Aroclor 1260	ND	2	0.865	43		-	-		40-140	-		50	A

<i>Surrogate</i>	<i>MS % Recovery</i>	<i>Qualifier</i>	<i>MSD % Recovery</i>	<i>Qualifier</i>	<i>Acceptance Criteria</i>	<i>Column</i>
2,4,5,6-Tetrachloro-m-xylene	52				30-150	A
Decachlorobiphenyl	35				30-150	A





### Lab Control Sample Analysis Batch Quality Control

**Project Name:** 100 BINNEY STREET  
**Project Number:** 34250-040

**Lab Number:** L1405989  
**Report Date:** 03/28/14

<b>Parameter</b>	<b>LCS %Recovery</b>	<b>Qual</b>	<b>LCSD %Recovery</b>	<b>Qual</b>	<b>%Recovery Limits</b>	<b>RPD</b>	<b>Qual</b>	<b>RPD Limits</b>	<b>Column</b>
Polychlorinated Biphenyls by GC - Westborough Lab Associated sample(s): 01 Batch: WG677249-2									
Aroclor 1016	72		-		40-140	-		50	A
Aroclor 1260	71		-		40-140	-		50	A

<b>Surrogate</b>	<b>LCS %Recovery</b>	<b>Qual</b>	<b>LCSD %Recovery</b>	<b>Qual</b>	<b>Acceptance Criteria</b>	<b>Column</b>
2,4,5,6-Tetrachloro-m-xylene	70				30-150	A
Decachlorobiphenyl	84				30-150	A



## Lab Duplicate Analysis

Batch Quality Control

Project Name: 100 BINNEY STREET

Project Number: 34250-040

Lab Number: L1405989

Report Date: 03/28/14

Parameter	Native Sample	Duplicate Sample	Units	RPD	Qual	RPD Limits
Polychlorinated Biphenyls by GC - Westborough Lab Associated sample(s): 01 QC Batch ID: WG677249-4 QC Sample: L1405989-01 Client ID: ENV-19-03-21-2014						
Aroclor 1016	ND	ND	ug/l	NC		50 A
Aroclor 1221	ND	ND	ug/l	NC		50 A
Aroclor 1232	ND	ND	ug/l	NC		50 A
Aroclor 1242	ND	ND	ug/l	NC		50 A
Aroclor 1248	ND	ND	ug/l	NC		50 A
Aroclor 1254	ND	ND	ug/l	NC		50 A
Aroclor 1260	ND	ND	ug/l	NC		50 A

Surrogate	%Recovery	Qualifier	%Recovery	Qualifier	Acceptance Criteria	Column
2,4,5,6-Tetrachloro-m-xylene	83		83		30-150	A
Decachlorobiphenyl	65		53		30-150	A

## METALS

**Project Name:** 100 BINNEY STREET  
**Project Number:** 34250-040

**Lab Number:** L1405989  
**Report Date:** 03/28/14

**SAMPLE RESULTS**

**Lab ID:** L1405989-01  
**Client ID:** ENV-19-03-21-2014  
**Sample Location:** Not Specified  
**Matrix:** Water

**Date Collected:** 03/21/14 14:00  
**Date Received:** 03/21/14  
**Field Prep:** Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Prep Method	Analytical Method	Analyst
<b>Total Metals - Westborough Lab</b>											
Antimony, Total	ND		mg/l	0.02000	--	10	03/26/14 08:24	03/27/14 11:15	EPA 3005A	1,6020A	KL
Arsenic, Total	ND		mg/l	0.00500	--	10	03/26/14 08:24	03/27/14 11:15	EPA 3005A	1,6020A	KL
Cadmium, Total	ND		mg/l	0.00200	--	10	03/26/14 08:24	03/27/14 11:15	EPA 3005A	1,6020A	KL
Chromium, Total	ND		mg/l	0.01000	--	10	03/26/14 08:24	03/27/14 11:15	EPA 3005A	1,6020A	KL
Copper, Total	ND		mg/l	0.01000	--	10	03/26/14 08:24	03/27/14 11:15	EPA 3005A	1,6020A	KL
Iron, Total	14		mg/l	0.05	--	1	03/26/14 08:24	03/26/14 13:24	EPA 3005A	19,200.7	TT
Lead, Total	ND		mg/l	0.00500	--	10	03/26/14 08:24	03/27/14 11:15	EPA 3005A	1,6020A	KL
Mercury, Total	ND		mg/l	0.0002	--	1	03/26/14 13:16	03/26/14 15:46	EPA 245.1	3,245.1	AK
Nickel, Total	ND		mg/l	0.00500	--	10	03/26/14 08:24	03/27/14 11:15	EPA 3005A	1,6020A	KL
Selenium, Total	ND		mg/l	0.0500	--	10	03/26/14 08:24	03/27/14 11:15	EPA 3005A	1,6020A	KL
Silver, Total	ND		mg/l	0.00400	--	10	03/26/14 08:24	03/27/14 11:15	EPA 3005A	1,6020A	KL
Zinc, Total	ND		mg/l	0.1000	--	10	03/26/14 08:24	03/27/14 11:15	EPA 3005A	1,6020A	KL



**Project Name:** 100 BINNEY STREET  
**Project Number:** 34250-040

**Lab Number:** L1405989  
**Report Date:** 03/28/14

## Method Blank Analysis Batch Quality Control

Parameter	Result Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
Total Metals - Westborough Lab for sample(s): 01 Batch: WG677986-1									
Antimony, Total	ND	mg/l	0.00200	--	1	03/26/14 08:24	03/26/14 16:09	1,6020A	KL
Arsenic, Total	ND	mg/l	0.00050	--	1	03/26/14 08:24	03/26/14 16:09	1,6020A	KL
Cadmium, Total	ND	mg/l	0.00020	--	1	03/26/14 08:24	03/26/14 16:09	1,6020A	KL
Chromium, Total	ND	mg/l	0.00100	--	1	03/26/14 08:24	03/26/14 16:09	1,6020A	KL
Copper, Total	ND	mg/l	0.00100	--	1	03/26/14 08:24	03/26/14 16:09	1,6020A	KL
Lead, Total	ND	mg/l	0.00050	--	1	03/26/14 08:24	03/26/14 16:09	1,6020A	KL
Nickel, Total	ND	mg/l	0.00050	--	1	03/26/14 08:24	03/26/14 16:09	1,6020A	KL
Selenium, Total	ND	mg/l	0.00500	--	1	03/26/14 08:24	03/26/14 16:09	1,6020A	KL
Silver, Total	ND	mg/l	0.00040	--	1	03/26/14 08:24	03/26/14 16:09	1,6020A	KL
Zinc, Total	ND	mg/l	0.01000	--	1	03/26/14 08:24	03/26/14 16:09	1,6020A	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 Batch: WG678047-1									
Iron, Total	ND	mg/l	0.05	--	1	03/26/14 08:24	03/26/14 13:16	19,200.7	TT

### Prep Information

Digestion Method: EPA 3005A

Parameter	Result Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
Total Metals - Westborough Lab for sample(s): 01 Batch: WG678082-1									
Mercury, Total	ND	mg/l	0.0002	--	1	03/26/14 13:16	03/26/14 15:33	3,245.1	AK

### Prep Information

Digestion Method: EPA 245.1



## Lab Control Sample Analysis

### Batch Quality Control

**Project Name:** 100 BINNEY STREET

**Project Number:** 34250-040

**Lab Number:** L1405989

**Report Date:** 03/28/14

Parameter	LCS		LCSD		%Recovery Limits	RPD	Qual	RPD Limits
	%Recovery	Qual	%Recovery	Qual				
Total Metals - Westborough Lab Associated sample(s): 01 Batch: WG677986-2								
Antimony, Total	82		-		80-120	-		
Arsenic, Total	102		-		80-120	-		
Cadmium, Total	110		-		80-120	-		
Chromium, Total	98		-		80-120	-		
Copper, Total	103		-		80-120	-		
Lead, Total	104		-		80-120	-		
Nickel, Total	103		-		80-120	-		
Selenium, Total	105		-		80-120	-		
Silver, Total	96		-		80-120	-		
Zinc, Total	106		-		80-120	-		
Total Metals - Westborough Lab Associated sample(s): 01 Batch: WG678047-2								
Iron, Total	100		-		85-115	-		
Total Metals - Westborough Lab Associated sample(s): 01 Batch: WG678082-2								
Mercury, Total	107		-		85-115	-		

### Matrix Spike Analysis Batch Quality Control

**Project Name:** 100 BINNEY STREET  
**Project Number:** 34250-040

**Lab Number:** L1405989  
**Report Date:** 03/28/14

Parameter	Native Sample	MS Added	MS Found	MS %Recovery	Qual	MSD Found	MSD %Recovery	Qual	Recovery Limits	RPD	Qual	RPD Limits
Total Metals - Westborough Lab Associated sample(s): 01    QC Batch ID: WG677986-4    QC Sample: L1405989-01    Client ID: ENV-19-03-21-2014												
Antimony, Total	ND	0.5	0.5524	110		-	-		75-125	-		20
Arsenic, Total	ND	0.12	0.1337	111		-	-		75-125	-		20
Cadmium, Total	ND	0.051	0.05689	112		-	-		75-125	-		20
Chromium, Total	ND	0.2	0.2043	102		-	-		75-125	-		20
Copper, Total	ND	0.25	0.2556	102		-	-		75-125	-		20
Lead, Total	ND	0.51	0.5698	112		-	-		75-125	-		20
Nickel, Total	ND	0.5	0.5185	104		-	-		75-125	-		20
Selenium, Total	ND	0.12	0.131	109		-	-		75-125	-		20
Silver, Total	ND	0.05	0.05362	107		-	-		75-125	-		20
Zinc, Total	ND	0.5	0.5215	104		-	-		75-125	-		20
Total Metals - Westborough Lab Associated sample(s): 01    QC Batch ID: WG678047-4    QC Sample: L1405989-01    Client ID: ENV-19-03-21-2014												
Iron, Total	14	1	14	0	Q	-	-		75-125	-		20
Total Metals - Westborough Lab Associated sample(s): 01    QC Batch ID: WG678082-4    QC Sample: L1405861-01    Client ID: MS Sample												
Mercury, Total	ND	0.005	0.0054	108		-	-		70-130	-		20



## Lab Duplicate Analysis

Batch Quality Control

Project Name: 100 BINNEY STREET

Project Number: 34250-040

Lab Number: L1405989

Report Date: 03/28/14

Parameter	Native Sample	Duplicate Sample	Units	RPD	Qual	RPD Limits
<b>Total Metals - Westborough Lab Associated sample(s): 01 QC Batch ID: WG677986-3 QC Sample: L1405989-01 Client ID: ENV-19-03-21-2014</b>						
Antimony, Total	ND	ND	mg/l	NC		20
Arsenic, Total	ND	ND	mg/l	NC		20
Cadmium, Total	ND	ND	mg/l	NC		20
Chromium, Total	ND	ND	mg/l	NC		20
Copper, Total	ND	ND	mg/l	NC		20
Lead, Total	ND	ND	mg/l	NC		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	ND	ND	mg/l	NC		20
<b>Total Metals - Westborough Lab Associated sample(s): 01 QC Batch ID: WG678047-3 QC Sample: L1405989-01 Client ID: ENV-19-03-21-2014</b>						
Iron, Total	14	14	mg/l	0		20
<b>Total Metals - Westborough Lab Associated sample(s): 01 QC Batch ID: WG678082-3 QC Sample: L1405861-01 Client ID: DUP Sample</b>						
Mercury, Total	ND	ND	mg/l	NC		20



# **INORGANICS & MISCELLANEOUS**

**Project Name:** 100 BINNEY STREET  
**Project Number:** 34250-040

**Lab Number:** L1405989  
**Report Date:** 03/28/14

**SAMPLE RESULTS**

**Lab ID:** L1405989-01  
**Client ID:** ENV-19-03-21-2014  
**Sample Location:** Not Specified  
**Matrix:** Water

**Date Collected:** 03/21/14 14:00  
**Date Received:** 03/21/14  
**Field Prep:** Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
<b>General Chemistry - Westborough Lab</b>										
Solids, Total Suspended	51.		mg/l	5.0	NA	1	-	03/25/14 13:30	30,2540D	JT
Cyanide, Total	0.040		mg/l	0.005	--	1	03/24/14 11:00	03/24/14 15:53	30,4500CN-CE	JO
Cyanide, Free	ND		mg/l	0.010	--	1	-	03/22/14 05:30	30,4500CN-E (M)	EL
Cyanide, Amenable	0.029		mg/l	0.010	--	2	03/26/14 14:15	03/26/14 16:55	30,4500CN-G	SP
Chlorine, Total Residual	ND		mg/l	0.02	--	1	-	03/22/14 01:57	30,4500CL-D	EL
TPH	ND		mg/l	4.00	--	1	03/25/14 07:45	03/25/14 12:30	74,1664A	ML
Phenolics, Total	ND		mg/l	0.03	--	1	03/26/14 10:45	03/26/14 16:29	4,420.1	MP
Chromium, Hexavalent	ND		mg/l	0.010	--	1	03/21/14 21:30	03/21/14 22:08	30,3500CR-D	EL
<b>Anions by Ion Chromatography - Westborough Lab</b>										
Chloride	1730		mg/l	50.0	--	100	-	03/22/14 05:59	44,300.0	AU



**Project Name:** 100 BINNEY STREET  
**Project Number:** 34250-040

**Lab Number:** L1405989  
**Report Date:** 03/28/14

**Method Blank Analysis**  
**Batch Quality Control**

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Westborough Lab for sample(s): 01 Batch: WG677203-1										
Chromium, Hexavalent	ND		mg/l	0.010	--	1	03/21/14 21:30	03/21/14 22:07	30,3500CR-D	EL
General Chemistry - Westborough Lab for sample(s): 01 Batch: WG677231-1										
Chlorine, Total Residual	ND		mg/l	0.02	--	1	-	03/22/14 01:57	30,4500CL-D	EL
General Chemistry - Westborough Lab for sample(s): 01 Batch: WG677256-1										
Cyanide, Free	ND		mg/l	0.010	--	1	-	03/22/14 05:30	30,4500CN-E (M)	EL
General Chemistry - Westborough Lab for sample(s): 01 Batch: WG677418-1										
Cyanide, Total	ND		mg/l	0.005	--	1	03/24/14 11:00	03/24/14 15:50	30,4500CN-CE	JO
Anions by Ion Chromatography - Westborough Lab for sample(s): 01 Batch: WG677617-1										
Chloride	ND		mg/l	0.500	--	1	-	03/22/14 01:59	44,300.0	AU
General Chemistry - Westborough Lab for sample(s): 01 Batch: WG677716-1										
TPH	ND		mg/l	4.00	--	1	03/25/14 07:45	03/25/14 12:30	74,1664A	ML
General Chemistry - Westborough Lab for sample(s): 01 Batch: WG677795-1										
Solids, Total Suspended	ND		mg/l	5.0	NA	1	-	03/25/14 13:30	30,2540D	JT
General Chemistry - Westborough Lab for sample(s): 01 Batch: WG678074-1										
Phenolics, Total	ND		mg/l	0.03	--	1	03/26/14 10:45	03/26/14 16:21	4,420.1	MP
General Chemistry - Westborough Lab for sample(s): 01 Batch: WG678091-1										
Cyanide, Amenable	ND		mg/l	0.010	--	2	03/26/14 14:15	03/26/14 16:55	30,4500CN-G	SP



## Lab Control Sample Analysis

Batch Quality Control

**Project Name:** 100 BINNEY STREET  
**Project Number:** 34250-040

**Lab Number:** L1405989  
**Report Date:** 03/28/14

Parameter	LCS		LCSD		%Recovery Limits	RPD	Qual	RPD Limits
	%Recovery	Qual	%Recovery	Qual				
General Chemistry - Westborough Lab Associated sample(s): 01 Batch: WG677203-2								
Chromium, Hexavalent	100		-		85-115	-		20
General Chemistry - Westborough Lab Associated sample(s): 01 Batch: WG677231-2								
Chlorine, Total Residual	97		-		90-110	-		
General Chemistry - Westborough Lab Associated sample(s): 01 Batch: WG677256-2								
Cyanide, Free	101		-		90-110	-		
General Chemistry - Westborough Lab Associated sample(s): 01 Batch: WG677418-2								
Cyanide, Total	96		-		90-110	-		
Anions by Ion Chromatography - Westborough Lab Associated sample(s): 01 Batch: WG677617-2								
Chloride	102		-		90-110	-		
General Chemistry - Westborough Lab Associated sample(s): 01 Batch: WG677716-2								
TPH	75		-		64-132	-		34
General Chemistry - Westborough Lab Associated sample(s): 01 Batch: WG678074-2								
Phenolics, Total	103		-		70-130	-		



**Lab Control Sample Analysis**  
Batch Quality Control**Project Name:** 100 BINNEY STREET**Project Number:** 34250-040**Lab Number:** L1405989**Report Date:** 03/28/14

<b>Parameter</b>	<b>LCS %Recovery</b>	<b>LCSD %Recovery</b>	<b>%Recovery Limits</b>	<b>RPD</b>	<b>RPD Limits</b>
General Chemistry - Westborough Lab Associated sample(s): 01 Batch: WG678091-2					
Cyanide, Amenable	100	-		-	

### Matrix Spike Analysis Batch Quality Control

**Project Name:** 100 BINNEY STREET

**Lab Number:** L1405989

**Project Number:** 34250-040

**Report Date:** 03/28/14

Parameter	Native Sample	MS Added	MS Found	MS %Recovery	MSD Qual	MSD Found	MSD %Recovery	MSD Qual	Recovery Limits	RPD	RPD Qual	RPD Limits
General Chemistry - Westborough Lab Associated sample(s): 01 QC Batch ID: WG677203-4 QC Sample: L1405989-01 Client ID: ENV-19-03-21-2014												
Chromium, Hexavalent	ND	0.1	0.102	102	-	-	-	-	85-115	-	-	20
General Chemistry - Westborough Lab Associated sample(s): 01 QC Batch ID: WG677418-3 QC Sample: L1405990-01 Client ID: MS Sample												
Cyanide, Total	ND	0.2	0.199	100	-	-	-	-	90-110	-	-	30
Anions by Ion Chromatography - Westborough Lab Associated sample(s): 01 QC Batch ID: WG677617-3 QC Sample: L1405863-02 Client ID: MS Sample												
Chloride	1.55	4	5.60	101	-	-	-	-	40-151	-	-	18
General Chemistry - Westborough Lab Associated sample(s): 01 QC Batch ID: WG677716-4 QC Sample: L1406117-01 Client ID: MS Sample												
TPH	ND	20.8	16.3	78	-	-	-	-	64-132	-	-	34
General Chemistry - Westborough Lab Associated sample(s): 01 QC Batch ID: WG678074-4 QC Sample: L1405743-01 Client ID: MS Sample												
Phenolics, Total	ND	0.4	0.36	89	-	-	-	-	70-130	-	-	20

## Lab Duplicate Analysis

Batch Quality Control

**Project Name:** 100 BINNEY STREET  
**Project Number:** 34250-040

**Lab Number:** L1405989  
**Report Date:** 03/28/14

Parameter	Native Sample	Duplicate Sample	Units	RPD	Qual	RPD Limits
General Chemistry - Westborough Lab Associated sample(s): 01 QC Batch ID: WG677203-3 QC Sample: L1405989-01 Client ID: ENV-19-03-21-2014						
Chromium, Hexavalent	ND	ND	mg/l	NC		20
General Chemistry - Westborough Lab Associated sample(s): 01 QC Batch ID: WG677231-3 QC Sample: L1405989-01 Client ID: ENV-19-03-21-2014						
Chlorine, Total Residual	ND	ND	mg/l	NC		20
General Chemistry - Westborough Lab Associated sample(s): 01 QC Batch ID: WG677256-3 QC Sample: L1405989-01 Client ID: ENV-19-03-21-2014						
Cyanide, Free	ND	ND	mg/l	NC		20
General Chemistry - Westborough Lab Associated sample(s): 01 QC Batch ID: WG677418-4 QC Sample: L1405990-01 Client ID: DUP Sample						
Cyanide, Total	ND	ND	mg/l	NC		30
Anions by Ion Chromatography - Westborough Lab Associated sample(s): 01 QC Batch ID: WG677617-4 QC Sample: L1405863-02 Client ID: DUP Sample						
Chloride	1.55	1.53	mg/l	1		18
General Chemistry - Westborough Lab Associated sample(s): 01 QC Batch ID: WG677716-3 QC Sample: L1406123-01 Client ID: DUP Sample						
TPH	ND	ND	mg/l	NC		34
General Chemistry - Westborough Lab Associated sample(s): 01 QC Batch ID: WG678074-3 QC Sample: L1405743-01 Client ID: DUP Sample						
Phenolics, Total	ND	ND	mg/l	NC		20
General Chemistry - Westborough Lab Associated sample(s): 01 QC Batch ID: WG678091-3 QC Sample: L1405989-01 Client ID: ENV-19-03-21-2014						
Cyanide, Amenable	0.029	0.041	mg/l	34		

Project Name: 100 BINNEY STREET

Lab Number: L1405989

Project Number: 34250-040

Report Date: 03/28/14

## Sample Receipt and Container Information

Were project specific reporting limits specified? YES

Reagent H2O Preserved Vials Frozen on: NA

## Cooler Information Custody Seal

## Cooler

A Absent

## Container Information

Container ID	Container Type	Cooler	pH	Temp deg C	Pres	Seal	Analysis(*)
L1405989-01A	Vial HCl preserved	A	N/A	2.8	Y	Absent	8260-SIM(14),8260(14)
L1405989-01A1	Vial HCl preserved	A	N/A	2.8	Y	Absent	8260-SIM(14),8260(14)
L1405989-01B	Vial HCl preserved	A	N/A	2.8	Y	Absent	8260-SIM(14),8260(14)
L1405989-01B1	Vial HCl preserved	A	N/A	2.8	Y	Absent	8260-SIM(14),8260(14)
L1405989-01C	Vial HCl preserved	A	N/A	2.8	Y	Absent	8260-SIM(14),8260(14)
L1405989-01C1	Vial HCl preserved	A	N/A	2.8	Y	Absent	8260-SIM(14),8260(14)
L1405989-01D	Vial Na2S2O3 preserved	A	N/A	2.8	Y	Absent	504(14)
L1405989-01E	Vial Na2S2O3 preserved	A	N/A	2.8	Y	Absent	504(14)
L1405989-01G	Amber 1000ml unpreserved	A	7	2.8	Y	Absent	8270TCL(7),8270TCL-SIM(7)
L1405989-01G1	Amber 1000ml unpreserved	A	7	2.8	Y	Absent	8270TCL(7),8270TCL-SIM(7)
L1405989-01H	Amber 1000ml unpreserved	A	7	2.8	Y	Absent	8270TCL(7),8270TCL-SIM(7)
L1405989-01H1	Amber 1000ml unpreserved	A	7	2.8	Y	Absent	8270TCL(7),8270TCL-SIM(7)
L1405989-01I	Amber 1000ml Na2S2O3	A	7	2.8	Y	Absent	PCB-608(7)
L1405989-01J	Amber 1000ml Na2S2O3	A	7	2.8	Y	Absent	PCB-608(7)
L1405989-01K	Amber 1000ml HCl preserved	A	N/A	2.8	Y	Absent	TPH-1664(28)
L1405989-01L	Amber 1000ml HCl preserved	A	N/A	2.8	Y	Absent	TPH-1664(28)
L1405989-01M	Amber 1000ml H2SO4 preserved	A	<2	2.8	Y	Absent	TPHENOL-420(28)
L1405989-01N	Plastic 1000ml unpreserved	A	7	2.8	Y	Absent	TSS-2540(7)
L1405989-01O	Plastic 500ml unpreserved	A	7	2.8	Y	Absent	CL-300(28),HEXCR-3500(1),TRC-4500(1),FCN(1)
L1405989-01O1	Plastic 500ml unpreserved	A	7	2.8	Y	Absent	CL-300(28),HEXCR-3500(1),TRC-4500(1),FCN(1)
L1405989-01P	Plastic 250ml NaOH preserved	A	>12	2.8	Y	Absent	TCN-4500(14),ACN-4500(14)
L1405989-01Q	Plastic 250ml HNO3 preserved	A	<2	2.8	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)

\*Values in parentheses indicate holding time in days



**Project Name:** 100 BINNEY STREET**Project Number:** 34250-040**Lab Number:** L1405989**Report Date:** 03/28/14**Container Information**

Container ID	Container Type	Cooler	pH	Temp deg C	Pres	Seal	Analysis(*)
L1405989-01R	Plastic 250ml HNO3 preserved	A	<2	2.8	Y	Absent	CL-300(28)

**Container Comments**

L1405989-01I

L1405989-01J

\*Values in parentheses indicate holding time in days

**Project Name:** 100 BINNEY STREET  
**Project Number:** 34250-040

**Lab Number:** L1405989  
**Report Date:** 03/28/14

## GLOSSARY

### Acronyms

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

### Footnotes

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

### Terms

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

### Data Qualifiers

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

**Report Format:** Data Usability Report



**Project Name:** 100 BINNEY STREET  
**Project Number:** 34250-040

**Lab Number:** L1405989  
**Report Date:** 03/28/14

**Data Qualifiers**

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

**Project Name:** 100 BINNEY STREET  
**Project Number:** 34250-040

**Lab Number:** L1405989  
**Report Date:** 03/28/14

## REFERENCES

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



## Certification Information

Last revised December 11, 2013

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

#### Westborough Facility

**EPA 524.2:** Acetone, 2-Butanone (Methyl ethyl ketone (MEK)), Tert-butyl alcohol, 2-Hexanone, Tetrahydrofuran, 1,3,5-Trichlorobenzene, 4-Methyl-2-pentanone (MIBK), Carbon disulfide, Diethyl ether.

**EPA 8260C:** 1,2,4,5-Tetramethylbenzene, 4-Ethyltoluene, Iodomethane (methyl iodide), Methyl methacrylate, Azobenzene.

**EPA 8330A/B:** PETN, Picric Acid, Nitroglycerine, 2,6-DANT, 2,4-DANT.

**EPA 8270D:** 1-Methylnaphthalene, Dimethylnaphthalene, 1,4-Diphenylhydrazine.

**EPA 625:** 4-Chloroaniline, 4-Methylphenol.

**SM4500:** Soil: Total Phosphorus, TKN, NO<sub>2</sub>, NO<sub>3</sub>.

**EPA 9071:** Total Petroleum Hydrocarbons, Oil & Grease.

#### Mansfield Facility

**EPA 8270D:** Biphenyl.

**EPA TO-15:** Halothane, 2,4,4-Trimethyl-2-pentene, 2,4,4-Trimethyl-1-pentene, Thiophene, 2-Methylthiophene, 3-Methylthiophene, 2-Ethylthiophene, 1,2,3-Trimethylbenzene, Indan, Indene, 1,2,4,5-Tetramethylbenzene, Benzothiophene, 1-Methylnaphthalene.

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

#### Drinking Water

**EPA 200.8:** Sb,As,Ba,Be,Cd,Cr,Cu,Pb,Ni,Se,Tl; **EPA 200.7:** Ba,Be,Ca,Cd,Cr,Cu,Na; **EPA 245.1:** Mercury;

**EPA 300.0:** Nitrate-N, Fluoride, Sulfate; **EPA 353.2:** Nitrate-N, Nitrite-N; **SM4500NO3-F:** Nitrate-N, Nitrite-N; **SM4500F-C, SM4500CN-CE, EPA 180.1, SM2130B, SM4500CI-D, SM2320B, SM2540C, SM4500H-B**

**EPA 332:** Perchlorate.

**Microbiology:** **SM9215B; SM9223-P/A, SM9223B-Colilert-QT, Enterolert-QT.**

#### Non-Potable Water

**EPA 200.8:** Al,Sb,As,Be,Cd,Cr,Cu,Pb,Mn,Ni,Se,Ag,Tl,Zn;

**EPA 200.7:** Al,Sb,As,Be,Cd,Ca,Cr,Co,Cu,Fe,Pb,Mg,Mn,Mo,Ni,K,Se,Ag,Na,Sr,Ti,Tl,V,Zn;

**EPA 245.1, SM4500H,B, EPA 120.1, SM2510B, SM2540C, SM2340B, SM2320B, SM4500CL-E, SM4500F-BC, SM426C, SM4500NH3-BH, EPA 350.1:** Ammonia-N, **LACHAT 10-107-06-1-B:** Ammonia-N, **SM4500NO3-F, EPA 353.2:** Nitrate-N, **SM4500NH3-BC-NES, EPA 351.1, SM4500P-E, SM4500P-B, E, SM5220D, EPA 410.4, SM5210B, SM5310C, SM4500CL-D, EPA 1664, SM14 510AC, EPA 420.1, SM4500-CN-CE, SM2540D.**

**EPA 624:** Volatile Halocarbons & Aromatics,

**EPA 608:** Chlordane, Toxaphene, Aldrin, alpha-BHC, beta-BHC, gamma-BHC, delta-BHC, Dieldrin, DDD, DDE, DDT, Endosulfan I, Endosulfan II, Endosulfan sulfate, Endrin, Endrin Aldehyde, Heptachlor, Heptachlor Epoxide, PCBs

**EPA 625:** SVOC (Acid/Base/Neutral Extractables), **EPA 600/4-81-045:** PCB-Oil.

**Microbiology:** **SM9223B-Colilert-QT; Enterolert-QT, SM9222D-MF.**

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

**HALEY & ALDRICH**

Haley & Aldrich, Inc.  
465 Medford St.,  
Suite 2200,  
Boston, MA 02129-1402

# CHAIN OF CUSTODY RECORD

L1405989

Phone (617) 886-7400  
Fax (617) 886-7600

Page 1 of 1

H&A FILE NO. 34250-040  
PROJECT NAME 100 BINNEY STREET  
H&A CONTACT J. THIBAUT

LABORATORY ALPHA ANALYTICAL  
ADDRESS WESTBOROUGH, MA  
CONTACT GINA HALL

DELIVERY DATE 3/21/2014  
TURNAROUND TIME 5-DAY  
PROJECT MANAGER R. HIGGINS

Sample No.	Date	Time	Depth	Type	Analysis Requested														Number of Containers	Comments (special instructions, precautions, additional method numbers, etc.)						
					1. VOCs 8260/8260-SIM	2. SVOCs 8270/8270-SIM	3. PCBs 608	4. TSS 160.2	5. EDB 504.1	6. TPH 1664	7. Total Phenol 420.1	8. Total Metals	9. Dissolved Metals	10. TRC 330.1, Cl	11. TCN 335.2	12. Amenable Cyanide	13. Free Cyanide	14. Hex Cr SM 3500								
ENV-19-03-21-2014	3/21/14	1400	GW	AQ	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	23	Laboratory to use applicable DEP CAM methods, unless otherwise directed.  8. NPDES RGP list of metals: Cd, Cr, Cu, Pb, Ni, Ag, Zn, As, Se, Sb, Hg and Fe  9. Dissolved NPDES RGP list of metals (Field Filtered)  **HOLD FIELD FILTERED SAMPLE

Sampled and Relinquished by  
Sign *[Signature]*  
Print *[Name]*  
Firm *[Firm]*  
Date 3-21-14 Time

Received by  
Sign *[Signature]*  
Print *[Name]*  
Firm *[Firm]*  
Date 3/21/14 Time 1630

LIQUID														VOA Vial				
X						X												X
	X	X					X	X										X
AF	A	AH	A	AH	AF	AH	AD	AD	A	AC	AC	AC	A					
40	1000	1000	1000	1000	1000	500	250	250	500	250	250	250	500					

Sampling Comments  
\*Sample submitted for NPDES RGP permit application.  
Please follow appropriate testing methods and minimum detection levels as required by the EPA for the RGP.

Relinquished by  
Sign *[Signature]*  
Print *[Name]*  
Firm *[Firm]*  
Date 3/21/14 Time

Received by  
Sign *[Signature]*  
Print *[Name]*  
Firm *[Firm]*  
Date 3/21/14 Time 1650

SOLID														VOA Vial				

Evidence samples were tampered with? YES NO  
IF YES, please explain in section below.

Relinquished by  
Sign *[Signature]*  
Print *[Name]*  
Firm *[Firm]*  
Date 3/21/14 Time 1830

Received by  
Sign *[Signature]*  
Print *[Name]*  
Firm *[Firm]*  
Date 3/21/14 Time 1830

PRESERVATION KEY													
A Sample chilled	C NaOH	E H <sub>2</sub> SO <sub>4</sub>	G Methanol										
B Sample filtered	D HNO <sub>3</sub>	F HCL	H Water (Na <sub>2</sub> S <sub>2</sub> O <sub>3</sub> (cplc))										

Presumptive Certainty Data Package (Laboratory to use applicable DEP CAM methods)

If Presumptive Certainty Data Package is needed, Initial all sections:  
 The required minimum field QC samples, as designated in BWSC CAM-VII have been or will be collected, as appropriate, to meet the requirements of Presumptive Certainty.  
 Matrix Spike (MS) samples for MCP Metals and/or Cyanide are included and identified herein.  
 This Chain of Custody Record (specify)                      includes   X   does not include samples defined as Drinking Water Samples.  
 If this Chain of Custody Record identifies samples defined as Drinking Water Samples, Trip Blanks and Field Duplicates are included and identified and analysis of TICs are required, as appropriate.  
 Laboratory should (specify if applicable)                      analyze

Required Reporting Limits and Data Quality Objectives		
<input type="checkbox"/> RC-S1	<input type="checkbox"/> S1	<input type="checkbox"/> GW1
<input type="checkbox"/> RC-S2	<input type="checkbox"/> S2	<input type="checkbox"/> GW2
<input type="checkbox"/> RC-GW1	<input type="checkbox"/> S3	<input type="checkbox"/> GW3
<input type="checkbox"/> RC-GW2		



## ANALYTICAL REPORT

Lab Number:	L1406117
Client:	Haley & Aldrich, Inc. 465 Medford Street, Suite 2200 Charlestown, MA 02129-1400
ATTN:	Rebecca Higgins
Phone:	(617) 886-7326
Project Name:	100 BINNEY STREET
Project Number:	34250-040
Report Date:	03/31/14

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.

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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:** 100 BINNEY STREET  
**Project Number:** 34250-040

**Lab Number:** L1406117  
**Report Date:** 03/31/14

<b>Alpha Sample ID</b>	<b>Client ID</b>	<b>Sample Location</b>	<b>Collection Date/Time</b>
L1406117-01	ENV-20-03-24-2014	Not Specified	03/24/14 12:50
L1406117-02	MW-58-03-24-2014	Not Specified	03/24/14 15:15



**Project Name:** 100 BINNEY STREET  
**Project Number:** 34250-040

**Lab Number:** L1406117  
**Report Date:** 03/31/14

### Case Narrative

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

Results contained within this report relate only to the samples submitted under this Alpha Lab Number and meet all of the requirements of NELAC, for all NELAC accredited parameters. The data presented in this report is organized by parameter (i.e. VOC, SVOC, etc.). Sample specific Quality Control data (i.e. Surrogate Spike Recovery) is reported at the end of the target analyte list for each individual sample, followed by the Laboratory Batch Quality Control at the end of each parameter. If a sample was re-analyzed or re-extracted due to a required quality control corrective action and if both sets of data are reported, the Laboratory ID of the re-analysis or re-extraction is designated with an "R" or "RE", respectively. When multiple Batch Quality Control elements are reported (e.g. more than one LCS), the associated samples for each element are noted in the grey shaded header line of each data table. Any Laboratory Batch, Sample Specific % recovery or RPD value that is outside the listed Acceptance Criteria is bolded in the report. 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 (with the exception of Air canisters) free of charge for 21 calendar days from the date the project is completed. After 21 calendar days, we will dispose of all samples submitted including those put on hold unless you have contacted your Client Service Representative and made arrangements for Alpha to continue to hold the samples. Air canisters will be disposed after 3 business days from the date the project is completed.

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

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**Project Name:** 100 BINNEY STREET  
**Project Number:** 34250-040

**Lab Number:** L1406117  
**Report Date:** 03/31/14

### Case Narrative (continued)

#### Volatile Organics by SIM

L1406117-01 and -02 (all samples) have elevated detection limits due to the dilutions required by the elevated concentrations of non-target compounds in the samples.

#### Semivolatile Organics by SIM

L1406117-01 and -02 (all samples) have elevated detection limits due to the dilutions required by the sample matrices.

The surrogate recoveries for L1406117-01 and -02 (all samples) are below the acceptance criteria for 2-fluorophenol, phenol-d6, nitrobenzene-d5, 2-fluorobiphenyl, 2,4,6-tribromophenol, and 4-terphenyl-d14 (all 0%) due to the dilutions required to quantitate the samples. Re-extraction was not required; therefore, the results of the original analyses are reported.

#### Metals

L1406117-02 (MW-58-03-24-2014) has an elevated detection limit for lead due to the dilution required by matrix interferences encountered during analysis.

#### Solids, Total Suspended

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

#### Cyanide

L1406117-01: The Free Cyanide results are greater than the Total Cyanide results. The sample containers were verified as being labeled correctly by the laboratory, it should be noted that the containers had different preservations.

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

Authorized Signature:

 Lisa Westerlind

Title: Technical Director/Representative

Date: 03/31/14

# ORGANICS

# VOLATILES

**Project Name:** 100 BINNEY STREET**Lab Number:** L1406117**Project Number:** 34250-040**Report Date:** 03/31/14**SAMPLE RESULTS**

**Lab ID:** L1406117-01  
**Client ID:** ENV-20-03-24-2014  
**Sample Location:** Not Specified  
**Matrix:** Water  
**Analytical Method:** 14,504.1  
**Analytical Date:** 03/25/14 13:51  
**Analyst:** GP

**Date Collected:** 03/24/14 12:50  
**Date Received:** 03/24/14  
**Field Prep:** Not Specified  
**Extraction Date:** 03/25/14 10:30

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

**Project Name:** 100 BINNEY STREET**Lab Number:** L1406117**Project Number:** 34250-040**Report Date:** 03/31/14**SAMPLE RESULTS**

**Lab ID:** L1406117-01 D2  
**Client ID:** ENV-20-03-24-2014  
**Sample Location:** Not Specified  
**Matrix:** Water  
**Analytical Method:** 1,8260C  
**Analytical Date:** 03/28/14 11:12  
**Analyst:** MM

**Date Collected:** 03/24/14 12:50  
**Date Received:** 03/24/14  
**Field Prep:** Not Specified

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

p/m-Xylene	34000		ug/l	200	--	200
------------	-------	--	------	-----	----	-----

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	93		70-130
Toluene-d8	103		70-130
4-Bromofluorobenzene	97		70-130
Dibromofluoromethane	96		70-130

**Project Name:** 100 BINNEY STREET**Lab Number:** L1406117**Project Number:** 34250-040**Report Date:** 03/31/14**SAMPLE RESULTS**

Lab ID: L1406117-01 D  
 Client ID: ENV-20-03-24-2014  
 Sample Location: Not Specified  
 Matrix: Water  
 Analytical Method: 1,8260C  
 Analytical Date: 03/28/14 09:34  
 Analyst: MM

Date Collected: 03/24/14 12:50  
 Date Received: 03/24/14  
 Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
<b>Volatile Organics by GC/MS - Westborough Lab</b>						
Methylene chloride	ND		ug/l	150	--	50
1,1-Dichloroethane	ND		ug/l	38	--	50
Chloroform	ND		ug/l	38	--	50
Carbon tetrachloride	ND		ug/l	25	--	50
1,2-Dichloropropane	ND		ug/l	88	--	50
Dibromochloromethane	ND		ug/l	25	--	50
1,1,2-Trichloroethane	ND		ug/l	38	--	50
Tetrachloroethene	ND		ug/l	25	--	50
Chlorobenzene	ND		ug/l	25	--	50
Trichlorofluoromethane	ND		ug/l	120	--	50
1,2-Dichloroethane	ND		ug/l	25	--	50
1,1,1-Trichloroethane	ND		ug/l	25	--	50
Bromodichloromethane	ND		ug/l	25	--	50
trans-1,3-Dichloropropene	ND		ug/l	25	--	50
cis-1,3-Dichloropropene	ND		ug/l	25	--	50
1,1-Dichloropropene	ND		ug/l	120	--	50
Bromoform	ND		ug/l	100	--	50
1,1,2,2-Tetrachloroethane	ND		ug/l	25	--	50
Benzene	84		ug/l	25	--	50
Toluene	6000		ug/l	38	--	50
Ethylbenzene	7900		ug/l	25	--	50
Chloromethane	ND		ug/l	120	--	50
Bromomethane	ND		ug/l	50	--	50
Vinyl chloride	ND		ug/l	50	--	50
Chloroethane	ND		ug/l	50	--	50
1,1-Dichloroethene	ND		ug/l	25	--	50
trans-1,2-Dichloroethene	ND		ug/l	38	--	50
Trichloroethene	ND		ug/l	25	--	50
1,2-Dichlorobenzene	ND		ug/l	120	--	50
1,3-Dichlorobenzene	ND		ug/l	120	--	50
1,4-Dichlorobenzene	ND		ug/l	120	--	50

Project Name: 100 BINNEY STREET

Lab Number: L1406117

Project Number: 34250-040

Report Date: 03/31/14

## SAMPLE RESULTS

Lab ID: L1406117-01 D

Date Collected: 03/24/14 12:50

Client ID: ENV-20-03-24-2014

Date Received: 03/24/14

Sample Location: Not Specified

Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
<b>Volatile Organics by GC/MS - Westborough Lab</b>						
Methyl tert butyl ether	ND		ug/l	50	--	50
p/m-Xylene	32000	E	ug/l	50	--	50
o-Xylene	8300		ug/l	50	--	50
cis-1,2-Dichloroethene	100		ug/l	25	--	50
Dibromomethane	ND		ug/l	250	--	50
1,4-Dichlorobutane	ND		ug/l	250	--	50
1,2,3-Trichloropropane	ND		ug/l	250	--	50
Styrene	ND		ug/l	50	--	50
Dichlorodifluoromethane	ND		ug/l	250	--	50
Acetone	ND		ug/l	250	--	50
Carbon disulfide	ND		ug/l	250	--	50
2-Butanone	ND		ug/l	250	--	50
Vinyl acetate	ND		ug/l	250	--	50
4-Methyl-2-pentanone	ND		ug/l	250	--	50
2-Hexanone	ND		ug/l	250	--	50
Ethyl methacrylate	ND		ug/l	250	--	50
Acrylonitrile	ND		ug/l	250	--	50
Bromochloromethane	ND		ug/l	120	--	50
Tetrahydrofuran	ND		ug/l	250	--	50
2,2-Dichloropropane	ND		ug/l	120	--	50
1,2-Dibromoethane	ND		ug/l	100	--	50
1,3-Dichloropropane	ND		ug/l	120	--	50
1,1,1,2-Tetrachloroethane	ND		ug/l	25	--	50
Bromobenzene	ND		ug/l	120	--	50
n-Butylbenzene	ND		ug/l	25	--	50
sec-Butylbenzene	ND		ug/l	25	--	50
tert-Butylbenzene	ND		ug/l	120	--	50
o-Chlorotoluene	ND		ug/l	120	--	50
p-Chlorotoluene	ND		ug/l	120	--	50
1,2-Dibromo-3-chloropropane	ND		ug/l	120	--	50
Hexachlorobutadiene	ND		ug/l	25	--	50
Isopropylbenzene	87		ug/l	25	--	50
p-Isopropyltoluene	ND		ug/l	25	--	50
Naphthalene	ND		ug/l	120	--	50
n-Propylbenzene	160		ug/l	25	--	50
1,2,3-Trichlorobenzene	ND		ug/l	120	--	50
1,2,4-Trichlorobenzene	ND		ug/l	120	--	50
1,3,5-Trimethylbenzene	190		ug/l	120	--	50
1,2,4-Trimethylbenzene	760		ug/l	120	--	50



**Project Name:** 100 BINNEY STREET**Lab Number:** L1406117**Project Number:** 34250-040**Report Date:** 03/31/14**SAMPLE RESULTS**

Lab ID: L1406117-01 D

Date Collected: 03/24/14 12:50

Client ID: ENV-20-03-24-2014

Date Received: 03/24/14

Sample Location: Not Specified

Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
<b>Volatile Organics by GC/MS - Westborough Lab</b>						
trans-1,4-Dichloro-2-butene	ND		ug/l	120	--	50
Ethyl ether	ND		ug/l	120	--	50
Tert-Butyl Alcohol	ND		ug/l	500	--	50
Tertiary-Amyl Methyl Ether	ND		ug/l	100	--	50

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	96		70-130
Toluene-d8	95		70-130
4-Bromofluorobenzene	100		70-130
Dibromofluoromethane	99		70-130

**Project Name:** 100 BINNEY STREET**Lab Number:** L1406117**Project Number:** 34250-040**Report Date:** 03/31/14**SAMPLE RESULTS**

Lab ID: L1406117-01 D

Date Collected: 03/24/14 12:50

Client ID: ENV-20-03-24-2014

Date Received: 03/24/14

Sample Location: Not Specified

Field Prep: Not Specified

Matrix: Water

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

Analytical Date: 03/28/14 09:34

Analyst: MM

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS-SIM - Westborough Lab						
1,4-Dioxane	ND		ug/l	150	--	50

**Project Name:** 100 BINNEY STREET**Lab Number:** L1406117**Project Number:** 34250-040**Report Date:** 03/31/14**SAMPLE RESULTS**

**Lab ID:** L1406117-02  
**Client ID:** MW-58-03-24-2014  
**Sample Location:** Not Specified  
**Matrix:** Water  
**Analytical Method:** 14,504.1  
**Analytical Date:** 03/25/14 14:07  
**Analyst:** GP

**Date Collected:** 03/24/14 15:15  
**Date Received:** 03/24/14  
**Field Prep:** Not Specified  
**Extraction Date:** 03/25/14 10:30

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

**Project Name:** 100 BINNEY STREET**Lab Number:** L1406117**Project Number:** 34250-040**Report Date:** 03/31/14**SAMPLE RESULTS**

Lab ID: L1406117-02 D  
 Client ID: MW-58-03-24-2014  
 Sample Location: Not Specified  
 Matrix: Water  
 Analytical Method: 1,8260C  
 Analytical Date: 03/28/14 11:44  
 Analyst: MM

Date Collected: 03/24/14 15:15  
 Date Received: 03/24/14  
 Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
<b>Volatile Organics by GC/MS - Westborough Lab</b>						
Methylene chloride	ND		ug/l	150	--	50
1,1-Dichloroethane	ND		ug/l	38	--	50
Chloroform	ND		ug/l	38	--	50
Carbon tetrachloride	ND		ug/l	25	--	50
1,2-Dichloropropane	ND		ug/l	88	--	50
Dibromochloromethane	ND		ug/l	25	--	50
1,1,2-Trichloroethane	ND		ug/l	38	--	50
Tetrachloroethene	ND		ug/l	25	--	50
Chlorobenzene	ND		ug/l	25	--	50
Trichlorofluoromethane	ND		ug/l	120	--	50
1,2-Dichloroethane	ND		ug/l	25	--	50
1,1,1-Trichloroethane	ND		ug/l	25	--	50
Bromodichloromethane	ND		ug/l	25	--	50
trans-1,3-Dichloropropene	ND		ug/l	25	--	50
cis-1,3-Dichloropropene	ND		ug/l	25	--	50
1,1-Dichloropropene	ND		ug/l	120	--	50
Bromoform	ND		ug/l	100	--	50
1,1,2,2-Tetrachloroethane	ND		ug/l	25	--	50
Benzene	4900		ug/l	25	--	50
Toluene	ND		ug/l	38	--	50
Ethylbenzene	950		ug/l	25	--	50
Chloromethane	ND		ug/l	120	--	50
Bromomethane	ND		ug/l	50	--	50
Vinyl chloride	ND		ug/l	50	--	50
Chloroethane	ND		ug/l	50	--	50
1,1-Dichloroethene	ND		ug/l	25	--	50
trans-1,2-Dichloroethene	ND		ug/l	38	--	50
Trichloroethene	ND		ug/l	25	--	50
1,2-Dichlorobenzene	ND		ug/l	120	--	50
1,3-Dichlorobenzene	ND		ug/l	120	--	50
1,4-Dichlorobenzene	ND		ug/l	120	--	50

Project Name: 100 BINNEY STREET

Lab Number: L1406117

Project Number: 34250-040

Report Date: 03/31/14

## SAMPLE RESULTS

Lab ID: L1406117-02 D

Date Collected: 03/24/14 15:15

Client ID: MW-58-03-24-2014

Date Received: 03/24/14

Sample Location: Not Specified

Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
<b>Volatile Organics by GC/MS - Westborough Lab</b>						
Methyl tert butyl ether	ND		ug/l	50	--	50
p/m-Xylene	76		ug/l	50	--	50
o-Xylene	120		ug/l	50	--	50
cis-1,2-Dichloroethene	ND		ug/l	25	--	50
Dibromomethane	ND		ug/l	250	--	50
1,4-Dichlorobutane	ND		ug/l	250	--	50
1,2,3-Trichloropropane	ND		ug/l	250	--	50
Styrene	ND		ug/l	50	--	50
Dichlorodifluoromethane	ND		ug/l	250	--	50
Acetone	ND		ug/l	250	--	50
Carbon disulfide	ND		ug/l	250	--	50
2-Butanone	ND		ug/l	250	--	50
Vinyl acetate	ND		ug/l	250	--	50
4-Methyl-2-pentanone	ND		ug/l	250	--	50
2-Hexanone	ND		ug/l	250	--	50
Ethyl methacrylate	ND		ug/l	250	--	50
Acrylonitrile	ND		ug/l	250	--	50
Bromochloromethane	ND		ug/l	120	--	50
Tetrahydrofuran	ND		ug/l	250	--	50
2,2-Dichloropropane	ND		ug/l	120	--	50
1,2-Dibromoethane	ND		ug/l	100	--	50
1,3-Dichloropropane	ND		ug/l	120	--	50
1,1,1,2-Tetrachloroethane	ND		ug/l	25	--	50
Bromobenzene	ND		ug/l	120	--	50
n-Butylbenzene	ND		ug/l	25	--	50
sec-Butylbenzene	ND		ug/l	25	--	50
tert-Butylbenzene	ND		ug/l	120	--	50
o-Chlorotoluene	ND		ug/l	120	--	50
p-Chlorotoluene	ND		ug/l	120	--	50
1,2-Dibromo-3-chloropropane	ND		ug/l	120	--	50
Hexachlorobutadiene	ND		ug/l	25	--	50
Isopropylbenzene	37		ug/l	25	--	50
p-Isopropyltoluene	ND		ug/l	25	--	50
Naphthalene	360		ug/l	120	--	50
n-Propylbenzene	ND		ug/l	25	--	50
1,2,3-Trichlorobenzene	ND		ug/l	120	--	50
1,2,4-Trichlorobenzene	ND		ug/l	120	--	50
1,3,5-Trimethylbenzene	ND		ug/l	120	--	50
1,2,4-Trimethylbenzene	ND		ug/l	120	--	50

**Project Name:** 100 BINNEY STREET**Lab Number:** L1406117**Project Number:** 34250-040**Report Date:** 03/31/14**SAMPLE RESULTS**

Lab ID: L1406117-02 D

Date Collected: 03/24/14 15:15

Client ID: MW-58-03-24-2014

Date Received: 03/24/14

Sample Location: Not Specified

Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
<b>Volatile Organics by GC/MS - Westborough Lab</b>						
trans-1,4-Dichloro-2-butene	ND		ug/l	120	--	50
Ethyl ether	ND		ug/l	120	--	50
Tert-Butyl Alcohol	ND		ug/l	500	--	50
Tertiary-Amyl Methyl Ether	ND		ug/l	100	--	50

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	93		70-130
Toluene-d8	97		70-130
4-Bromofluorobenzene	92		70-130
Dibromofluoromethane	95		70-130

**Project Name:** 100 BINNEY STREET**Lab Number:** L1406117**Project Number:** 34250-040**Report Date:** 03/31/14**SAMPLE RESULTS**

Lab ID: L1406117-02 D

Date Collected: 03/24/14 15:15

Client ID: MW-58-03-24-2014

Date Received: 03/24/14

Sample Location: Not Specified

Field Prep: Not Specified

Matrix: Water

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

Analytical Date: 03/28/14 10:06

Analyst: MM

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS-SIM - Westborough Lab						
1,4-Dioxane	ND		ug/l	75	--	25

Project Name: 100 BINNEY STREET

Lab Number: L1406117

Project Number: 34250-040

Report Date: 03/31/14

**Method Blank Analysis**  
**Batch Quality Control**

Analytical Method: 14,504.1

Analytical Date: 03/25/14 12:47

Analyst: GP

Extraction Date: 03/25/14 10:30

Parameter	Result	Qualifier	Units	RL	MDL
Microextractables by GC - Westborough Lab for sample(s): 01-02 Batch: WG677719-1					
1,2-Dibromoethane	ND		ug/l	0.010	-- A
1,2-Dibromo-3-chloropropane	ND		ug/l	0.010	-- A



**Project Name:** 100 BINNEY STREET**Lab Number:** L1406117**Project Number:** 34250-040**Report Date:** 03/31/14**Method Blank Analysis**  
**Batch Quality Control**

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

Analytical Date: 03/28/14 07:56

Analyst: MM

<b>Parameter</b>	<b>Result</b>	<b>Qualifier</b>	<b>Units</b>	<b>RL</b>	<b>MDL</b>
Volatile Organics by GC/MS-SIM - Westborough Lab for sample(s): 01-02 Batch: WG678618-3					
1,4-Dioxane	ND		ug/l	3.0	--

**Project Name:** 100 BINNEY STREET  
**Project Number:** 34250-040

**Lab Number:** L1406117  
**Report Date:** 03/31/14

**Method Blank Analysis**  
**Batch Quality Control**

Analytical Method: 1,8260C  
Analytical Date: 03/28/14 07:56  
Analyst: MM

Parameter	Result	Qualifier	Units	RL	MDL
Volatile Organics by GC/MS - Westborough Lab for sample(s): 01-02 Batch: WG678619-3					
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:** 100 BINNEY STREET  
**Project Number:** 34250-040

**Lab Number:** L1406117  
**Report Date:** 03/31/14

**Method Blank Analysis**  
**Batch Quality Control**

Analytical Method: 1,8260C  
Analytical Date: 03/28/14 07:56  
Analyst: MM

Parameter	Result	Qualifier	Units	RL	MDL
Volatile Organics by GC/MS - Westborough Lab for sample(s): 01-02 Batch: WG678619-3					
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	--
cis-1,2-Dichloroethene	ND		ug/l	0.50	--
Dibromomethane	ND		ug/l	5.0	--
1,4-Dichlorobutane	ND		ug/l	5.0	--
1,2,3-Trichloropropane	ND		ug/l	5.0	--
Styrene	ND		ug/l	1.0	--
Dichlorodifluoromethane	ND		ug/l	5.0	--
Acetone	ND		ug/l	5.0	--
Carbon disulfide	ND		ug/l	5.0	--
2-Butanone	ND		ug/l	5.0	--
Vinyl acetate	ND		ug/l	5.0	--
4-Methyl-2-pentanone	ND		ug/l	5.0	--
2-Hexanone	ND		ug/l	5.0	--
Ethyl methacrylate	ND		ug/l	5.0	--
Acrylonitrile	ND		ug/l	5.0	--
Bromochloromethane	ND		ug/l	2.5	--
Tetrahydrofuran	ND		ug/l	5.0	--
2,2-Dichloropropane	ND		ug/l	2.5	--
1,2-Dibromoethane	ND		ug/l	2.0	--
1,3-Dichloropropane	ND		ug/l	2.5	--
1,1,1,2-Tetrachloroethane	ND		ug/l	0.50	--
Bromobenzene	ND		ug/l	2.5	--
n-Butylbenzene	ND		ug/l	0.50	--
sec-Butylbenzene	ND		ug/l	0.50	--
tert-Butylbenzene	ND		ug/l	2.5	--
o-Chlorotoluene	ND		ug/l	2.5	--
p-Chlorotoluene	ND		ug/l	2.5	--
1,2-Dibromo-3-chloropropane	ND		ug/l	2.5	--



**Project Name:** 100 BINNEY STREET  
**Project Number:** 34250-040

**Lab Number:** L1406117  
**Report Date:** 03/31/14

**Method Blank Analysis**  
**Batch Quality Control**

Analytical Method: 1,8260C  
Analytical Date: 03/28/14 07:56  
Analyst: MM

Parameter	Result	Qualifier	Units	RL	MDL
Volatile Organics by GC/MS - Westborough Lab for sample(s): 01-02 Batch: WG678619-3					
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: 100 BINNEY STREET

Lab Number: L1406117

Project Number: 34250-040

Report Date: 03/31/14

**Method Blank Analysis**  
**Batch Quality Control**

Analytical Method: 1,8260C

Analytical Date: 03/28/14 07:56

Analyst: MM

Parameter	Result	Qualifier	Units	RL	MDL
Volatile Organics by GC/MS - Westborough Lab for sample(s): 01-02 Batch: WG678619-3					

Surrogate	%Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	90		70-130
Toluene-d8	99		70-130
4-Bromofluorobenzene	98		70-130
Dibromofluoromethane	91		70-130

## Lab Control Sample Analysis

Batch Quality Control

**Project Name:** 100 BINNEY STREET

**Project Number:** 34250-040

**Lab Number:** L1406117

**Report Date:** 03/31/14

<b>Parameter</b>	<b>LCS %Recovery</b>	<b>Qual</b>	<b>LCSD %Recovery</b>	<b>Qual</b>	<b>%Recovery Limits</b>	<b>RPD</b>	<b>Qual</b>	<b>RPD Limits</b>	<b>Column</b>
Microextractables by GC - Westborough Lab Associated sample(s): 01-02 Batch: WG677719-2									
1,2-Dibromoethane	105		-		70-130	-		20	A
1,2-Dibromo-3-chloropropane	97		-		70-130	-		20	A

## Lab Control Sample Analysis

Batch Quality Control

**Project Name:** 100 BINNEY STREET

**Lab Number:** L1406117

**Project Number:** 34250-040

**Report Date:** 03/31/14

Parameter	<i>LCS</i> %Recovery	<i>Qual</i>	<i>LCSD</i> %Recovery	<i>Qual</i>	<i>%Recovery</i> Limits	<i>RPD</i>	<i>Qual</i>	<i>RPD</i> Limits
Volatile Organics by GC/MS-SIM - Westborough Lab Associated sample(s): 01-02 Batch: WG678618-1 WG678618-2								
1,4-Dioxane	98		90		70-130	9		25

## Lab Control Sample Analysis

### Batch Quality Control

Project Name: 100 BINNEY STREET

Lab Number: L1406117

Project Number: 34250-040

Report Date: 03/31/14

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: WG678619-1 WG678619-2								
Methylene chloride	102		100		70-130	2		20
1,1-Dichloroethane	91		91		70-130	0		20
Chloroform	94		94		70-130	0		20
Carbon tetrachloride	88		88		63-132	0		20
1,2-Dichloropropane	97		93		70-130	4		20
Dibromochloromethane	88		85		63-130	3		20
1,1,2-Trichloroethane	91		91		70-130	0		20
2-Chloroethylvinyl ether	96		96		70-130	0		20
Tetrachloroethene	94		88		70-130	7		20
Chlorobenzene	96		92		75-130	4		25
Trichlorofluoromethane	98		97		62-150	1		20
1,2-Dichloroethane	92		93		70-130	1		20
1,1,1-Trichloroethane	90		89		67-130	1		20
Bromodichloromethane	87		92		67-130	6		20
trans-1,3-Dichloropropene	93		90		70-130	3		20
cis-1,3-Dichloropropene	92		92		70-130	0		20
1,1-Dichloropropene	92		91		70-130	1		20
Bromoform	78		73		54-136	7		20
1,1,2,2-Tetrachloroethane	95		92		67-130	3		20
Benzene	95		92		70-130	3		25
Toluene	92		87		70-130	6		25



## Lab Control Sample Analysis

### Batch Quality Control

Project Name: 100 BINNEY STREET

Lab Number: L1406117

Project Number: 34250-040

Report Date: 03/31/14

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: WG678619-1 WG678619-2								
Ethylbenzene	96		90		70-130	6		20
Chloromethane	98		94		64-130	4		20
Bromomethane	93		89		39-139	4		20
Vinyl chloride	96		96		55-140	0		20
Chloroethane	110		113		55-138	3		20
1,1-Dichloroethene	99		98		61-145	1		25
trans-1,2-Dichloroethene	99		96		70-130	3		20
Trichloroethene	94		91		70-130	3		25
1,2-Dichlorobenzene	90		84		70-130	7		20
1,3-Dichlorobenzene	97		88		70-130	10		20
1,4-Dichlorobenzene	97		89		70-130	9		20
Methyl tert butyl ether	95		98		63-130	3		20
p/m-Xylene	98		93		70-130	5		20
o-Xylene	96		95		70-130	1		20
cis-1,2-Dichloroethene	94		92		70-130	2		20
Dibromomethane	91		98		70-130	7		20
1,4-Dichlorobutane	98		91		70-130	7		20
1,2,3-Trichloropropane	91		92		64-130	1		20
Styrene	101		104		70-130	3		20
Dichlorodifluoromethane	105		106		36-147	1		20
Acetone	104		95		58-148	9		20

## Lab Control Sample Analysis

### Batch Quality Control

Project Name: 100 BINNEY STREET

Lab Number: L1406117

Project Number: 34250-040

Report Date: 03/31/14

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: WG678619-1 WG678619-2								
Carbon disulfide	93		96		51-130	3		20
2-Butanone	97		95		63-138	2		20
Vinyl acetate	89		92		70-130	3		20
4-Methyl-2-pentanone	94		93		59-130	1		20
2-Hexanone	85		91		57-130	7		20
Ethyl methacrylate	95		99		70-130	4		20
Acrylonitrile	87		92		70-130	6		20
Bromochloromethane	93		97		70-130	4		20
Tetrahydrofuran	96		96		58-130	0		20
2,2-Dichloropropane	95		93		63-133	2		20
1,2-Dibromoethane	92		89		70-130	3		20
1,3-Dichloropropane	94		93		70-130	1		20
1,1,1,2-Tetrachloroethane	92		91		64-130	1		20
Bromobenzene	97		87		70-130	11		20
n-Butylbenzene	94		89		53-136	5		20
sec-Butylbenzene	93		88		70-130	6		20
tert-Butylbenzene	94		88		70-130	7		20
o-Chlorotoluene	99		90		70-130	10		20
p-Chlorotoluene	97		89		70-130	9		20
1,2-Dibromo-3-chloropropane	81		94		41-144	15		20
Hexachlorobutadiene	101		88		63-130	14		20

## Lab Control Sample Analysis

### Batch Quality Control

Project Name: 100 BINNEY STREET

Lab Number: L1406117

Project Number: 34250-040

Report Date: 03/31/14

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: WG678619-1 WG678619-2								
Isopropylbenzene	96		90		70-130	6		20
p-Isopropyltoluene	94		89		70-130	5		20
Naphthalene	92		91		70-130	1		20
n-Propylbenzene	96		91		69-130	5		20
1,2,3-Trichlorobenzene	93		89		70-130	4		20
1,2,4-Trichlorobenzene	96		91		70-130	5		20
1,3,5-Trimethylbenzene	93		89		64-130	4		20
1,3,5-Trichlorobenzene	98		90		70-130	9		20
1,2,4-Trimethylbenzene	95		88		70-130	8		20
trans-1,4-Dichloro-2-butene	93		87		70-130	7		20
Ethyl ether	97		97		59-134	0		20
Methyl Acetate	94		102		70-130	8		20
Ethyl Acetate	88		89		70-130	1		20
Isopropyl Ether	94		94		70-130	0		20
Cyclohexane	92		90		70-130	2		20
Tert-Butyl Alcohol	101		105		70-130	4		20
Ethyl-Tert-Butyl-Ether	94		94		70-130	0		20
Tertiary-Amyl Methyl Ether	95		94		66-130	1		20
1,1,2-Trichloro-1,2,2-Trifluoroethane	95		94		70-130	1		20
Methyl cyclohexane	94		92		70-130	2		20
p-Diethylbenzene	93		88		70-130	6		20

## Lab Control Sample Analysis

Batch Quality Control

Project Name: 100 BINNEY STREET

Lab Number: L1406117

Project Number: 34250-040

Report Date: 03/31/14

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: WG678619-1 WG678619-2								
4-Ethyltoluene	94		90		70-130	4		20
1,2,4,5-Tetramethylbenzene	94		88		70-130	7		20

Surrogate	LCS %Recovery	Qual	LCSD %Recovery	Qual	Acceptance Criteria
1,2-Dichloroethane-d4	91		96		70-130
Toluene-d8	102		100		70-130
4-Bromofluorobenzene	103		95		70-130
Dibromofluoromethane	101		99		70-130

## Matrix Spike Analysis

Batch Quality Control

**Project Name:** 100 BINNEY STREET

**Lab Number:** L1406117

**Project Number:** 34250-040

**Report Date:** 03/31/14

<i>Parameter</i>	<i>Native Sample</i>	<i>MS Added</i>	<i>MS Found</i>	<i>MS %Recovery</i>	<i>MS Qual</i>	<i>MSD Found</i>	<i>MSD %Recovery</i>	<i>MSD Qual</i>	<i>Recovery Limits</i>	<i>RPD</i>	<i>RPD Qual</i>	<i>RPD Limits</i>	<i>Column</i>
Microextractables by GC - Westborough Lab Associated sample(s): 01-02 QC Batch ID: WG677719-3 QC Sample: L1405989-01 Client ID: MS Sample													
1,2-Dibromoethane	ND	0.252	0.251	99		-	-		70-130	-		20	A

# SEMIVOLATILES

**Project Name:** 100 BINNEY STREET**Lab Number:** L1406117**Project Number:** 34250-040**Report Date:** 03/31/14**SAMPLE RESULTS**

Lab ID: L1406117-01  
 Client ID: ENV-20-03-24-2014  
 Sample Location: Not Specified  
 Matrix: Water  
 Analytical Method: 1,8270D  
 Analytical Date: 03/27/14 10:23  
 Analyst: JB

Date Collected: 03/24/14 12:50  
 Date Received: 03/24/14  
 Field Prep: Not Specified  
 Extraction Method: EPA 3510C  
 Extraction Date: 03/26/14 02:12

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
<b>Semivolatile Organics by GC/MS - Westborough Lab</b>						
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: 100 BINNEY STREET

Lab Number: L1406117

Project Number: 34250-040

Report Date: 03/31/14

## SAMPLE RESULTS

Lab ID: L1406117-01  
 Client ID: ENV-20-03-24-2014  
 Sample Location: Not Specified

Date Collected: 03/24/14 12:50  
 Date Received: 03/24/14  
 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	30		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	6.4		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	20	Q	21-120
Phenol-d6	16		10-120
Nitrobenzene-d5	59		23-120
2-Fluorobiphenyl	56		15-120
2,4,6-Tribromophenol	85		10-120
4-Terphenyl-d14	77		41-149



**Project Name:** 100 BINNEY STREET**Lab Number:** L1406117**Project Number:** 34250-040**Report Date:** 03/31/14**SAMPLE RESULTS**

Lab ID: L1406117-01 D  
 Client ID: ENV-20-03-24-2014  
 Sample Location: Not Specified  
 Matrix: Water  
 Analytical Method: 1,8270D-SIM  
 Analytical Date: 03/28/14 13:50  
 Analyst: MW

Date Collected: 03/24/14 12:50  
 Date Received: 03/24/14  
 Field Prep: Not Specified  
 Extraction Method: EPA 3510C  
 Extraction Date: 03/26/14 02:11

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
<b>Semivolatile Organics by GC/MS-SIM - Westborough Lab</b>						
Acenaphthene	45		ug/l	4.0	--	20
2-Chloronaphthalene	ND		ug/l	4.0	--	20
Fluoranthene	ND		ug/l	4.0	--	20
Hexachlorobutadiene	ND		ug/l	10	--	20
Naphthalene	25		ug/l	4.0	--	20
Benzo(a)anthracene	ND		ug/l	4.0	--	20
Benzo(a)pyrene	ND		ug/l	4.0	--	20
Benzo(b)fluoranthene	ND		ug/l	4.0	--	20
Benzo(k)fluoranthene	ND		ug/l	4.0	--	20
Chrysene	ND		ug/l	4.0	--	20
Acenaphthylene	ND		ug/l	4.0	--	20
Anthracene	ND		ug/l	4.0	--	20
Benzo(ghi)perylene	ND		ug/l	4.0	--	20
Fluorene	ND		ug/l	4.0	--	20
Phenanthrene	ND		ug/l	4.0	--	20
Dibenzo(a,h)anthracene	ND		ug/l	4.0	--	20
Indeno(1,2,3-cd)Pyrene	ND		ug/l	4.0	--	20
Pyrene	ND		ug/l	4.0	--	20
1-Methylnaphthalene	53		ug/l	4.0	--	20
2-Methylnaphthalene	ND		ug/l	4.0	--	20
Pentachlorophenol	ND		ug/l	16	--	20
Hexachlorobenzene	ND		ug/l	16	--	20
Hexachloroethane	ND		ug/l	16	--	20

Surrogate	% Recovery	Qualifier	Acceptance Criteria
2-Fluorophenol	0	Q	21-120
Phenol-d6	0	Q	10-120
Nitrobenzene-d5	0	Q	23-120
2-Fluorobiphenyl	0	Q	15-120
2,4,6-Tribromophenol	0	Q	10-120
4-Terphenyl-d14	0	Q	41-149



**Project Name:** 100 BINNEY STREET**Lab Number:** L1406117**Project Number:** 34250-040**Report Date:** 03/31/14**SAMPLE RESULTS**

**Lab ID:** L1406117-02  
**Client ID:** MW-58-03-24-2014  
**Sample Location:** Not Specified  
**Matrix:** Water  
**Analytical Method:** 1,8270D  
**Analytical Date:** 03/27/14 10:48  
**Analyst:** JB

**Date Collected:** 03/24/14 15:15  
**Date Received:** 03/24/14  
**Field Prep:** Not Specified  
**Extraction Method:** EPA 3510C  
**Extraction Date:** 03/26/14 02:12

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
<b>Semivolatile Organics by GC/MS - Westborough Lab</b>						
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: 100 BINNEY STREET

Lab Number: L1406117

Project Number: 34250-040

Report Date: 03/31/14

## SAMPLE RESULTS

Lab ID: L1406117-02  
 Client ID: MW-58-03-24-2014  
 Sample Location: Not Specified

Date Collected: 03/24/14 15:15  
 Date Received: 03/24/14  
 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	43		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	43		21-120
Phenol-d6	33		10-120
Nitrobenzene-d5	70		23-120
2-Fluorobiphenyl	75		15-120
2,4,6-Tribromophenol	109		10-120
4-Terphenyl-d14	92		41-149

**Project Name:** 100 BINNEY STREET**Lab Number:** L1406117**Project Number:** 34250-040**Report Date:** 03/31/14**SAMPLE RESULTS**

Lab ID: L1406117-02 D  
 Client ID: MW-58-03-24-2014  
 Sample Location: Not Specified  
 Matrix: Water  
 Analytical Method: 1,8270D-SIM  
 Analytical Date: 03/28/14 15:05  
 Analyst: MW

Date Collected: 03/24/14 15:15  
 Date Received: 03/24/14  
 Field Prep: Not Specified  
 Extraction Method: EPA 3510C  
 Extraction Date: 03/26/14 02:11

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
<b>Semivolatile Organics by GC/MS-SIM - Westborough Lab</b>						
Acenaphthene	44		ug/l	4.0	--	20
2-Chloronaphthalene	ND		ug/l	4.0	--	20
Fluoranthene	ND		ug/l	4.0	--	20
Hexachlorobutadiene	ND		ug/l	10	--	20
Naphthalene	150		ug/l	4.0	--	20
Benzo(a)anthracene	ND		ug/l	4.0	--	20
Benzo(a)pyrene	ND		ug/l	4.0	--	20
Benzo(b)fluoranthene	ND		ug/l	4.0	--	20
Benzo(k)fluoranthene	ND		ug/l	4.0	--	20
Chrysene	ND		ug/l	4.0	--	20
Acenaphthylene	ND		ug/l	4.0	--	20
Anthracene	ND		ug/l	4.0	--	20
Benzo(ghi)perylene	ND		ug/l	4.0	--	20
Fluorene	6.3		ug/l	4.0	--	20
Phenanthrene	7.9		ug/l	4.0	--	20
Dibenzo(a,h)anthracene	ND		ug/l	4.0	--	20
Indeno(1,2,3-cd)Pyrene	ND		ug/l	4.0	--	20
Pyrene	ND		ug/l	4.0	--	20
1-Methylnaphthalene	79		ug/l	4.0	--	20
2-Methylnaphthalene	15		ug/l	4.0	--	20
Pentachlorophenol	ND		ug/l	16	--	20
Hexachlorobenzene	ND		ug/l	16	--	20
Hexachloroethane	ND		ug/l	16	--	20

Surrogate	% Recovery	Qualifier	Acceptance Criteria
2-Fluorophenol	0	Q	21-120
Phenol-d6	0	Q	10-120
Nitrobenzene-d5	0	Q	23-120
2-Fluorobiphenyl	0	Q	15-120
2,4,6-Tribromophenol	0	Q	10-120
4-Terphenyl-d14	0	Q	41-149



**Project Name:** 100 BINNEY STREET  
**Project Number:** 34250-040

**Lab Number:** L1406117  
**Report Date:** 03/31/14

**Method Blank Analysis**  
**Batch Quality Control**

**Analytical Method:** 1,8270D  
**Analytical Date:** 03/27/14 09:07  
**Analyst:** JB

**Extraction Method:** EPA 3510C  
**Extraction Date:** 03/26/14 02:12

Parameter	Result	Qualifier	Units	RL	MDL
Semivolatile Organics by GC/MS - Westborough Lab for sample(s): 01-02 Batch: WG677955-1					
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:** 100 BINNEY STREET  
**Project Number:** 34250-040

**Lab Number:** L1406117  
**Report Date:** 03/31/14

**Method Blank Analysis  
Batch Quality Control**

**Analytical Method:** 1,8270D  
**Analytical Date:** 03/27/14 09:07  
**Analyst:** JB

**Extraction Method:** EPA 3510C  
**Extraction Date:** 03/26/14 02:12

Parameter	Result	Qualifier	Units	RL	MDL
Semivolatile Organics by GC/MS - Westborough Lab for sample(s): 01-02 Batch: WG677955-1					
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	33		21-120
Phenol-d6	21		10-120
Nitrobenzene-d5	72		23-120
2-Fluorobiphenyl	64		15-120
2,4,6-Tribromophenol	83		10-120
4-Terphenyl-d14	105		41-149



**Project Name:** 100 BINNEY STREET  
**Project Number:** 34250-040

**Lab Number:** L1406117  
**Report Date:** 03/31/14

**Method Blank Analysis**  
**Batch Quality Control**

**Analytical Method:** 1,8270D-SIM  
**Analytical Date:** 03/27/14 11:20  
**Analyst:** MW

**Extraction Method:** EPA 3510C  
**Extraction Date:** 03/26/14 02:11

Parameter	Result	Qualifier	Units	RL	MDL
Semivolatile Organics by GC/MS-SIM - Westborough Lab for sample(s): 01-02 Batch: WG677956-1					
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: 100 BINNEY STREET

Lab Number: L1406117

Project Number: 34250-040

Report Date: 03/31/14

**Method Blank Analysis  
Batch Quality Control**

Analytical Method: 1,8270D-SIM  
 Analytical Date: 03/27/14 11:20  
 Analyst: MW

Extraction Method: EPA 3510C  
 Extraction Date: 03/26/14 02:11

Parameter	Result	Qualifier	Units	RL	MDL
Semivolatile Organics by GC/MS-SIM - Westborough Lab for sample(s): 01-02 Batch: WG677956-1					

Surrogate	%Recovery	Qualifier	Acceptance Criteria
2-Fluorophenol	30		21-120
Phenol-d6	19		10-120
Nitrobenzene-d5	89		23-120
2-Fluorobiphenyl	51		15-120
2,4,6-Tribromophenol	78		10-120
4-Terphenyl-d14	91		41-149



## Lab Control Sample Analysis

### Batch Quality Control

Project Name: 100 BINNEY STREET

Lab Number: L1406117

Project Number: 34250-040

Report Date: 03/31/14

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: WG677955-2 WG677955-3								
Benzidine	21		12		10-75	55	Q	30
1,2,4-Trichlorobenzene	44		48		39-98	9		30
Bis(2-chloroethyl)ether	74		68		40-140	8		30
1,2-Dichlorobenzene	42		46		40-140	9		30
1,3-Dichlorobenzene	41		43		40-140	5		30
1,4-Dichlorobenzene	42		45		36-97	7		30
3,3'-Dichlorobenzidine	67		48		40-140	33	Q	30
2,4-Dinitrotoluene	103	Q	104	Q	24-96	1		30
2,6-Dinitrotoluene	98		94		40-140	4		30
Azobenzene	96		96		40-140	0		30
4-Chlorophenyl phenyl ether	86		91		40-140	6		30
4-Bromophenyl phenyl ether	94		95		40-140	1		30
Bis(2-chloroisopropyl)ether	65		60		40-140	8		30
Bis(2-chloroethoxy)methane	81		75		40-140	8		30
Hexachlorocyclopentadiene	38	Q	40		40-140	5		30
Isophorone	78		72		40-140	8		30
Nitrobenzene	73		72		40-140	1		30
NDPA/DPA	94		94		40-140	0		30
Bis(2-ethylhexyl)phthalate	117		116		40-140	1		30
Butyl benzyl phthalate	104		105		40-140	1		30
Di-n-butylphthalate	106		106		40-140	0		30

## Lab Control Sample Analysis

### Batch Quality Control

Project Name: 100 BINNEY STREET

Lab Number: L1406117

Project Number: 34250-040

Report Date: 03/31/14

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: WG677955-2 WG677955-3								
Di-n-octylphthalate	108		109		40-140	1		30
Diethyl phthalate	98		99		40-140	1		30
Dimethyl phthalate	96		94		40-140	2		30
Aniline	35	Q	20	Q	40-140	55	Q	30
4-Chloroaniline	74		64		40-140	14		30
2-Nitroaniline	96		92		52-143	4		30
3-Nitroaniline	65		49		25-145	28		30
4-Nitroaniline	88		87		51-143	1		30
Dibenzofuran	81		84		40-140	4		30
n-Nitrosodimethylamine	36		35		22-74	3		30
2,4,6-Trichlorophenol	91		89		30-130	2		30
p-Chloro-m-cresol	83		82		23-97	1		30
2-Chlorophenol	64		58		27-123	10		30
2,4-Dichlorophenol	77		73		30-130	5		30
2,4-Dimethylphenol	70		66		30-130	6		30
2-Nitrophenol	75		69		30-130	8		30
4-Nitrophenol	47		48		10-80	2		30
2,4-Dinitrophenol	92		90		20-130	2		30
4,6-Dinitro-o-cresol	90		90		20-164	0		30
Phenol	27		23		12-110	16		30
2-Methylphenol	56		51		30-130	9		30

## Lab Control Sample Analysis

### Batch Quality Control

Project Name: 100 BINNEY STREET

Lab Number: L1406117

Project Number: 34250-040

Report Date: 03/31/14

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: WG677955-2 WG677955-3								
3-Methylphenol/4-Methylphenol	55		50		30-130	10		30
2,4,5-Trichlorophenol	93		91		30-130	2		30
Benzoic Acid	43		42		10-164	2		30
Benzyl Alcohol	55		50		26-116	10		30
Carbazole	102		103		55-144	1		30
Pyridine	26		25		10-66	4		30

Surrogate	LCS %Recovery	Qual	LCSD %Recovery	Qual	Acceptance Criteria
2-Fluorophenol	34		33		21-120
Phenol-d6	24		22		10-120
Nitrobenzene-d5	74		70		23-120
2-Fluorobiphenyl	70		67		15-120
2,4,6-Tribromophenol	98		100		10-120
4-Terphenyl-d14	90		91		41-149

## Lab Control Sample Analysis

### Batch Quality Control

Project Name: 100 BINNEY STREET

Lab Number: L1406117

Project Number: 34250-040

Report Date: 03/31/14

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: WG677956-2 WG677956-3								
Acenaphthene	62		58		37-111	7		40
2-Chloronaphthalene	61		57		40-140	7		40
Fluoranthene	87		80		40-140	8		40
Hexachlorobutadiene	52		50		40-140	4		40
Naphthalene	58		54		40-140	7		40
Benzo(a)anthracene	91		85		40-140	7		40
Benzo(a)pyrene	75		70		40-140	7		40
Benzo(b)fluoranthene	77		72		40-140	7		40
Benzo(k)fluoranthene	84		77		40-140	9		40
Chrysene	80		74		40-140	8		40
Acenaphthylene	68		64		40-140	6		40
Anthracene	74		69		40-140	7		40
Benzo(ghi)perylene	76		72		40-140	5		40
Fluorene	78		75		40-140	4		40
Phenanthrene	77		72		40-140	7		40
Dibenzo(a,h)anthracene	78		73		40-140	7		40
Indeno(1,2,3-cd)Pyrene	78		74		40-140	5		40
Pyrene	84		78		26-127	7		40
1-Methylnaphthalene	61		57		40-140	7		40
2-Methylnaphthalene	60		56		40-140	7		40
Pentachlorophenol	84		79		9-103	6		40

## Lab Control Sample Analysis

Batch Quality Control

Project Name: 100 BINNEY STREET

Lab Number: L1406117

Project Number: 34250-040

Report Date: 03/31/14

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: WG677956-2 WG677956-3								
Hexachlorobenzene	69		65		40-140	6		40
Hexachloroethane	74		52		40-140	35		40

Surrogate	LCS %Recovery	Qual	LCSD %Recovery	Qual	Acceptance Criteria
2-Fluorophenol	34		32		21-120
Phenol-d6	21		19		10-120
Nitrobenzene-d5	96		66		23-120
2-Fluorobiphenyl	62		59		15-120
2,4,6-Tribromophenol	86		84		10-120
4-Terphenyl-d14	91		84		41-149

# PCBS

**Project Name:** 100 BINNEY STREET**Lab Number:** L1406117**Project Number:** 34250-040**Report Date:** 03/31/14**SAMPLE RESULTS**

**Lab ID:** L1406117-01  
**Client ID:** ENV-20-03-24-2014  
**Sample Location:** Not Specified  
**Matrix:** Water  
**Analytical Method:** 5,608  
**Analytical Date:** 03/26/14 14:27  
**Analyst:** JW

**Date Collected:** 03/24/14 12:50  
**Date Received:** 03/24/14  
**Field Prep:** Not Specified  
**Extraction Method:** EPA 608  
**Extraction Date:** 03/25/14 05:30  
**Cleanup Method1:** EPA 3665A  
**Cleanup Date1:** 03/26/14  
**Cleanup Method2:** EPA 3660B  
**Cleanup Date2:** 03/26/14

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

Surrogate	% Recovery	Qualifier	Acceptance Criteria	Column
2,4,5,6-Tetrachloro-m-xylene	62		30-150	A
Decachlorobiphenyl	89		30-150	A

**Project Name:** 100 BINNEY STREET**Lab Number:** L1406117**Project Number:** 34250-040**Report Date:** 03/31/14**SAMPLE RESULTS**

**Lab ID:** L1406117-02  
**Client ID:** MW-58-03-24-2014  
**Sample Location:** Not Specified  
**Matrix:** Water  
**Analytical Method:** 5,608  
**Analytical Date:** 03/26/14 14:39  
**Analyst:** JW

**Date Collected:** 03/24/14 15:15  
**Date Received:** 03/24/14  
**Field Prep:** Not Specified  
**Extraction Method:** EPA 608  
**Extraction Date:** 03/25/14 05:30  
**Cleanup Method1:** EPA 3665A  
**Cleanup Date1:** 03/26/14  
**Cleanup Method2:** EPA 3660B  
**Cleanup Date2:** 03/26/14

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

Surrogate	% Recovery	Qualifier	Acceptance Criteria	Column
2,4,5,6-Tetrachloro-m-xylene	58		30-150	A
Decachlorobiphenyl	66		30-150	A



**Project Name:** 100 BINNEY STREET  
**Project Number:** 34250-040

**Lab Number:** L1406117  
**Report Date:** 03/31/14

**Method Blank Analysis  
 Batch Quality Control**

Analytical Method: 5,608  
 Analytical Date: 03/26/14 13:06  
 Analyst: JW

Extraction Method: EPA 608  
 Extraction Date: 03/25/14 05:30  
 Cleanup Method1: EPA 3665A  
 Cleanup Date1: 03/26/14  
 Cleanup Method2: EPA 3660B  
 Cleanup Date2: 03/26/14

Parameter	Result	Qualifier	Units	RL	MDL	Column
Polychlorinated Biphenyls by GC - Westborough Lab for sample(s): 01-02 Batch: WG677643-1						
Aroclor 1016	ND		ug/l	0.250	--	A
Aroclor 1221	ND		ug/l	0.250	--	A
Aroclor 1232	ND		ug/l	0.250	--	A
Aroclor 1242	ND		ug/l	0.250	--	A
Aroclor 1248	ND		ug/l	0.250	--	A
Aroclor 1254	ND		ug/l	0.250	--	A
Aroclor 1260	ND		ug/l	0.200	--	A

Surrogate	%Recovery	Qualifier	Acceptance	
			Criteria	Column
2,4,5,6-Tetrachloro-m-xylene	62		30-150	A
Decachlorobiphenyl	74		30-150	A



## Matrix Spike Analysis

Batch Quality Control

Project Name: 100 BINNEY STREET

Lab Number: L1406117

Project Number: 34250-040

Report Date: 03/31/14

<i>Parameter</i>	<i>Native Sample</i>	<i>MS Added</i>	<i>MS Found</i>	<i>MS %Recovery</i>	<i>Qual</i>	<i>MSD Found</i>	<i>MSD %Recovery</i>	<i>Qual</i>	<i>Recovery Limits</i>	<i>RPD</i>	<i>Qual</i>	<i>RPD Limits</i>	<i>Column</i>
Polychlorinated Biphenyls by GC - Westborough Lab Associated sample(s): 01-02 QC Batch ID: WG677643-3 QC Sample: L1406117-01 Client ID: ENV-20-03-24-2014													
Aroclor 1016	ND	1	0.907	91		-	-		40-140	-		50	A
Aroclor 1260	ND	1	0.923	92		-	-		40-140	-		50	A

<i>Surrogate</i>	<i>MS % Recovery</i>	<i>Qualifier</i>	<i>MSD % Recovery</i>	<i>Qualifier</i>	<i>Acceptance Criteria</i>	<i>Column</i>
2,4,5,6-Tetrachloro-m-xylene	61				30-150	A
Decachlorobiphenyl	90				30-150	A

## Lab Control Sample Analysis

Batch Quality Control

Project Name: 100 BINNEY STREET

Project Number: 34250-040

Lab Number: L1406117

Report Date: 03/31/14

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits	Column
Polychlorinated Biphenyls by GC - Westborough Lab Associated sample(s): 01-02 Batch: WG677643-2									
Aroclor 1016	69		-		40-140	-		50	A
Aroclor 1260	71		-		40-140	-		50	A

Surrogate	LCS %Recovery	Qual	LCSD %Recovery	Qual	Acceptance Criteria	Column
2,4,5,6-Tetrachloro-m-xylene	62				30-150	A
Decachlorobiphenyl	74				30-150	A

## Lab Duplicate Analysis

Batch Quality Control

Project Name: 100 BINNEY STREET

Project Number: 34250-040

Lab Number: L1406117

Report Date: 03/31/14

Parameter	Native Sample	Duplicate Sample	Units	RPD	Qual	RPD Limits
Polychlorinated Biphenyls by GC - Westborough Lab Associated sample(s): 01-02 QC Batch ID: WG677643-4 QC Sample: L1406117-02 Client ID: MW-58-03-24-2014						
Aroclor 1016	ND	ND	ug/l	NC		50 A
Aroclor 1221	ND	ND	ug/l	NC		50 A
Aroclor 1232	ND	ND	ug/l	NC		50 A
Aroclor 1242	ND	ND	ug/l	NC		50 A
Aroclor 1248	ND	ND	ug/l	NC		50 A
Aroclor 1254	ND	ND	ug/l	NC		50 A
Aroclor 1260	ND	ND	ug/l	NC		50 A

Surrogate	%Recovery	Qualifier	%Recovery	Qualifier	Acceptance Criteria	Column
2,4,5,6-Tetrachloro-m-xylene	58		51		30-150	A
Decachlorobiphenyl	66		65		30-150	A

## METALS

**Project Name:** 100 BINNEY STREET  
**Project Number:** 34250-040

**Lab Number:** L1406117  
**Report Date:** 03/31/14

**SAMPLE RESULTS**

**Lab ID:** L1406117-01  
**Client ID:** ENV-20-03-24-2014  
**Sample Location:** Not Specified  
**Matrix:** Water

**Date Collected:** 03/24/14 12:50  
**Date Received:** 03/24/14  
**Field Prep:** Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Prep Method	Analytical Method	Analyst
<b>Total Metals - Westborough Lab</b>											
Antimony, Total	ND		mg/l	0.00200	--	1	03/25/14 10:11	03/25/14 20:59	EPA 3005A	1,6020A	KL
Arsenic, Total	0.00091		mg/l	0.00050	--	1	03/25/14 10:11	03/25/14 20:59	EPA 3005A	1,6020A	KL
Cadmium, Total	ND		mg/l	0.00020	--	1	03/25/14 10:11	03/25/14 20:59	EPA 3005A	1,6020A	KL
Chromium, Total	0.00182		mg/l	0.00100	--	1	03/25/14 10:11	03/25/14 20:59	EPA 3005A	1,6020A	KL
Copper, Total	ND		mg/l	0.00100	--	1	03/25/14 10:11	03/25/14 20:59	EPA 3005A	1,6020A	KL
Iron, Total	0.34		mg/l	0.05	--	1	03/25/14 10:11	03/25/14 16:43	EPA 3005A	19,200.7	MG
Lead, Total	ND		mg/l	0.00050	--	1	03/25/14 10:11	03/25/14 20:59	EPA 3005A	1,6020A	KL
Mercury, Total	ND		mg/l	0.0002	--	1	03/26/14 13:16	03/26/14 15:55	EPA 245.1	3,245.1	AK
Nickel, Total	ND		mg/l	0.00050	--	1	03/25/14 10:11	03/25/14 20:59	EPA 3005A	1,6020A	KL
Selenium, Total	ND		mg/l	0.00500	--	1	03/25/14 10:11	03/25/14 20:59	EPA 3005A	1,6020A	KL
Silver, Total	ND		mg/l	0.00040	--	1	03/25/14 10:11	03/25/14 20:59	EPA 3005A	1,6020A	KL
Zinc, Total	ND		mg/l	0.01000	--	1	03/25/14 10:11	03/25/14 20:59	EPA 3005A	1,6020A	KL



**Project Name:** 100 BINNEY STREET  
**Project Number:** 34250-040

**Lab Number:** L1406117  
**Report Date:** 03/31/14

**SAMPLE RESULTS**

**Lab ID:** L1406117-02  
**Client ID:** MW-58-03-24-2014  
**Sample Location:** Not Specified  
**Matrix:** Water

**Date Collected:** 03/24/14 15:15  
**Date Received:** 03/24/14  
**Field Prep:** Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Prep Method	Analytical Method	Analyst
<b>Total Metals - Westborough Lab</b>											
Antimony, Total	ND		mg/l	0.00200	--	1	03/25/14 10:11	03/25/14 21:02	EPA 3005A	1,6020A	KL
Arsenic, Total	0.00490		mg/l	0.00050	--	1	03/25/14 10:11	03/25/14 21:02	EPA 3005A	1,6020A	KL
Cadmium, Total	ND		mg/l	0.00020	--	1	03/25/14 10:11	03/25/14 21:02	EPA 3005A	1,6020A	KL
Chromium, Total	0.00592		mg/l	0.00100	--	1	03/25/14 10:11	03/25/14 21:02	EPA 3005A	1,6020A	KL
Copper, Total	ND		mg/l	0.00100	--	1	03/25/14 10:11	03/25/14 21:02	EPA 3005A	1,6020A	KL
Iron, Total	4.7		mg/l	0.05	--	1	03/25/14 10:11	03/25/14 16:47	EPA 3005A	19,200.7	MG
Lead, Total	ND		mg/l	0.00250	--	5	03/25/14 10:11	03/26/14 14:10	EPA 3005A	1,6020A	KL
Mercury, Total	ND		mg/l	0.0002	--	1	03/26/14 13:16	03/26/14 15:57	EPA 245.1	3,245.1	AK
Nickel, Total	0.00422		mg/l	0.00050	--	1	03/25/14 10:11	03/25/14 21:02	EPA 3005A	1,6020A	KL
Selenium, Total	ND		mg/l	0.00500	--	1	03/25/14 10:11	03/25/14 21:02	EPA 3005A	1,6020A	KL
Silver, Total	ND		mg/l	0.00040	--	1	03/25/14 10:11	03/25/14 21:02	EPA 3005A	1,6020A	KL
Zinc, Total	ND		mg/l	0.01000	--	1	03/25/14 10:11	03/25/14 21:02	EPA 3005A	1,6020A	KL



**Project Name:** 100 BINNEY STREET  
**Project Number:** 34250-040

**Lab Number:** L1406117  
**Report Date:** 03/31/14

### 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: WG677734-1									
Antimony, Total	ND	mg/l	0.00200	--	1	03/25/14 10:11	03/25/14 20:29	1,6020A	KL
Arsenic, Total	ND	mg/l	0.00050	--	1	03/25/14 10:11	03/25/14 20:29	1,6020A	KL
Cadmium, Total	ND	mg/l	0.00020	--	1	03/25/14 10:11	03/25/14 20:29	1,6020A	KL
Chromium, Total	ND	mg/l	0.00100	--	1	03/25/14 10:11	03/25/14 20:29	1,6020A	KL
Copper, Total	ND	mg/l	0.00100	--	1	03/25/14 10:11	03/25/14 20:29	1,6020A	KL
Lead, Total	ND	mg/l	0.00050	--	1	03/25/14 10:11	03/25/14 20:29	1,6020A	KL
Nickel, Total	ND	mg/l	0.00050	--	1	03/25/14 10:11	03/25/14 20:29	1,6020A	KL
Selenium, Total	ND	mg/l	0.00500	--	1	03/25/14 10:11	03/25/14 20:29	1,6020A	KL
Silver, Total	ND	mg/l	0.00040	--	1	03/25/14 10:11	03/25/14 20:29	1,6020A	KL
Zinc, Total	ND	mg/l	0.01000	--	1	03/25/14 10:11	03/25/14 20:29	1,6020A	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: WG677738-1									
Iron, Total	ND	mg/l	0.05	--	1	03/25/14 10:11	03/25/14 16:16	19,200.7	MG

#### 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: WG678082-1									
Mercury, Total	ND	mg/l	0.0002	--	1	03/26/14 13:16	03/26/14 15:33	3,245.1	AK

#### Prep Information

Digestion Method: EPA 245.1





## Lab Control Sample Analysis

### Batch Quality Control

**Project Name:** 100 BINNEY STREET

**Project Number:** 34250-040

**Lab Number:** L1406117

**Report Date:** 03/31/14

Parameter	LCS		LCSD		%Recovery Limits	RPD	Qual	RPD Limits
	%Recovery	Qual	%Recovery	Qual				
Total Metals - Westborough Lab Associated sample(s): 01-02 Batch: WG677734-2								
Antimony, Total	86		-		80-120	-		
Arsenic, Total	106		-		80-120	-		
Cadmium, Total	111		-		80-120	-		
Chromium, Total	97		-		80-120	-		
Copper, Total	100		-		80-120	-		
Lead, Total	98		-		80-120	-		
Nickel, Total	99		-		80-120	-		
Selenium, Total	117		-		80-120	-		
Silver, Total	95		-		80-120	-		
Zinc, Total	108		-		80-120	-		
Total Metals - Westborough Lab Associated sample(s): 01-02 Batch: WG677738-2								
Iron, Total	100		-		85-115	-		
Total Metals - Westborough Lab Associated sample(s): 01-02 Batch: WG678082-2								
Mercury, Total	107		-		85-115	-		

### Matrix Spike Analysis Batch Quality Control

**Project Name:** 100 BINNEY STREET  
**Project Number:** 34250-040

**Lab Number:** L1406117  
**Report Date:** 03/31/14

Parameter	Native Sample	MS Added	MS Found	MS %Recovery	MSD Qual	MSD Found	MSD %Recovery	MSD Qual	Recovery Limits	RPD	RPD Qual	RPD Limits
Total Metals - Westborough Lab Associated sample(s): 01-02 QC Batch ID: WG677734-4 QC Sample: L1405848-01 Client ID: MS Sample												
Antimony, Total	ND	0.5	0.4410	88	-	-	-	-	75-125	-	-	20
Arsenic, Total	0.00199	0.12	0.1344	110	-	-	-	-	75-125	-	-	20
Cadmium, Total	ND	0.051	0.05729	112	-	-	-	-	75-125	-	-	20
Chromium, Total	ND	0.2	0.1905	95	-	-	-	-	75-125	-	-	20
Copper, Total	0.01911	0.25	0.2670	99	-	-	-	-	75-125	-	-	20
Lead, Total	0.0079	0.51	0.5176	100	-	-	-	-	75-125	-	-	20
Nickel, Total	0.00071	0.5	0.4884	98	-	-	-	-	75-125	-	-	20
Selenium, Total	ND	0.12	0.138	115	-	-	-	-	75-125	-	-	20
Silver, Total	ND	0.05	0.04752	95	-	-	-	-	75-125	-	-	20
Zinc, Total	0.03454	0.5	0.5713	107	-	-	-	-	75-125	-	-	20
Total Metals - Westborough Lab Associated sample(s): 01-02 QC Batch ID: WG677738-4 QC Sample: L1405848-01 Client ID: MS Sample												
Iron, Total	1.3	1	2.3	100	-	-	-	-	75-125	-	-	20
Total Metals - Westborough Lab Associated sample(s): 01-02 QC Batch ID: WG678082-4 QC Sample: L1405861-01 Client ID: MS Sample												
Mercury, Total	ND	0.005	0.0054	108	-	-	-	-	70-130	-	-	20

## Lab Duplicate Analysis

Batch Quality Control

Project Name: 100 BINNEY STREET

Project Number: 34250-040

Lab Number: L1406117

Report Date: 03/31/14

Parameter	Native Sample	Duplicate Sample	Units	RPD	Qual	RPD Limits
<b>Total Metals - Westborough Lab Associated sample(s): 01-02 QC Batch ID: WG677734-3 QC Sample: L1405848-01 Client ID: DUP Sample</b>						
Arsenic, Total	0.00199	0.00207	mg/l	4		20
Copper, Total	0.01911	0.01896	mg/l	1		20
Nickel, Total	0.00071	0.00068	mg/l	5		20
Zinc, Total	0.03454	0.03334	mg/l	4		20
<b>Total Metals - Westborough Lab Associated sample(s): 01-02 QC Batch ID: WG677738-3 QC Sample: L1405848-01 Client ID: DUP Sample</b>						
Iron, Total	1.3	1.3	mg/l	0		20
<b>Total Metals - Westborough Lab Associated sample(s): 01-02 QC Batch ID: WG678082-3 QC Sample: L1405861-01 Client ID: DUP Sample</b>						
Mercury, Total	ND	ND	mg/l	NC		20

# **INORGANICS & MISCELLANEOUS**

**Project Name:** 100 BINNEY STREET  
**Project Number:** 34250-040

**Lab Number:** L1406117  
**Report Date:** 03/31/14

**SAMPLE RESULTS**

**Lab ID:** L1406117-01  
**Client ID:** ENV-20-03-24-2014  
**Sample Location:** Not Specified  
**Matrix:** Water

**Date Collected:** 03/24/14 12:50  
**Date Received:** 03/24/14  
**Field Prep:** Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
<b>General Chemistry - Westborough Lab</b>										
Solids, Total Suspended	ND		mg/l	5.0	NA	1	-	03/26/14 21:10	30,2540D	JT
Cyanide, Total	0.096		mg/l	0.005	--	1	03/26/14 14:15	03/26/14 17:13	30,4500CN-CE	JO
Cyanide, Free	0.137		mg/l	0.010	--	1	-	03/25/14 10:30	30,4500CN-E (M)	JO
Cyanide, Amenable	0.066		mg/l	0.010	--	2	03/26/14 14:15	03/26/14 16:55	30,4500CN-G	SP
Chlorine, Total Residual	ND		mg/l	0.02	--	1	-	03/24/14 23:00	30,4500CL-D	DE
TPH	ND		mg/l	4.40	--	1.1	03/25/14 07:45	03/25/14 12:30	74,1664A	ML
Phenolics, Total	ND		mg/l	0.03	--	1	03/27/14 10:30	03/27/14 17:32	4,420.1	TE
Chromium, Hexavalent	ND		mg/l	0.010	--	1	03/24/14 23:00	03/24/14 23:18	30,3500CR-D	DE
<b>Anions by Ion Chromatography - Westborough Lab</b>										
Chloride	740.		mg/l	50.0	--	100	-	03/25/14 20:14	44,300.0	AU



**Project Name:** 100 BINNEY STREET  
**Project Number:** 34250-040

**Lab Number:** L1406117  
**Report Date:** 03/31/14

**SAMPLE RESULTS**

**Lab ID:** L1406117-02  
**Client ID:** MW-58-03-24-2014  
**Sample Location:** Not Specified  
**Matrix:** Water

**Date Collected:** 03/24/14 15:15  
**Date Received:** 03/24/14  
**Field Prep:** Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
<b>General Chemistry - Westborough Lab</b>										
Solids, Total Suspended	ND		mg/l	5.0	NA	1	-	03/26/14 21:10	30,2540D	JT
Cyanide, Total	0.133		mg/l	0.005	--	1	03/26/14 14:15	03/26/14 17:27	30,4500CN-CE	JO
Cyanide, Free	0.115		mg/l	0.010	--	1	-	03/25/14 10:30	30,4500CN-E (M)	JO
Cyanide, Amenable	ND		mg/l	0.010	--	2	03/27/14 11:30	03/27/14 17:38	30,4500CN-G	SP
Chlorine, Total Residual	ND		mg/l	0.02	--	1	-	03/24/14 23:00	30,4500CL-D	DE
TPH	ND		mg/l	4.00	--	1	03/25/14 07:45	03/25/14 12:30	74,1664A	ML
Phenolics, Total	ND		mg/l	0.03	--	1	03/27/14 10:30	03/27/14 17:33	4,420.1	TE
Chromium, Hexavalent	ND		mg/l	0.010	--	1	03/24/14 23:00	03/24/14 23:19	30,3500CR-D	DE
<b>Anions by Ion Chromatography - Westborough Lab</b>										
Chloride	765.		mg/l	50.0	--	100	-	03/26/14 00:38	44,300.0	AU



**Project Name:** 100 BINNEY STREET  
**Project Number:** 34250-040

**Lab Number:** L1406117  
**Report Date:** 03/31/14

**Method Blank Analysis**  
**Batch Quality Control**

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Westborough Lab for sample(s): 01-02 Batch: WG677611-1										
Chlorine, Total Residual	ND		mg/l	0.02	--	1	-	03/24/14 23:00	30,4500CL-D	DE
General Chemistry - Westborough Lab for sample(s): 01-02 Batch: WG677612-1										
Chromium, Hexavalent	ND		mg/l	0.010	--	1	03/24/14 23:00	03/24/14 23:17	30,3500CR-D	DE
General Chemistry - Westborough Lab for sample(s): 01-02 Batch: WG677716-1										
TPH	ND		mg/l	4.00	--	1	03/25/14 07:45	03/25/14 12:30	74,1664A	ML
General Chemistry - Westborough Lab for sample(s): 01-02 Batch: WG677750-1										
Cyanide, Free	ND		mg/l	0.010	--	1	-	03/25/14 10:30	30,4500CN-E (M)	JO
General Chemistry - Westborough Lab for sample(s): 01 Batch: WG678091-1										
Cyanide, Amenable	ND		mg/l	0.010	--	2	03/26/14 14:15	03/26/14 16:55	30,4500CN-G	SP
General Chemistry - Westborough Lab for sample(s): 01-02 Batch: WG678164-1										
Cyanide, Total	ND		mg/l	0.005	--	1	03/26/14 14:15	03/26/14 16:54	30,4500CN-CE	JO
General Chemistry - Westborough Lab for sample(s): 01-02 Batch: WG678209-1										
Solids, Total Suspended	ND		mg/l	5.0	NA	1	-	03/26/14 21:10	30,2540D	JT
General Chemistry - Westborough Lab for sample(s): 02 Batch: WG678332-1										
Cyanide, Amenable	ND		mg/l	0.010	--	2	03/27/14 11:30	03/27/14 17:38	30,4500CN-G	SP
General Chemistry - Westborough Lab for sample(s): 01-02 Batch: WG678383-1										
Phenolics, Total	ND		mg/l	0.03	--	1	03/27/14 10:30	03/27/14 17:30	4,420.1	TE
Anions by Ion Chromatography - Westborough Lab for sample(s): 01-02 Batch: WG678485-1										
Chloride	ND		mg/l	0.500	--	1	-	03/25/14 18:24	44,300.0	AU



## Lab Control Sample Analysis

Batch Quality Control

**Project Name:** 100 BINNEY STREET  
**Project Number:** 34250-040

**Lab Number:** L1406117  
**Report Date:** 03/31/14

Parameter	LCS		LCSD		%Recovery Limits	RPD	Qual	RPD Limits
	%Recovery	Qual	%Recovery	Qual				
General Chemistry - Westborough Lab Associated sample(s): 01-02 Batch: WG677611-2								
Chlorine, Total Residual	103		-		90-110	-		
General Chemistry - Westborough Lab Associated sample(s): 01-02 Batch: WG677612-2								
Chromium, Hexavalent	103		-		85-115	-		20
General Chemistry - Westborough Lab Associated sample(s): 01-02 Batch: WG677716-2								
TPH	75		-		64-132	-		34
General Chemistry - Westborough Lab Associated sample(s): 01-02 Batch: WG677750-2								
Cyanide, Free	102		-		90-110	-		
General Chemistry - Westborough Lab Associated sample(s): 01 Batch: WG678091-2								
Cyanide, Amenable	100		-			-		
General Chemistry - Westborough Lab Associated sample(s): 01-02 Batch: WG678164-2								
Cyanide, Total	108		-		90-110	-		
General Chemistry - Westborough Lab Associated sample(s): 02 Batch: WG678332-2								
Cyanide, Amenable	100		-			-		





## Lab Control Sample Analysis

Batch Quality Control

**Project Name:** 100 BINNEY STREET

**Project Number:** 34250-040

**Lab Number:** L1406117

**Report Date:** 03/31/14

Parameter	LCS %Recovery	LCSD %Recovery	%Recovery Limits	RPD	RPD Limits
General Chemistry - Westborough Lab Associated sample(s): 01-02 Batch: WG678383-2					
Phenolics, Total	102	-	70-130	-	
Anions by Ion Chromatography - Westborough Lab Associated sample(s): 01-02 Batch: WG678485-2					
Chloride	100	-	90-110	-	

### Matrix Spike Analysis Batch Quality Control

**Project Name:** 100 BINNEY STREET  
**Project Number:** 34250-040

**Lab Number:** L1406117  
**Report Date:** 03/31/14

Parameter	Native Sample	MS Added	MS Found	MS %Recovery	MSD Qual	MSD Found	MSD %Recovery	MSD Qual	Recovery Limits	RPD	RPD Qual	RPD Limits
General Chemistry - Westborough Lab Associated sample(s): 01-02 QC Batch ID: WG677612-4 QC Sample: L1406117-01 Client ID: ENV-20-03-24-2014												
Chromium, Hexavalent	ND	0.1	0.092	92	-	-	-	-	85-115	-	-	20
General Chemistry - Westborough Lab Associated sample(s): 01-02 QC Batch ID: WG677716-4 QC Sample: L1406117-01 Client ID: ENV-20-03-24-2014												
TPH	ND	20.8	16.3	78	-	-	-	-	64-132	-	-	34
General Chemistry - Westborough Lab Associated sample(s): 01-02 QC Batch ID: WG677750-4 QC Sample: L1406117-02 Client ID: MW-58-03-24-2014												
Cyanide, Free	0.115	0.5	0.538	85	-	-	-	-	80-120	-	-	20
General Chemistry - Westborough Lab Associated sample(s): 01-02 QC Batch ID: WG678164-3 QC Sample: L1406203-01 Client ID: MS Sample												
Cyanide, Total	ND	0.2	0.207	104	-	-	-	-	90-110	-	-	30
General Chemistry - Westborough Lab Associated sample(s): 01-02 QC Batch ID: WG678383-4 QC Sample: L1405862-05 Client ID: MS Sample												
Phenolics, Total	ND	0.4	0.39	98	-	-	-	-	70-130	-	-	20
Anions by Ion Chromatography - Westborough Lab Associated sample(s): 01-02 QC Batch ID: WG678485-3 WG678485-4 QC Sample: L1405862-05 Client ID: MS Sample												
Chloride	41.6	4	44.1	62	44.0	60	60	40-151	0	-	-	18

## Lab Duplicate Analysis

Batch Quality Control

**Project Name:** 100 BINNEY STREET  
**Project Number:** 34250-040

**Lab Number:** L1406117  
**Report Date:** 03/31/14

Parameter	Native Sample	Duplicate Sample	Units	RPD	Qual	RPD Limits
General Chemistry - Westborough Lab Associated sample(s): 01-02 QC Batch ID: WG677611-3 QC Sample: L1406117-01 Client ID: ENV-20-03-24-2014						
Chlorine, Total Residual	ND	ND	mg/l	NC		20
General Chemistry - Westborough Lab Associated sample(s): 01-02 QC Batch ID: WG677612-3 QC Sample: L1406117-01 Client ID: ENV-20-03-24-2014						
Chromium, Hexavalent	ND	ND	mg/l	NC		20
General Chemistry - Westborough Lab Associated sample(s): 01-02 QC Batch ID: WG677716-3 QC Sample: L1406123-01 Client ID: DUP Sample						
TPH	ND	ND	mg/l	NC		34
General Chemistry - Westborough Lab Associated sample(s): 01-02 QC Batch ID: WG677750-3 QC Sample: L1406117-01 Client ID: ENV-20-03-24-2014						
Cyanide, Free	0.137	0.140	mg/l	2		20
General Chemistry - Westborough Lab Associated sample(s): 01 QC Batch ID: WG678091-3 QC Sample: L1405989-01 Client ID: DUP Sample						
Cyanide, Amenable	0.029	0.041	mg/l	34		
General Chemistry - Westborough Lab Associated sample(s): 01-02 QC Batch ID: WG678164-4 QC Sample: L1406203-01 Client ID: DUP Sample						
Cyanide, Total	ND	ND	mg/l	NC		30
General Chemistry - Westborough Lab Associated sample(s): 02 QC Batch ID: WG678332-3 QC Sample: L1406208-02 Client ID: DUP Sample						
Cyanide, Amenable	ND	ND	mg/l	NC		
General Chemistry - Westborough Lab Associated sample(s): 01-02 QC Batch ID: WG678383-3 QC Sample: L1405862-05 Client ID: DUP Sample						
Phenolics, Total	ND	ND	mg/l	NC		20

**Project Name:** 100 BINNEY STREET  
**Project Number:** 34250-040

**Lab Number:** L1406117  
**Report Date:** 03/31/14

### Sample Receipt and Container Information

Were project specific reporting limits specified? YES

Reagent H2O Preserved Vials Frozen on: NA

#### Cooler Information Custody Seal

##### Cooler

A Absent  
 B Absent  
 C Absent

#### Container Information

Container ID	Container Type	Cooler	pH	Temp deg C	Pres	Seal	Analysis(*)
L1406117-01A	Vial HCl preserved	A	N/A	3.6	Y	Absent	8260(14)
L1406117-01B	Vial HCl preserved	A	N/A	3.6	Y	Absent	8260(14)
L1406117-01C	Vial HCl preserved	A	N/A	3.6	Y	Absent	8260(14)
L1406117-01D	Vial HCl preserved	A	N/A	3.6	Y	Absent	8260-SIM(14)
L1406117-01E	Vial HCl preserved	A	N/A	3.6	Y	Absent	8260-SIM(14)
L1406117-01F	Vial HCl preserved	A	N/A	3.6	Y	Absent	8260-SIM(14)
L1406117-01G	Vial Na2S2O3 preserved	A	N/A	3.6	Y	Absent	504(14)
L1406117-01H	Vial Na2S2O3 preserved	A	N/A	3.6	Y	Absent	504(14)
L1406117-01I	Plastic 250ml HNO3 preserved	C	<2	3.1	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)
L1406117-01J	Plastic 250ml NaOH preserved	C	>12	3.1	Y	Absent	TCN-4500(14),ACN-4500(14)
L1406117-01K	Plastic 500ml unpreserved	C	8	3.1	Y	Absent	HEXCR-3500(1)
L1406117-01L	Plastic 500ml unpreserved	C	8	3.1	Y	Absent	CL-300(28),TRC-4500(1),FCN(1)
L1406117-01M	Plastic 1000ml unpreserved	A	8	3.6	Y	Absent	TSS-2540(7)
L1406117-01N	Amber 500ml H2SO4 preserved	C	<2	3.1	Y	Absent	TPHENOL-420(28)
L1406117-01O	Amber 1000ml HCl preserved	C	N/A	3.1	Y	Absent	TPH-1664(28)
L1406117-01P	Amber 1000ml HCl preserved	C	N/A	3.1	Y	Absent	TPH-1664(28)
L1406117-01Q	Amber 1000ml unpreserved	C	8	3.1	Y	Absent	8270TCL-SIM(7)
L1406117-01R	Amber 1000ml unpreserved	C	8	3.1	Y	Absent	8270TCL-SIM(7)
L1406117-01S	Amber 1000ml unpreserved	C	8	3.1	Y	Absent	8270TCL(7)
L1406117-01T	Amber 1000ml unpreserved	C	8	3.1	Y	Absent	8270TCL(7)
L1406117-01U	Amber 1000ml Na2S2O3	C	8	3.1	Y	Absent	PCB-608(7)

\*Values in parentheses indicate holding time in days

Project Name: 100 BINNEY STREET

Project Number: 34250-040

Lab Number: L1406117

Report Date: 03/31/14

## Container Information

Container ID	Container Type	Cooler	pH	Temp deg C	Pres	Seal	Analysis(*)
L1406117-01V	Amber 1000ml Na2S2O3	C	8	3.1	Y	Absent	PCB-608(7)
L1406117-01W	Plastic 250ml HNO3 preserved	A	<2	3.6	Y	Absent	PB-6020T(180)
L1406117-01X	Amber 1000ml HCl preserved	C	N/A	3.1	Y	Absent	PB-6020T(180)
L1406117-02A	Vial HCl preserved	B	N/A	2.4	Y	Absent	8260(14)
L1406117-02B	Vial HCl preserved	B	N/A	2.4	Y	Absent	8260(14)
L1406117-02C	Vial HCl preserved	B	N/A	2.4	Y	Absent	8260(14)
L1406117-02D	Vial HCl preserved	B	N/A	2.4	Y	Absent	8260-SIM(14)
L1406117-02E	Vial HCl preserved	B	N/A	2.4	Y	Absent	8260-SIM(14)
L1406117-02F	Vial HCl preserved	B	N/A	2.4	Y	Absent	8260-SIM(14)
L1406117-02G	Vial Na2S2O3 preserved	B	N/A	2.4	Y	Absent	504(14)
L1406117-02H	Vial Na2S2O3 preserved	B	N/A	2.4	Y	Absent	504(14)
L1406117-02I	Plastic 250ml HNO3 preserved	B	<2	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)
L1406117-02J	Plastic 250ml NaOH preserved	B	>12	2.4	Y	Absent	TCN-4500(14),ACN-4500(14)
L1406117-02K	Plastic 500ml unpreserved	B	8	2.4	Y	Absent	HEXCR-3500(1)
L1406117-02L	Plastic 500ml unpreserved	B	8	2.4	Y	Absent	CL-300(28),TRC-4500(1),FCN(1)
L1406117-02M	Plastic 1000ml unpreserved	B	8	2.4	Y	Absent	TSS-2540(7)
L1406117-02N	Amber 500ml H2SO4 preserved	B	<2	2.4	Y	Absent	TPHENOL-420(28)
L1406117-02O	Amber 1000ml HCl preserved	C	N/A	3.1	Y	Absent	TPH-1664(28)
L1406117-02Q	Amber 1000ml unpreserved	B	8	2.4	Y	Absent	8270TCL-SIM(7)
L1406117-02R	Amber 1000ml unpreserved	B	8	2.4	Y	Absent	8270TCL-SIM(7)
L1406117-02S	Amber 1000ml unpreserved	B	8	2.4	Y	Absent	8270TCL(7)
L1406117-02T	Amber 1000ml unpreserved	B	8	2.4	Y	Absent	8270TCL(7)
L1406117-02U	Amber 1000ml Na2S2O3	A	8	3.6	Y	Absent	PCB-608(7)
L1406117-02V	Amber 1000ml Na2S2O3	A	8	3.6	Y	Absent	PCB-608(7)
L1406117-02W	Plastic 250ml HNO3 preserved	B	<2	2.4	Y	Absent	PB-6020T(180)

\*Values in parentheses indicate holding time in days



**Project Name:** 100 BINNEY STREET  
**Project Number:** 34250-040

**Lab Number:** L1406117  
**Report Date:** 03/31/14

## GLOSSARY

### Acronyms

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

### Footnotes

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

### Terms

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

### Data Qualifiers

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

Report Format: Data Usability Report



**Project Name:** 100 BINNEY STREET  
**Project Number:** 34250-040

**Lab Number:** L1406117  
**Report Date:** 03/31/14

**Data Qualifiers**

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

**Project Name:** 100 BINNEY STREET  
**Project Number:** 34250-040

**Lab Number:** L1406117  
**Report Date:** 03/31/14

## REFERENCES

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





## Certification Information

Last revised December 11, 2013

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

#### Westborough Facility

**EPA 524.2:** Acetone, 2-Butanone (Methyl ethyl ketone (MEK)), Tert-butyl alcohol, 2-Hexanone, Tetrahydrofuran, 1,3,5-Trichlorobenzene, 4-Methyl-2-pentanone (MIBK), Carbon disulfide, Diethyl ether.

**EPA 8260C:** 1,2,4,5-Tetramethylbenzene, 4-Ethyltoluene, Iodomethane (methyl iodide), Methyl methacrylate, Azobenzene.

**EPA 8330A/B:** PETN, Picric Acid, Nitroglycerine, 2,6-DANT, 2,4-DANT.

**EPA 8270D:** 1-Methylnaphthalene, Dimethylnaphthalene, 1,4-Diphenylhydrazine.

**EPA 625:** 4-Chloroaniline, 4-Methylphenol.

**SM4500:** Soil: Total Phosphorus, TKN, NO<sub>2</sub>, NO<sub>3</sub>.

**EPA 9071:** Total Petroleum Hydrocarbons, Oil & Grease.

#### Mansfield Facility

**EPA 8270D:** Biphenyl.

**EPA TO-15:** Halothane, 2,4,4-Trimethyl-2-pentene, 2,4,4-Trimethyl-1-pentene, Thiophene, 2-Methylthiophene, 3-Methylthiophene, 2-Ethylthiophene, 1,2,3-Trimethylbenzene, Indan, Indene, 1,2,4,5-Tetramethylbenzene, Benzothiophene, 1-Methylnaphthalene.

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

#### Drinking Water

**EPA 200.8:** Sb,As,Ba,Be,Cd,Cr,Cu,Pb,Ni,Se,Tl; **EPA 200.7:** Ba,Be,Ca,Cd,Cr,Cu,Na; **EPA 245.1:** Mercury;

**EPA 300.0:** Nitrate-N, Fluoride, Sulfate; **EPA 353.2:** Nitrate-N, Nitrite-N; **SM4500NO3-F:** Nitrate-N, Nitrite-N; **SM4500F-C, SM4500CN-CE, EPA 180.1, SM2130B, SM4500CI-D, SM2320B, SM2540C, SM4500H-B**

**EPA 332:** Perchlorate.

**Microbiology:** **SM9215B; SM9223-P/A, SM9223B-Colilert-QT, Enterolert-QT.**

#### Non-Potable Water

**EPA 200.8:** Al,Sb,As,Be,Cd,Cr,Cu,Pb,Mn,Ni,Se,Ag,Tl,Zn;

**EPA 200.7:** Al,Sb,As,Be,Cd,Ca,Cr,Co,Cu,Fe,Pb,Mg,Mn,Mo,Ni,K,Se,Ag,Na,Sr,Ti,Tl,V,Zn;

**EPA 245.1, SM4500H,B, EPA 120.1, SM2510B, SM2540C, SM2340B, SM2320B, SM4500CL-E, SM4500F-BC, SM426C, SM4500NH3-BH, EPA 350.1:** Ammonia-N, **LACHAT 10-107-06-1-B:** Ammonia-N, **SM4500NO3-F, EPA 353.2:** Nitrate-N, **SM4500NH3-BC-NES, EPA 351.1, SM4500P-E, SM4500P-B, E, SM5220D, EPA 410.4, SM5210B, SM5310C, SM4500CL-D, EPA 1664, SM14 510AC, EPA 420.1, SM4500-CN-CE, SM2540D.**

**EPA 624:** Volatile Halocarbons & Aromatics,

**EPA 608:** Chlordane, Toxaphene, Aldrin, alpha-BHC, beta-BHC, gamma-BHC, delta-BHC, Dieldrin, DDD, DDE, DDT, Endosulfan I, Endosulfan II, Endosulfan sulfate, Endrin, Endrin Aldehyde, Heptachlor, Heptachlor Epoxide, PCBs

**EPA 625:** SVOC (Acid/Base/Neutral Extractables), **EPA 600/4-81-045:** PCB-Oil.

**Microbiology:** **SM9223B-Colilert-QT; Enterolert-QT, SM9222D-MF.**

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



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# CHAIN OF CUSTODY RECORD

Phone (617) 886-7400  
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Page 1 of 1

H&A FILE NO. 34250-040 LABORATORY ALPHA ANALYTICAL DELIVERY DATE \_\_\_\_\_  
 PROJECT NAME 100 BINNEY STREET ADDRESS WESTBOROUGH, MA TURNAROUND TIME 5-DAY  
 H&A CONTACT J. THIBAUT CONTACT GINA HALL PROJECT MANAGER R. HIGGINS

Sample No.	Date	Time	Depth	Type	Analysis Requested														Number of Containers	Comments (special instructions, precautions, additional method numbers, etc.)	
					1. VOCs 8260/8260-SIM	2. SVOCs 8270/8270-SIM	3. PCBs 608	4. TSS 160.2	5. EDB 504.1	6. JTH 1664	7. Total Phenol 420.J	8. Total Metals RSP	9. Dissolved Metals RSP	10. TRC 330.1 EI	11. TCN 335.2	12. Amenable Cyanide	13. Free Cyanide	14. Hex Cr SM 3300			
ENV-20-03-24-2014	3/24/14	1250	=	A9	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	23	Laboratory to use applicable DEP CAM methods, unless otherwise directed.  8. NPDES RGP list of metals: Cd, Cr, Cu, Pb, Ni, Ag, Zn, As, Se, Sb, Hg and Fe 9. Dissolved NPDES RGP list of metals (Field Filtered) <b>**HOLD FIELD FILTERED SAMPLE</b>
MW-58-03-24-2014	"	1515	=	A9	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	23	

Sampled and Relinquished by	Received by	LIQUID														VOA Vial	Sampling Comments				
Sign <u>[Signature]</u> Print <u>Matthew Dolson</u> Firm <u>H&amp;A</u> Date <u>3/24/14</u> Time _____	Sign <u>M. Amos</u> Print <u>M. Amos</u> Firm <u>H&amp;A</u> Date <u>3/24/14</u> Time <u>16:30</u>	X				X														X	*Sample submitted for NPDES RGP permit application. Please follow appropriate testing methods and minimum detection levels as required by the EPA for the RGP.
Relinquished by	Received by	AF	A	AH	A	AH	AF	AE	AD	AD	A	AC	AC	AC	A	Preservative	Volume (mL)				

Sampled and Relinquished by	Received by	SOLID														VOA Vial	Sampling Comments				
Sign <u>[Signature]</u> Print <u>Wayne Plummer</u> Firm <u>H&amp;A</u> Date <u>3/24/14</u> Time <u>16:30</u>	Sign <u>[Signature]</u> Print <u>Wayne Plummer</u> Firm <u>Alpha</u> Date <u>3/24/14</u> Time <u>16:30</u>																				Evidence samples were tampered with? YES NO If YES, please explain in section below.
Relinquished by	Received by																				

Sampled and Relinquished by	Received by	PRESERVATION KEY														VOA Vial	Sampling Comments				
Sign <u>[Signature]</u> Print <u>Wayne Plummer</u> Firm <u>Alpha</u> Date <u>3/24/14</u> Time <u>1803</u>	Sign <u>Richard Scott</u> Print <u>Richard Scott</u> Firm <u>Alpha</u> Date <u>3/24/14</u> Time <u>1603</u>	A	B	C	D	E	F	G	H												Evidence samples were tampered with? YES NO If YES, please explain in section below.
Relinquished by	Received by	Sample chilled	Sample filtered	NaOH	HNO <sub>3</sub>	H <sub>2</sub> SO <sub>4</sub>	HCL	Methanol	Water (Na <sub>2</sub> S <sub>2</sub> O <sub>3</sub> (catalyze))												

If Presumptive Certainty Data Package is needed, initial all sections:  
 The required minimum field QC samples, as designated in BWSC CAM-VII have been or will be collected, as appropriate, to meet the requirements of Presumptive Certainty.  
 Matrix Spike (MS) samples for MCP Metals and/or Cyanide are included and identified herein.  
 This Chain of Custody Record (specify) \_\_\_\_\_ includes  does not include samples defined as Drinking Water Samples.  
 If this Chain of Custody Record identifies samples defined as Drinking Water Samples, Trip Blanks and Field Duplicates are included and identified and analysis of TICs are required, as appropriate. Laboratory should (specify if applicable) \_\_\_\_\_ analyze

Presumptive Certainty Data Package (Laboratory to use applicable DEP CAM methods)

Required Reporting Limits and Data Quality Objectives

<input type="checkbox"/> RC-S1	<input type="checkbox"/> S1	<input type="checkbox"/> GW1
<input type="checkbox"/> RC-S2	<input type="checkbox"/> S2	<input type="checkbox"/> GW2
<input type="checkbox"/> RC-GW1	<input type="checkbox"/> S3	<input type="checkbox"/> GW3
<input type="checkbox"/> RC-GW2		



## ANALYTICAL REPORT

Lab Number:	L1407359
Client:	Haley & Aldrich, Inc. 465 Medford Street, Suite 2200 Charlestown, MA 02129-1400
ATTN:	Rebecca Higgins
Phone:	(617) 886-7326
Project Name:	100 BINNEY STREET
Project Number:	34250-040
Report Date:	04/14/14

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.

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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:** 100 BINNEY STREET  
**Project Number:** 34250-040

**Lab Number:** L1407359  
**Report Date:** 04/14/14

<b>Alpha Sample ID</b>	<b>Client ID</b>	<b>Sample Location</b>	<b>Collection Date/Time</b>
L1407359-01	ENV-19-03-21-2014	Not Specified	03/21/14 14:00

**Project Name:** 100 BINNEY STREET  
**Project Number:** 34250-040

**Lab Number:** L1407359  
**Report Date:** 04/14/14

### Case Narrative

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

Results contained within this report relate only to the samples submitted under this Alpha Lab Number and meet all of the requirements of NELAC, for all NELAC accredited parameters. The data presented in this report is organized by parameter (i.e. VOC, SVOC, etc.). Sample specific Quality Control data (i.e. Surrogate Spike Recovery) is reported at the end of the target analyte list for each individual sample, followed by the Laboratory Batch Quality Control at the end of each parameter. If a sample was re-analyzed or re-extracted due to a required quality control corrective action and if both sets of data are reported, the Laboratory ID of the re-analysis or re-extraction is designated with an "R" or "RE", respectively. When multiple Batch Quality Control elements are reported (e.g. more than one LCS), the associated samples for each element are noted in the grey shaded header line of each data table. Any Laboratory Batch, Sample Specific % recovery or RPD value that is outside the listed Acceptance Criteria is bolded in the report. 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.

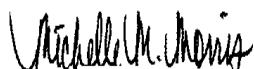
#### HOLD POLICY

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

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

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: 04/14/14

## METALS

**Project Name:** 100 BINNEY STREET**Lab Number:** L1407359**Project Number:** 34250-040**Report Date:** 04/14/14**SAMPLE RESULTS**

Lab ID: L1407359-01

Date Collected: 03/21/14 14:00

Client ID: ENV-19-03-21-2014

Date Received: 03/21/14

Sample Location: Not Specified

Field Prep: Field Filtered

Matrix: Water

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Prep Method	Analytical Method	Analyst
<b>Dissolved Metals - Westborough Lab</b>											
Iron, Dissolved	13		mg/l	0.05	--	1	04/11/14 11:46	04/11/14 16:30	NA	19,200.7	TT



Project Name: 100 BINNEY STREET

Lab Number: L1407359

Project Number: 34250-040

Report Date: 04/14/14

## Method Blank Analysis Batch Quality Control

Parameter	Result Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
Dissolved Metals - Westborough Lab for sample(s): 01 Batch: WG681635-1									
Iron, Dissolved	ND	mg/l	0.05	--	1	04/11/14 11:46	04/11/14 15:48	19,200.7	TT

### Prep Information

Digestion Method: NA



### Lab Control Sample Analysis Batch Quality Control

**Project Name:** 100 BINNEY STREET  
**Project Number:** 34250-040

**Lab Number:** L1407359  
**Report Date:** 04/14/14

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Dissolved Metals - Westborough Lab Associated sample(s): 01 Batch: WG681635-2								
Iron, Dissolved	89		-		85-115	-		



### Matrix Spike Analysis Batch Quality Control

**Project Name:** 100 BINNEY STREET

**Lab Number:** L1407359

**Project Number:** 34250-040

**Report Date:** 04/14/14

<b>Parameter</b>	<b>Native Sample</b>	<b>MS Added</b>	<b>MS Found</b>	<b>MS %Recovery</b>	<b>MSD Qual</b>	<b>MSD Found</b>	<b>MSD %Recovery</b>	<b>MSD Qual</b>	<b>Recovery Limits</b>	<b>RPD</b>	<b>RPD Qual</b>	<b>RPD Limits</b>
Dissolved Metals - Westborough Lab Associated sample(s): 01    QC Batch ID: WG681635-4    QC Sample: L1407360-01    Client ID: MS Sample												
Iron, Dissolved	0.18	1	1.1	92		-	-		75-125	-		20

**Lab Duplicate Analysis**  
Batch Quality Control

Project Name: 100 BINNEY STREET

Project Number: 34250-040

Lab Number: L1407359

Report Date: 04/14/14

Parameter	Native Sample	Duplicate Sample	Units	RPD	Qual	RPD Limits
Dissolved Metals - Westborough Lab Associated sample(s): 01 QC Batch ID: WG681635-3 QC Sample: L1407360-01 Client ID: DUP Sample						
Iron, Dissolved	0.18	0.18	mg/l	0		20

**Project Name:** 100 BINNEY STREET**Lab Number:** L1407359**Project Number:** 34250-040**Report Date:** 04/14/14**Sample Receipt and Container Information**

Were project specific reporting limits specified? YES

Reagent H2O Preserved Vials Frozen on: NA

**Cooler Information Custody Seal****Cooler**

A Absent

**Container Information**

Container ID	Container Type	Cooler	pH	Temp deg C	Pres	Seal	Analysis(*)
L1407359-01A	Plastic 250ml HNO3 preserved	A	<2	2.8	Y	Absent	FE-RI(180)

\*Values in parentheses indicate holding time in days

**Project Name:** 100 BINNEY STREET  
**Project Number:** 34250-040

**Lab Number:** L1407359  
**Report Date:** 04/14/14

## GLOSSARY

### Acronyms

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

### Footnotes

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

### Terms

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

### Data Qualifiers

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

**Report Format:** Data Usability Report



**Project Name:** 100 BINNEY STREET  
**Project Number:** 34250-040

**Lab Number:** L1407359  
**Report Date:** 04/14/14

**Data Qualifiers**

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

**Project Name:** 100 BINNEY STREET  
**Project Number:** 34250-040

**Lab Number:** L1407359  
**Report Date:** 04/14/14

## REFERENCES

- 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.

## LIMITATION OF LIABILITIES

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

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



## Certification Information

Last revised December 11, 2013

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

#### Westborough Facility

**EPA 524.2:** Acetone, 2-Butanone (Methyl ethyl ketone (MEK)), Tert-butyl alcohol, 2-Hexanone, Tetrahydrofuran, 1,3,5-Trichlorobenzene, 4-Methyl-2-pentanone (MIBK), Carbon disulfide, Diethyl ether.

**EPA 8260C:** 1,2,4,5-Tetramethylbenzene, 4-Ethyltoluene, Iodomethane (methyl iodide), Methyl methacrylate, Azobenzene.

**EPA 8330A/B:** PETN, Picric Acid, Nitroglycerine, 2,6-DANT, 2,4-DANT.

**EPA 8270D:** 1-Methylnaphthalene, Dimethylnaphthalene, 1,4-Diphenylhydrazine.

**EPA 625:** 4-Chloroaniline, 4-Methylphenol.

**SM4500:** Soil: Total Phosphorus, TKN, NO<sub>2</sub>, NO<sub>3</sub>.

**EPA 9071:** Total Petroleum Hydrocarbons, Oil & Grease.

#### Mansfield Facility

**EPA 8270D:** Biphenyl.

**EPA TO-15:** Halothane, 2,4,4-Trimethyl-2-pentene, 2,4,4-Trimethyl-1-pentene, Thiophene, 2-Methylthiophene, 3-Methylthiophene, 2-Ethylthiophene, 1,2,3-Trimethylbenzene, Indan, Indene, 1,2,4,5-Tetramethylbenzene, Benzothiophene, 1-Methylnaphthalene.

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

#### Drinking Water

**EPA 200.8:** Sb,As,Ba,Be,Cd,Cr,Cu,Pb,Ni,Se,Tl; **EPA 200.7:** Ba,Be,Ca,Cd,Cr,Cu,Na; **EPA 245.1:** Mercury;

**EPA 300.0:** Nitrate-N, Fluoride, Sulfate; **EPA 353.2:** Nitrate-N, Nitrite-N; **SM4500NO3-F:** Nitrate-N, Nitrite-N; **SM4500F-C, SM4500CN-CE, EPA 180.1, SM2130B, SM4500CI-D, SM2320B, SM2540C, SM4500H-B**

**EPA 332:** Perchlorate.

**Microbiology:** **SM9215B; SM9223-P/A, SM9223B-Colilert-QT, Enterolert-QT.**

#### Non-Potable Water

**EPA 200.8:** Al,Sb,As,Be,Cd,Cr,Cu,Pb,Mn,Ni,Se,Ag,Tl,Zn;

**EPA 200.7:** Al,Sb,As,Be,Cd,Ca,Cr,Co,Cu,Fe,Pb,Mg,Mn,Mo,Ni,K,Se,Ag,Na,Sr,Ti,Tl,V,Zn;

**EPA 245.1, SM4500H,B, EPA 120.1, SM2510B, SM2540C, SM2340B, SM2320B, SM4500CL-E, SM4500F-BC, SM426C, SM4500NH3-BH, EPA 350.1:** Ammonia-N, **LACHAT 10-107-06-1-B:** Ammonia-N, **SM4500NO3-F, EPA 353.2:** Nitrate-N, **SM4500NH3-BC-NES, EPA 351.1, SM4500P-E, SM4500P-B, E, SM5220D, EPA 410.4, SM5210B, SM5310C, SM4500CL-D, EPA 1664, SM14 510AC, EPA 420.1, SM4500-CN-CE, SM2540D.**

**EPA 624:** Volatile Halocarbons & Aromatics,

**EPA 608:** Chlordane, Toxaphene, Aldrin, alpha-BHC, beta-BHC, gamma-BHC, delta-BHC, Dieldrin, DDD, DDE, DDT, Endosulfan I, Endosulfan II, Endosulfan sulfate, Endrin, Endrin Aldehyde, Heptachlor, Heptachlor Epoxide, PCBs

**EPA 625:** SVOC (Acid/Base/Neutral Extractables), **EPA 600/4-81-045:** PCB-Oil.

**Microbiology:** **SM9223B-Colilert-QT; Enterolert-QT, SM9222D-MF.**

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



**HALEY & ALDRICH**

Haley & Aldrich, Inc.  
465 Medford St.,  
Suite 2200,  
Boston, MA 02129-1402

# CHAIN OF CUSTODY RECORD

L14057359  
L1405909

Phone (617) 886-7400  
Fax (617) 886-7600

Page 1 of 1

4/9/14  
KLB

H&A FILE NO. 34250-040 LABORATORY ALPHA ANALYTICAL DELIVERY DATE 3/21/2014  
 PROJECT NAME 100 BINNEY STREET ADDRESS WESTBOROUGH, MA TURNAROUND TIME 5-DAY  
 H&A CONTACT J. THIBAUT CONTACT GENA HALL PROJECT MANAGER R. HIGGINS

Sample No.	Date	Time	Depth	Type	Analysis Requested													Number of Containers	Comments (special instructions, precautions, additional method numbers, etc.)		
					1. MPCA 8260/8260-SIM	2. SVOCs 8270/8270-SIM	3. PCBs 8280/8280-SIM	4. TSS 8290/8290-SIM	5. TSS 8300/8300-SIM	6. TPB 8310/8310-SIM	7. Total Phenol 8320/8320-SIM	8. Total Inorganic 8330/8330-SIM	9. Dissolved Metals	10. Cyanide 8340/8340-SIM	11. TOC 8350/8350-SIM	12. Amenable Cyanide	13. Hex C 8360/8360-SIM				
ENV-19-03-21-2014	3/21/14	1400	GAN	AG	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	23	Laboratory to use applicable DEP CAM methods, unless otherwise directed.  8. NPDES RGF list of metals: Cd, Cr, Cu, Pb, Ni, Ag, Zn, As, Se, Sb, Hg and Fe 9. Dissolved NPDES RGF list of metals (Field Filtered) <b>**HOLD FIELD FILTERED SAMPLE**</b>  Analyze samples for Dissolved Iron only

Sampled and Relinquished by		Received by		LIQUID													Sampling Comments					
Sign: [Signature]	Print: [Name]	Sign: [Signature]	Print: [Name]	X					X												VOA Vial	*Sample submitted for NPDES RGF permit application.
Date: 3-21-14	Time: [Time]	Date: 3/21/14	Time: 16:30	X	X	X			X	X	X	X	X	X	X	X	X	X	X	X	Amber Glass	Please follow appropriate testing methods and minimum detection levels as required by the EPA for the RGF.
Relinquished by		Received by		AP	A	AH	A	AH	AF	AE	AD	AD	A	AC	AC	AC	AC	A		Plastic Bottle		
Sign: [Signature]	Print: [Name]	Sign: [Signature]	Print: [Name]	40	1000	1000	1000	1000	1000	500	250	250	500	250	250	250	500			Preservative	Evidence samples were tampered with? YES NO	
Date: 3/21/14	Time: [Time]	Date: 3/21/14	Time: 16:50	SOLID														If YES, please explain in section below.				
Sign: [Signature]	Print: [Name]	Sign: [Signature]	Print: [Name]	PRESERVATION KEY																		
Date: 3/21/14	Time: 19:30	Date: 3/21/14	Time: 19:30	A Sample chilled C NaOH E H <sub>2</sub> SO <sub>4</sub> G Methanol B Sample filtered D HNO <sub>3</sub> F HCL H Water (Na <sub>2</sub> S <sub>2</sub> O <sub>3</sub> cap.)																		

**Presumptive Certainty Data Package (Laboratory to use applicable DEP CAM methods)**

If Presumptive Certainty Data Package is needed, initial all sections:  
 The required minimum field QC samples, as designated in BWSC CAM-VII have been or will be collected, as appropriate, to meet the requirements of Presumptive Certainty.  
 Matrix Spike (MS) samples for MCP Metals and/or Cyanide are included and identified herein.  
 This Chain of Custody Record (specify)  Includes  does not include samples defined as Drinking Water Samples.  
 If this Chain of Custody Record identifies samples defined as Drinking Water Samples, Trip Blanks and Field Duplicates are included and identified and analysis of TICs are required, as appropriate.  
 Laboratory should (specify if applicable) analyze

**Required Reporting Limits and Data Quality Objectives**

RC-S1       S1       GW1  
 RC-S2       S2       GW2  
 RC-GW1       S3       GW3  
 RC-GW2



## ANALYTICAL REPORT

Lab Number:	L1407360
Client:	Haley & Aldrich, Inc. 465 Medford Street, Suite 2200 Charlestown, MA 02129-1400
ATTN:	Rebecca Higgins
Phone:	(617) 886-7326
Project Name:	100 BINNEY STREET
Project Number:	34250-040
Report Date:	04/14/14

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

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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:** 100 BINNEY STREET  
**Project Number:** 34250-040

**Lab Number:** L1407360  
**Report Date:** 04/14/14

<b>Alpha Sample ID</b>	<b>Client ID</b>	<b>Sample Location</b>	<b>Collection Date/Time</b>
L1407360-01	ENV-20-03-24-2014	Not Specified	03/24/14 12:50
L1407360-02	MW-58-03-24-2014	Not Specified	03/24/14 15:15

**Project Name:** 100 BINNEY STREET  
**Project Number:** 34250-040

**Lab Number:** L1407360  
**Report Date:** 04/14/14

### Case Narrative

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

Results contained within this report relate only to the samples submitted under this Alpha Lab Number and meet all of the requirements of NELAC, for all NELAC accredited parameters. The data presented in this report is organized by parameter (i.e. VOC, SVOC, etc.). Sample specific Quality Control data (i.e. Surrogate Spike Recovery) is reported at the end of the target analyte list for each individual sample, followed by the Laboratory Batch Quality Control at the end of each parameter. If a sample was re-analyzed or re-extracted due to a required quality control corrective action and if both sets of data are reported, the Laboratory ID of the re-analysis or re-extraction is designated with an "R" or "RE", respectively. When multiple Batch Quality Control elements are reported (e.g. more than one LCS), the associated samples for each element are noted in the grey shaded header line of each data table. Any Laboratory Batch, Sample Specific % recovery or RPD value that is outside the listed Acceptance Criteria is bolded in the report. 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.

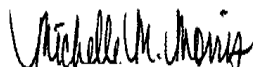
#### HOLD POLICY

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

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

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: 04/14/14

## METALS

**Project Name:** 100 BINNEY STREET**Lab Number:** L1407360**Project Number:** 34250-040**Report Date:** 04/14/14**SAMPLE RESULTS**

Lab ID: L1407360-01

Date Collected: 03/24/14 12:50

Client ID: ENV-20-03-24-2014

Date Received: 03/24/14

Sample Location: Not Specified

Field Prep: Field Filtered

Matrix: Water

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Prep Method	Analytical Method	Analyst
Dissolved Metals - Westborough Lab											
Iron, Dissolved	0.18		mg/l	0.05	--	1	04/11/14 11:46	04/11/14 16:03	NA	19,200.7	TT



**Project Name:** 100 BINNEY STREET**Lab Number:** L1407360**Project Number:** 34250-040**Report Date:** 04/14/14**SAMPLE RESULTS**

Lab ID: L1407360-02

Date Collected: 03/24/14 15:15

Client ID: MW-58-03-24-2014

Date Received: 03/24/14

Sample Location: Not Specified

Field Prep: Field Filtered

Matrix: Water

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Prep Method	Analytical Method	Analyst
<b>Dissolved Metals - Westborough Lab</b>											
Iron, Dissolved	4.0		mg/l	0.05	--	1	04/11/14 11:46	04/11/14 16:35	NA	19,200.7	TT



**Project Name:** 100 BINNEY STREET  
**Project Number:** 34250-040

**Lab Number:** L1407360  
**Report Date:** 04/14/14

## Method Blank Analysis Batch Quality Control

Parameter	Result Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
Dissolved Metals - Westborough Lab for sample(s): 01-02 Batch: WG681635-1									
Iron, Dissolved	ND	mg/l	0.05	--	1	04/11/14 11:46	04/11/14 15:48	19,200.7	TT

### Prep Information

Digestion Method: NA



### Lab Control Sample Analysis Batch Quality Control

**Project Name:** 100 BINNEY STREET  
**Project Number:** 34250-040

**Lab Number:** L1407360  
**Report Date:** 04/14/14

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Dissolved Metals - Westborough Lab Associated sample(s): 01-02 Batch: WG681635-2								
Iron, Dissolved	89		-		85-115	-		



**Matrix Spike Analysis**  
Batch Quality Control

Project Name: 100 BINNEY STREET

Lab Number: L1407360

Project Number: 34250-040

Report Date: 04/14/14

Parameter	Native Sample	MS Added	MS Found	MS %Recovery	MSD Qual	MSD Found	MSD %Recovery	MSD Qual	Recovery Limits	RPD	RPD Qual	RPD Limits
Dissolved Metals - Westborough Lab Associated sample(s): 01-02 QC Batch ID: WG681635-4 QC Sample: L1407360-01 Client ID: ENV-20-03-24-2014												
Iron, Dissolved	0.18	1	1.1	92	-	-	-	-	75-125	-	-	20

**Lab Duplicate Analysis**  
Batch Quality Control

Project Name: 100 BINNEY STREET

Project Number: 34250-040

Lab Number: L1407360

Report Date: 04/14/14

Parameter	Native Sample	Duplicate Sample	Units	RPD	Qual	RPD Limits
Dissolved Metals - Westborough Lab Associated sample(s): 01-02 QC Batch ID: WG681635-3 QC Sample: L1407360-01 Client ID: ENV-20-03-24-2014						
Iron, Dissolved	0.18	0.18	mg/l	0		20

**Project Name:** 100 BINNEY STREET**Lab Number:** L1407360**Project Number:** 34250-040**Report Date:** 04/14/14**Sample Receipt and Container Information**

Were project specific reporting limits specified? YES

Reagent H2O Preserved Vials Frozen on: NA

**Cooler Information Custody Seal****Cooler**

A Absent

B Absent

**Container Information**

Container ID	Container Type	Cooler	pH	Temp deg C	Pres	Seal	Analysis(*)
L1407360-01A	Plastic 250ml HNO3 preserved	A	<2	3.6	Y	Absent	FE-RI(180)
L1407360-02A	Plastic 250ml HNO3 preserved	B	<2	2.4	Y	Absent	FE-RI(180)

\*Values in parentheses indicate holding time in days



**Project Name:** 100 BINNEY STREET  
**Project Number:** 34250-040

**Lab Number:** L1407360  
**Report Date:** 04/14/14

## GLOSSARY

### Acronyms

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

### Footnotes

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

### Terms

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

### Data Qualifiers

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

Report Format: Data Usability Report



**Project Name:** 100 BINNEY STREET  
**Project Number:** 34250-040

**Lab Number:** L1407360  
**Report Date:** 04/14/14

**Data Qualifiers**

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

**Project Name:** 100 BINNEY STREET  
**Project Number:** 34250-040

**Lab Number:** L1407360  
**Report Date:** 04/14/14

## REFERENCES

- 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.

## LIMITATION OF LIABILITIES

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

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



## Certification Information

Last revised December 11, 2013

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

#### Westborough Facility

**EPA 524.2:** Acetone, 2-Butanone (Methyl ethyl ketone (MEK)), Tert-butyl alcohol, 2-Hexanone, Tetrahydrofuran, 1,3,5-Trichlorobenzene, 4-Methyl-2-pentanone (MIBK), Carbon disulfide, Diethyl ether.

**EPA 8260C:** 1,2,4,5-Tetramethylbenzene, 4-Ethyltoluene, Iodomethane (methyl iodide), Methyl methacrylate, Azobenzene.

**EPA 8330A/B:** PETN, Picric Acid, Nitroglycerine, 2,6-DANT, 2,4-DANT.

**EPA 8270D:** 1-Methylnaphthalene, Dimethylnaphthalene, 1,4-Diphenylhydrazine.

**EPA 625:** 4-Chloroaniline, 4-Methylphenol.

**SM4500:** Soil: Total Phosphorus, TKN, NO<sub>2</sub>, NO<sub>3</sub>.

**EPA 9071:** Total Petroleum Hydrocarbons, Oil & Grease.

#### Mansfield Facility

**EPA 8270D:** Biphenyl.

**EPA TO-15:** Halothane, 2,4,4-Trimethyl-2-pentene, 2,4,4-Trimethyl-1-pentene, Thiophene, 2-Methylthiophene, 3-Methylthiophene, 2-Ethylthiophene, 1,2,3-Trimethylbenzene, Indan, Indene, 1,2,4,5-Tetramethylbenzene, Benzothiophene, 1-Methylnaphthalene.

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

#### Drinking Water

**EPA 200.8:** Sb,As,Ba,Be,Cd,Cr,Cu,Pb,Ni,Se,Tl; **EPA 200.7:** Ba,Be,Ca,Cd,Cr,Cu,Na; **EPA 245.1:** Mercury;

**EPA 300.0:** Nitrate-N, Fluoride, Sulfate; **EPA 353.2:** Nitrate-N, Nitrite-N; **SM4500NO3-F:** Nitrate-N, Nitrite-N; **SM4500F-C, SM4500CN-CE, EPA 180.1, SM2130B, SM4500CI-D, SM2320B, SM2540C, SM4500H-B**

**EPA 332:** Perchlorate.

**Microbiology:** **SM9215B; SM9223-P/A, SM9223B-Colilert-QT, Enterolert-QT.**

#### Non-Potable Water

**EPA 200.8:** Al,Sb,As,Be,Cd,Cr,Cu,Pb,Mn,Ni,Se,Ag,Tl,Zn;

**EPA 200.7:** Al,Sb,As,Be,Cd,Ca,Cr,Co,Cu,Fe,Pb,Mg,Mn,Mo,Ni,K,Se,Ag,Na,Sr,Ti,Tl,V,Zn;

**EPA 245.1, SM4500H,B, EPA 120.1, SM2510B, SM2540C, SM2340B, SM2320B, SM4500CL-E, SM4500F-BC, SM426C, SM4500NH3-BH, EPA 350.1:** Ammonia-N, **LACHAT 10-107-06-1-B:** Ammonia-N, **SM4500NO3-F, EPA 353.2:** Nitrate-N, **SM4500NH3-BC-NES, EPA 351.1, SM4500P-E, SM4500P-B, E, SM5220D, EPA 410.4, SM5210B, SM5310C, SM4500CL-D, EPA 1664, SM14 510AC, EPA 420.1, SM4500-CN-CE, SM2540D.**

**EPA 624:** Volatile Halocarbons & Aromatics,

**EPA 608:** Chlordane, Toxaphene, Aldrin, alpha-BHC, beta-BHC, gamma-BHC, delta-BHC, Dieldrin, DDD, DDE, DDT, Endosulfan I, Endosulfan II, Endosulfan sulfate, Endrin, Endrin Aldehyde, Heptachlor, Heptachlor Epoxide, PCBs

**EPA 625:** SVOC (Acid/Base/Neutral Extractables), **EPA 600/4-81-045:** PCB-Oil.

**Microbiology:** **SM9223B-Colilert-QT; Enterolert-QT, SM9222D-MF.**

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



1407360

Serial No. 04141756

4/9/14  
KBB

**HALEY & ALDRICH**  
Haley & Aldrich, Inc.  
465 Medford St.,  
Suite 2200,  
Boston, MA 02129-1402

# CHAIN OF CUSTODY RECORD

Phone (617) 886-7400  
Fax (617) 886-7600  
Page 1 of 1

<b>H&amp;A FILE NO.</b>	34250-040	<b>LABORATORY</b>	ALPHA ANALYTICAL	<b>DELIVERY DATE</b>	
<b>PROJECT NAME</b>	100 BINNEY STREET	<b>ADDRESS</b>	WESTBOROUGH, MA	<b>TURNAROUND TIME</b>	5-DAY
<b>H&amp;A CONTACT</b>	J. THIBAUT	<b>CONTACT</b>	GENA HALL	<b>PROJECT MANAGER</b>	R. HIGGINS

Sample No.	Date	Time	Depth	Type	Analysis Requested														Number of Containers	Comments (special instructions, precautions, additional method numbers, etc.)	
					1. VOCs	2. SVOCs	3. PCBs	4. TSS	5. TSS 500.1	6. TSS 1664	7. Total Phenol	8. Dissolved Metals	9. Dissolved Metals	10. TRC 330.1	11. TRC 335.2	12. Amenable Cyanide	13. Free Cyanide	14. Hex Cr			
ENV-20-03-24-2014	3/24/14	1250	=	Ag	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	23	Laboratory to use applicable DEP CAM methods, unless otherwise directed.
MM-58-03-24-2014	"	1515	=	u	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	23	8. NPDES RGP list of metals: Cd, Cr, Cu, Pb, Ni, Ag, Zn, As, Se, Sb, Hg and Fe 9. Dissolved NPDES RGP list of metals (Field Filtered) <del>**HOLD FIELD FILTERED SAMPLES**</del> Analyze samples for Dissolved Iron only

Sampled and Relinquished by		Received by		LIQUID														Sampling Comments				
Sign: <i>[Signature]</i> Print: Matthew Dolson Firm: H&A Date: 3/24/14 Time: 16:30	Sign: <i>[Signature]</i> Print: M. [Name] Firm: H&A Date: 3/24/14 Time: 16:30	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	VOA Vial Amber Glass Plastic Bottle Preservative Volume (mL)	*Sample submitted for NPDES RGP permit application. Please follow appropriate testing methods and minimum detection levels as required by the EPA for the RGP.
Relinquished by		Received by <th colspan="14">SOLID</th> <td colspan="2">Evidence samples were tampered with? YES NO</td>		SOLID														Evidence samples were tampered with? YES NO				
Sign: <i>[Signature]</i> Print: Wayne Plumer Firm: Alpha Date: 3/24/14 Time: 16:30	Sign: <i>[Signature]</i> Print: Wayne Plumer Firm: Alpha Date: 3/24/14 Time: 16:30																				VOA Vial Amber Glass Clear Glass Preservative Volume	If YES, please explain in section below.
Relinquished by		Received by <th colspan="14">PRESERVATION KEY</th> <td colspan="2"></td>		PRESERVATION KEY																		
Sign: <i>[Signature]</i> Print: Wayne Plumer Firm: Alpha Date: 3/24/14 Time: 16:03	Sign: <i>[Signature]</i> Print: Richard Scott Firm: Alpha Date: 3/24/14 Time: 16:03	A	B	C	D	E	F	G	H													
		Presumptive Certainty Data Package (Laboratory to use applicable DEP CAM methods)																				

If Presumptive Certainty Data Package is needed, initial all sections:

The required minimum field QC samples, as designated in BWSC CAM-VII have been or will be collected, as appropriate, to meet the requirements of Presumptive Certainty.

Matrix Spikes (MS) samples for MCP Metals and/or Cyanide are included and identified herein.

This Chain of Custody Record (specify) \_\_\_\_\_ includes \_\_\_\_\_ X \_\_\_\_\_ does not include samples defined as Drinking Water Samples.

If this Chain of Custody Record identifies samples defined as Drinking Water Samples, Trip Blanks and Field Duplicates are included and identified and analysis of TICs are required, as appropriate. Laboratory should (specify if applicable) \_\_\_\_\_ analyze

**Required Reporting Limits and Data Quality Objectives**

<input type="checkbox"/> RC-S1	<input type="checkbox"/> S1	<input type="checkbox"/> GW1
<input type="checkbox"/> RC-S2	<input type="checkbox"/> S2	<input type="checkbox"/> GW2
<input type="checkbox"/> RC-GW1	<input type="checkbox"/> S3	<input type="checkbox"/> GW3
<input type="checkbox"/> RC-GW2		



## ANALYTICAL REPORT

Lab Number:	L1508174
Client:	Haley & Aldrich, Inc. 465 Medford Street, Suite 2200 Charlestown, MA 02129-1400
ATTN:	Rebecca Higgins
Phone:	(617) 886-7326
Project Name:	100 BINNEY
Project Number:	34250-023
Report Date:	04/28/15

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Certifications & Approvals: MA (M-MA086), NY (11148), CT (PH-0574), NH (2003), NJ NELAP (MA935), RI (LAO00065), ME (MA00086), PA (68-03671), VA (460195), MD (348), IL (200077), NC (666), TX (T104704476), DOD (L2217), USDA (Permit #P-330-11-00240).

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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:** 100 BINNEY  
**Project Number:** 34250-023

**Lab Number:** L1508174  
**Report Date:** 04/28/15

<b>Alpha Sample ID</b>	<b>Client ID</b>	<b>Matrix</b>	<b>Sample Location</b>	<b>Collection Date/Time</b>	<b>Receive Date</b>
L1508174-01	ENV-8	WATER	Not Specified	04/21/15 08:05	04/21/15
L1508174-02	MW-59	WATER	Not Specified	04/21/15 13:55	04/21/15
L1508174-03	HA-402	WATER	Not Specified	04/21/15 12:10	04/21/15

Project Name: 100 BINNEY

Lab Number: L1508174

Project Number: 34250-023

Report Date: 04/28/15

**MADEP MCP Response Action Analytical Report Certification**

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

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

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



**Project Name:** 100 BINNEY  
**Project Number:** 34250-023

**Lab Number:** L1508174  
**Report Date:** 04/28/15

### Case Narrative

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

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

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

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

#### HOLD POLICY

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

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

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**Project Name:** 100 BINNEY  
**Project Number:** 34250-023

**Lab Number:** L1508174  
**Report Date:** 04/28/15

### Case Narrative (continued)

#### MCP Related Narratives

##### Volatile Organics

In reference to question G:

L1508174-02 (MW-59): One or more of the target analytes did not achieve the requested CAM reporting limits.

In reference to question H:

The initial calibration, associated with L1508174-01 through -03 (All submitted samples), did not meet the method required minimum response factor on the lowest calibration standard for 1,4-dioxane (0.00426), as well as the average response factor for 1,4-dioxane.

The continuing calibration standards, associated with L1508174-01 through -03 (All submitted samples), are outside the acceptance criteria for several compounds; however, they are within overall method allowances.

Copies of the continuing calibration standards are included as an addendum to this report.

##### Volatile Organics by SIM

L1508174-02 (MW-59) has elevated detection limits due to the dilution required by the elevated concentrations of non-target compounds in the sample.

In reference to question H:

The initial calibration, associated with L1508174-01 (ENV-8) and -03 (HA-402), did not meet the method required minimum response factor on the lowest calibration standard for 1,4-dioxane (0.00576), as well as the average response factor for 1,4-dioxane.

The initial calibration, associated with L1508174-02 (MW-59), did not meet the method required minimum response factor on the lowest calibration standard for 1,4-dioxane (0.00557), as well as the average response factor for 1,4-dioxane.

The continuing calibration standards, associated with L1508174-01 through -03 (All submitted samples), are outside the acceptance; however, they are within overall method allowances. Copies of the continuing calibration standards are included as an addendum to this report.

**Project Name:** 100 BINNEY  
**Project Number:** 34250-023

**Lab Number:** L1508174  
**Report Date:** 04/28/15

**Case Narrative (continued)**

Semivolatile Organics by SIM

In reference to question G:

L1508174-02 (MW-59) has elevated detection limits due to the dilution required by the sample matrix; therefore, one or more of the target analytes did not achieve the requested CAM reporting limits.

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

Authorized Signature:

 Lisa Westerlind

Title: Technical Director/Representative

Date: 04/28/15

# ORGANICS



# VOLATILES

**Project Name:** 100 BINNEY  
**Project Number:** 34250-023

**Lab Number:** L1508174  
**Report Date:** 04/28/15

**SAMPLE RESULTS**

**Lab ID:** L1508174-01  
**Client ID:** ENV-8  
**Sample Location:** Not Specified  
**Matrix:** Water  
**Analytical Method:** 97,8260C  
**Analytical Date:** 04/25/15 17:57  
**Analyst:** MM

**Date Collected:** 04/21/15 08:05  
**Date Received:** 04/21/15  
**Field Prep:** Not Specified

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

Project Name: 100 BINNEY

Lab Number: L1508174

Project Number: 34250-023

Report Date: 04/28/15

## SAMPLE RESULTS

Lab ID: L1508174-01

Date Collected: 04/21/15 08:05

Client ID: ENV-8

Date Received: 04/21/15

Sample Location: Not Specified

Field Prep: Not Specified

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

Project Name: 100 BINNEY

Lab Number: L1508174

Project Number: 34250-023

Report Date: 04/28/15

## SAMPLE RESULTS

Lab ID: L1508174-01

Date Collected: 04/21/15 08:05

Client ID: ENV-8

Date Received: 04/21/15

Sample Location: Not Specified

Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
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## MCP Volatile Organics - Westborough Lab

Ethyl ether	ND		ug/l	2.0	--	1
Isopropyl Ether	ND		ug/l	2.0	--	1
Ethyl-Tert-Butyl-Ether	ND		ug/l	2.0	--	1
Tertiary-Amyl Methyl Ether	ND		ug/l	2.0	--	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	102		70-130
Toluene-d8	94		70-130
4-Bromofluorobenzene	100		70-130
Dibromofluoromethane	121		70-130

**Project Name:** 100 BINNEY**Lab Number:** L1508174**Project Number:** 34250-023**Report Date:** 04/28/15**SAMPLE RESULTS**

Lab ID: L1508174-01

Date Collected: 04/21/15 08:05

Client ID: ENV-8

Date Received: 04/21/15

Sample Location: Not Specified

Field Prep: Not Specified

Matrix: Water

Analytical Method: 97,8260C-SIM

Analytical Date: 04/25/15 17:57

Analyst: MM

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

Project Name: 100 BINNEY

Lab Number: L1508174

Project Number: 34250-023

Report Date: 04/28/15

## SAMPLE RESULTS

Lab ID: L1508174-02 D  
 Client ID: MW-59  
 Sample Location: Not Specified  
 Matrix: Water  
 Analytical Method: 97,8260C  
 Analytical Date: 04/24/15 17:03  
 Analyst: MM

Date Collected: 04/21/15 13:55  
 Date Received: 04/21/15  
 Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
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## MCP Volatile Organics - Westborough Lab

Methylene chloride	ND		ug/l	1000	--	500
1,1-Dichloroethane	ND		ug/l	500	--	500
Chloroform	ND		ug/l	500	--	500
Carbon tetrachloride	ND		ug/l	500	--	500
1,2-Dichloropropane	ND		ug/l	500	--	500
Dibromochloromethane	ND		ug/l	500	--	500
1,1,2-Trichloroethane	ND		ug/l	500	--	500
Tetrachloroethene	ND		ug/l	500	--	500
Chlorobenzene	ND		ug/l	500	--	500
Trichlorofluoromethane	ND		ug/l	1000	--	500
1,2-Dichloroethane	ND		ug/l	500	--	500
1,1,1-Trichloroethane	ND		ug/l	500	--	500
Bromodichloromethane	ND		ug/l	500	--	500
trans-1,3-Dichloropropene	ND		ug/l	250	--	500
cis-1,3-Dichloropropene	ND		ug/l	250	--	500
1,3-Dichloropropene, Total	ND		ug/l	250	--	500
1,1-Dichloropropene	ND		ug/l	1000	--	500
Bromoform	ND		ug/l	1000	--	500
1,1,2,2-Tetrachloroethane	ND		ug/l	500	--	500
Benzene	20000		ug/l	250	--	500
Toluene	2000		ug/l	500	--	500
Ethylbenzene	2700		ug/l	500	--	500
Chloromethane	ND		ug/l	1000	--	500
Bromomethane	ND		ug/l	1000	--	500
Vinyl chloride	ND		ug/l	500	--	500
Chloroethane	ND		ug/l	1000	--	500
1,1-Dichloroethene	ND		ug/l	500	--	500
trans-1,2-Dichloroethene	ND		ug/l	500	--	500
Trichloroethene	ND		ug/l	500	--	500
1,2-Dichlorobenzene	ND		ug/l	500	--	500



Project Name: 100 BINNEY

Lab Number: L1508174

Project Number: 34250-023

Report Date: 04/28/15

## SAMPLE RESULTS

Lab ID: L1508174-02 D

Date Collected: 04/21/15 13:55

Client ID: MW-59

Date Received: 04/21/15

Sample Location: Not Specified

Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
<b>MCP Volatile Organics - Westborough Lab</b>						
1,3-Dichlorobenzene	ND		ug/l	500	--	500
1,4-Dichlorobenzene	ND		ug/l	500	--	500
Methyl tert butyl ether	ND		ug/l	1000	--	500
p/m-Xylene	1000		ug/l	1000	--	500
o-Xylene	530		ug/l	500	--	500
Xylene (Total)	1500		ug/l	500	--	500
cis-1,2-Dichloroethene	ND		ug/l	500	--	500
1,2-Dichloroethene (total)	ND		ug/l	500	--	500
Dibromomethane	ND		ug/l	1000	--	500
1,2,3-Trichloropropane	ND		ug/l	1000	--	500
Styrene	ND		ug/l	500	--	500
Dichlorodifluoromethane	ND		ug/l	1000	--	500
Acetone	ND		ug/l	2500	--	500
Carbon disulfide	ND		ug/l	1000	--	500
2-Butanone	ND		ug/l	2500	--	500
4-Methyl-2-pentanone	ND		ug/l	2500	--	500
2-Hexanone	ND		ug/l	2500	--	500
Bromochloromethane	ND		ug/l	1000	--	500
Tetrahydrofuran	ND		ug/l	1000	--	500
2,2-Dichloropropane	ND		ug/l	1000	--	500
1,2-Dibromoethane	ND		ug/l	1000	--	500
1,3-Dichloropropane	ND		ug/l	1000	--	500
1,1,1,2-Tetrachloroethane	ND		ug/l	500	--	500
Bromobenzene	ND		ug/l	1000	--	500
n-Butylbenzene	ND		ug/l	1000	--	500
sec-Butylbenzene	ND		ug/l	1000	--	500
tert-Butylbenzene	ND		ug/l	1000	--	500
o-Chlorotoluene	ND		ug/l	1000	--	500
p-Chlorotoluene	ND		ug/l	1000	--	500
1,2-Dibromo-3-chloropropane	ND		ug/l	1000	--	500
Hexachlorobutadiene	ND		ug/l	300	--	500
Isopropylbenzene	ND		ug/l	1000	--	500
p-Isopropyltoluene	ND		ug/l	1000	--	500
Naphthalene	4300		ug/l	1000	--	500
n-Propylbenzene	ND		ug/l	1000	--	500
1,2,3-Trichlorobenzene	ND		ug/l	1000	--	500
1,2,4-Trichlorobenzene	ND		ug/l	1000	--	500
1,3,5-Trimethylbenzene	ND		ug/l	1000	--	500
1,2,4-Trimethylbenzene	ND		ug/l	1000	--	500

Project Name: 100 BINNEY

Lab Number: L1508174

Project Number: 34250-023

Report Date: 04/28/15

## SAMPLE RESULTS

Lab ID: L1508174-02 D

Date Collected: 04/21/15 13:55

Client ID: MW-59

Date Received: 04/21/15

Sample Location: Not Specified

Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
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## MCP Volatile Organics - Westborough Lab

Ethyl ether	ND		ug/l	1000	--	500
Isopropyl Ether	ND		ug/l	1000	--	500
Ethyl-Tert-Butyl-Ether	ND		ug/l	1000	--	500
Tertiary-Amyl Methyl Ether	ND		ug/l	1000	--	500

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	99		70-130
Toluene-d8	99		70-130
4-Bromofluorobenzene	97		70-130
Dibromofluoromethane	101		70-130



**Project Name:** 100 BINNEY**Lab Number:** L1508174**Project Number:** 34250-023**Report Date:** 04/28/15**SAMPLE RESULTS**

Lab ID: L1508174-02 D  
 Client ID: MW-59  
 Sample Location: Not Specified  
 Matrix: Water  
 Analytical Method: 97,8260C-SIM  
 Analytical Date: 04/24/15 17:03  
 Analyst: MM

Date Collected: 04/21/15 13:55  
 Date Received: 04/21/15  
 Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
MCP Volatile Organics by SIM - Westborough Lab						
1,4-Dioxane	ND		ug/l	1500	--	500

**Project Name:** 100 BINNEY  
**Project Number:** 34250-023

**Lab Number:** L1508174  
**Report Date:** 04/28/15

**SAMPLE RESULTS**

**Lab ID:** L1508174-03  
**Client ID:** HA-402  
**Sample Location:** Not Specified  
**Matrix:** Water  
**Analytical Method:** 97,8260C  
**Analytical Date:** 04/25/15 18:31  
**Analyst:** MM

**Date Collected:** 04/21/15 12:10  
**Date Received:** 04/21/15  
**Field Prep:** Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
<b>MCP Volatile Organics - Westborough Lab</b>						
Methylene chloride	ND		ug/l	2.0	--	1
1,1-Dichloroethane	ND		ug/l	1.0	--	1
Chloroform	ND		ug/l	1.0	--	1
Carbon tetrachloride	ND		ug/l	1.0	--	1
1,2-Dichloropropane	ND		ug/l	1.0	--	1
Dibromochloromethane	ND		ug/l	1.0	--	1
1,1,2-Trichloroethane	ND		ug/l	1.0	--	1
Tetrachloroethene	ND		ug/l	1.0	--	1
Chlorobenzene	ND		ug/l	1.0	--	1
Trichlorofluoromethane	ND		ug/l	2.0	--	1
1,2-Dichloroethane	ND		ug/l	1.0	--	1
1,1,1-Trichloroethane	ND		ug/l	1.0	--	1
Bromodichloromethane	ND		ug/l	1.0	--	1
trans-1,3-Dichloropropene	ND		ug/l	0.50	--	1
cis-1,3-Dichloropropene	ND		ug/l	0.50	--	1
1,3-Dichloropropene, Total	ND		ug/l	0.50	--	1
1,1-Dichloropropene	ND		ug/l	2.0	--	1
Bromoform	ND		ug/l	2.0	--	1
1,1,2,2-Tetrachloroethane	ND		ug/l	1.0	--	1
Benzene	7.2		ug/l	0.50	--	1
Toluene	ND		ug/l	1.0	--	1
Ethylbenzene	ND		ug/l	1.0	--	1
Chloromethane	ND		ug/l	2.0	--	1
Bromomethane	ND		ug/l	2.0	--	1
Vinyl chloride	ND		ug/l	1.0	--	1
Chloroethane	ND		ug/l	2.0	--	1
1,1-Dichloroethene	ND		ug/l	1.0	--	1
trans-1,2-Dichloroethene	ND		ug/l	1.0	--	1
Trichloroethene	ND		ug/l	1.0	--	1
1,2-Dichlorobenzene	ND		ug/l	1.0	--	1

Project Name: 100 BINNEY

Lab Number: L1508174

Project Number: 34250-023

Report Date: 04/28/15

## SAMPLE RESULTS

Lab ID: L1508174-03

Date Collected: 04/21/15 12:10

Client ID: HA-402

Date Received: 04/21/15

Sample Location: Not Specified

Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
<b>MCP Volatile Organics - Westborough Lab</b>						
1,3-Dichlorobenzene	ND		ug/l	1.0	--	1
1,4-Dichlorobenzene	ND		ug/l	1.0	--	1
Methyl tert butyl ether	ND		ug/l	2.0	--	1
p/m-Xylene	ND		ug/l	2.0	--	1
o-Xylene	ND		ug/l	1.0	--	1
Xylene (Total)	ND		ug/l	1.0	--	1
cis-1,2-Dichloroethene	ND		ug/l	1.0	--	1
1,2-Dichloroethene (total)	ND		ug/l	1.0	--	1
Dibromomethane	ND		ug/l	2.0	--	1
1,2,3-Trichloropropane	ND		ug/l	2.0	--	1
Styrene	ND		ug/l	1.0	--	1
Dichlorodifluoromethane	ND		ug/l	2.0	--	1
Acetone	ND		ug/l	5.0	--	1
Carbon disulfide	2.0		ug/l	2.0	--	1
2-Butanone	ND		ug/l	5.0	--	1
4-Methyl-2-pentanone	ND		ug/l	5.0	--	1
2-Hexanone	ND		ug/l	5.0	--	1
Bromochloromethane	ND		ug/l	2.0	--	1
Tetrahydrofuran	ND		ug/l	2.0	--	1
2,2-Dichloropropane	ND		ug/l	2.0	--	1
1,2-Dibromoethane	ND		ug/l	2.0	--	1
1,3-Dichloropropane	ND		ug/l	2.0	--	1
1,1,1,2-Tetrachloroethane	ND		ug/l	1.0	--	1
Bromobenzene	ND		ug/l	2.0	--	1
n-Butylbenzene	ND		ug/l	2.0	--	1
sec-Butylbenzene	ND		ug/l	2.0	--	1
tert-Butylbenzene	ND		ug/l	2.0	--	1
o-Chlorotoluene	ND		ug/l	2.0	--	1
p-Chlorotoluene	ND		ug/l	2.0	--	1
1,2-Dibromo-3-chloropropane	ND		ug/l	2.0	--	1
Hexachlorobutadiene	ND		ug/l	0.60	--	1
Isopropylbenzene	8.1		ug/l	2.0	--	1
p-Isopropyltoluene	ND		ug/l	2.0	--	1
Naphthalene	ND		ug/l	2.0	--	1
n-Propylbenzene	ND		ug/l	2.0	--	1
1,2,3-Trichlorobenzene	ND		ug/l	2.0	--	1
1,2,4-Trichlorobenzene	ND		ug/l	2.0	--	1
1,3,5-Trimethylbenzene	ND		ug/l	2.0	--	1
1,2,4-Trimethylbenzene	ND		ug/l	2.0	--	1

Project Name: 100 BINNEY

Lab Number: L1508174

Project Number: 34250-023

Report Date: 04/28/15

## SAMPLE RESULTS

Lab ID: L1508174-03

Date Collected: 04/21/15 12:10

Client ID: HA-402

Date Received: 04/21/15

Sample Location: Not Specified

Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
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## MCP Volatile Organics - Westborough Lab

Ethyl ether	ND		ug/l	2.0	--	1
Isopropyl Ether	ND		ug/l	2.0	--	1
Ethyl-Tert-Butyl-Ether	ND		ug/l	2.0	--	1
Tertiary-Amyl Methyl Ether	ND		ug/l	2.0	--	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	106		70-130
Toluene-d8	96		70-130
4-Bromofluorobenzene	105		70-130
Dibromofluoromethane	121		70-130

**Project Name:** 100 BINNEY**Lab Number:** L1508174**Project Number:** 34250-023**Report Date:** 04/28/15**SAMPLE RESULTS**

Lab ID: L1508174-03

Date Collected: 04/21/15 12:10

Client ID: HA-402

Date Received: 04/21/15

Sample Location: Not Specified

Field Prep: Not Specified

Matrix: Water

Analytical Method: 97,8260C-SIM

Analytical Date: 04/25/15 18:31

Analyst: MM

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

**Project Name:** 100 BINNEY  
**Project Number:** 34250-023

**Lab Number:** L1508174  
**Report Date:** 04/28/15

**Method Blank Analysis**  
**Batch Quality Control**

Analytical Method: 97,8260C-SIM  
Analytical Date: 04/24/15 08:31  
Analyst: MM

<b>Parameter</b>	<b>Result</b>	<b>Qualifier</b>	<b>Units</b>	<b>RL</b>	<b>MDL</b>
MCP Volatile Organics by SIM - Westborough Lab for sample(s): 02 Batch: WG778858-3					
1,4-Dioxane	ND		ug/l	3.0	--

**Project Name:** 100 BINNEY  
**Project Number:** 34250-023

**Lab Number:** L1508174  
**Report Date:** 04/28/15

**Method Blank Analysis**  
**Batch Quality Control**

Analytical Method: 97,8260C  
Analytical Date: 04/24/15 08:31  
Analyst: MM

Parameter	Result	Qualifier	Units	RL	MDL
MCP Volatile Organics - Westborough Lab for sample(s): 02 Batch: WG778859-3					
Methylene chloride	ND		ug/l	2.0	--
1,1-Dichloroethane	ND		ug/l	1.0	--
Chloroform	ND		ug/l	1.0	--
Carbon tetrachloride	ND		ug/l	1.0	--
1,2-Dichloropropane	ND		ug/l	1.0	--
Dibromochloromethane	ND		ug/l	1.0	--
1,1,2-Trichloroethane	ND		ug/l	1.0	--
Tetrachloroethene	ND		ug/l	1.0	--
Chlorobenzene	ND		ug/l	1.0	--
Trichlorofluoromethane	ND		ug/l	2.0	--
1,2-Dichloroethane	ND		ug/l	1.0	--
1,1,1-Trichloroethane	ND		ug/l	1.0	--
Bromodichloromethane	ND		ug/l	1.0	--
trans-1,3-Dichloropropene	ND		ug/l	0.50	--
cis-1,3-Dichloropropene	ND		ug/l	0.50	--
1,3-Dichloropropene, Total	ND		ug/l	0.50	--
1,1-Dichloropropene	ND		ug/l	2.0	--
Bromoform	ND		ug/l	2.0	--
1,1,2,2-Tetrachloroethane	ND		ug/l	1.0	--
Benzene	ND		ug/l	0.50	--
Toluene	ND		ug/l	1.0	--
Ethylbenzene	ND		ug/l	1.0	--
Chloromethane	ND		ug/l	2.0	--
Bromomethane	ND		ug/l	2.0	--
Vinyl chloride	ND		ug/l	1.0	--
Chloroethane	ND		ug/l	2.0	--
1,1-Dichloroethene	ND		ug/l	1.0	--
trans-1,2-Dichloroethene	ND		ug/l	1.0	--
Trichloroethene	ND		ug/l	1.0	--

**Project Name:** 100 BINNEY  
**Project Number:** 34250-023

**Lab Number:** L1508174  
**Report Date:** 04/28/15

**Method Blank Analysis**  
**Batch Quality Control**

**Analytical Method:** 97,8260C  
**Analytical Date:** 04/24/15 08:31  
**Analyst:** MM

Parameter	Result	Qualifier	Units	RL	MDL
MCP Volatile Organics - Westborough Lab for sample(s): 02 Batch: WG778859-3					
1,2-Dichlorobenzene	ND		ug/l	1.0	--
1,3-Dichlorobenzene	ND		ug/l	1.0	--
1,4-Dichlorobenzene	ND		ug/l	1.0	--
Methyl tert butyl ether	ND		ug/l	2.0	--
p/m-Xylene	ND		ug/l	2.0	--
o-Xylene	ND		ug/l	1.0	--
Xylene (Total)	ND		ug/l	1.0	--
cis-1,2-Dichloroethene	ND		ug/l	1.0	--
1,2-Dichloroethene (total)	ND		ug/l	1.0	--
Dibromomethane	ND		ug/l	2.0	--
1,2,3-Trichloropropane	ND		ug/l	2.0	--
Styrene	ND		ug/l	1.0	--
Dichlorodifluoromethane	ND		ug/l	2.0	--
Acetone	ND		ug/l	5.0	--
Carbon disulfide	ND		ug/l	2.0	--
2-Butanone	ND		ug/l	5.0	--
4-Methyl-2-pentanone	ND		ug/l	5.0	--
2-Hexanone	ND		ug/l	5.0	--
Bromochloromethane	ND		ug/l	2.0	--
Tetrahydrofuran	ND		ug/l	2.0	--
2,2-Dichloropropane	ND		ug/l	2.0	--
1,2-Dibromoethane	ND		ug/l	2.0	--
1,3-Dichloropropane	ND		ug/l	2.0	--
1,1,1,2-Tetrachloroethane	ND		ug/l	1.0	--
Bromobenzene	ND		ug/l	2.0	--
n-Butylbenzene	ND		ug/l	2.0	--
sec-Butylbenzene	ND		ug/l	2.0	--
tert-Butylbenzene	ND		ug/l	2.0	--
o-Chlorotoluene	ND		ug/l	2.0	--



Project Name: 100 BINNEY

Lab Number: L1508174

Project Number: 34250-023

Report Date: 04/28/15

**Method Blank Analysis  
Batch Quality Control**

Analytical Method: 97,8260C  
 Analytical Date: 04/24/15 08:31  
 Analyst: MM

Parameter	Result	Qualifier	Units	RL	MDL
MCP Volatile Organics - Westborough Lab for sample(s): 02 Batch: WG778859-3					
p-Chlorotoluene	ND		ug/l	2.0	--
1,2-Dibromo-3-chloropropane	ND		ug/l	2.0	--
Hexachlorobutadiene	ND		ug/l	0.60	--
Isopropylbenzene	ND		ug/l	2.0	--
p-Isopropyltoluene	ND		ug/l	2.0	--
Naphthalene	ND		ug/l	2.0	--
n-Propylbenzene	ND		ug/l	2.0	--
1,2,3-Trichlorobenzene	ND		ug/l	2.0	--
1,2,4-Trichlorobenzene	ND		ug/l	2.0	--
1,3,5-Trimethylbenzene	ND		ug/l	2.0	--
1,2,4-Trimethylbenzene	ND		ug/l	2.0	--
Ethyl ether	ND		ug/l	2.0	--
Isopropyl Ether	ND		ug/l	2.0	--
Ethyl-Tert-Butyl-Ether	ND		ug/l	2.0	--
Tertiary-Amyl Methyl Ether	ND		ug/l	2.0	--

Surrogate	%Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	94		70-130
Toluene-d8	97		70-130
4-Bromofluorobenzene	99		70-130
Dibromofluoromethane	100		70-130

Project Name: 100 BINNEY

Lab Number: L1508174

Project Number: 34250-023

Report Date: 04/28/15

### Method Blank Analysis Batch Quality Control

Analytical Method: 97,8260C  
 Analytical Date: 04/25/15 10:29  
 Analyst: MM

Parameter	Result	Qualifier	Units	RL	MDL
MCP Volatile Organics - Westborough Lab for sample(s): 01,03 Batch: WG778859-6					
Methylene chloride	ND		ug/l	2.0	--
1,1-Dichloroethane	ND		ug/l	1.0	--
Chloroform	ND		ug/l	1.0	--
Carbon tetrachloride	ND		ug/l	1.0	--
1,2-Dichloropropane	ND		ug/l	1.0	--
Dibromochloromethane	ND		ug/l	1.0	--
1,1,2-Trichloroethane	ND		ug/l	1.0	--
Tetrachloroethene	ND		ug/l	1.0	--
Chlorobenzene	ND		ug/l	1.0	--
Trichlorofluoromethane	ND		ug/l	2.0	--
1,2-Dichloroethane	ND		ug/l	1.0	--
1,1,1-Trichloroethane	ND		ug/l	1.0	--
Bromodichloromethane	ND		ug/l	1.0	--
trans-1,3-Dichloropropene	ND		ug/l	0.50	--
cis-1,3-Dichloropropene	ND		ug/l	0.50	--
1,3-Dichloropropene, Total	ND		ug/l	0.50	--
1,1-Dichloropropene	ND		ug/l	2.0	--
Bromoform	ND		ug/l	2.0	--
1,1,2,2-Tetrachloroethane	ND		ug/l	1.0	--
Benzene	ND		ug/l	0.50	--
Toluene	ND		ug/l	1.0	--
Ethylbenzene	ND		ug/l	1.0	--
Chloromethane	ND		ug/l	2.0	--
Bromomethane	ND		ug/l	2.0	--
Vinyl chloride	ND		ug/l	1.0	--
Chloroethane	ND		ug/l	2.0	--
1,1-Dichloroethene	ND		ug/l	1.0	--
trans-1,2-Dichloroethene	ND		ug/l	1.0	--
Trichloroethene	ND		ug/l	1.0	--

Project Name: 100 BINNEY

Lab Number: L1508174

Project Number: 34250-023

Report Date: 04/28/15

### Method Blank Analysis Batch Quality Control

Analytical Method: 97,8260C  
 Analytical Date: 04/25/15 10:29  
 Analyst: MM

Parameter	Result	Qualifier	Units	RL	MDL
MCP Volatile Organics - Westborough Lab for sample(s): 01,03 Batch: WG778859-6					
1,2-Dichlorobenzene	ND		ug/l	1.0	--
1,3-Dichlorobenzene	ND		ug/l	1.0	--
1,4-Dichlorobenzene	ND		ug/l	1.0	--
Methyl tert butyl ether	ND		ug/l	2.0	--
p/m-Xylene	ND		ug/l	2.0	--
o-Xylene	ND		ug/l	1.0	--
Xylene (Total)	ND		ug/l	1.0	--
cis-1,2-Dichloroethene	ND		ug/l	1.0	--
1,2-Dichloroethene (total)	ND		ug/l	1.0	--
Dibromomethane	ND		ug/l	2.0	--
1,2,3-Trichloropropane	ND		ug/l	2.0	--
Styrene	ND		ug/l	1.0	--
Dichlorodifluoromethane	ND		ug/l	2.0	--
Acetone	ND		ug/l	5.0	--
Carbon disulfide	ND		ug/l	2.0	--
2-Butanone	ND		ug/l	5.0	--
4-Methyl-2-pentanone	ND		ug/l	5.0	--
2-Hexanone	ND		ug/l	5.0	--
Bromochloromethane	ND		ug/l	2.0	--
Tetrahydrofuran	ND		ug/l	2.0	--
2,2-Dichloropropane	ND		ug/l	2.0	--
1,2-Dibromoethane	ND		ug/l	2.0	--
1,3-Dichloropropane	ND		ug/l	2.0	--
1,1,1,2-Tetrachloroethane	ND		ug/l	1.0	--
Bromobenzene	ND		ug/l	2.0	--
n-Butylbenzene	ND		ug/l	2.0	--
sec-Butylbenzene	ND		ug/l	2.0	--
tert-Butylbenzene	ND		ug/l	2.0	--
o-Chlorotoluene	ND		ug/l	2.0	--

**Project Name:** 100 BINNEY  
**Project Number:** 34250-023

**Lab Number:** L1508174  
**Report Date:** 04/28/15

**Method Blank Analysis**  
**Batch Quality Control**

**Analytical Method:** 97,8260C  
**Analytical Date:** 04/25/15 10:29  
**Analyst:** MM

Parameter	Result	Qualifier	Units	RL	MDL
MCP Volatile Organics - Westborough Lab for sample(s): 01,03 Batch: WG778859-6					
p-Chlorotoluene	ND		ug/l	2.0	--
1,2-Dibromo-3-chloropropane	ND		ug/l	2.0	--
Hexachlorobutadiene	ND		ug/l	0.60	--
Isopropylbenzene	ND		ug/l	2.0	--
p-Isopropyltoluene	ND		ug/l	2.0	--
Naphthalene	ND		ug/l	2.0	--
n-Propylbenzene	ND		ug/l	2.0	--
1,2,3-Trichlorobenzene	ND		ug/l	2.0	--
1,2,4-Trichlorobenzene	ND		ug/l	2.0	--
1,3,5-Trimethylbenzene	ND		ug/l	2.0	--
1,2,4-Trimethylbenzene	ND		ug/l	2.0	--
Ethyl ether	ND		ug/l	2.0	--
Isopropyl Ether	ND		ug/l	2.0	--
Ethyl-Tert-Butyl-Ether	ND		ug/l	2.0	--
Tertiary-Amyl Methyl Ether	ND		ug/l	2.0	--

Surrogate	%Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	101		70-130
Toluene-d8	94		70-130
4-Bromofluorobenzene	102		70-130
Dibromofluoromethane	118		70-130

**Project Name:** 100 BINNEY  
**Project Number:** 34250-023

**Lab Number:** L1508174  
**Report Date:** 04/28/15

**Method Blank Analysis**  
**Batch Quality Control**

Analytical Method: 97,8260C-SIM  
Analytical Date: 04/25/15 10:29  
Analyst: MM

<b>Parameter</b>	<b>Result</b>	<b>Qualifier</b>	<b>Units</b>	<b>RL</b>	<b>MDL</b>
MCP Volatile Organics by SIM - Westborough Lab for sample(s): 01,03 Batch: WG779417-3					
1,4-Dioxane	ND		ug/l	3.0	--

## Lab Control Sample Analysis

### Batch Quality Control

Project Name: 100 BINNEY

Project Number: 34250-023

Lab Number: L1508174

Report Date: 04/28/15

Parameter	<i>LCS</i> %Recovery	<i>Qual</i>	<i>LCSD</i> %Recovery	<i>Qual</i>	<i>%Recovery</i> Limits	<i>RPD</i>	<i>Qual</i>	<i>RPD</i> Limits
MCP Volatile Organics by SIM - Westborough Lab Associated sample(s): 02 Batch: WG778858-1 WG778858-2								
1,4-Dioxane	115		125		70-130	8		20

## Lab Control Sample Analysis

### Batch Quality Control

Project Name: 100 BINNEY

Project Number: 34250-023

Lab Number: L1508174

Report Date: 04/28/15

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
MCP Volatile Organics - Westborough Lab Associated sample(s): 02 Batch: WG778859-1 WG778859-2								
Methylene chloride	101		103		70-130	2		20
1,1-Dichloroethane	90		92		70-130	2		20
Chloroform	94		96		70-130	2		20
Carbon tetrachloride	93		97		70-130	4		20
1,2-Dichloropropane	84		86		70-130	2		20
Dibromochloromethane	88		93		70-130	6		20
1,1,2-Trichloroethane	87		93		70-130	7		20
Tetrachloroethene	98		98		70-130	0		20
Chlorobenzene	93		94		70-130	1		20
Trichlorofluoromethane	99		103		70-130	4		20
1,2-Dichloroethane	90		94		70-130	4		20
1,1,1-Trichloroethane	94		97		70-130	3		20
Bromodichloromethane	88		93		70-130	6		20
trans-1,3-Dichloropropene	82		87		70-130	6		20
cis-1,3-Dichloropropene	89		93		70-130	4		20
1,1-Dichloropropene	96		97		70-130	1		20
Bromoform	82		88		70-130	7		20
1,1,2,2-Tetrachloroethane	76		83		70-130	9		20
Benzene	98		98		70-130	0		20
Toluene	92		93		70-130	1		20
Ethylbenzene	94		93		70-130	1		20

## Lab Control Sample Analysis

### Batch Quality Control

Project Name: 100 BINNEY

Project Number: 34250-023

Lab Number: L1508174

Report Date: 04/28/15

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
MCP Volatile Organics - Westborough Lab Associated sample(s): 02 Batch: WG778859-1 WG778859-2								
Chloromethane	76		75		70-130	1		20
Bromomethane	108		98		70-130	10		20
Vinyl chloride	92		92		70-130	0		20
Chloroethane	100		99		70-130	1		20
1,1-Dichloroethene	104		105		70-130	1		20
trans-1,2-Dichloroethene	102		103		70-130	1		20
Trichloroethene	97		98		70-130	1		20
1,2-Dichlorobenzene	84		88		70-130	5		20
1,3-Dichlorobenzene	86		90		70-130	5		20
1,4-Dichlorobenzene	86		88		70-130	2		20
Methyl tert butyl ether	92		98		70-130	6		20
p/m-Xylene	95		96		70-130	1		20
o-Xylene	89		91		70-130	2		20
cis-1,2-Dichloroethene	96		96		70-130	0		20
Dibromomethane	90		95		70-130	5		20
1,2,3-Trichloropropane	80		86		70-130	7		20
Styrene	94		96		70-130	2		20
Dichlorodifluoromethane	88		92		70-130	4		20
Acetone	104		116		70-130	11		20
Carbon disulfide	89		90		70-130	1		20
2-Butanone	84		94		70-130	11		20



## Lab Control Sample Analysis

### Batch Quality Control

Project Name: 100 BINNEY

Project Number: 34250-023

Lab Number: L1508174

Report Date: 04/28/15

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
MCP Volatile Organics - Westborough Lab Associated sample(s): 02 Batch: WG778859-1 WG778859-2								
4-Methyl-2-pentanone	80		86		70-130	7		20
2-Hexanone	70		78		70-130	11		20
Bromochloromethane	98		99		70-130	1		20
Tetrahydrofuran	82		90		70-130	9		20
2,2-Dichloropropane	96		97		70-130	1		20
1,2-Dibromoethane	89		92		70-130	3		20
1,3-Dichloropropane	87		91		70-130	4		20
1,1,1,2-Tetrachloroethane	88		90		70-130	2		20
Bromobenzene	87		91		70-130	4		20
n-Butylbenzene	84		87		70-130	4		20
sec-Butylbenzene	87		90		70-130	3		20
tert-Butylbenzene	85		88		70-130	3		20
o-Chlorotoluene	85		88		70-130	3		20
p-Chlorotoluene	83		86		70-130	4		20
1,2-Dibromo-3-chloropropane	75		80		70-130	6		20
Hexachlorobutadiene	86		87		70-130	1		20
Isopropylbenzene	91		93		70-130	2		20
p-Isopropyltoluene	86		88		70-130	2		20
Naphthalene	78		86		70-130	10		20
n-Propylbenzene	88		92		70-130	4		20
1,2,3-Trichlorobenzene	81		82		70-130	1		20

## Lab Control Sample Analysis

### Batch Quality Control

Project Name: 100 BINNEY

Project Number: 34250-023

Lab Number: L1508174

Report Date: 04/28/15

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
MCP Volatile Organics - Westborough Lab Associated sample(s): 02 Batch: WG778859-1 WG778859-2								
1,2,4-Trichlorobenzene	82		82		70-130	0		20
1,3,5-Trimethylbenzene	85		89		70-130	5		20
1,2,4-Trimethylbenzene	84		87		70-130	4		20
Ethyl ether	100		106		70-130	6		20
Isopropyl Ether	82		84		70-130	2		20
Ethyl-Tert-Butyl-Ether	86		89		70-130	3		20
Tertiary-Amyl Methyl Ether	87		91		70-130	4		20

Surrogate	LCS %Recovery	Qual	LCSD %Recovery	Qual	Acceptance Criteria
1,2-Dichloroethane-d4	95		93		70-130
Toluene-d8	95		97		70-130
4-Bromofluorobenzene	94		95		70-130
Dibromofluoromethane	102		101		70-130

## Lab Control Sample Analysis

### Batch Quality Control

Project Name: 100 BINNEY

Project Number: 34250-023

Lab Number: L1508174

Report Date: 04/28/15

Parameter	LCS		LCSD		%Recovery Limits	RPD	Qual	RPD Limits
	%Recovery	Qual	%Recovery	Qual				
MCP Volatile Organics - Westborough Lab Associated sample(s): 01,03 Batch: WG778859-4 WG778859-5								
Methylene chloride	112		115		70-130	3		20
1,1-Dichloroethane	95		95		70-130	0		20
Chloroform	98		100		70-130	2		20
Carbon tetrachloride	98		99		70-130	1		20
1,2-Dichloropropane	84		84		70-130	0		20
Dibromochloromethane	87		83		70-130	5		20
1,1,2-Trichloroethane	83		79		70-130	5		20
Tetrachloroethene	94		92		70-130	2		20
Chlorobenzene	93		90		70-130	3		20
Trichlorofluoromethane	114		117		70-130	3		20
1,2-Dichloroethane	94		93		70-130	1		20
1,1,1-Trichloroethane	98		98		70-130	0		20
Bromodichloromethane	94		96		70-130	2		20
trans-1,3-Dichloropropene	80		77		70-130	4		20
cis-1,3-Dichloropropene	87		87		70-130	0		20
1,1-Dichloropropene	95		94		70-130	1		20
Bromoform	83		81		70-130	2		20
1,1,2,2-Tetrachloroethane	81		74		70-130	9		20
Benzene	92		93		70-130	1		20
Toluene	93		90		70-130	3		20
Ethylbenzene	95		92		70-130	3		20

## Lab Control Sample Analysis

### Batch Quality Control

Project Name: 100 BINNEY

Project Number: 34250-023

Lab Number: L1508174

Report Date: 04/28/15

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
MCP Volatile Organics - Westborough Lab Associated sample(s): 01,03 Batch: WG778859-4 WG778859-5								
Chloromethane	78		81		70-130	4		20
Bromomethane	70		73		70-130	4		20
Vinyl chloride	88		93		70-130	6		20
Chloroethane	115		114		70-130	1		20
1,1-Dichloroethene	105		108		70-130	3		20
trans-1,2-Dichloroethene	106		108		70-130	2		20
Trichloroethene	92		92		70-130	0		20
1,2-Dichlorobenzene	90		88		70-130	2		20
1,3-Dichlorobenzene	88		88		70-130	0		20
1,4-Dichlorobenzene	89		86		70-130	3		20
Methyl tert butyl ether	86		83		70-130	4		20
p/m-Xylene	96		91		70-130	5		20
o-Xylene	96		91		70-130	5		20
cis-1,2-Dichloroethene	98		101		70-130	3		20
Dibromomethane	96		97		70-130	1		20
1,2,3-Trichloropropane	82		79		70-130	4		20
Styrene	96		91		70-130	5		20
Dichlorodifluoromethane	94		87		70-130	8		20
Acetone	104		110		70-130	6		20
Carbon disulfide	96		100		70-130	4		20
2-Butanone	84		80		70-130	5		20

## Lab Control Sample Analysis

### Batch Quality Control

Project Name: 100 BINNEY

Project Number: 34250-023

Lab Number: L1508174

Report Date: 04/28/15

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
MCP Volatile Organics - Westborough Lab Associated sample(s): 01,03 Batch: WG778859-4 WG778859-5								
4-Methyl-2-pentanone	82		79		70-130	4		20
2-Hexanone	73		70		70-130	4		20
Bromochloromethane	105		105		70-130	0		20
Tetrahydrofuran	74		74		70-130	0		20
2,2-Dichloropropane	103		104		70-130	1		20
1,2-Dibromoethane	86		82		70-130	5		20
1,3-Dichloropropane	84		81		70-130	4		20
1,1,1,2-Tetrachloroethane	87		84		70-130	4		20
Bromobenzene	91		88		70-130	3		20
n-Butylbenzene	89		87		70-130	2		20
sec-Butylbenzene	92		90		70-130	2		20
tert-Butylbenzene	90		88		70-130	2		20
o-Chlorotoluene	88		86		70-130	2		20
p-Chlorotoluene	90		88		70-130	2		20
1,2-Dibromo-3-chloropropane	77		71		70-130	8		20
Hexachlorobutadiene	87		86		70-130	1		20
Isopropylbenzene	91		92		70-130	1		20
p-Isopropyltoluene	90		88		70-130	2		20
Naphthalene	71		68	Q	70-130	4		20
n-Propylbenzene	94		92		70-130	2		20
1,2,3-Trichlorobenzene	81		77		70-130	5		20

## Lab Control Sample Analysis

### Batch Quality Control

Project Name: 100 BINNEY

Project Number: 34250-023

Lab Number: L1508174

Report Date: 04/28/15

Parameter	LCS		LCSD		%Recovery Limits	RPD	Qual	RPD Limits
	%Recovery	Qual	%Recovery	Qual				
MCP Volatile Organics - Westborough Lab Associated sample(s): 01,03 Batch: WG778859-4 WG778859-5								
1,2,4-Trichlorobenzene	81		76		70-130	6		20
1,3,5-Trimethylbenzene	92		87		70-130	6		20
1,2,4-Trimethylbenzene	87		86		70-130	1		20
Ethyl ether	94		95		70-130	1		20
Isopropyl Ether	80		81		70-130	1		20
Ethyl-Tert-Butyl-Ether	80		78		70-130	3		20
Tertiary-Amyl Methyl Ether	82		81		70-130	1		20

Surrogate	LCS		LCSD		Acceptance Criteria
	%Recovery	Qual	%Recovery	Qual	
1,2-Dichloroethane-d4	95		96		70-130
Toluene-d8	99		97		70-130
4-Bromofluorobenzene	96		96		70-130
Dibromofluoromethane	109		109		70-130

## Lab Control Sample Analysis

Batch Quality Control

Project Name: 100 BINNEY

Project Number: 34250-023

Lab Number: L1508174

Report Date: 04/28/15

Parameter	<i>LCS</i> %Recovery	<i>Qual</i>	<i>LCSD</i> %Recovery	<i>Qual</i>	<i>%Recovery</i> Limits	<i>RPD</i>	<i>Qual</i>	<i>RPD</i> Limits
MCP Volatile Organics by SIM - Westborough Lab Associated sample(s): 01,03 Batch: WG779417-1 WG779417-2								
1,4-Dioxane	84		88		70-130	5		20

# SEMIVOLATILES



**Project Name:** 100 BINNEY  
**Project Number:** 34250-023

**Lab Number:** L1508174  
**Report Date:** 04/28/15

**SAMPLE RESULTS**

**Lab ID:** L1508174-01  
**Client ID:** ENV-8  
**Sample Location:** Not Specified  
**Matrix:** Water  
**Analytical Method:** 97,8270D  
**Analytical Date:** 04/26/15 12:11  
**Analyst:** PS

**Date Collected:** 04/21/15 08:05  
**Date Received:** 04/21/15  
**Field Prep:** Not Specified  
**Extraction Method:** EPA 3510C  
**Extraction Date:** 04/25/15 01:31

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

Project Name: 100 BINNEY

Lab Number: L1508174

Project Number: 34250-023

Report Date: 04/28/15

## SAMPLE RESULTS

Lab ID: L1508174-01

Date Collected: 04/21/15 08:05

Client ID: ENV-8

Date Received: 04/21/15

Sample Location: Not Specified

Field Prep: Not Specified

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

Surrogate	% Recovery	Qualifier	Acceptance Criteria
2-Fluorophenol	41		15-110
Phenol-d6	29		15-110
Nitrobenzene-d5	58		30-130
2-Fluorobiphenyl	70		30-130
2,4,6-Tribromophenol	91		15-110
4-Terphenyl-d14	87		30-130

**Project Name:** 100 BINNEY  
**Project Number:** 34250-023

**Lab Number:** L1508174  
**Report Date:** 04/28/15

**SAMPLE RESULTS**

Lab ID: L1508174-01  
 Client ID: ENV-8  
 Sample Location: Not Specified  
 Matrix: Water  
 Analytical Method: 97,8270D-SIM  
 Analytical Date: 04/27/15 18:54  
 Analyst: KV

Date Collected: 04/21/15 08:05  
 Date Received: 04/21/15  
 Field Prep: Not Specified  
 Extraction Method: EPA 3510C  
 Extraction Date: 04/25/15 01:34

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

**Project Name:** 100 BINNEY**Lab Number:** L1508174**Project Number:** 34250-023**Report Date:** 04/28/15**SAMPLE RESULTS**

Lab ID: L1508174-01

Date Collected: 04/21/15 08:05

Client ID: ENV-8

Date Received: 04/21/15

Sample Location: Not Specified

Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
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## MCP Semivolatile Organics by SIM - Westborough Lab

Surrogate	% Recovery	Qualifier	Acceptance Criteria
2-Fluorophenol	41		15-110
Phenol-d6	29		15-110
Nitrobenzene-d5	66		30-130
2-Fluorobiphenyl	76		30-130
2,4,6-Tribromophenol	83		15-110
4-Terphenyl-d14	87		30-130

Project Name: 100 BINNEY

Lab Number: L1508174

Project Number: 34250-023

Report Date: 04/28/15

## SAMPLE RESULTS

Lab ID: L1508174-02  
 Client ID: MW-59  
 Sample Location: Not Specified  
 Matrix: Water  
 Analytical Method: 97,8270D  
 Analytical Date: 04/28/15 06:30  
 Analyst: PS

Date Collected: 04/21/15 13:55  
 Date Received: 04/21/15  
 Field Prep: Not Specified  
 Extraction Method: EPA 3510C  
 Extraction Date: 04/25/15 01:31

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
<b>MCP Semivolatile Organics - Westborough Lab</b>						
1,2,4-Trichlorobenzene	ND		ug/l	5.0	--	1
Bis(2-chloroethyl)ether	ND		ug/l	2.0	--	1
1,2-Dichlorobenzene	ND		ug/l	2.0	--	1
1,3-Dichlorobenzene	ND		ug/l	2.0	--	1
1,4-Dichlorobenzene	ND		ug/l	2.0	--	1
3,3'-Dichlorobenzidine	ND		ug/l	5.0	--	1
2,4-Dinitrotoluene	ND		ug/l	5.0	--	1
2,6-Dinitrotoluene	ND		ug/l	5.0	--	1
Azobenzene	ND		ug/l	2.0	--	1
4-Bromophenyl phenyl ether	ND		ug/l	2.0	--	1
Bis(2-chloroisopropyl)ether	ND		ug/l	2.0	--	1
Bis(2-chloroethoxy)methane	ND		ug/l	5.0	--	1
Isophorone	ND		ug/l	5.0	--	1
Nitrobenzene	ND		ug/l	2.0	--	1
Bis(2-Ethylhexyl)phthalate	ND		ug/l	3.0	--	1
Butyl benzyl phthalate	ND		ug/l	5.0	--	1
Di-n-butylphthalate	ND		ug/l	5.0	--	1
Di-n-octylphthalate	ND		ug/l	5.0	--	1
Diethyl phthalate	ND		ug/l	5.0	--	1
Dimethyl phthalate	ND		ug/l	5.0	--	1
Aniline	ND		ug/l	2.0	--	1
4-Chloroaniline	ND		ug/l	5.0	--	1
Dibenzofuran	3.1		ug/l	2.0	--	1
Acetophenone	6.7		ug/l	5.0	--	1
2,4,6-Trichlorophenol	ND		ug/l	5.0	--	1
2-Chlorophenol	ND		ug/l	2.0	--	1
2,4-Dichlorophenol	ND		ug/l	5.0	--	1
2,4-Dimethylphenol	16		ug/l	5.0	--	1
2-Nitrophenol	ND		ug/l	10	--	1
4-Nitrophenol	ND		ug/l	10	--	1

Project Name: 100 BINNEY

Lab Number: L1508174

Project Number: 34250-023

Report Date: 04/28/15

## SAMPLE RESULTS

Lab ID: L1508174-02

Date Collected: 04/21/15 13:55

Client ID: MW-59

Date Received: 04/21/15

Sample Location: Not Specified

Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
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## MCP Semivolatile Organics - Westborough Lab

2,4-Dinitrophenol	ND		ug/l	20	--	1
Phenol	25		ug/l	5.0	--	1
2-Methylphenol	6.5		ug/l	5.0	--	1
3-Methylphenol/4-Methylphenol	ND		ug/l	5.0	--	1
2,4,5-Trichlorophenol	ND		ug/l	5.0	--	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
2-Fluorophenol	44		15-110
Phenol-d6	31		15-110
Nitrobenzene-d5	62		30-130
2-Fluorobiphenyl	66		30-130
2,4,6-Tribromophenol	78		15-110
4-Terphenyl-d14	68		30-130

**Project Name:** 100 BINNEY**Lab Number:** L1508174**Project Number:** 34250-023**Report Date:** 04/28/15**SAMPLE RESULTS**

Lab ID: L1508174-02 D2  
 Client ID: MW-59  
 Sample Location: Not Specified  
 Matrix: Water  
 Analytical Method: 97,8270D-SIM  
 Analytical Date: 04/27/15 20:36  
 Analyst: KV

Date Collected: 04/21/15 13:55  
 Date Received: 04/21/15  
 Field Prep: Not Specified  
 Extraction Method: EPA 3510C  
 Extraction Date: 04/25/15 01:34

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
MCP Semivolatile Organics by SIM - Westborough Lab						
Naphthalene	3200		ug/l	40	--	200

Project Name: 100 BINNEY

Lab Number: L1508174

Project Number: 34250-023

Report Date: 04/28/15

## SAMPLE RESULTS

Lab ID: L1508174-02 D  
 Client ID: MW-59  
 Sample Location: Not Specified  
 Matrix: Water  
 Analytical Method: 97,8270D-SIM  
 Analytical Date: 04/27/15 20:03  
 Analyst: KV

Date Collected: 04/21/15 13:55  
 Date Received: 04/21/15  
 Field Prep: Not Specified  
 Extraction Method: EPA 3510C  
 Extraction Date: 04/25/15 01:34

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
<b>MCP Semivolatile Organics by SIM - Westborough Lab</b>						
Acenaphthene	110		ug/l	2.0	--	10
2-Chloronaphthalene	ND		ug/l	2.0	--	10
Fluoranthene	ND		ug/l	2.0	--	10
Hexachlorobutadiene	ND		ug/l	5.0	--	10
Naphthalene	1500	E	ug/l	2.0	--	10
Benzo(a)anthracene	ND		ug/l	2.0	--	10
Benzo(a)pyrene	ND		ug/l	2.0	--	10
Benzo(b)fluoranthene	ND		ug/l	2.0	--	10
Benzo(k)fluoranthene	ND		ug/l	2.0	--	10
Chrysene	ND		ug/l	2.0	--	10
Acenaphthylene	11		ug/l	2.0	--	10
Anthracene	ND		ug/l	2.0	--	10
Benzo(ghi)perylene	ND		ug/l	2.0	--	10
Fluorene	18		ug/l	2.0	--	10
Phenanthrene	13		ug/l	2.0	--	10
Dibenzo(a,h)anthracene	ND		ug/l	2.0	--	10
Indeno(1,2,3-cd)Pyrene	ND		ug/l	2.0	--	10
Pyrene	ND		ug/l	2.0	--	10
2-Methylnaphthalene	140		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



**Project Name:** 100 BINNEY**Lab Number:** L1508174**Project Number:** 34250-023**Report Date:** 04/28/15**SAMPLE RESULTS**

Lab ID: L1508174-02 D

Date Collected: 04/21/15 13:55

Client ID: MW-59

Date Received: 04/21/15

Sample Location: Not Specified

Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
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## MCP Semivolatile Organics by SIM - Westborough Lab

Surrogate	% Recovery	Qualifier	Acceptance Criteria
2-Fluorophenol	61		15-110
Phenol-d6	36		15-110
Nitrobenzene-d5	83		30-130
2-Fluorobiphenyl	110		30-130
2,4,6-Tribromophenol	92		15-110
4-Terphenyl-d14	110		30-130

**Project Name:** 100 BINNEY  
**Project Number:** 34250-023

**Lab Number:** L1508174  
**Report Date:** 04/28/15

**SAMPLE RESULTS**

**Lab ID:** L1508174-03  
**Client ID:** HA-402  
**Sample Location:** Not Specified  
**Matrix:** Water  
**Analytical Method:** 97,8270D  
**Analytical Date:** 04/28/15 06:55  
**Analyst:** PS

**Date Collected:** 04/21/15 12:10  
**Date Received:** 04/21/15  
**Field Prep:** Not Specified  
**Extraction Method:** EPA 3510C  
**Extraction Date:** 04/25/15 01:31

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

Project Name: 100 BINNEY

Lab Number: L1508174

Project Number: 34250-023

Report Date: 04/28/15

## SAMPLE RESULTS

Lab ID: L1508174-03

Date Collected: 04/21/15 12:10

Client ID: HA-402

Date Received: 04/21/15

Sample Location: Not Specified

Field Prep: Not Specified

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

Surrogate	% Recovery	Qualifier	Acceptance Criteria
2-Fluorophenol	37		15-110
Phenol-d6	28		15-110
Nitrobenzene-d5	54		30-130
2-Fluorobiphenyl	60		30-130
2,4,6-Tribromophenol	76		15-110
4-Terphenyl-d14	71		30-130

Project Name: 100 BINNEY

Lab Number: L1508174

Project Number: 34250-023

Report Date: 04/28/15

## SAMPLE RESULTS

Lab ID: L1508174-03  
 Client ID: HA-402  
 Sample Location: Not Specified  
 Matrix: Water  
 Analytical Method: 97,8270D-SIM  
 Analytical Date: 04/26/15 14:17  
 Analyst: KV

Date Collected: 04/21/15 12:10  
 Date Received: 04/21/15  
 Field Prep: Not Specified  
 Extraction Method: EPA 3510C  
 Extraction Date: 04/25/15 01:34

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
<b>MCP Semivolatile Organics by SIM - Westborough Lab</b>						
Acenaphthene	2.0		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	0.43		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	3.3		ug/l	0.20	--	1
Anthracene	ND		ug/l	0.20	--	1
Benzo(ghi)perylene	ND		ug/l	0.20	--	1
Fluorene	ND		ug/l	0.20	--	1
Phenanthrene	ND		ug/l	0.20	--	1
Dibenzo(a,h)anthracene	ND		ug/l	0.20	--	1
Indeno(1,2,3-cd)Pyrene	ND		ug/l	0.20	--	1
Pyrene	ND		ug/l	0.20	--	1
2-Methylnaphthalene	ND		ug/l	0.20	--	1
Pentachlorophenol	ND		ug/l	0.80	--	1
Hexachlorobenzene	ND		ug/l	0.80	--	1
Hexachloroethane	ND		ug/l	0.80	--	1

**Project Name:** 100 BINNEY**Lab Number:** L1508174**Project Number:** 34250-023**Report Date:** 04/28/15**SAMPLE RESULTS**

Lab ID: L1508174-03

Date Collected: 04/21/15 12:10

Client ID: HA-402

Date Received: 04/21/15

Sample Location: Not Specified

Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
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## MCP Semivolatile Organics by SIM - Westborough Lab

Surrogate	% Recovery	Qualifier	Acceptance Criteria
2-Fluorophenol	29		15-110
Phenol-d6	20		15-110
Nitrobenzene-d5	46		30-130
2-Fluorobiphenyl	57		30-130
2,4,6-Tribromophenol	75		15-110
4-Terphenyl-d14	63		30-130

Project Name: 100 BINNEY

Lab Number: L1508174

Project Number: 34250-023

Report Date: 04/28/15

**Method Blank Analysis**  
**Batch Quality Control**

Analytical Method: 97,8270D  
 Analytical Date: 04/28/15 01:26  
 Analyst: PS

Extraction Method: EPA 3510C  
 Extraction Date: 04/25/15 01:31

Parameter	Result	Qualifier	Units	RL	MDL
MCP Semivolatile Organics - Westborough Lab for sample(s): 01-03 Batch: WG779120-1					
1,2,4-Trichlorobenzene	ND		ug/l	5.0	--
Bis(2-chloroethyl)ether	ND		ug/l	2.0	--
1,2-Dichlorobenzene	ND		ug/l	2.0	--
1,3-Dichlorobenzene	ND		ug/l	2.0	--
1,4-Dichlorobenzene	ND		ug/l	2.0	--
3,3'-Dichlorobenzidine	ND		ug/l	5.0	--
2,4-Dinitrotoluene	ND		ug/l	5.0	--
2,6-Dinitrotoluene	ND		ug/l	5.0	--
Azobenzene	ND		ug/l	2.0	--
4-Bromophenyl phenyl ether	ND		ug/l	2.0	--
Bis(2-chloroisopropyl)ether	ND		ug/l	2.0	--
Bis(2-chloroethoxy)methane	ND		ug/l	5.0	--
Isophorone	ND		ug/l	5.0	--
Nitrobenzene	ND		ug/l	2.0	--
Bis(2-Ethylhexyl)phthalate	ND		ug/l	3.0	--
Butyl benzyl phthalate	ND		ug/l	5.0	--
Di-n-butylphthalate	ND		ug/l	5.0	--
Di-n-octylphthalate	ND		ug/l	5.0	--
Diethyl phthalate	ND		ug/l	5.0	--
Dimethyl phthalate	ND		ug/l	5.0	--
Aniline	ND		ug/l	2.0	--
4-Chloroaniline	ND		ug/l	5.0	--
Dibenzofuran	ND		ug/l	2.0	--
Acetophenone	ND		ug/l	5.0	--
2,4,6-Trichlorophenol	ND		ug/l	5.0	--
2-Chlorophenol	ND		ug/l	2.0	--
2,4-Dichlorophenol	ND		ug/l	5.0	--
2,4-Dimethylphenol	ND		ug/l	5.0	--
2-Nitrophenol	ND		ug/l	10	--

Project Name: 100 BINNEY

Lab Number: L1508174

Project Number: 34250-023

Report Date: 04/28/15

**Method Blank Analysis**  
**Batch Quality Control**

Analytical Method: 97,8270D  
 Analytical Date: 04/28/15 01:26  
 Analyst: PS

Extraction Method: EPA 3510C  
 Extraction Date: 04/25/15 01:31

Parameter	Result	Qualifier	Units	RL	MDL
MCP Semivolatile Organics - Westborough Lab for sample(s): 01-03 Batch: WG779120-1					
4-Nitrophenol	ND		ug/l	10	--
2,4-Dinitrophenol	ND		ug/l	20	--
Phenol	ND		ug/l	5.0	--
2-Methylphenol	ND		ug/l	5.0	--
3-Methylphenol/4-Methylphenol	ND		ug/l	5.0	--
2,4,5-Trichlorophenol	ND		ug/l	5.0	--

Surrogate	%Recovery	Qualifier	Acceptance Criteria
2-Fluorophenol	42		15-110
Phenol-d6	29		15-110
Nitrobenzene-d5	62		30-130
2-Fluorobiphenyl	65		30-130
2,4,6-Tribromophenol	75		15-110
4-Terphenyl-d14	77		30-130

Project Name: 100 BINNEY

Lab Number: L1508174

Project Number: 34250-023

Report Date: 04/28/15

**Method Blank Analysis  
Batch Quality Control**

Analytical Method: 97,8270D-SIM

Extraction Method: EPA 3510C

Analytical Date: 04/26/15 09:48

Extraction Date: 04/25/15 01:34

Analyst: KV

Parameter	Result	Qualifier	Units	RL	MDL
MCP Semivolatile Organics by SIM - Westborough Lab for sample(s): 01-03 Batch: WG779121-1					
Acenaphthene	ND		ug/l	0.20	--
2-Chloronaphthalene	ND		ug/l	0.20	--
Fluoranthene	ND		ug/l	0.20	--
Hexachlorobutadiene	ND		ug/l	0.50	--
Naphthalene	ND		ug/l	0.20	--
Benzo(a)anthracene	ND		ug/l	0.20	--
Benzo(a)pyrene	ND		ug/l	0.20	--
Benzo(b)fluoranthene	ND		ug/l	0.20	--
Benzo(k)fluoranthene	ND		ug/l	0.20	--
Chrysene	ND		ug/l	0.20	--
Acenaphthylene	ND		ug/l	0.20	--
Anthracene	ND		ug/l	0.20	--
Benzo(ghi)perylene	ND		ug/l	0.20	--
Fluorene	ND		ug/l	0.20	--
Phenanthrene	ND		ug/l	0.20	--
Dibenzo(a,h)anthracene	ND		ug/l	0.20	--
Indeno(1,2,3-cd)Pyrene	ND		ug/l	0.20	--
Pyrene	ND		ug/l	0.20	--
2-Methylnaphthalene	ND		ug/l	0.20	--
Pentachlorophenol	ND		ug/l	0.80	--
Hexachlorobenzene	ND		ug/l	0.80	--
Hexachloroethane	ND		ug/l	0.80	--



Project Name: 100 BINNEY

Lab Number: L1508174

Project Number: 34250-023

Report Date: 04/28/15

**Method Blank Analysis  
Batch Quality Control**

Analytical Method: 97,8270D-SIM

Extraction Method: EPA 3510C

Analytical Date: 04/26/15 09:48

Extraction Date: 04/25/15 01:34

Analyst: KV

Parameter	Result	Qualifier	Units	RL	MDL
MCP Semivolatile Organics by SIM - Westborough Lab for sample(s): 01-03 Batch: WG779121-1					

Surrogate	%Recovery	Qualifier	Acceptance Criteria
2-Fluorophenol	40		15-110
Phenol-d6	28		15-110
Nitrobenzene-d5	65		30-130
2-Fluorobiphenyl	75		30-130
2,4,6-Tribromophenol	82		15-110
4-Terphenyl-d14	73		30-130

## Lab Control Sample Analysis

### Batch Quality Control

Project Name: 100 BINNEY

Project Number: 34250-023

Lab Number: L1508174

Report Date: 04/28/15

Parameter	LCS		LCSD		%Recovery Limits	RPD	Qual	RPD Limits
	%Recovery	Qual	%Recovery	Qual				
MCP Semivolatile Organics - Westborough Lab Associated sample(s): 01-03 Batch: WG779120-2 WG779120-3								
1,2,4-Trichlorobenzene	64		73		40-140	13		20
Bis(2-chloroethyl)ether	61		70		40-140	14		20
1,2-Dichlorobenzene	58		68		40-140	16		20
1,3-Dichlorobenzene	55		66		40-140	18		20
1,4-Dichlorobenzene	55		67		40-140	20		20
3,3'-Dichlorobenzidine	74		70		40-140	6		20
2,4-Dinitrotoluene	87		91		40-140	4		20
2,6-Dinitrotoluene	87		92		40-140	6		20
Azobenzene	72		76		40-140	5		20
4-Bromophenyl phenyl ether	84		87		40-140	4		20
Bis(2-chloroisopropyl)ether	60		69		40-140	14		20
Bis(2-chloroethoxy)methane	69		78		40-140	12		20
Isophorone	69		77		40-140	11		20
Nitrobenzene	67		75		40-140	11		20
Bis(2-Ethylhexyl)phthalate	82		83		40-140	1		20
Butyl benzyl phthalate	82		86		40-140	5		20
Di-n-butylphthalate	79		83		40-140	5		20
Di-n-octylphthalate	83		84		40-140	1		20
Diethyl phthalate	79		83		40-140	5		20
Dimethyl phthalate	79		85		40-140	7		20
Aniline	32	Q	34	Q	40-140	6		20

## Lab Control Sample Analysis

### Batch Quality Control

Project Name: 100 BINNEY

Project Number: 34250-023

Lab Number: L1508174

Report Date: 04/28/15

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
MCP Semivolatile Organics - Westborough Lab Associated sample(s): 01-03 Batch: WG779120-2 WG779120-3								
4-Chloroaniline	55		58		40-140	5		20
Dibenzofuran	76		81		40-140	6		20
Acetophenone	71		80		40-140	12		20
2,4,6-Trichlorophenol	82		89		30-130	8		20
2-Chlorophenol	61		70		30-130	14		20
2,4-Dichlorophenol	75		83		30-130	10		20
2,4-Dimethylphenol	49		55		30-130	12		20
2-Nitrophenol	77		86		30-130	11		20
4-Nitrophenol	52		58		30-130	11		20
2,4-Dinitrophenol	91		94		30-130	3		20
Phenol	30		36		30-130	18		20
2-Methylphenol	56		64		30-130	13		20
3-Methylphenol/4-Methylphenol	58		66		30-130	13		20
2,4,5-Trichlorophenol	82		88		30-130	7		20

## Lab Control Sample Analysis

### Batch Quality Control

Project Name: 100 BINNEY

Project Number: 34250-023

Lab Number: L1508174

Report Date: 04/28/15

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
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MCP Semivolatile Organics - Westborough Lab Associated sample(s): 01-03 Batch: WG779120-2 WG779120-3

Surrogate	LCS %Recovery	Qual	LCSD %Recovery	Qual	Acceptance Criteria
2-Fluorophenol	42		52		15-110
Phenol-d6	31		37		15-110
Nitrobenzene-d5	64		73		30-130
2-Fluorobiphenyl	73		81		30-130
2,4,6-Tribromophenol	87		90		15-110
4-Terphenyl-d14	78		82		30-130

## Lab Control Sample Analysis

### Batch Quality Control

Project Name: 100 BINNEY

Project Number: 34250-023

Lab Number: L1508174

Report Date: 04/28/15

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
MCP Semivolatile Organics by SIM - Westborough Lab Associated sample(s): 01-03 Batch: WG779121-2 WG779121-3								
Acenaphthene	90		72		40-140	22	Q	20
2-Chloronaphthalene	78		75		40-140	4		20
Fluoranthene	87		77		40-140	12		20
Hexachlorobutadiene	69		65		40-140	6		20
Naphthalene	71		71		40-140	0		20
Benzo(a)anthracene	91		82		40-140	10		20
Benzo(a)pyrene	95		85		40-140	11		20
Benzo(b)fluoranthene	88		80		40-140	10		20
Benzo(k)fluoranthene	86		78		40-140	10		20
Chrysene	88		80		40-140	10		20
Acenaphthylene	83		78		40-140	6		20
Anthracene	85		77		40-140	10		20
Benzo(ghi)perylene	83		76		40-140	9		20
Fluorene	80		74		40-140	8		20
Phenanthrene	78		72		40-140	8		20
Dibenzo(a,h)anthracene	87		80		40-140	8		20
Indeno(1,2,3-cd)Pyrene	84		77		40-140	9		20
Pyrene	85		77		40-140	10		20
2-Methylnaphthalene	78		75		40-140	4		20
Pentachlorophenol	70		64		30-130	9		20
Hexachlorobenzene	84		77		40-140	9		20

## Lab Control Sample Analysis

### Batch Quality Control

Project Name: 100 BINNEY

Lab Number: L1508174

Project Number: 34250-023

Report Date: 04/28/15

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
MCP Semivolatile Organics by SIM - Westborough Lab Associated sample(s): 01-03 Batch: WG779121-2 WG779121-3								
Hexachloroethane	74		66		40-140	11		20

Surrogate	LCS %Recovery	Qual	LCSD %Recovery	Qual	Acceptance Criteria
2-Fluorophenol	49		46		15-110
Phenol-d6	36		33		15-110
Nitrobenzene-d5	76		71		30-130
2-Fluorobiphenyl	86		81		30-130
2,4,6-Tribromophenol	98		85		15-110
4-Terphenyl-d14	90		82		30-130

# **INORGANICS & MISCELLANEOUS**

**Project Name:** 100 BINNEY  
**Project Number:** 34250-023

**Lab Number:** L1508174  
**Report Date:** 04/28/15

**SAMPLE RESULTS**

**Lab ID:** L1508174-01  
**Client ID:** ENV-8  
**Sample Location:** Not Specified  
**Matrix:** Water

**Date Collected:** 04/21/15 08:05  
**Date Received:** 04/21/15  
**Field Prep:** Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
<b>MCP General Chemistry - Westborough Lab</b>										
Cyanide, Physiologically Available	ND		mg/l	0.005	--	1	04/23/15 12:57	04/24/15 10:50	97,9014	JO
<b>General Chemistry - Westborough Lab</b>										
Cyanide, Free	ND		ug/l	2.00	--	1	04/24/15 17:25	04/24/15 23:53	109,9016	AT
pH (H)	6.8		SU	-	NA	1	-	04/22/15 07:08	1,9040C	LH





Project Name: 100 BINNEY

Lab Number: L1508174

Project Number: 34250-023

Report Date: 04/28/15

## SAMPLE RESULTS

Lab ID: L1508174-02

Date Collected: 04/21/15 13:55

Client ID: MW-59

Date Received: 04/21/15

Sample Location: Not Specified

Field Prep: Not Specified

Matrix: Water

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
<b>MCP General Chemistry - Westborough Lab</b>										
Cyanide, Physiologically Available	0.013		mg/l	0.005	--	1	04/23/15 12:57	04/24/15 10:51	97,9014	JO
<b>General Chemistry - Westborough Lab</b>										
Cyanide, Free	ND		ug/l	2.00	--	1	04/24/15 17:25	04/24/15 23:54	109,9016	AT
pH (H)	7.1		SU	-	NA	1	-	04/22/15 07:08	1,9040C	LH



**Project Name:** 100 BINNEY  
**Project Number:** 34250-023

**Lab Number:** L1508174  
**Report Date:** 04/28/15

**SAMPLE RESULTS**

**Lab ID:** L1508174-03  
**Client ID:** HA-402  
**Sample Location:** Not Specified  
**Matrix:** Water

**Date Collected:** 04/21/15 12:10  
**Date Received:** 04/21/15  
**Field Prep:** Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
<b>MCP General Chemistry - Westborough Lab</b>										
Cyanide, Physiologically Available	0.011		mg/l	0.005	--	1	04/23/15 12:57	04/24/15 10:51	97,9014	JO
<b>General Chemistry - Westborough Lab</b>										
Cyanide, Free	ND		ug/l	2.00	--	1	04/24/15 17:25	04/24/15 23:54	109,9016	AT
pH (H)	7.7		SU	-	NA	1	-	04/22/15 07:08	1,9040C	LH



Project Name: 100 BINNEY

Lab Number: L1508174

Project Number: 34250-023

Report Date: 04/28/15

**Method Blank Analysis**  
**Batch Quality Control**

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
MCP General Chemistry - Westborough Lab for sample(s): 01-03 Batch: WG778568-1										
Cyanide, Physiologically Available	ND		mg/l	0.005	--	1	04/23/15 12:57	04/24/15 10:46	97,9014	JO
General Chemistry - Westborough Lab for sample(s): 01-03 Batch: WG779072-1										
Cyanide, Free	ND		ug/l	2.00	--	1	04/24/15 17:25	04/24/15 23:47	109,9016	AT

## Lab Control Sample Analysis

### Batch Quality Control

Project Name: 100 BINNEY

Project Number: 34250-023

Lab Number: L1508174

Report Date: 04/28/15

Parameter	LCS		LCSD		%Recovery Limits	RPD	Qual	RPD Limits
	%Recovery	Qual	%Recovery	Qual				
General Chemistry - Westborough Lab Associated sample(s): 01-03 Batch: WG777925-1								
pH	100		-		99-101	-		5
MCP General Chemistry - Westborough Lab Associated sample(s): 01-03 Batch: WG778568-2 WG778568-3								
Cyanide, Physiologically Available	107		87		80-120	21	Q	20
MCP General Chemistry - Westborough Lab NEGATIVE LCS Associated sample(s): 01-03 Batch: WG778568-4								
Cyanide, Physiologically Available	1		-		0-10	-		20
General Chemistry - Westborough Lab Associated sample(s): 01-03 Batch: WG779072-2								
Cyanide, Free	93		-		75-125	-		

### Matrix Spike Analysis Batch Quality Control

Project Name: 100 BINNEY

Lab Number: L1508174

Project Number: 34250-023

Report Date: 04/28/15

Parameter	Native Sample	MS Added	MS Found	MS %Recovery	MSD Qual	MSD Found	MSD %Recovery	MSD Qual	Recovery Limits	RPD	RPD Qual	RPD Limits
General Chemistry - Westborough Lab Associated sample(s): 01-03 QC Batch ID: WG779072-3 QC Sample: L1508168-02 Client ID: MS Sample												
Cyanide, Free	ND	50	39.0	78	-	-	-	-	70-130	-	-	20

## Lab Duplicate Analysis

Batch Quality Control

Project Name: 100 BINNEY

Project Number: 34250-023

Lab Number: L1508174

Report Date: 04/28/15

Parameter	Native Sample	Duplicate Sample	Units	RPD	Qual	RPD Limits
General Chemistry - Westborough Lab Associated sample(s): 01-03 QC Batch ID: WG777925-2 QC Sample: L1508067-08 Client ID: DUP Sample						
pH	7.1	7.1	SU	0		5
General Chemistry - Westborough Lab Associated sample(s): 01-03 QC Batch ID: WG779072-4 QC Sample: L1508168-02 Client ID: DUP Sample						
Cyanide, Free	ND	ND	ug/l	NC		20

Project Name: 100 BINNEY

Lab Number: L1508174

Project Number: 34250-023

Report Date: 04/28/15

## 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(*)
L1508174-01A	Vial HCl preserved	A	N/A	3.7	Y	Absent	MCP-8260SIM-10(14),MCP-8260-10(14)
L1508174-01B	Vial HCl preserved	A	N/A	3.7	Y	Absent	MCP-8260SIM-10(14),MCP-8260-10(14)
L1508174-01C	Vial HCl preserved	A	N/A	3.7	Y	Absent	MCP-8260SIM-10(14),MCP-8260-10(14)
L1508174-01D	Brown Plastic 120ml NaOH preserv	A	>12	3.7	Y	Absent	FCN-9016(14)
L1508174-01E	Plastic 250ml NaOH preserved	A	>12	3.7	Y	Absent	MCP-PACN9014-10(14)
L1508174-01F	Plastic 120ml unpreserved	A	7	3.7	Y	Absent	PH-9040(1)
L1508174-01G	Amber 1000ml unpreserved	A	7	3.7	Y	Absent	MCP-8270-10(7),MCP-8270SIM-10(7)
L1508174-01H	Amber 1000ml unpreserved	A	7	3.7	Y	Absent	MCP-8270-10(7),MCP-8270SIM-10(7)
L1508174-02A	Vial HCl preserved	B	N/A	2.8	Y	Absent	MCP-8260SIM-10(14),MCP-8260-10(14)
L1508174-02B	Vial HCl preserved	B	N/A	2.8	Y	Absent	MCP-8260SIM-10(14),MCP-8260-10(14)
L1508174-02C	Vial HCl preserved	B	N/A	2.8	Y	Absent	MCP-8260SIM-10(14),MCP-8260-10(14)
L1508174-02D	Brown Plastic 120ml NaOH preserv	B	>12	2.8	Y	Absent	FCN-9016(14)
L1508174-02E	Plastic 250ml NaOH preserved	B	>12	2.8	Y	Absent	MCP-PACN9014-10(14)
L1508174-02F	Plastic 120ml unpreserved	B	7	2.8	Y	Absent	PH-9040(1)
L1508174-02G	Amber 1000ml unpreserved	B	7	2.8	Y	Absent	MCP-8270-10(7),MCP-8270SIM-10(7)
L1508174-02H	Amber 1000ml unpreserved	B	7	2.8	Y	Absent	MCP-8270-10(7),MCP-8270SIM-10(7)
L1508174-03A	Vial HCl preserved	B	N/A	2.8	Y	Absent	MCP-8260SIM-10(14),MCP-8260-10(14)
L1508174-03B	Vial HCl preserved	B	N/A	2.8	Y	Absent	MCP-8260SIM-10(14),MCP-8260-10(14)
L1508174-03C	Vial HCl preserved	B	N/A	2.8	Y	Absent	MCP-8260SIM-10(14),MCP-8260-10(14)
L1508174-03D	Brown Plastic 120ml NaOH preserv	B	>12	2.8	Y	Absent	FCN-9016(14)

\*Values in parentheses indicate holding time in days

**Project Name:** 100 BINNEY**Project Number:** 34250-023**Lab Number:** L1508174**Report Date:** 04/28/15**Container Information**

<b>Container ID</b>	<b>Container Type</b>	<b>Cooler</b>	<b>pH</b>	<b>Temp deg C</b>	<b>Pres</b>	<b>Seal</b>	<b>Analysis(*)</b>
L1508174-03E	Plastic 250ml NaOH preserved	B	>12	2.8	Y	Absent	MCP-PACN9014-10(14)
L1508174-03F	Plastic 120ml unpreserved	B	7	2.8	Y	Absent	PH-9040(1)
L1508174-03G	Amber 1000ml unpreserved	B	7	2.8	Y	Absent	MCP-8270-10(7),MCP-8270SIM-10(7)
L1508174-03H	Amber 1000ml unpreserved	B	7	2.8	Y	Absent	MCP-8270-10(7),MCP-8270SIM-10(7)

\*Values in parentheses indicate holding time in days





**Project Name:** 100 BINNEY  
**Project Number:** 34250-023

**Lab Number:** L1508174  
**Report Date:** 04/28/15

## GLOSSARY

### Acronyms

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

### Footnotes

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

### Terms

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

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

### Data Qualifiers

- A** - Spectra identified as "Aldol Condensation Product".
- B** - The analyte was detected above the reporting limit in the associated method blank. Flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank. For MCP-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank. For DOD-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank AND the analyte was detected above one-half the reporting limit (or above the reporting limit for common lab contaminants) in the associated method blank. For NJ-Air-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte above the reporting limit. For NJ-related projects (excluding Air), flag only applies to associated field samples that have detectable concentrations of the analyte, which was detected above the reporting limit in the associated method blank or above five times the reporting limit for common lab contaminants (Phthalates, Acetone, Methylene Chloride, 2-Butanone).
- C** - Co-elution: The target analyte co-elutes with a known lab standard (i.e. surrogate, internal standards, etc.) for co-extracted analyses.
- D** - Concentration of analyte was quantified from diluted analysis. Flag only applies to field samples that have detectable concentrations of the analyte.
- E** - Concentration of analyte exceeds the range of the calibration curve and/or linear range of the instrument.

Report Format: Data Usability Report



**Project Name:** 100 BINNEY  
**Project Number:** 34250-023

**Lab Number:** L1508174  
**Report Date:** 04/28/15

#### Data Qualifiers

- G** - The concentration may be biased high due to matrix interferences (i.e. co-elution) with non-target compound(s). The result should be considered estimated.
- H** - The analysis of pH was performed beyond the regulatory-required holding time of 15 minutes from the time of sample collection.
- I** - The lower value for the two columns has been reported due to obvious interference.
- M** - Reporting Limit (RL) exceeds the MCP CAM Reporting Limit for this analyte.
- NJ** - Presumptive evidence of compound. This represents an estimated concentration for Tentatively Identified Compounds (TICs), where the identification is based on a mass spectral library search.
- P** - The RPD between the results for the two columns exceeds the method-specified criteria.
- Q** - The quality control sample exceeds the associated acceptance criteria. For DOD-related projects, LCS and/or Continuing Calibration Standard exceedences are also qualified on all associated sample results. Note: This flag is not applicable for matrix spike recoveries when the sample concentration is greater than 4x the spike added or for batch duplicate RPD when the sample concentrations are less than 5x the RL. (Metals only.)
- R** - Analytical results are from sample re-analysis.
- RE** - Analytical results are from sample re-extraction.
- S** - Analytical results are from modified screening analysis.
- J** - Estimated value. This represents an estimated concentration for Tentatively Identified Compounds (TICs).
- ND** - Not detected at the reporting limit (RL) for the sample.

**Project Name:** 100 BINNEY  
**Project Number:** 34250-023

**Lab Number:** L1508174  
**Report Date:** 04/28/15

## REFERENCES

- 1 Test Methods for Evaluating Solid Waste: Physical/Chemical Methods. EPA SW-846. Third Edition. Updates I - IV, 2007.
- 97 EPA Test Methods (SW-846) with QC Requirements & Performance Standards for the Analysis of EPA SW-846 Methods under the Massachusetts Contingency Plan, WSC-CAM-IIA, IIB, IIIA, IIIB, IIIC, IIID, VA, VB, VC, VIA, VIB, VIIIA and VIIIB, July 2010.
- 109 Test Methods for Evaluating Solid Waste: Physical/Chemical Methods. EPA SW-846. Revision 0, June 2010.

## LIMITATION OF LIABILITIES

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

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



## Certification Information

Last revised December 16, 2014

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

#### Westborough Facility

**EPA 524.2:** Acetone, 2-Butanone (Methyl ethyl ketone (MEK)), Tert-butyl alcohol, 2-Hexanone, Tetrahydrofuran, 1,3,5-Trichlorobenzene, 4-Methyl-2-pentanone (MIBK), Carbon disulfide, Diethyl ether.

**EPA 8260C:** 1,2,4,5-Tetramethylbenzene, 4-Ethyltoluene, Iodomethane (methyl iodide), Methyl methacrylate, Azobenzene.

**EPA 8270D:** 1-Methylnaphthalene, Dimethylnaphthalene, 1,4-Diphenylhydrazine.

**EPA 625:** 4-Chloroaniline, 4-Methylphenol.

**SM4500:** Soil: Total Phosphorus, TKN, NO<sub>2</sub>, NO<sub>3</sub>.

**EPA 9071:** Total Petroleum Hydrocarbons, Oil & Grease.

#### Mansfield Facility

**EPA 8270D:** Biphenyl.

**EPA 2540D:** TSS

**EPA TO-15:** Halothane, 2,4,4-Trimethyl-2-pentene, 2,4,4-Trimethyl-1-pentene, Thiophene, 2-Methylthiophene, 3-Methylthiophene, 2-Ethylthiophene, 1,2,3-Trimethylbenzene, Indan, Indene, 1,2,4,5-Tetramethylbenzene, Benzothiophene, 1-Methylnaphthalene.

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

#### Drinking Water

**EPA 200.8:** Sb,As,Ba,Be,Cd,Cr,Cu,Pb,Ni,Se,Tl; **EPA 200.7:** Ba,Be,Ca,Cd,Cr,Cu,Na; **EPA 245.1:** Mercury;

**EPA 300.0:** Nitrate-N, Fluoride, Sulfate; **EPA 353.2:** Nitrate-N, Nitrite-N; **SM4500NO3-F:** Nitrate-N, Nitrite-N; **SM4500F-C, SM4500CN-CE, EPA 180.1, SM2130B, SM4500CI-D, SM2320B, SM2540C, SM4500H-B**

**EPA 332:** Perchlorate.

**Microbiology:** **SM9215B; SM9223-P/A, SM9223B-Colilert-QT, Enterolert-QT.**

#### Non-Potable Water

**EPA 200.8:** Al,Sb,As,Be,Cd,Cr,Cu,Pb,Mn,Ni,Se,Ag,Tl,Zn;

**EPA 200.7:** Al,Sb,As,Be,Cd,Ca,Cr,Co,Cu,Fe,Pb,Mg,Mn,Mo,Ni,K,Se,Ag,Na,Sr,Ti,Tl,V,Zn;

**EPA 245.1, SM4500H,B, EPA 120.1, SM2510B, SM2540C, SM2340B, SM2320B, SM4500CL-E, SM4500F-BC, SM426C, SM4500NH3-BH, EPA 350.1:** Ammonia-N, **LACHAT 10-107-06-1-B:** Ammonia-N, **SM4500NO3-F, EPA 353.2:** Nitrate-N, **SM4500NH3-BC-NES, EPA 351.1, SM4500P-E, SM4500P-B, E, SM5220D, EPA 410.4, SM5210B, SM5310C, SM4500CL-D, EPA 1664, SM14 510AC, EPA 420.1, SM4500-CN-CE, SM2540D.**

**EPA 624:** Volatile Halocarbons & Aromatics,

**EPA 608:** Chlordane, Toxaphene, Aldrin, alpha-BHC, beta-BHC, gamma-BHC, delta-BHC, Dieldrin, DDD, DDE, DDT, Endosulfan I, Endosulfan II, Endosulfan sulfate, Endrin, Endrin Aldehyde, Heptachlor, Heptachlor Epoxide, PCBs

**EPA 625:** SVOC (Acid/Base/Neutral Extractables), **EPA 600/4-81-045:** PCB-Oil.

**Microbiology:** **SM9223B-Colilert-QT; Enterolert-QT, SM9222D-MF.**

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



Haley & Aldrich, Inc.  
465 Medford St.,  
Suite 2200,  
Boston, MA 02129-1402

# CHAIN OF CUSTODY RECORD

L1508174

Phone (617) 886-7400  
Fax (617) 886-7600

Page 1 of 1

H&A FILE NO. 34250-023  
PROJECT NAME 100 Binney  
H&A CONTACT Lee Penwell

LABORATORY ALPHA ANALYTICAL  
ADDRESS WESTBOROUGH, MA  
CONTACT Gina Hall

DELIVERY DATE 4/21/15  
TURNAROUND TIME 5 DAY  
PROJECT MANAGER Rebecca Higgins

Sample No.	Date	Time	Depth	Type	Analysis Requested										Number of Containers	Comments (special instructions, precautions, additional method numbers, etc.)		
					1. VOCs 8260/8260-SIM	2. SVOCs 8270/8270-SIM	3. Free Cyanide	4. PAC	5. pH									
ENV-B	4/21/15	8:05	—	AQ	X	X	X	X	X								8	Laboratory to use applicable DEP CAM methods, unless otherwise directed.
<del>XXXXXXXXXX</del>	<del>XXXXXXXXXX</del>	<del>XXXXXXXXXX</del>	<del>—</del>	<del>AW</del>	<del>XXXXXXXXXX</del>	<del>XXXXXXXXXX</del>	<del>XXXXXXXXXX</del>	<del>XXXXXXXXXX</del>	<del>XXXXXXXXXX</del>	<del>XXXXXXXXXX</del>	<del>XXXXXXXXXX</del>	<del>XXXXXXXXXX</del>	<del>XXXXXXXXXX</del>	<del>XXXXXXXXXX</del>	<del>XXXXXXXXXX</del>	<del>XXXXXXXXXX</del>	<del>8</del>	
MW-59	4/21/15	13:55	—	AQ	X	X	X	X	X								8	
HA-402	4/21/15	12:10	—	AQ	X	X	X	X	X								8	

Sampled and Relinquished by  
 Sign: *Chris Sullivan*  
 Print: Chris Sullivan  
 Firm: H&A  
 Date: 4/21/15 Time: 15:10

Received by  
 Sign: *[Signature]*  
 Print: *[Signature]*  
 Firm: H&A  
 Date: 4/21/15 Time: 16:30

Relinquished by  
 Sign: *[Signature]*  
 Print: *[Signature]*  
 Firm: H&A  
 Date: 4/21/15 Time: 16:30

Received by  
 Sign: *Richard Scott*  
 Print: RICHARD SCOTT  
 Firm: AL  
 Date: 4/21/15 Time: 18:00

LIQUID					SOLID													
X																		
	X																	
		X	X	X														
AF	A	AC	AC	A														
40	1000	250	250	250														

VOA Vial  
Amber Glass  
Plastic Bottle  
Preservative  
Volume (mL)

SOLID ~~XXXXXXXXXX~~ 24 Bottles

VOA Vial  
Amber Glass  
Clear Glass  
Preservative  
Volume

Sampling Comments

Evidence samples were tampered with? YES NO  
 If YES, please explain in section below.

Presumptive Certainty Data Package (Laboratory to use applicable DEP CAM methods)

If Presumptive Certainty Data Package is needed, initial all sections:

NO The required minimum field QC samples, as designated in BWSC CAM-VII have been or will be collected, as appropriate, to meet the requirements of Presumptive Certainty.

NO Matrix Spike (MS) samples for MCP Metals and/or Cyanide are included and identified herein.

This Chain of Custody Record (specify) \_\_\_\_\_ includes \_\_\_\_\_ Does not include samples defined as Drinking Water Samples.

NA If this Chain of Custody Record identifies samples defined as Drinking Water Samples, Trip Blanks and Field Duplicates are included and identified and analysis of TICs are required, as appropriate. Laboratory should (specify if applicable) \_\_\_\_\_ analyze

Required Reporting Limits and Data Quality Objectives

<input type="checkbox"/> RC-S1	<input type="checkbox"/> S1	<input checked="" type="checkbox"/> GW1
<input type="checkbox"/> RC-S2	<input type="checkbox"/> S2	<input type="checkbox"/> GW2
<input checked="" type="checkbox"/> RC-GW1	<input type="checkbox"/> S3	<input type="checkbox"/> GW3
<input type="checkbox"/> RC-GW2		

7A  
Volatile Organics CONTINUING CALIBRATION CHECK

Lab Name: Alpha Analytical Labs

SDG No.: L1508174

Instrument ID: Jack.i                      Calibration Date: 24-APR-2015    Time: 06:50

Lab File ID: 0424A01                      Init. Calib. Date(s): 14-APR-2      14-APR-2

Sample No: 8260 CCAL                      Init. Calib. Times    : 19:03                      22:30

Compound	RRF	RRF	MIN RRF	%D	MAX %D
=====	=====	=====	=====	=====	=====
dichlorodifluoromethane	.54016	.47401	.1	-12	20
chloromethane	1.0355	.7845	.1	-24	20
vinyl chloride	.8478	.77749	.1	-8	20
bromomethane	.28086	.30397	.1	8	20
chloroethane	.45807	.456	.1	0	20
trichlorofluoromethane	.84768	.83683	.1	-1	20
ethyl ether	.34214	.3422	.05	0	20
1,1,-dichloroethene	.56613	.59167	.1	5	20
carbon disulfide	1.7482	1.5626	.1	-11	20
methylene chloride	.62754	.63589	.1	1	20
acetone	100	104	.1	4	20
trans-1,2-dichloroethene	.67625	.69241	.1	2	20
methyl tert butyl ether	1.9842	1.8317	.1	-8	20
Diisopropyl Ether	3.3968	2.7837	.01	-18	20
1,1-dichloroethane	1.4979	1.3562	.2	-9	20
Ethyl-Tert-Butyl-Ether	2.8626	2.4775	.05	-13	20
cis-1,2-dichloroethene	.82401	.79342	.1	-4	20
2,2-dichloropropane	1.1243	1.0759	.05	-4	20
bromochloromethane	.37149	.36505	.05	-2	20
chloroform	1.2900	1.2111	.2	-6	20
carbontetrachloride	1.0353	.96741	.1	-7	20
1,1,1-trichloroethane	1.2145	1.1421	.1	-6	20
1,1-dichloropropene	1.0526	1.0082	.05	-4	20
2-butanone	.40623	.34015	.1	-16	20
benzene	2.9965	2.9476	.5	-2	20
tetrahydrofuran	.33575	.27525	.05	-18	20
Tertiary-Amyl Methyl Ether	2.2260	1.9311	.05	-13	20
1,2-dichloroethane	1.1014	.99205	.1	-10	20
trichloroethene	.78208	.75965	.2	-3	20
dibromomethane	.43287	.39161	.05	-10	20
1,2-dichloropropane	.96644	.80859	.1	-16	20
bromodichloromethane	1.0566	.92876	.2	-12	20
cis-1,3-dichloropropene	1.2936	1.1550	.2	-11	20
toluene	2.5960	2.3757	.4	-8	20
tetrachloroethene	1.1223	1.1001	.2	-2	20
4-methyl-2-pentanone	.3732	.29943	.1	-20	20
trans-1,3-dichloropropene	1.5640	1.2784	.1	-18	20
1,1,2-trichloroethane	.72084	.62836	.1	-13	20

F

FORM VII MCP-8260-10

7A  
CONTINUING CALIBRATION CHECK

Lab Name: Alpha Analytical Labs

SDG No.: L1508174

Instrument ID: Jack.i                      Calibration Date: 24-APR-2015    Time: 06:50

Lab File ID: 0424A01                      Init. Calib. Date(s): 14-APR-2      14-APR-2

Sample No: 8260 CCAL                      Init. Calib. Times    : 19:03                      22:30

Compound	RRF	RRF	MIN RRF	%D	MAX %D	
chlorodibromomethane	1.0092	.89102	.1	-12	20	
1,3-dichloropropane	1.4959	1.3052	.05	-13	20	
1,2-dibromoethane	.90752	.80503	.1	-11	20	
2-hexanone	.97019	.676	.1	-30	20	F
chlorobenzene	2.9203	2.7094	.5	-7	20	
ethyl benzene	5.1801	4.8414	.1	-7	20	
1,1,1,2-tetrachloroethane	1.1235	.98768	.05	-12	20	
p/m xylene	2.0239	1.9150	.1	-5	20	
o xylene	2.0242	1.7970	.3	-11	20	
styrene	3.0961	2.9136	.3	-6	20	
bromoform	1.2415	1.0174	.1	-18	20	
isopropylbenzene	12.156	11.026	.1	-9	20	
bromobenzene	2.3990	2.0852	.05	-13	20	
n-propylbenzene	12.039	10.644	.05	-12	20	
1,1,2,2,-tetrachloroethane	2.3351	1.7805	.3	-24	20	F
2-chlorotoluene	8.1022	6.8648	.05	-15	20	
1,2,3-trichloropropane	1.8250	1.4524	.05	-20	20	F
1,3,5-trimethylbenzene	8.7191	7.3800	.05	-15	20	
4-chorotoluene	7.2862	6.0546	.05	-17	20	
tert-butylbenzene	7.6088	6.4394	.05	-15	20	
1,2,4-trimethylbenzene	8.5820	7.2002	.05	-16	20	
sec-butylbenzene	11.033	9.6300	.01	-13	20	
p-isopropyltoluene	9.2216	7.9341	.05	-14	20	
1,3-dichlorobenzene	4.7354	4.0541	.6	-14	20	
1,4-dichlorobenzene	4.7348	4.0742	.5	-14	20	
n-butylbenzene	7.7425	6.4955	.05	-16	20	
1,2-dichlorobenzene	4.3111	3.6432	.4	-15	20	
1,2-dibromo-3-chloropropane	.39838	.29711	.05	-25	20	F
hexachlorobutadiene	.86561	.74484	.05	-14	20	
1,2,4-trichlorobenzene	2.3765	1.9392	.2	-18	20	
naphthalene	6.2282	4.8509	.05	-22	20	F
1,2,3-trichlorobenzene	2.0297	1.6450	.05	-19	20	
dibromofluoromethane	.23178	.23693	.05	2	20	
1,2-dichloroethane-d4	.31911	.30178	.05	-5	20	
toluene-d8	1.2452	1.1845	.01	-5	20	
4-bromofluorobenzene	.91313	.86157	.05	-6	20	

FORM VII MCP-8260-10

7A  
CONTINUING CALIBRATION CHECK

Lab Name: Alpha Analytical Labs

SDG No.: L1508174

Instrument ID: Jack.i                      Calibration Date: 25-APR-2015    Time: 07:37

Lab File ID: 0425A04                      Init. Calib. Date(s): 14-APR-2      14-APR-2

Sample No: 8260 CCAL                      Init. Calib. Times    : 19:19                      22:46

Compound	RRF	RRF	MIN RRF	%D	MAX %D	
=====	=====	=====	=====	=====	=====	
dichlorodifluoromethane	.54533	.51282	.1	-6	20	
chloromethane	.56102	.43763	.1	-22	20	F
vinyl chloride	.86343	.75856	.1	-12	20	
bromomethane	.38263	.26875	.1	-30	20	F
chloroethane	.38855	.44674	.1	15	20	
trichlorofluoromethane	.80121	.91667	.1	14	20	
ethyl ether	.30628	.28655	.05	-6	20	
1,1,-dichloroethene	.5934	.62317	.1	5	20	
carbon disulfide	1.6578	1.5941	.1	-4	20	
methylene chloride	.60774	.67791	.1	12	20	
acetone	100	105	.1	5	20	
trans-1,2-dichloroethene	.67437	.71563	.1	6	20	
methyl tert butyl ether	1.5185	1.2991	.1	-14	20	
Diisopropyl Ether	2.9435	2.3413	.01	-20	20	F
1,1-dichloroethane	1.5248	1.4518	.2	-5	20	
Ethyl-Tert-Butyl-Ether	2.4088	1.9153	.05	-20	20	F
cis-1,2-dichloroethene	.83209	.81928	.1	-2	20	
2,2-dichloropropane	1.0455	1.0747	.05	3	20	
bromochloromethane	.34417	.36255	.05	5	20	
chloroform	1.3078	1.2805	.2	-2	20	
carbontetrachloride	1.0246	.99977	.1	-2	20	
tetrahydrofuran	.21809	.16164	.05	-26	20	F
1,1,1-trichloroethane	1.2175	1.1940	.1	-2	20	
1,1-dichloropropene	1.0162	.9612	.05	-5	20	
2-butanone	.26003	.21905	.1	-16	20	
benzene	2.9958	2.7503	.5	-8	20	
Tertiary-Amyl Methyl Ether	1.7017	1.3882	.05	-18	20	
1,2-dichloroethane	.99995	.93681	.1	-6	20	
trichloroethene	.75626	.69812	.2	-8	20	
dibromomethane	.37036	.35516	.05	-4	20	
1,2-dichloropropane	.91457	.77259	.1	-16	20	
bromodichloromethane	1.1026	1.0373	.2	-6	20	
cis-1,3-dichloropropene	1.1858	1.0318	.2	-13	20	
toluene	2.3600	2.1903	.4	-7	20	
tetrachloroethene	1.0422	.98157	.2	-6	20	
4-methyl-2-pentanone	.20702	.16986	.1	-18	20	
trans-1,3-dichloropropene	1.2253	.98446	.1	-20	20	
1,1,2-trichloroethane	.57238	.47581	.1	-17	20	

FORM VII MCP-8260-10



7A  
CONTINUING CALIBRATION CHECK

Lab Name: Alpha Analytical Labs

SDG No.: L1508174

Instrument ID: Jack.i                      Calibration Date: 25-APR-2015    Time: 07:37

Lab File ID: 0425A04                      Init. Calib. Date(s): 14-APR-2      14-APR-2

Sample No: 8260 CCAL                      Init. Calib. Times    : 19:19                      22:46

Compound	RRF	RRF	MIN RRF	%D	MAX %D
chlorodibromomethane	.83461	.723	.1	-13	20
1,3-dichloropropane	1.1767	.99007	.05	-16	20
1,2-dibromoethane	.68149	.58972	.1	-13	20
2-hexanone	.51	.37442	.1	-27	20
chlorobenzene	2.7651	2.5763	.5	-7	20
ethyl benzene	4.8810	4.6518	.1	-5	20
1,1,1,2-tetrachloroethane	1.0106	.87657	.05	-13	20
p/m xylene	1.9705	1.8878	.1	-4	20
o xylene	1.8928	1.8127	.3	-4	20
styrene	3.0420	2.9092	.3	-4	20
bromoform	.85907	.71338	.1	-17	20
isopropylbenzene	11.005	10.004	.1	-9	20
bromobenzene	2.1143	1.9258	.05	-9	20
n-propylbenzene	10.720	10.069	.05	-6	20
1,1,2,2,-tetrachloroethane	1.5224	1.2306	.3	-19	20
2-chlorotoluene	7.4293	6.5125	.05	-12	20
1,2,3-trichloropropane	1.1688	.95646	.05	-18	20
1,3,5-trimethylbenzene	8.0827	7.4021	.05	-8	20
4-chlorotoluene	6.5501	5.8807	.05	-10	20
tert-butylbenzene	7.0087	6.2962	.05	-10	20
1,2,4-trimethylbenzene	8.0159	6.9958	.05	-13	20
sec-butylbenzene	10.337	9.5151	.01	-8	20
p-isopropyltoluene	8.7095	7.8696	.05	-10	20
1,3-dichlorobenzene	4.4028	3.8914	.6	-12	20
1,4-dichlorobenzene	4.3925	3.9250	.5	-11	20
n-butylbenzene	7.3002	6.4767	.05	-11	20
1,2-dichlorobenzene	3.9336	3.5263	.4	-10	20
1,2-dibromo-3-chloropropane	.25934	.20074	.05	-23	20
1,2,4-trichlorobenzene	2.1842	1.7610	.2	-19	20
hexachlorobutadiene	.90201	.78414	.05	-13	20
naphthalene	4.6749	3.3361	.05	-29	20
1,2,3-trichlorobenzene	1.7952	1.4544	.05	-19	20
dibromofluoromethane	.24165	.26339	.05	9	20
1,2-dichloroethane-d4	.31149	.29465	.05	-5	20
toluene-d8	1.2055	1.1912	.01	-1	20
4-bromofluorobenzene	.86289	.82554	.05	-4	20

F

F

F

FORM VII MCP-8260-10





**APPENDIX G**

**Construction Dewatering Submittal Prepared by AA Will**

**A.A. WILL CORPORATION**

145 Island Street, Stoughton, MA 02070  
TEL: 781-341-4800  
FAX: 781-341-4404  
Estimating FAX: 781-297-9776



---

Date: 8/11/15

**TRANSMITTAL NO. 07**

To: Leo Grace  
John Moriarty & Associates, Inc.  
41 Linskey Way  
Cambridge, MA

From: Mark Driscoll

RE: 100 Binney Street, Cambridge MA

---

Qty	Date	AAW Submittal #	Description
1	8/10/15	312319 – 001	Dewatering Submittal

---

## **A.A. WILL CORPORATION**

145 Island Street, Stoughton, MA 02070

Tel: 781-341-4800

Estimating Fax: 781-297-9776



---

Aug 13, 2015

Leo Grace  
John Moriarty & Associates  
41 Linskey Way  
Cambridge, MA

Re: 100 Binney Street  
Dewatering Plan

Dewatering for this project will consist of pumping from various sump locations as needed within the excavation. In addition, a deep well may be installed to the bottom of excavation elevation for use during excavation. The pumped water will travel through a dewatering treatment system before being discharged into the adjacent City of Cambridge drainage system. The dewatering system will consist of a sedimentation tank, bag filters, and a flow meter as detailed on the attached pages. pH adjustment will be added if test results determine it is necessary. Effluent will conform to the discharge requirements of the NPDES CGP. In the event that additional chemical treatment is required granular activated carbon or ion exchange will be added to the base system.

The sumps will be located based upon conditions encountered during construction. The sumps themselves will consist of an excavated pit filled with crushed stone and a perforated sleeve. Hay bales may also be placed at the perimeter of the sump if required. Water will be pumped from the excavation using either ITT Flyght 2160 or Tsurami LB-800 pumps, or a combination of the two (See attached specifications). Spare pumps will be kept onsite or will be readily available in case of an equipment malfunction.

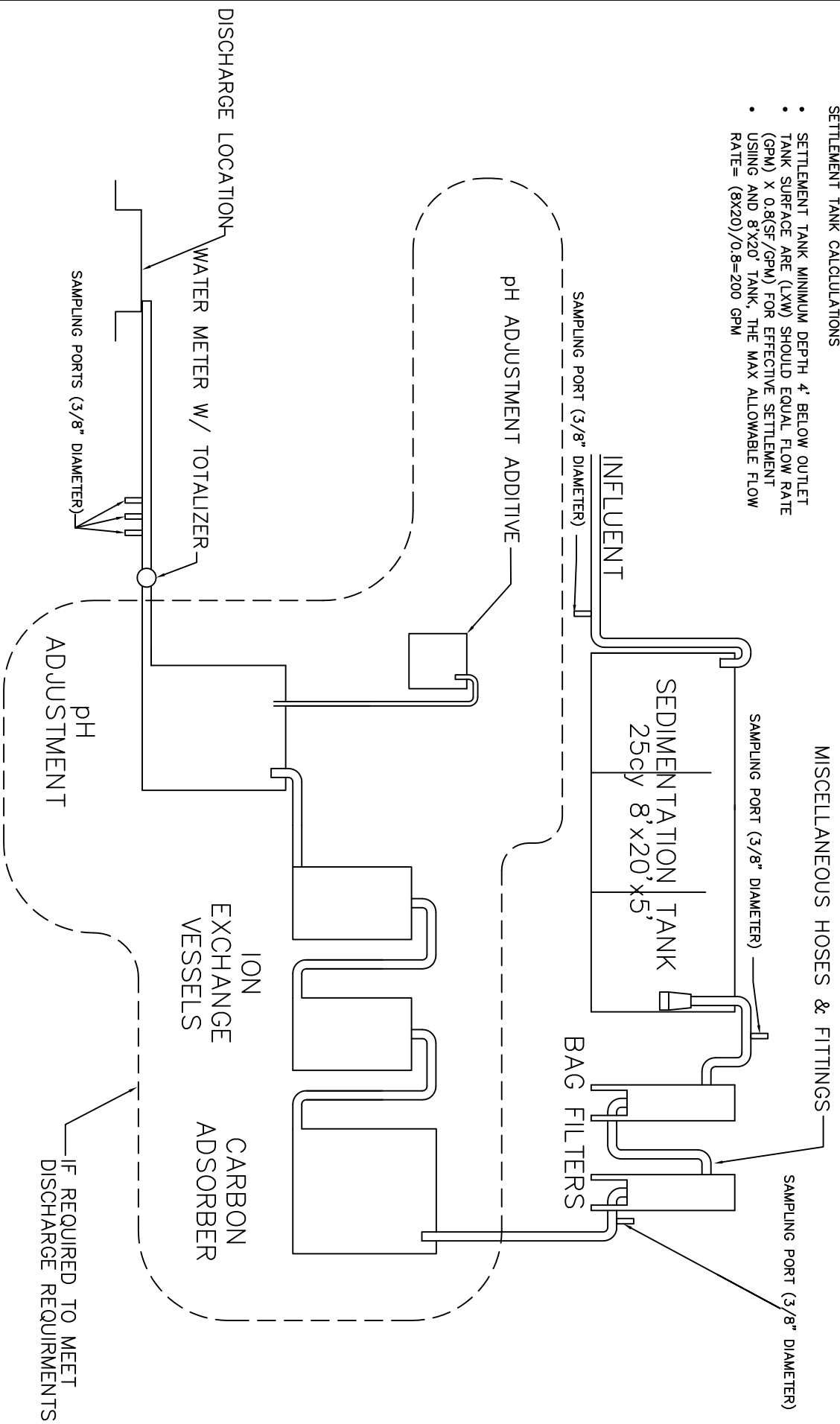
The dewatering treatment system will be monitored periodically throughout the day by A.A. Will's jobsite superintendent or foreman to ensure that the system is operating properly. Regular maintenance of the bag filters and sediment tank will be required. The bag filters will be changed as needed to allow the discharge volume to be able to pass through the filter. The frequency of bag filter changes will vary depending upon the filter size used and the amount of sediment in the pumped water. The sedimentation tanks will be cleaned on a monthly basis, or as required due to sediment build up. The discharge sediment removed from the tanks will be handled in conformance with the soil management plan.

Sincerely,

Mark Driscoll  
A.A. Will Corporation

SETTLEMENT TANK CALCULATIONS

- SETTLEMENT TANK MINIMUM DEPTH 4' BELOW OUTLET
- TANK SURFACE AREA (LXW) SHOULD EQUAL FLOW RATE (GPM) X 0.8(SF/GPM) FOR EFFECTIVE SETTLEMENT
- USING AND 8'X20' TANK, THE MAX ALLOWABLE FLOW RATE = (8X20)/0.8=200 GPM



100 BINNEY ST  
CAMBRIDGE, MA  
DEWATERING TREATMENT  
SYSTEM



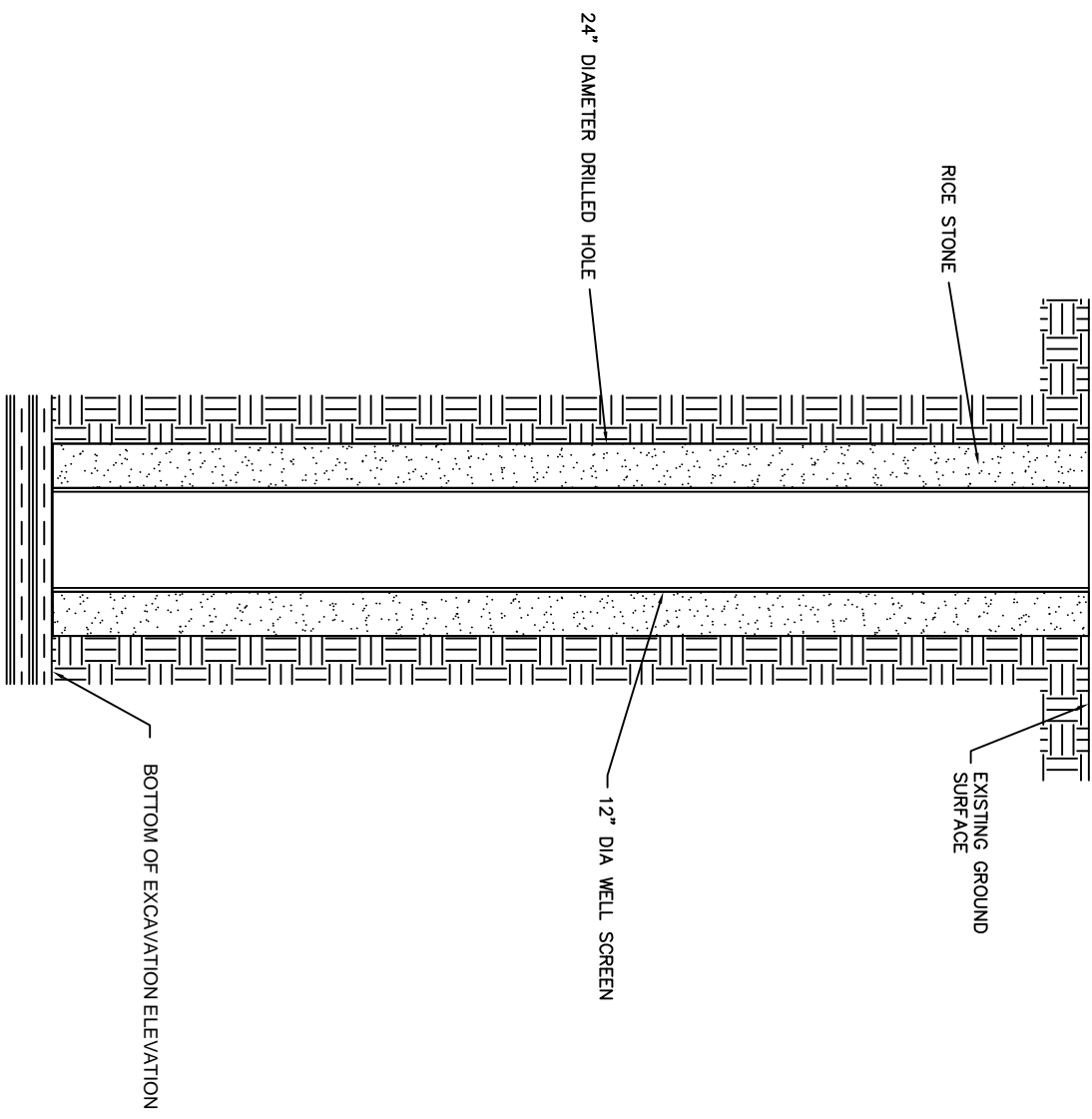
A.A. WILL CORPORATION  
145 ISLAND STREET  
STOUGHTON, MA

DATE: 8/13/15  
DRAWN: RPM  
SCALE: NTS

SKETCH

1

IF REQUIRED TO MEET  
DISCHARGE REQUIREMENTS



100 BINNEY ST  
 CAMBRIDGE, MA  
 DEWATERING WELL DETAIL



A.A. WILL CORPORATION  
 145 ISLAND STREET  
 STOUGHTON, MA

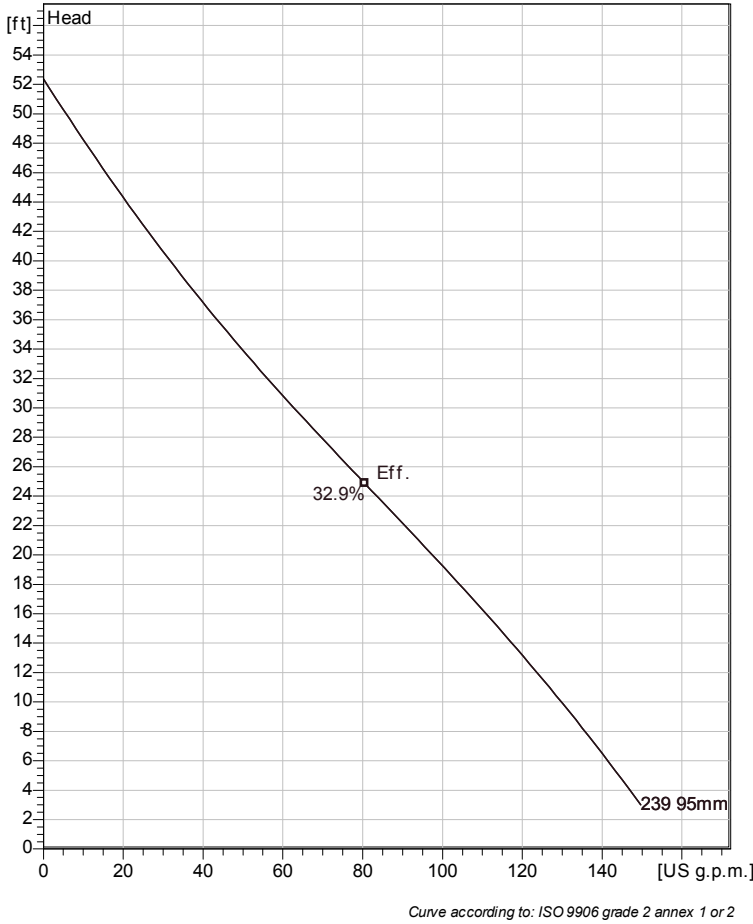
DATE: 8/13/15  
 DRAWN: RPM  
 SCALE: NTS

SKETCH  
**1**



Dewatering Pumps  
Manufacturer's Information

**KS 2610 MT 1~ 239**  
Technical specification



Note: Picture might not correspond to the current configuration.

**General**

Portable pumps ideal for applications in which the water or liquid contains concentrations of abrasives when clogging problems can occur

**Impeller**

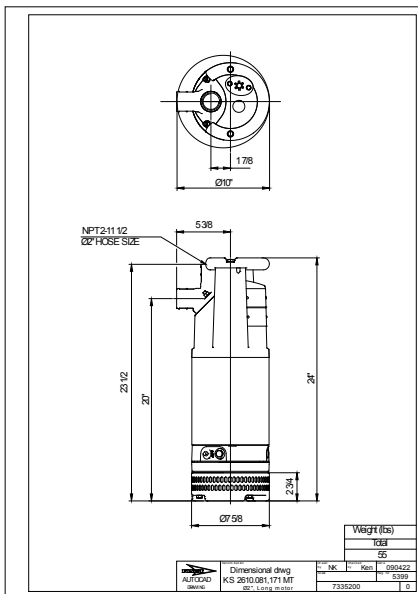
Impeller material	Hard-Iron™
Outlet width	1 15/16 inch
Inlet diameter	72 mm
Impeller diameter	95 mm
Number of blades	2
	0 inch

**Motor**

Motor #	K2610.171 13-10-2BB-W 1.8hp
Stator variant	7
Frequency	60 Hz
Rated voltage	220 V
Number of poles	2
Phases	1~
Rated power	1.8 hp
Rated current	7.5 A
Starting current	35 A
Rated speed	3465 rpm
Power factor	
1/1 Load	0.98
3/4 Load	0.98
1/2 Load	0.98
Efficiency	
1/1 Load	82.0 %
3/4 Load	80.5 %
1/2 Load	75.5 %

**Configuration**

Installation: S - Portable Semi permanent, Wet



Project	Project ID	Created by	Created on <b>2013-04-24</b>	Last update
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# KS 2610 MT 1~ 239

## Performance curve

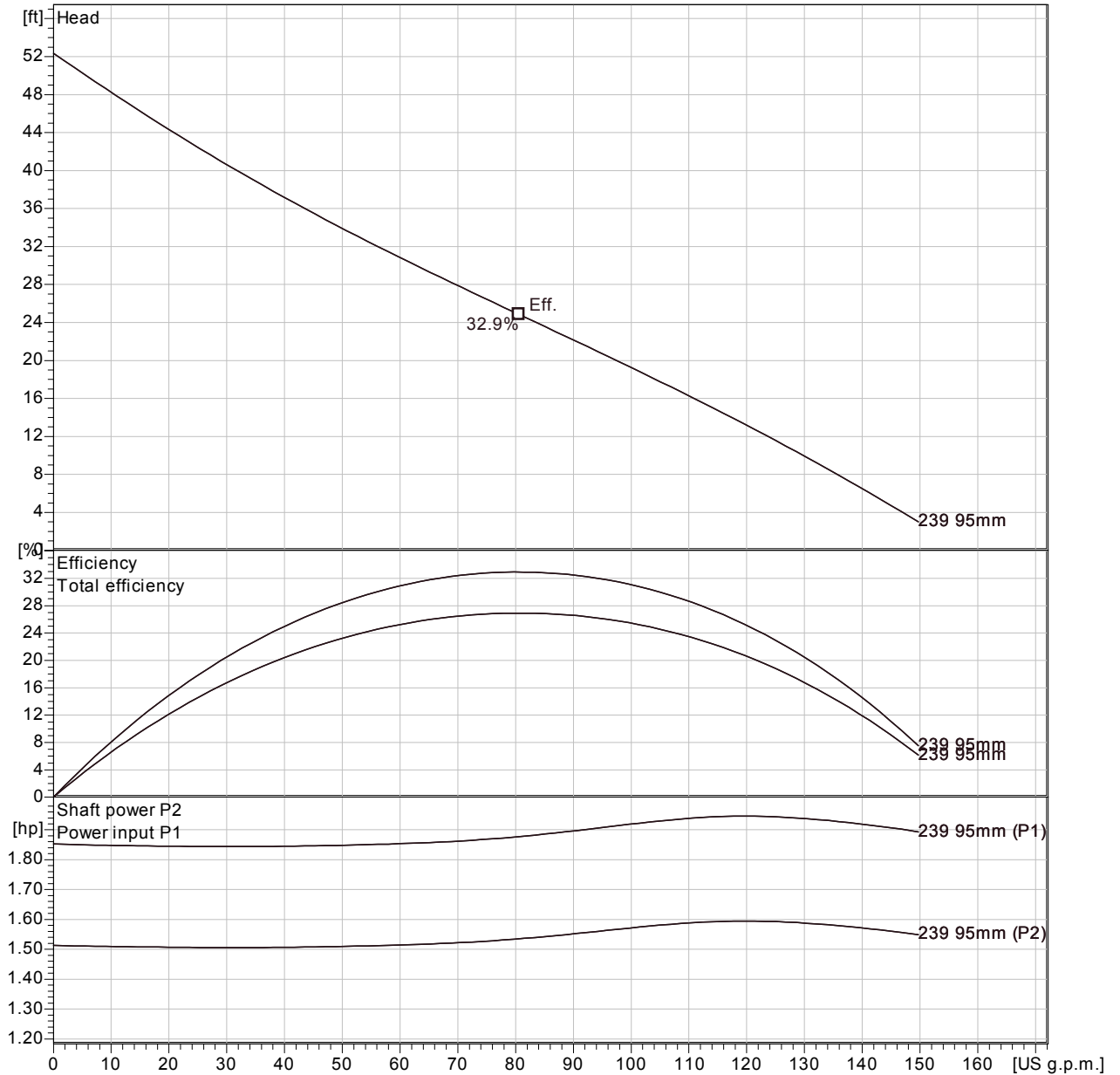
### Pump

Outlet width 1 15/16 inch  
Inlet diameter 72 mm  
Impeller diameter 3 3/4"  
Number of blades 2  
0 inch

### Motor

Motor # K2610.171 13-10-2BB-W 1.8hp  
Stator variant 7  
Frequency 60 Hz  
Rated voltage 220 V  
Number of poles 2  
Phases 1~  
Rated power 1.8 hp  
Rated current 7.5 A  
Starting current 35 A  
Rated speed 3465 rpm

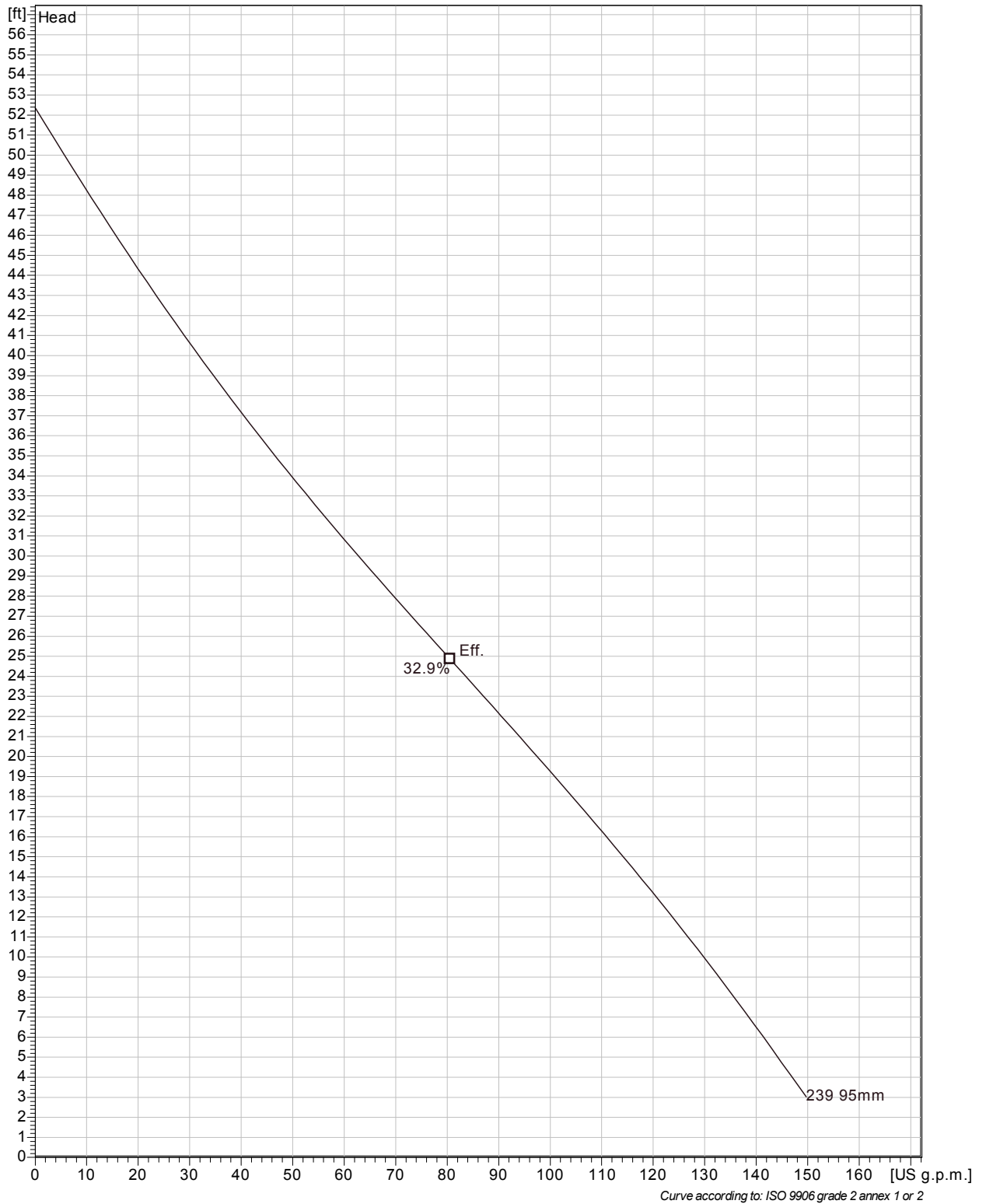
Power factor  
1/1 Load 0.98  
3/4 Load 0.98  
1/2 Load 0.98  
Efficiency  
1/1 Load 82.0 %  
3/4 Load 80.5 %  
1/2 Load 75.5 %



Curve according to: ISO 9906 grade 2 annex 1 or 2

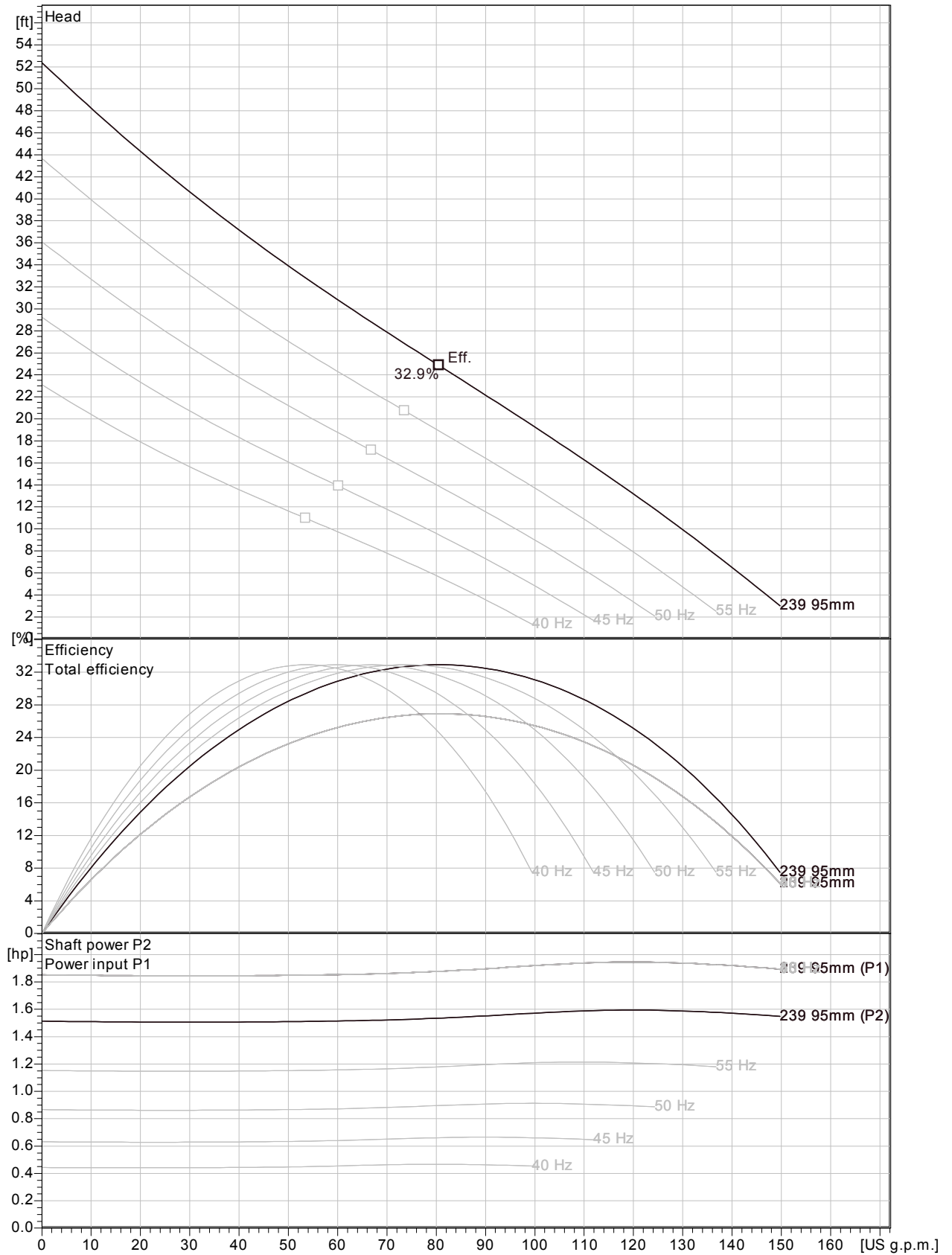
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**KS 2610 MT 1~ 239**  
Duty Analysis



Project	Project ID	Created by	Created on	Last update
			2013-04-24	

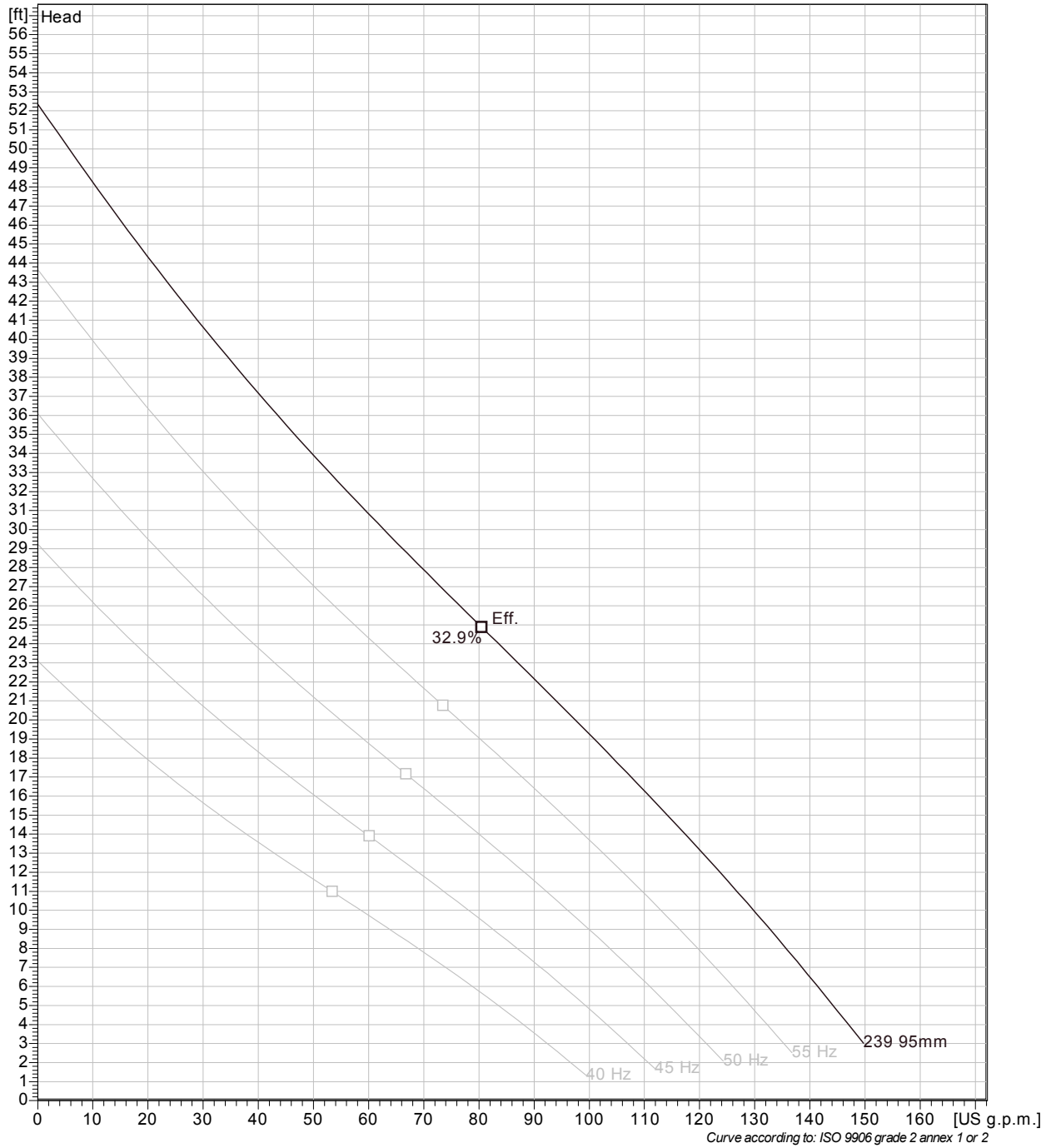
**KS 2610 MT 1~ 239**  
VFD Curve



Curve according to: ISO 9906 grade 2 annex 1 or 2

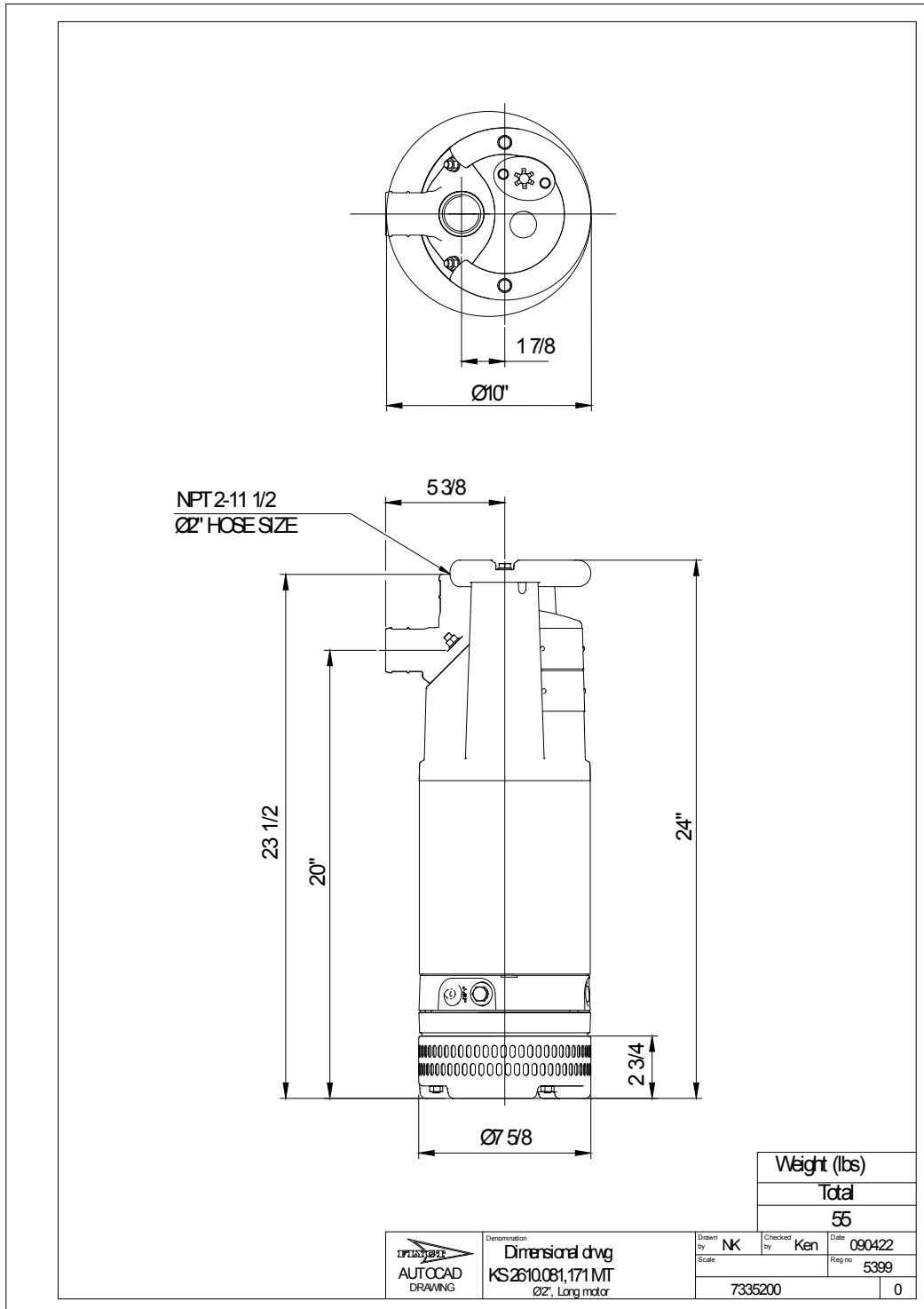
Project	Project ID	Created by	Created on	Last update
			2013-04-24	

**KS 2610 MT 1~ 239**  
**VFD Analysis**



Project	Project ID	Created by	Created on	Last update
			2013-04-24	

**KS 2610 MT 1~ 239**  
Dimensional drawing



Project	Project ID	Created by	Created on	Last update
			2013-04-24	

**■ FEATURES**

1. Semi-vortex, urethane rubber impeller, urethane front & rear wear plates and ethylene propylene rubber casing increases wear resistance when pumpage contains abrasive particles.
2. Double inside mechanical seals with silicon carbide faces, (both top and bottom) running in an oil filled chamber and further protected by a lip seal running against a replaceable, 304 stainless steel shaft sleeve, provides for the most durable seal design available.
3. Highly efficient, continuous duty air filled, copper wound motor with class B, insulation minimizes the cost of operation.
4. Built in thermal protector prevents motor failure due to-

overloading or accidental run -dry conditions.

5. Double shielded, permanently lubricated, high temperature C3 ball bearings, extend operational life.
6. Top discharge, flow-thru design enables operation at low water levels for extended periods.

**■ APPLICATIONS**

1. Residential, commercial, industrial wastewater and construction site drainage.
2. Effluent transfer.
3. Decorative waterfalls and fountains.
4. Raw water supply from rivers or lakes.


**■ SPECIFICATIONS**

Discharge Size  
 Horsepower Range  
 Performance Range Capacity Head  
 Maximum water temperature  
 Materials of Construction  
 Casing  
 Impeller  
 Shaft  
 Motor Frame  
 Fasteners  
 Mechanical Seal  
 Elastomers  
 Impeller Type  
 Solids Handling Capability  
 Bearings  
 Motor Nomenclature  
 Type, Speed, Hz.  
 Voltage, Phase  
 Insulation  
 Accessories  
 Operational Mode

**■ STANDARD**

2" Npt (50 mm)  
 1 Hp. (.75 Kw)  
 10 ~ 82 Gpm. (.037 ~ .31 m<sup>3</sup>/min)  
 7 ~ 59 Ft. (2.1 ~ 17.9 m)  
 104° F. (40° C.)

Ethylene Propylene Rubber  
 Urethane Rubber  
 403 Stainless Steel  
 Aluminum alloy  
 304 Stainless Steel

Silicon Carbide/Silicon Carbide  
 NBR (Nitril Buna Rubber)  
 Semi-vortex, solids handling.  
 Screen opening

Pre-lubricated, Double Shielded C3

Air Filled, 3600 Rpm, 60 Hz.  
 115/230 V., 1 Phase  
 230/460/575 V. 3 Phase (LBT-800)  
 Class F

Submersible Power Cable 50' (9.75 m)

Manual

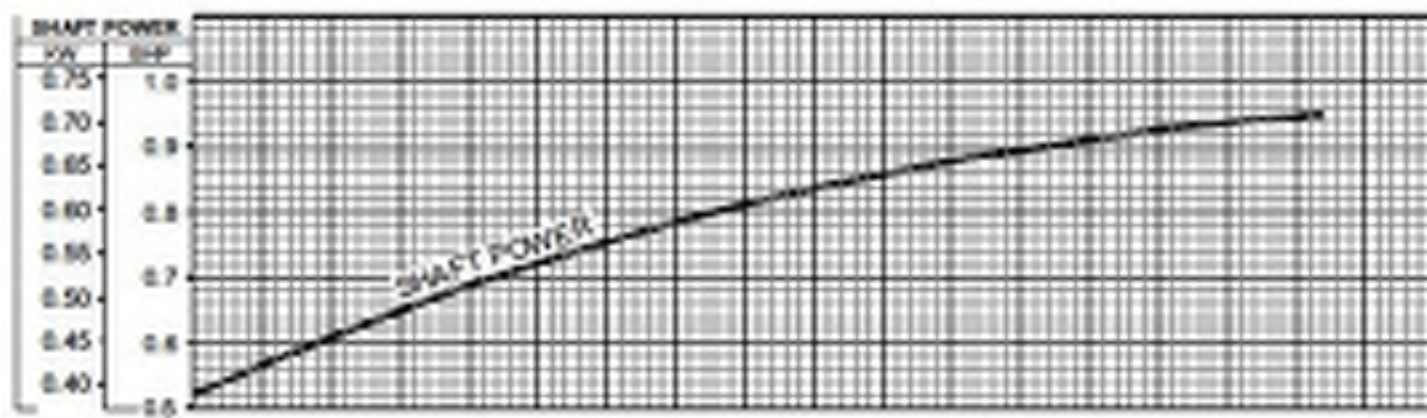
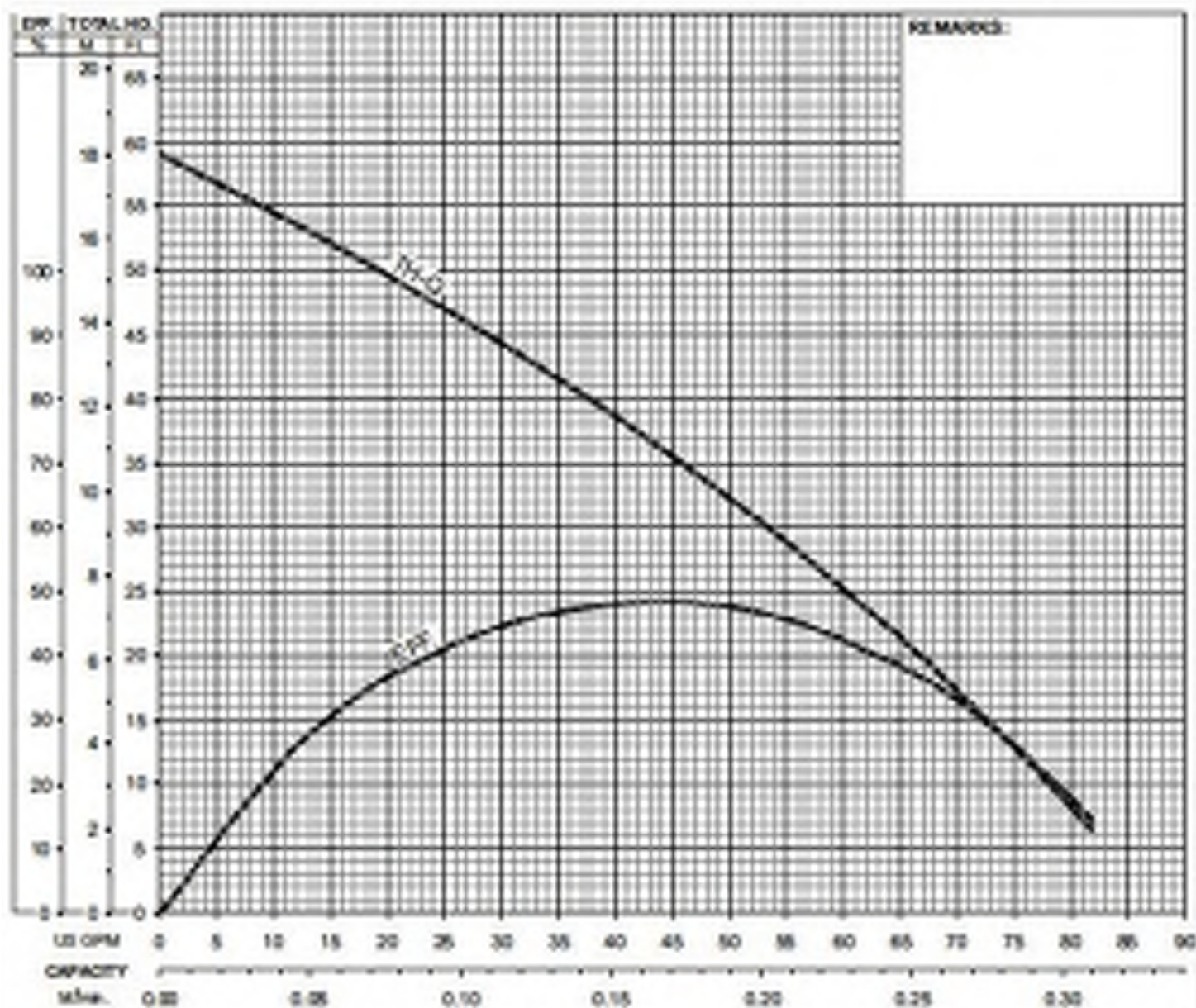
**■ OPTIONS**

Length as Required, (97' Max)




**TSURUMI PUMP**
**LB SERIES**  
**SEMI-VORTEX - Dewatering PUMP**
**PERFORMANCE**  
**CURVE**

MODEL	BORE	HP	KW	RPM	SOLIDS DIA	LIQUID	SO.	VISCOSITY	TEMP.
LB-004-08	2"50mm	1	0.75	3300	0.239"6mm	Water	1.0	1.31 cSt	60F
PUMP TYPE	PHASE	VOLTAGE	AMPERAGE		HZ	STARTING METHOD	INS. CLASS		
Semi-Vortex - Dewatering Pump	Single	110/115/200/230	10.8/10.3/5.7/5.5		60	Capacitor Start	F		
CURVE No.	DATE	PHASE	VOLTAGE	AMPERAGE	HZ	STARTING METHOD	INS. CLASS		
-	-	-	-	-	-	-	-		



Bag Filters & Filter Media  
Manufacturer's Information

## Model NCO and NLCO Bag or Cartridge Filter Housings

Low cost filter housings for flow rates to 100 gpm\*

NCO high-capacity bag filters offer an exceptional value in basic filtration applications. Offered in trade sizes 1, 2, and 12, the NCO is also available with our Platinum 700 cartridge series.

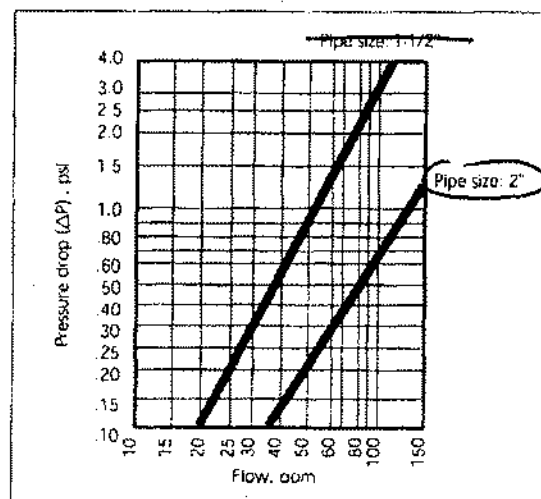
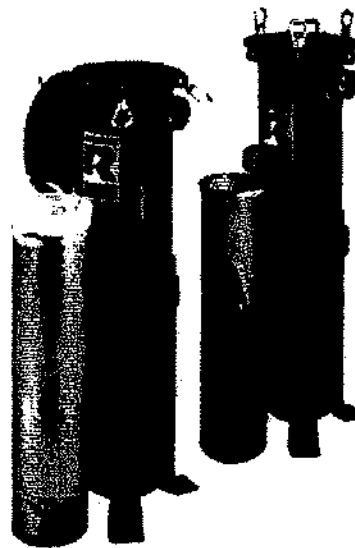
NCO housings provide large dirt-holding capacity combined with a rugged design rated to 150 psi. The housings incorporate an eyenut cover that is easily removed, reducing time spent on bag or cartridge change-out. The NCO bag housing offers versatility for any piping arrangement, utilizing our unistyle design (side and bottom outlet). Two connection sizes are available for both bag and cartridge filters.

The NCO housings are electropolished creating a smooth, easy-to-clean surface. A variety of filter bags or cartridges (rated 0.5 $\mu$  absolute to 100 $\mu$  nominal) can be utilized in this housing. Keep your filtration process cost effective without sacrificing quality.

### Features

- Permanently piped housings are opened without special tools
- Carbon or stainless steel housings
- Covers are O-ring sealed
- O-ring seals: Buna N, EPR and Viton®
- 150 psi rated housing
- Heavy-duty basket, over 50% open area
- Uses standard number 1, 2 or 12 size bags and 500 or 700 series cartridges

- Filter selection surface area is:  
2.3 square feet (number 1 size bag),  
4.4 square feet (number 2 size bag),  
5.6 square feet (number 12 size bag)  
68 square feet (500 series cartridge)  
100 square feet (700 series cartridge)
- 1-1/2 inch or 2-inch NPT inlet and outlet
- 1/4-inch NPT vent connection
- Adjustable leg assembly



\*Based on housing only. Fluid viscosity, filter bag used, and expected dirt loading should be considered when sizing a filter.

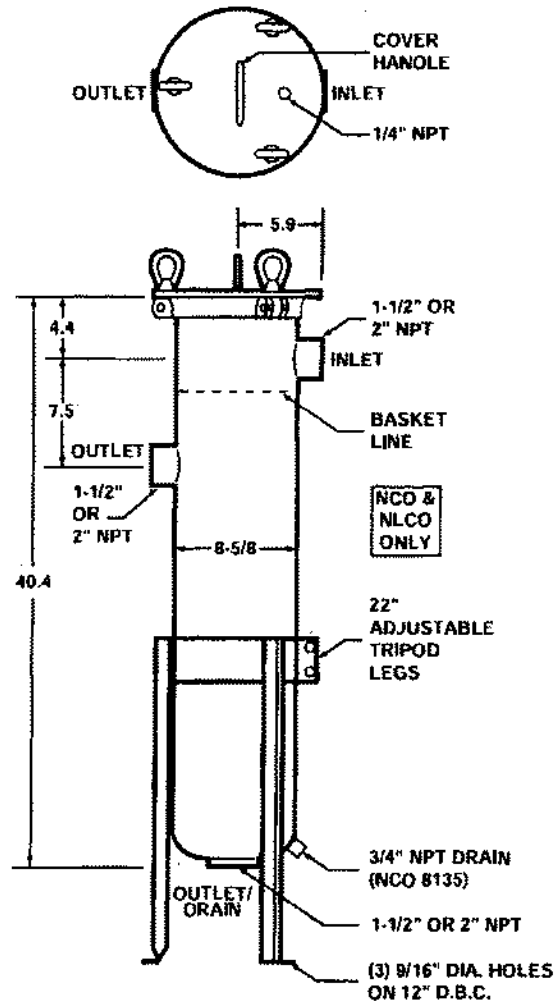
# How To Order

Build an ordering code as shown in the example.

**NCO8-30-2P-\*-150-C-B-PB**

Example:	Model	Basket Size	Pipe Size	Outlet Style	Pressure Rating	Housing Material	Cover Seal	Basket Type
NCO8	NCO8 (1700 bag) 5-500 cartridge	30 inch (NCO or NLCO)	2-inch female NPT	Side/Bottom Unistyle (NCO or NLCO)	150 psi	Carbon steel	Buna N	Filter bag basket (NCO or NLCO)
NLCO8	NLCO8 (700 bag)	30 inch (NCO or NLCO)	2-inch female NPT	Bottom	150 psi	304 Stainless steel	Ethylene propylene	700 Cartridge (NCO8135)
NCO8135	NCO8135 (700 cartridge)	No Symbol	2-inch female NPT	Bottom	150 psi	304 Stainless steel	Viton® Fluoroelastomer	Convertible (NCO8135)†

1. Filter bags are specified separately.
2. Basket material is compatible with housing.
3. Weight (approximately): 70 lbs.
4. Accepts 700 Series cartridge as well as filter bag



Dimensions are reference only and should not be used for hard plumbing. Consult factory for certified drawings.

# **R** FILTER BAG Design Details

Standard Filter Bag Types

**RING TOP BAGS** are stocked in sizes 1, 2, 3, 4, 8, 9 & 12 with galvanized steel, rings.

~~**MOLDED ROSEDALE TOP BAGS** are stocked with polypropylene tops in sizes 1, 2, 3, 4, 8 & 9.~~

**HANDLES** are standard on all bags.

**ALL STANDARD STOCK BAGS** have sewn construction.

### **FILTER BAG FINISH**

Felt filter bags are supplied with a glazed finish to reduce fiber migration. Mesh filter bags are supplied with a plain finish as woven.

Microfiber filter bags have spunbonded covers to prevent fiber migration.

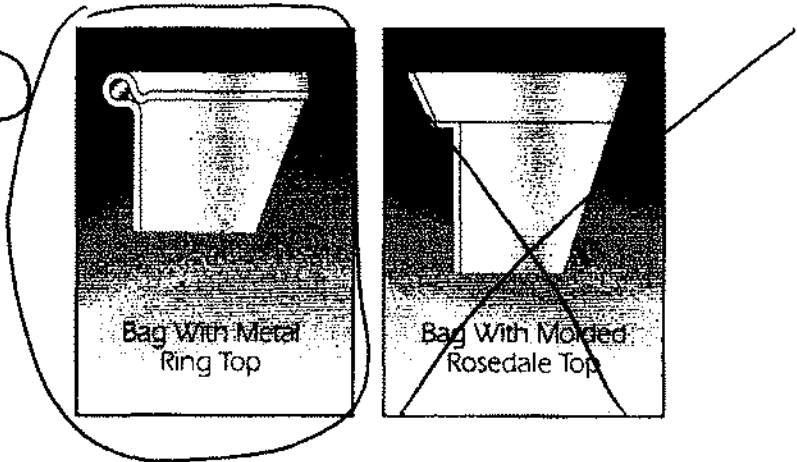
### **CONSTRUCTION**

Standard filter bags are typically manufactured with a metal ring, either galvanized carbon steel or stainless steel, sewn in the top of the filter bag. Woven fabric handles are also sewn.

Another design incorporates a molded plastic top. These tops typically are polypropylene or polyester with molded lifting handles. Various types of tops are available to fit specific manufacturers' housings.

### **All Welded Construction**

All seams and the collar are sonically welded, enhancing filtration quality, eliminating leaks and bypass that may have occurred with sewn seams.



Nominal Micron Rating- 50%	High Efficiency Micron Rating- 95%
1	35
5	48
10	55
25	65
50	70
100	110
200	200

**Felt Filter Bag Micron Rating**

For years filter bag manufacturers have used nominal ratings of about 50% efficiency for polypropylene and polyester felt filter bags. The table gives the micron ratings at about 95% efficiency.



### Filter Bag Pressure Drop

The graphs give the clean pressure drop through a number 2 size bag for water, 1 CPS @ 68°F

To determine the pressure drop caused by the filter bag, follow these steps:

**Step 1** Select the type of bag, micron rating and flow rate, determine the pressure drop for water, 1 cps @ 68°F, for a size #2 bag.

**Step 2** Correct for bag size from the Bag Size Correction table at the right if the bag size is different than a #2 size.

**Step 3** If the viscosity of the liquid is greater than 1 cps (water @ 68°F), multiply the result from step 2 by the proper correction factor from the Viscosity Correction table at the right.

The value obtained in Step 3 is the clean pressure drop caused by the filter bag.

#### SUMMARY

For new applications, the clean pressure drop of the system, housing and bag should be 2.0 PSI or less. The lower the value is, the more contaminant a bag will hold. For applications with low dirt loading, this value can go to 3.0 PSI or more. Consult the factory for recommendations when the clean pressure drop of the system exceeds 3.0 PSI.

**Low Mesh Bag**

**High Efficiency Bag**


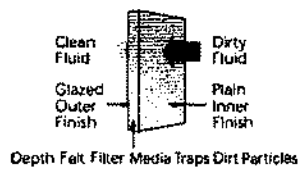

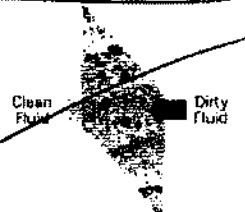


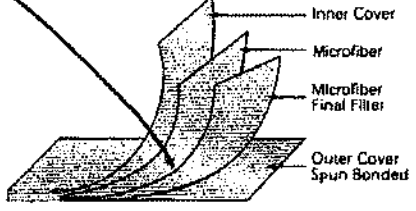
Bag Size	Dia. x Length	Multiply By
1	7.2 x 16	2.25
2	7.2 x 32	1.0
3	4.3 x 8	9.0
4	4.3 x 14	4.5
8	5.7 x 21	2.25
9	5.7 x 37	1.50

Viscosity CPS	Correction Factor
50	4.5
100	8.3
200	16.6
400	27.7
800	50.0
1000	56.2
1500	77.2
2000	113.6
4000	161.0
6000	250.0
8000	325.0
10,000	430.0

# S T A N D A R D F I L T E R B A G D E S I G N D E T A I L S

Available Micron Ratings																					
1	2.5	5	10	20	25	30	40	50	75	100	150	200	250	300	400	600	800	1000	1500		

Diameter (Inches)	Length (Inches)	Area Sq. Ft.		
7.2	16	2.0		
7.2	32	4.5		
4.3	8	0.5		
4.3	14	1.0		
6.1	20	2.8		
5.7	15	1.5		
5.7	32	3.0		
5.7	32	3.0		
8.4	34	5.5		

	<p><b>FELT</b> filter bag materials are made from synthetic fibers in polypropylene or polyester. The proper combination of fiber diameters, weights and thickness results in an economical depth type filter media. Polypropylene and polyester bags are supplied with a glazed finish to reduce fiber migration. These bags have a nominal micron rating. Filter efficiency is about 50%.</p>	
	<p><b>MULTIFILAMENT MESH</b> materials are offered in polyester and are woven from threads made of small fibers twisted together. Bags made of this material are low cost and considered disposable. They have lower efficiencies than the monofilament mesh. Filter efficiencies are about 80%.</p>	
	<p><b>MONOFILAMENT MESH</b> is offered in nylon and is a woven material. Each thread is a single filament. The openings are square. They have excellent strength and are considered to be cleanable. Filter efficiency is 90% or more.</p>	<ul style="list-style-type: none"> <li>• Operates on the principle of surface filtration</li> <li>• Wide range of micron ratings</li> <li>• Reusable or disposable</li> <li>• Non-fiber releasing</li> <li>• Good efficiencies</li> <li>• High contaminant quantities under correct conditions</li> </ul>
	<p><b>MICROFIBER</b> filter bags provide high efficiency and high contaminant holding capacity at low ratings. Bags are available in polypropylene. Filter efficiency is 95% or more.</p> <p>MICROFIBER polypropylene filter bags also can remove oil from water and other liquids. Optimized designs are called "OIL REMOVAL BAGS".</p>	

**MOLDED ROSEDALE TOPS - POR STYLE**

Filter bags with molded Rosedale tops require no filter bag hold down devices. As the differential pressure in the application increases, the integrity of the seal improves. Polypropylene tops are standard with polyester optional for temperatures over 200°F, or for chemical compatibility.

THE MOLDED ROSEDALE TOP OFFERS THE BEST BAG-TO-HOUSING SEAL IN TODAY'S MARKETPLACE, IN ADDITION TO BEING THE EASIEST TO INSTALL AND REMOVE.



FILTER BAG WITH MOLDED ROSEDALE TOP JUST PRIOR TO INSTALLATION IN BASKET HOLDER

FILTER BAG WITH MOLDED ROSEDALE TOP INSTALLED IN HOUSING



**OTHER BAG TYPES AND DESIGNS**

**500 SERIES 3M TYPE** multiple layer filter bags with microfiber filter layers and felt prefilter layers. Up to 5 layers of felt

**DOUBLE & TRIPLE LAYER** felt bags where the micron rating of the layers are designed to optimize service life.

**SPECIAL SIZE & DESIGN** bags are available in all materials and most micron ratings.

**OIL REMOVAL BAGS** require a special design to obtain to result in the largest surface area of fibers in a bag for maximum oil removal capacity. These are standard in micron ratings of 10 and 25.

**FILTER BAG HOLD-DOWNS**

Adjustable filter bag hold-downs for Size #1 and #2 bags are available for side entry housings manufactured by:

Filter Specialists, Inc. / Micron Technologies / Krystil Klear / Strainrite / Other Side Entry Brands

Available in polypropylene, they provide additional positive filter bag hold-down capabilities for critical applications where necessary. It is suitable for ring top bags and bags with molded plastic tops. It is necessary for many bags with molded tops and ring bags if the bag manufacturer improperly designs and manufactures them.

A FILTER BAG HOLD-DOWN IS NOT REQUIRED WHEN USING FILTER BAGS WITH MOLDED ROSEDALE TOPS.

PE - -P-2-S

**R How To Order** Build an ordering code as shown in the example

Micron 2.0 2.5 5.0 10.0 25.0  
 200 250 400 600 800 1000  
 Polypropylene = POME  
 Micron 2.0 2.5 5.0 10.0 25.0  
 Polyester Microfiber = PEMF  
 Micron 1.0 2.5 5.0 10.0 25.0  
 Oil Removal = OR  
 Micron 10.0 25.0

BAG FINISH  
 G = Felt, Glazed or Singed  
 P = Polyester

pH Adjustment System Components  
pH Adjustment Reagent MSDS Sheets  
(Hydrochloric Acid, Caustic Soda, Carbon Dioxide)



BL 7916 • BL 7917

## pH & ORP Measuring & Dosing System

- Accurate and affordable
- Controller and dosing pump in one compact unit
- Proportional dosing
- Corrosion resistant housing
- Easy to install



This series of instruments will mount easily in your plant using a minimal amount of wall space. The controls and pumphead are located in the front to allow easy access. They offer accurate measurements with unbeatable performance in one compact, affordable unit.



## High Performance pH & ORP Controller & Dosing Pump to Maximize Efficiency

### 2 Advanced Instruments in 1

MEADOS pumps combine the powerful BlackStone dosing pumps with the state-of-the-art controllers that Hanna is famous for. These unique products were developed by HANNA for measuring and controlling pH or ORP and regulated dosing of various chemicals. This latest innovation eliminates the need for multiple instruments by combining two instruments into one. No more complicated installations, wiring, or compatibility problems. This compact unit features accurate regulation, proportional dosing, alarm and recorder signals and much more all in one meter.

### Easy Installation

Designed with mounting holes in the rugged base, BlackStone pump/controllers are simple to install. There is no need for any additional hardware. All the controls and pump assemblies are conveniently located on the front of the unit. If the operator must access the pump head or control panel for any reason, there is no need to uninstall the unit.

### Rugged Construction

BlackStone pump/controllers are housed in rugged, fiber-reinforced, polypropylene casings. They are IP55 rated, preventing the intrusion of liquids. The material used for the housing resists corrosion caused by most chemicals, protecting the unit from hazardous spills and splashes.

### Superior Materials

BlackStone pumps use PVDF, FPM/FKM and PTFE materials for all components in contact with the chemicals being dosed. These materials have properties which enable them to resist even the most corrosive chemicals in the industry. BlackStone's choice of material makes the pump more versatile, allowing it to handle a wider variety of chemicals.

### Simple Pump Action

A positive displacement solenoid with few moving parts make BlackStone pumps more reliable than motor driven pumps. With no rotating parts, gears or cams, part wear and oiling associated with motor driven pumps is eliminated, drastically reducing any chance of mechanical failure.

## BL 7916 pH Controller & Pump

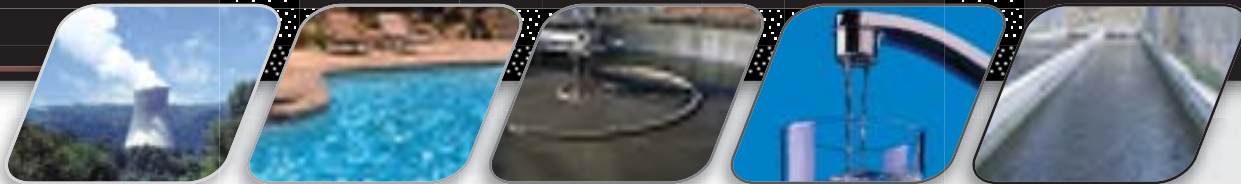
- pH controller and dosing pump in one compact unit.
- $\pm 0.01$  pH accuracy with unbeatable performance.
- Isolated 4 to 20 mA recorder output.
- Proportional dosing slows the pump down when the measured pH level approaches the setpoint which ensures precise dosage and avoids costly waste of chemicals due to overdosage.
- Alarm contact is activated whenever the pH value varies by more than 2 pH units from the setpoint.
- Auxiliary contacts allow the user to attach a mixer or priming pump that is activated only when the pump is dosing.
- PVDF, FPM/FKM & PTFE materials are used for all parts that come into contact with liquid.

Specifications	BL 7916U
Range	0.00 to 14.00 pH
Resolution	0.01 pH
Accuracy (20°C/68°F)	$\pm 0.01$ pH
Typical EMC Deviation	$\pm 0.1$ pH
Flow Rate	See table on next page
Input	High impedance $10^{12}$ Ohm
Calibration	Offset: $\pm 1$ pH by offset printer; Slope: 85 to 115% by slope trimmer
Dosage	Proportional: acid or base. User-selectable
Recorder Output	4 to 20 mA, isolated
Dosing Contact	Isolated, 2 A, Max. 240V, resistive load, 1,000,000 strokes
Alarm Relay	Isolated, 2 A, Max. 240V, resistive load, 1,000,000 strokes
Power Supply	115V $\pm 15\%$ (40W)
Environment	0 to 50°C (32 to 122°F); RH 85% non-condensing
Dimensions	7.1 x 8.7 x 5.6" (181 x 221 x 142 mm)
Weight	11 lb. (5 Kg)

#### Accessories and Replacement Parts for BL 7916

HI 1001	Plastic in-line pH electrode	HI 7092L	Oxidizing solution, 16.9 oz. (500 mL)
HI 721101	Pumphead, O-ring & 6 screws	HI 7004L	pH 4.01 buffer solution, 16.9 oz. (500 mL)
HI 721102	Discharge valve assembly	HI 7007L	pH 7.01 buffer solution, 16.9 oz. (500 mL)
HI 721103	Suction valve assembly	HI 7010L	pH 10.01 buffer solution, 16.9 oz. (500 mL)
HI 721004	Injection valve assembly	HI 767/P	Power plug (5 pcs)
HI 721005	Foot valve assembly	HI 7671/P	Outlet plug (5 pcs)
HI 721008	4 x ceramic weight	HI 8427	pH & ORP electrode simulator
HI 7020L	ORP testing solution, 16.9 oz. (500 mL)	HI 931001	pH & ORP electrode simulator
HI 7091L	Reducing solution, 16.9 oz. (500 mL)		





# BL 7917 ORP Controller & Pump

- ORP controller and dosing pump in one compact unit.
- $\pm 5$  mV accuracy with unbeatable performance.
- Isolated 4 to 20 mA recorder output.
- Proportional dosing slows the pump down when the measured ORP level approaches the set value which avoids overdosage of oxidizing or reducing agents.
- Alarm contact is activated whenever the ORP value varies by more than 200 mV from the set point.
- Auxiliary contacts allow the user to attach a mixer or priming pump that is activated only when the pump is dosing.
- PVDF, FPM/FKM & PTFE materials are used for all parts that come into contact with liquid.

Specifications	BL 7917U
Range	$\pm 999$ mV
Resolution	1 mV
Accuracy (20°C/68°F)	$\pm 5$ mV
Typical EMC Deviation	$\pm 6$ mV
Flow Rate	See table below
Input	High impedance $10^{12}$ Ohm
Calibration	Offset: $\pm 2$ pH by offset printer; Slope: 85 to 115% by slope trimmer
Dosage	Proportional: oxidizing or reducing. User-selectable
Recorder Output	4 to 20 mA, isolated
Dosing Contact	Isolated, 2 A, Max. 240V, resistive load, 1,000,000 strokes
Alarm Relay	Isolated, 2 A, Max. 240V, resistive load, 1,000,000 strokes
Power Supply	115V $\pm 15\%$ (40W)
Environment	32 to 122°F (0 to 50°C); RH 85% non-condensing
Dimensions	7.1 x 8.7 x 5.6" (181 x 221 x 142 mm)
Weight	11 lb. (5 Kg)

#### Accessories and Replacement Parts for BL 7917

HI 2001	.....Plastic in-line ORP electrode
HI 721101	.....Pumphead, O-ring & 6 screws
HI 721102	.....Discharge valve assembly
HI 721103	.....Suction valve assembly
HI 721004	.....Injection valve assembly
HI 721005	.....Foot valve assembly
HI 721008	.....4 x ceramic weights
HI 7020L	.....ORP testing solution, 16.9 oz. (500 mL)
HI 7091L	.....Reducing solution, 16.9 oz. (500 mL)
HI 7092L	.....Oxidizing solution, 16.9 oz. (500 mL)

#### BL 7916 & BL 7917 FLOW/PRESSURE

PSI	GPH
7.4	3.5
14.7	3.0
29.4	2.6
44.1	2.3
58.8	2.0



#### Proportional Dosing

The BlackStone controller/pump strokes at full capacity when the measured value deviates by more than 1.5 pH or 150 mV from the set value. A proportional control slows down the stroke rate as the measured value approaches the user-selectable value, avoiding overdosage of chemicals. This feature makes the pump's dosing more accurate, saves chemicals and eliminates unnecessary and costly corrections of your processes, especially with slow reacting chemicals.

#### Isolated Recorder Output

To enhance troubleshooting and provide the user with the ability to record data while monitoring, BlackStone's controller/pumps provide a recorder output. By simply attaching a recorder to the instrument's 4 to 20 mA output contacts conveniently located on the front panel, you can obtain a hard copy of the results on demand.

#### Alarm Output

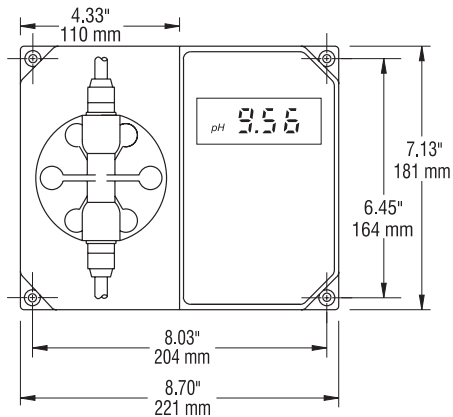
When monitoring and controlling pH and ORP levels in a process, it is very important that any potential problem does not go unattended. The Hanna MEADOS units incorporate an alarm system that will alert the user if the reaction is not within certain guidelines. The alarm of the BL 7916 will be activated if the measured pH value is 2 pH units lower than the setpoint (If dosing acid, this indicates overdosage, a common symptom of siphoning). The alarm will also activate if the value is 2 pH higher than the setpoint (If dosing acid, this is an indication of insufficient dosage, a common symptom of the lack of chemicals). The BL 7917's alarm will activate if the mV value is 200 mV lower than the setpoint (if dosing reducing chemicals, this indicates overdosage). The alarm will also activate if the value is 200 mV higher than the setpoint (if dosing reducing chemicals, this is an indication of lack of chemicals).

#### Auxiliary Dosing Contacts

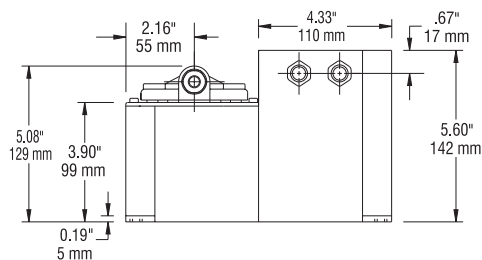
The auxiliary dosing contacts of the MEADOS units are closed whenever the pump is dosing. This solution offers considerable advantages, especially for small plants where these pumps need to be the only equipment left running. This will spare other equipment such as mixers, priming pumps etc. With this feature activated, a mixer can be automatically started when the pump is dosing.

## Mechanical Dimensions for the Meados pH & ORP measuring & dosing systems

Front View



Bottom View

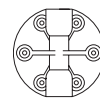


## Accessories

### HI 721101

This kit contains the PVDF pumphead, PTFE coated O-ring, 6 screws and washers.

### HI 721101



PUMPHEAD



TEFLON® COATED O-RING

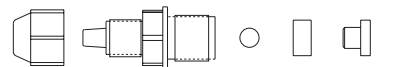


6 SCREWS & WASHERS

### HI 721102

This kit contains all the necessary replacement parts for your discharge valve assembly. Complete with a FPM/FKM O-ring, glass valve ball, valve spacer and seat, head nipple and tube nut to secure the assembled parts.

### HI 721102

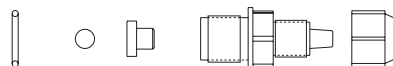


TUBE NUT HEAD NIPPLE CHECK BALL SPACER VALVE SEAT VITON® O-RING

### HI 721103

HI 721103 is the suction valve assembly. Complete with a FPM/FKM O-ring, glass valve ball, valve spacer and seat, head nipple, and tube nut to secure the assembled parts.

### HI 721103



VITON® O-RING CHECK BALL VALVE SEAT HEAD NIPPLE TUBE NUT

### HI 721004

The HI 721004 comes complete with an injection nipple, PTFE coated spring, glass valve ball, and a valve assembly.

### HI 721004

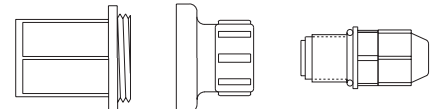


INJECTION NIPPLE KYNAR® SPRING CHECK BALL VALVE ASSEMBLY

### HI 721005

This kit contains a filter with a filter holder and a valve assembly.

### HI 721005



FILTER FILTER HOLDER VALVE ASSEMBLY

### HI 721008

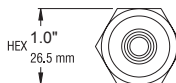
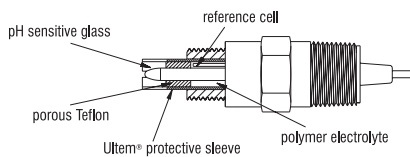
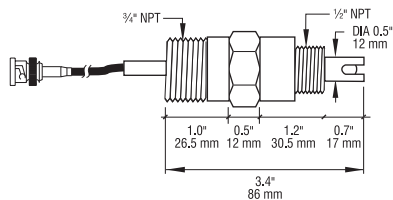
This kit contains 4 ceramic weights.

### HI 721008

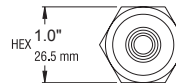
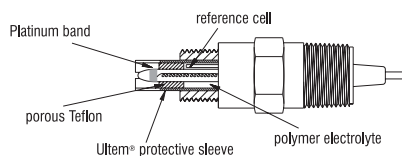
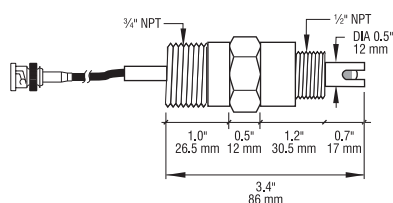


CERAMIC WEIGHT

## HI 1001 Combination pH Electrode



## HI 2001 Combination ORP Platinum Electrode



Specifications	HI 1001
Reference System	Double
Junction Type	PTFE
Electrolyte	Polymer
Temperature	23 to 176°F (-5 to 80°C)
Max Pressure	87 psi (6 bar)
Lead	
Connector	BNC
Cable	10' (3 m)

Specifications	HI 2001
Reference System	Double
Junction Type	PTFE
Electrolyte	Polymer
Temperature	23 to 176°F (-5 to 80°C)
Max Pressure	87 psi (6 bar)
Lead	
Connector	BNC
Cable	10' (3 m)

Authorized Distributor:



# Material Safety Data Sheet

# Airgas

Carbon Dioxide

## Section 1. Chemical product and company identification

**Product Name** : Carbon Dioxide  
**Supplier** : AIRGAS INC., on behalf of its subsidiaries  
259 North Radnor-Chester Road  
Suite 100  
Radnor, PA 19087-5283  
1-610-687-5253  
**Product use** : Synthetic/Analytical chemistry.  
**MSDS#** : 001013  
**Date of Preparation/Revision** : 4/11/2005.  
**In case of emergency** : 1-800-949-7937

## Section 2. Composition, Information on Ingredients

<u>Name</u>	<u>CAS number</u>	<u>% Volume</u>	<u>Exposure limits</u>
Carbon Dioxide	124-38-9	100	<b>ACGIH TLV (United States, 9/2004).</b> STEL: 54000 mg/m <sup>3</sup> 15 minute(s). Form: All forms STEL: 30000 ppm 15 minute(s). Form: All forms TWA: 9000 mg/m <sup>3</sup> 8 hour(s). Form: All forms TWA: 5000 ppm 8 hour(s). Form: All forms <b>NIOSH REL (United States, 6/2001).</b> STEL: 54000 mg/m <sup>3</sup> 15 minute(s). Form: All forms STEL: 30000 ppm 15 minute(s). Form: All forms TWA: 9000 mg/m <sup>3</sup> 10 hour(s). Form: All forms TWA: 5000 ppm 10 hour(s). Form: All forms <b>OSHA PEL (United States, 6/1993).</b> TWA: 9000 mg/m <sup>3</sup> 8 hour(s). Form: All forms TWA: 5000 ppm 8 hour(s). Form: All forms

## Section 3. Hazards identification

**Physical state** : Gas.  
**Emergency overview** : Warning!  
CONTENTS UNDER PRESSURE.  
CAUSES DAMAGE TO THE FOLLOWING ORGANS: LUNGS, CARDIOVASCULAR SYSTEM, SKIN, EYES, CENTRAL NERVOUS SYSTEM, EYE, LENS OR CORNEA. MAY CAUSE RESPIRATORY TRACT, EYE AND SKIN IRRITATION.  
Avoid contact with skin and clothing. Avoid breathing gas. Do not puncture or incinerate container. Keep container closed. Use only with adequate ventilation. Wash thoroughly after handling.  
Contact with rapidly expanding gas, liquid, or solid can cause frostbite.

**Routes of entry** : Inhalation, Dermal, Eyes

**Potential acute health effects**

**Eyes** : Moderately irritating to the eyes.  
**Skin** : Moderately irritating to the skin.  
**Inhalation** : Moderately irritating to the respiratory system.  
**Ingestion** : Ingestion is not a normal route of exposure for gases

## Carbon Dioxide

- Potential chronic health effects** : **CARCINOGENIC EFFECTS** Not available.  
**MUTAGENIC EFFECTS** Not available.  
**TERATOGENIC EFFECTS** Not available.
- Medical conditions aggravated by overexposure** : Acute or chronic respiratory conditions may be aggravated by overexposure to this gas.
- See toxicological information (section 11)

## Section 4. First aid measures

No action shall be taken involving any personal risk or without suitable training. If fumes are still suspected to be present, the rescuer should wear an appropriate mask or a self-contained breathing apparatus. It may be dangerous to the person providing aid to give mouth-to-mouth resuscitation.

- Eye contact** : In case of contact, immediately flush eyes with plenty of water for at least 15 minutes. Get medical attention immediately.
- Skin contact** : In case of contact, immediately flush skin with plenty of water. Remove contaminated clothing and shoes. Wash clothing before reuse. Thoroughly clean shoes before reuse. Get medical attention.
- Frostbite** : Try to warm up the frozen tissues and seek medical attention.
- Inhalation** : If inhaled, remove to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Get medical attention.
- Ingestion** : Do NOT induce vomiting unless directed to do so by medical personnel. Never give anything by mouth to an unconscious person. Get medical attention if symptoms appear.

## Section 5. Fire fighting measures

- Flammability of the product** : Non-flammable.
- Fire fighting media and instructions** : Use an extinguishing agent suitable for surrounding fires.
- If involved in fire, shut off flow immediately if it can be done without risk. Apply water from a safe distance to cool container and protect surrounding area.
- No specific hazard.
- Special protective equipment for fire-fighters** : Fire fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full facepiece operated in positive pressure mode.

## Section 6. Accidental release measures

- Personal precautions** : Immediately contact emergency personnel. Keep unnecessary personnel away. Use suitable protective equipment (Section 8). Shut off gas supply if this can be done safely. Isolate area until gas has dispersed.
- Environmental precautions** : Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers.

## Section 7. Handling and storage

- Handling** : Avoid contact with eyes, skin and clothing. Keep container closed. Use only with adequate ventilation. Do not puncture or incinerate container. Wash thoroughly after handling. High pressure gas. Use equipment rated for cylinder pressure. Close valve after each use and when empty. Protect cylinders from physical damage; do not drag, roll, slide, or drop. Use a suitable hand truck for cylinder movement.
- Never allow any unprotected part of the body to touch uninsulated pipes or vessels that contain cryogenic liquids. Prevent entrapment of liquid in closed systems or piping without pressure relief devices. Some materials may become brittle at low temperatures and will easily fracture.
- Storage** : Keep container tightly closed. Keep container in a cool, well-ventilated area. Cylinders should be stored upright, with valve protection cap in place, and firmly secured to prevent falling or being knocked over. Cylinder temperatures should not exceed 52 °C (125 °F).



## Section 8. Exposure Controls, Personal Protection

**Engineering controls** : Use only with adequate ventilation. Use process enclosures, local exhaust ventilation, or other engineering controls to keep airborne levels below recommended exposure limits.

### Personal protection

- Eyes** : Safety eyewear complying with an approved standard should be used when a risk assessment indicates this is necessary to avoid exposure to liquid splashes, mists or dusts.  
When working with cryogenic liquids, wear a full face shield.
- Skin** : Personal protective equipment for the body should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product.
- Respiratory** : Use a properly fitted, air-purifying or air-fed respirator complying with an approved standard if a risk assessment indicates this is necessary. Respirator selection must be based on known or anticipated exposure levels, the hazards of the product and the safe working limits of the selected respirator.  
The applicable standards are (US) 29 CFR 1910.134 and (Canada) Z94.4-93
- Hands** : Chemical-resistant, impervious gloves or gauntlets complying with an approved standard should be worn at all times when handling chemical products if a risk assessment indicates this is necessary.  
Insulated gloves suitable for low temperatures

**Personal protection in case of a large spill** : A self-contained breathing apparatus should be used to avoid inhalation of the product.

Consult local authorities for acceptable exposure limits.

## Section 9. Physical and chemical properties

- Molecular weight** : 44.01 g/mole
- Molecular formula** : CO<sub>2</sub>
- Boiling/condensation point** : -78.55°C (-109.4°F)
- Melting/freezing point** : Sublimation temperature: -78.5°C (-109.3°F)
- Critical temperature** : 30.9°C (87.6°F)
- Vapor pressure** : 830 psig
- Vapor density** : 1.53 (Air = 1)
- Specific Volume (ft<sup>3</sup>/lb)** : 8.77193
- Gas Density (lb/ft<sup>3</sup>)** : 0.114
- Physical chemical comments** : Not available.

## Section 10. Stability and reactivity

**Stability and reactivity** : The product is stable.

## Section 11. Toxicological information

### Toxicity data

- IDLH** : 40000 ppm
- Chronic effects on humans** : Causes damage to the following organs: lungs, cardiovascular system, skin, eyes, central nervous system (CNS), eye, lens or cornea.
- Other toxic effects on humans** : No specific information is available in our database regarding the other toxic effects of this material for humans.

### Specific effects

- Carcinogenic effects** : No known significant effects or critical hazards.
- Mutagenic effects** : No known significant effects or critical hazards.
- Reproduction toxicity** : No known significant effects or critical hazards.




## Section 12. Ecological information

- Products of degradation** : These products are carbon oxides (CO, CO<sub>2</sub>).  
**Toxicity of the products of biodegradation** : The product itself and its products of degradation are not toxic.  
**Environmental fate** : Not available.  
**Environmental hazards** : No known significant effects or critical hazards.  
**Toxicity to the environment** : Not available.

## Section 13. Disposal considerations

Product removed from the cylinder must be disposed of in accordance with appropriate Federal, State, local regulation. Return cylinders with residual product to Airgas, Inc. Do not dispose of locally.

## Section 14. Transport information

Regulatory information	UN number	Proper shipping name	Class	Packing group	Label	Additional information
DOT Classification	UN1013	CARBON DIOXIDE	2.2	Not applicable (gas).		<u>Limited quantity</u> Yes.
	UN2187	Carbon dioxide, refrigerated liquid				<u>Packaging instruction</u> <u>Passenger Aircraft</u> Quantity limitation: 75 kg <u>Cargo Aircraft</u> Quantity limitation: 150 kg
TDG Classification	UN1013	CARBON DIOXIDE	2.2	Not applicable (gas).		<u>Explosive Limit and Limited Quantity Index</u> 0.125
	UN2187	Carbon dioxide, refrigerated liquid				<u>Passenger Carrying Road or Rail Index</u> 75
Mexico Classification	UN1013	CARBON DIOXIDE	2.2	Not applicable (gas).		-
	UN2187	Carbon dioxide, refrigerated liquid				

## Section 15. Regulatory information

### United States

- U.S. Federal regulations** : TSCA 8(b) inventory: Carbon Dioxide  
 SARA 302/304/311/312 extremely hazardous substances: No products were found.  
 SARA 302/304 emergency planning and notification: No products were found.  
 SARA 302/304/311/312 hazardous chemicals: Carbon Dioxide  
 SARA 311/312 MSDS distribution - chemical inventory - hazard identification: Carbon Dioxide: Sudden Release of Pressure, Immediate (Acute) Health Hazard, Delayed (Chronic) Health Hazard  
 Clean Water Act (CWA) 307: No products were found.  
 Clean Water Act (CWA) 311: No products were found.  
 Clean air act (CAA) 112 accidental release prevention: No products were found.  
 Clean air act (CAA) 112 regulated flammable substances: No products were found.  
 Clean air act (CAA) 112 regulated toxic substances: No products were found.

- State regulations** : Pennsylvania RTK: Carbon Dioxide: (generic environmental hazard)  
 Massachusetts RTK: Carbon Dioxide  
 New Jersey: Carbon Dioxide

### Canada

- WHMIS (Canada)** : Class A: Compressed gas.  
 CEPA DSL: Carbon Dioxide

## Section 16. Other information

### United States

- Label Requirements** : CONTENTS UNDER PRESSURE.  
 CAUSES DAMAGE TO THE FOLLOWING ORGANS: LUNGS, CARDIOVASCULAR SYSTEM, SKIN, EYES, CENTRAL NERVOUS SYSTEM, EYE, LENS OR CORNEA.  
 MAY CAUSE RESPIRATORY TRACT, EYE AND SKIN IRRITATION.

### Canada

- Label Requirements** : Class A: Compressed gas.

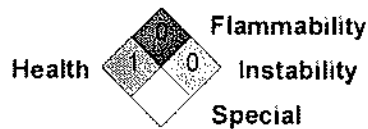
### Hazardous Material Information System (U.S.A.)

Health	*	1
Fire hazard		0
Reactivity		0
Personal protection		C

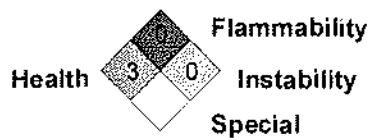
### liquid:

Health		3
Fire hazard		0
Reactivity		0
Personal protection		

### National Fire Protection Association (U.S.A.)



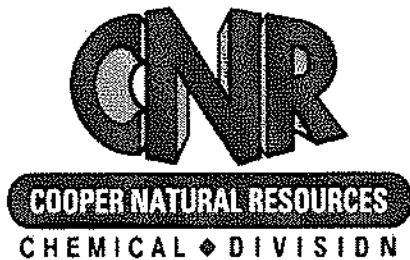
### liquid:



**Notice to reader**

To the best of our knowledge, the information contained herein is accurate. However, neither the above named supplier nor any of its subsidiaries assumes any liability whatsoever for the accuracy or completeness of the information contained herein.

Final determination of suitability of any material is the sole responsibility of the user. All materials may present unknown hazards and should be used with caution. Although certain hazards are described herein, we cannot guarantee that these are the only hazards that exist.



## Material Safety Data Sheet (MSDS): HYDROCHLORIC ACID

Company Headquarters  
Cooper Natural Resources Chemical Division, Inc.  
2407 E. Skelly Drive  
Tulsa, OK 74105

24 Hour Emergency Telephone: 505-390-7115

### 1. Product Identification

Synonyms: Muriatic acid; hydrogen chloride, aqueous  
CAS No.: 7647-01-0  
Molecular Weight (Hydrogen Chloride): 36.46  
Chemical Formula: HCl

### 2. Composition/Information on Ingredients

<u>Ingredient</u>	<u>CAS No.</u>	<u>Percent</u>	<u>Hazardous</u>
Hydrogen Chloride	7647-01-0	31.5 -35.2%	Yes
Water	7732-18-5	64.8-68.5%	No

### 3. Hazards Identification

#### Emergency Overview

---

**Poison! Danger! Corrosive!** Liquid and mist cause severe burns to all body tissue. May be fatal if swallowed or inhaled. Inhalation may cause lung damage.

---

#### Potential Health Effects

##### Eye:

Corrosive! Vapor or mist may cause irritation and severe burns and permanent eye damage. May cause painful sensitization to light. May cause conjunctivitis.

##### Skin:

Corrosive! May be absorbed through the skin in harmful amounts. Contact with liquid is corrosive and causes severe burns and ulceration. May cause photosensitization in certain individuals.

Ingestion:

Corrosive! May cause circulatory system failure. Causes severe digestive tract burns with abdominal pain, vomiting, and possible death. May cause permanent tissue destruction of the esophagus and digestive tract.

Inhalation:

Corrosive! Causes severe irritation of upper respiratory tract with coughing, burns, breathing difficulty, and possible coma. May cause pulmonary edema and severe respiratory disturbances.

Chronic:

Prolonged or repeated skin contact may cause dermatitis. Repeated exposure may cause erosion of teeth. May cause conjunctivitis and photosensitization.

**4. First Aid Measures**

Eyes:

Flush eyes with plenty of water for at least 15 minutes, occasionally lifting the upper and lower lids. Get medical aid immediately. Do NOT allow victim to rub or keep eyes closed.

Skin:

Get medical attention immediately. Rinse area with large amounts of water for at least 15 minutes. Remove contaminated clothing and shoes.

Ingestion:

DO NOT INDUCE VOMITING. If victim is conscious and alert, give 2-4 cupfuls of milk or water. Get medical attention immediately.

Inhalation:

Remove to fresh air immediately. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Get medical attention.

**5. Fire Fighting Measures**

**General Information:**

In the event of a fire, wear full protective clothing and NIOSH (approved or equivalent), and full protective gear. Not flammable, but reacts with most metals to form flammable hydrogen gas. Cool tanks with water spray until well after fire is out.

**Fire and Explosion Hazards:** May release toxic gases

**Extinguishing Media:** Use extinguishing agents appropriate for surrounding fires.

**Fire Fighting:** Keep unnecessary people away, isolate hazard area and deny entry. Wear NIOSH approved positive-pressure self-contained breathing apparatus. Move container from fire area if it can be done without risk. Avoid inhalation of material or combustion by-products, Stay upwind and keep out of low areas. Cool containers with water.

## **Hazardous Combustion Products:**

Thermal decomposition products or combustion: hydrogen chloride

### **6. Accidental Release Measures**

Ventilate area of leak or spill. Wear appropriate personal protective equipment as specified in section 8. Isolate hazard area. Contain and recover liquid when possible. Neutralize with alkaline material (soda ash, lime), then absorb with an inert material (e.g., vermiculite, dry sand, earth), and place in a chemical waste container. Do not use combustible materials, such as saw dust. Do not flush to sewer. US regulations (CERCLA) require reporting spills and releases to soil, water and air in excess of reportable quantities.

If release occurs in the U.S. and is reportable under CERCLA Section 103, notify the National Response Center at (800)424-8802 (USA) or (202)426-2675 (USA)

### **7. Handling and Storage**

#### Handling:

Wash thoroughly after handling. Remove contaminated clothing and wash before reuse. Use with adequate ventilation. Do not get on skin or in eyes. Do not ingest or inhale.

#### Storage:

Keep away from heat and flame. Keep out of direct sunlight. Store in a cool, dry, well-ventilated area away from incompatible substances.

### **8. Exposure Controls/Personal Protection**

#### **Airborne Exposure Limits:**

**OSHA Permissible Exposure Limit (PEL): 5 ppm Ceiling**

**ACGIH Threshold Limit Value (TLV): 5 ppm Ceiling**

#### **Ventilation System:**

Use closed systems when possible. Provide local exhaust ventilation where vapor or mist may be generated. Ensure compliance with applicable exposure limits.

### **Personal Protective Equipment**

#### Skin Protection:

Wear impervious protective clothing, including boots, gloves, suitable chemical splash protection (i.e., rubber overalls and jacket buttoned to the collar), as appropriate to prevent skin contact.

#### Eye Protection:

Use chemical safety goggles and full face shield where splashing is possible. Maintain eye wash fountain and quick drench facilities (safety shower) in immediate work area.

#### Personal Respirators: (NIOSH Approved):

For emergencies or instances where the exposure levels are not known, use a full-face piece positive-pressure, air supplied respirator. **WARNING: Air purifying respirators do not protect workers in oxygen-deficient atmospheres.**

## 9. Physical and Chemical Properties (Hydrochloric Acid)

**Physical State:** liquid  
**Appearance:** clear  
**Color:** colorless  
**Odor:** pungent odor  
**Molecular Weight:** 36.46  
**Molecular Formula:** HCl  
**Boiling Point:** 140-221 F (60.0-105 C)  
**Freezing Point:** -29 to 5 F (-34 to -15 C)  
**Vapor Pressure:** 14.6-80 mmHg @ 20 C  
**Vapor Density: (air=1):** 1.3 @ 20 C  
**Specific Gravity (water=1):** 1.05-1.18  
**Bulk Density:** 8.75-9.83 lbs/gal  
**Water Solubility:** 100%  
**PH:** 2 (.02% solution)  
**Volatility:** 9-36% by volume  
**Odor Threshold:** 0.3 ppm (causes of factory fatigue)  
**Evaporation Rate:** <1.00 (butyl acetate=1)  
**Coefficient of water/oil distribution:** Not available

## 10. Stability and Reactivity

### Chemical Stability:

Stable under normal temperatures and pressures. Containers may burst when heated.

### Hazardous Decomposition Products:

When heated to decomposition emits toxic hydrogen chloride fumes and will react with water or steam to produce heat and toxic and corrosive fumes. Thermal oxidative decomposition produces toxic chlorine fumes and explosive hydrogen gas.

### Hazardous Polymerization:

Will not occur.

### Incompatibilities:

A strong mineral acid, concentrated hydrochloric acid is incompatible with many substances and highly reactive with strong bases, metals, metal oxides, hydroxides, amines, carbonates and other alkaline materials. Incompatible with materials such as cyanides, sulfides, sulfites and formaldehyde.

### Conditions to Avoid:

Avoid heat, flames, sparks and other sources of ignition. Contact with water may produce a strong exothermic reaction with spattering. Contact with metals may evolve flammable hydrogen gas. Hydrogen chloride may react with cyanide, forming lethal concentrations of hydrocyanic acid.

## 11. Toxicological Information

Inhalation rat LC50: 3124 ppm/1H; oral rabbit LD50: 900mg/kg (Hydrochloric acid concentrated); investigated as a tumorigen, mutagen, reproductive effector.



## Cancer Lists

Ingredient	Known	-NTP Carcinogen-		Category
		Anticipated	IARC	
Hydrogen Chloride (7647-01-0)	No	No		3
Water	No	No		None

## 12. Ecological Information

### Environmental Fate:

When released into the soil, this material is not expected to be biodegrade. When released into the soil, this material may leak into groundwater.

### Environmental Toxicity:

This material is expected to be toxic to aquatic life.

## 13. Disposal Considerations

Whatever cannot be saved for recovery or recycling should be handled as hazardous waste and sent to a RCRA approved waste facility. Processing, use or contamination of this product may change the waste management options. State and local disposal regulations may differ from federal disposal regulations. Reuse or reprocess if possible. Dispose in accordance with all applicable regulations. Subject to disposal regulations: U.S. EPA 40 CFR 262. Hazardous Waste Number(s): D002

## 14. Transport Information

### Domestic (Land, D.O.T.)

**Proper Shipping Name:** Hydrochloric Acid

**UN/NA:** UN1789

**Hazard Class:** 8

**Packing Group:** II

**Information reported for product/size:** 475LB

### International (Water, I.M.O.)

**Proper Shipping name:** Hydrochloric Acid

**UN/NA:** UN1789

**Hazard Class:** 8

**Packing Group:** II

**Information reported for product/size:** 475LB

## 15. Regulatory Information

### U.S. Regulations:

**CERCLA sections 102a/103 hazardous substances (40 CFR 302.4):**

**Hydrogen Chloride (Hydrochloric Acid):** 5000 LBS RQ (liquid)

**Chlorine:** 10 LBS RQ

**Sara Title III Section 302 extremely hazardous substances (40 CFR 355.30):**

**Hydrogen Chloride (Hydrochloric Acid):** 500LBS TPQ (gas)

**Sara Title III section 311/312 hazardous categories (40 CFR 370.21):**

Acute: Yes

Chronic: No

Fire: No

Reactive: No

Sudden Release: No

**Sara Title III section 313 (40 CFR 372.65):**

**Hydrogen Chloride (Hydrochloric Acid):** aerosol form only

This product contains a toxic chemical subject to the reporting requirements of Section 313 of Title III of the Superfund Amendments and Reauthorization Act of 1986 and 40 CFR 372. Refer to Section 3.

**OSHA Process safety (29CFR1910.1190):**

**Hydrogen Chloride (Hydrochloric Acid):** 5000 LBS TQ (gas)

**Chlorine:** 1500 LBS TQ

**FDA:** This material has Generally Recognized as Safe (GRAS) status under specific FDA regulations. Additional information is available from the Code of Federal Register (CFR) which is accessible on the FDA's website.

### **State Regulations:**

**California Proposition 65:** This product may contain contaminants known to the State of California to cause cancer or reproductive toxicity as listed under Proposition 65 State Drinking Water and Toxic Enforcement Act. For additional information, contact Customer Service.

## 16. Other Information

### NFPA Ratings:

**Health: 3 Flammability: 0 Reactivity: 0**

### **Label Hazard Warning:**

**POISON! DANGER! CORROSIVE LIQUID AND MIST CAUSE SEVERE BURNS TO ALL BODY TISSUE. MAY BE FATAL IF SWALLOWED OR INHALED, INHALATION MAY CAUSE LUNG DAMAGE.**

**Label Precautions:**

Do not get in eyes, on skin, or on clothing.  
Do not breathe vapor or mist.  
Use only with adequate ventilation.  
Wash thoroughly after handling.  
Store in a tightly closed container.  
Remove and wash contaminated clothing promptly.

**Label First Aid:**

In case of contact, immediately flush eyes or skin with plenty of water for at least 15 minutes while removing contaminated clothing and shoes. Wash clothing before reuse. If swallowed, **DO NOT INDUCE VOMITING** Give large quantities of water. Never give anything by mouth to an unconscious person. If inhaled, remove to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. In all cases get medical attention immediately.

**Product Use:**

Chemical intermediate; oil & gas well acidizing; pH control; water treatment; steel pickling and metal cleaning; ore reduction; food processing.

**Disclaimer:**

\*\*\*\*\*

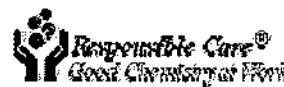
Cooper Natural Resources Chemical Division, Inc. ("CNR") provides the information contained herein in good faith but makes no representation as to its comprehensiveness or accuracy. This document is intended only as a guide to the appropriate precautionary handling of the material by a properly trained person using this product. Individuals receiving the information must exercise their independent judgment in determining its appropriateness for a particular purpose.

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# SAFETY DATA SHEET

# OxyChem®



## CAUSTIC SODA LIQUID (ALL GRADES)

MSDS No.: M32415

Rev. Date: 05/29/2009

Rev. Num.: 08

### 1. CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

**Company Identification:** Occidental Chemical Corporation  
5005 LBJ Freeway  
P.O. Box 809050  
Dallas, Tx 75380-9050

**24 Hour Emergency Telephone Number:** 1-800-733-3665 or 1-972-404-3228 (U.S.); 32.3.575.55.55 (Europe); 1800-033-111 (Australia)

**To Request an MSDS: Customer Service:** MSDS@oxy.com or 1-972-404-3245  
1-800-752-5151 or 1-972-404-3700

**Trade Name:** Caustic Soda Diaphragm Grade 10%, 15%, 18%, 20%, 25%, 30%, 35%, 40%, 50%,  
Caustic Soda Rayon Grade 18%, 20%, 25%, 30%, 50%, 50% Caustic Soda Rayon  
Grade OS, Caustic Soda Membrane 6%, 18%, 20%, 25%, 30%, 48%, 50%, 50%  
Caustic Soda Membrane OS, 50% Caustic Soda Diaphragm OS, Caustic Soda Low  
Salt 50%, 25% Caustic Soda Purified, 50% Caustic Soda Purified, 50% Caustic Soda  
Purified OS, Caustic Soda Liquid 70/30, Membrane Blended, 50% Caustic Soda  
Membrane (Northeast), 50% Caustic Soda Diaphragm (West Coast), 50% Blended  
Rayon Grade Blended, Membrane Cell Liquor

**Synonyms:** Sodium hydroxide solution, Liquid Caustic, Lye Solution, Caustic, Lye, Soda Lye

**Product Use:** Metal finishing, Cleaner, Process chemical, Petroleum industry

### 2. HAZARDS IDENTIFICATION

\*\*\*\*\*  
**EMERGENCY OVERVIEW:**

**Color:** Colorless to slightly colored  
**Physical State:** Liquid  
**Odor:** Odorless  
**Signal Word:** Danger

# CAUSTIC SODA LIQUID (ALL GRADES)

MSDS No.: M32415

Rev. Date: 05/29/2009

Rev. Num.:08

**MAJOR HEALTH HAZARDS:** CORROSIVE. CAUSES BURNS TO THE RESPIRATORY TRACT, SKIN, EYES AND GASTROINTESTINAL TRACT. CAUSES PERMANENT EYE DAMAGE.

**PHYSICAL HAZARDS:** CORROSIVE. Mixing with water, acid or incompatible materials may cause splattering and release of heat.

**ECOLOGICAL HAZARDS:** Keep out of water supplies and sewers. This material is alkaline and may raise the pH of surface waters. This material has exhibited moderate toxicity to aquatic organisms.

**PRECAUTIONARY STATEMENTS:** Avoid breathing vapors or mist. Avoid contact with skin, eyes and clothing. Keep container tightly closed. Wash thoroughly after handling. Use only with adequate ventilation.

## POTENTIAL HEALTH EFFECTS:

**Inhalation:** May cause irritation (possibly severe), chemical burns, and pulmonary edema.

**Skin contact:** May cause irritation (possibly severe) and chemical burns.

**Eye contact:** May cause irritation (possibly severe), chemical burns, eye damage, and blindness.

**Ingestion:** May cause irritation (possibly severe), chemical burns, nausea, and vomiting.

**Target Organs Effected:** Respiratory System, Skin, Eye

**Medical Conditions Aggravated by Exposure:** Asthma, Respiratory disorders

**See Section 11: TOXICOLOGICAL INFORMATION**

## 3. COMPOSITION/INFORMATION ON INGREDIENTS

Hazardous Component	Concentration (by weight %)	CAS - No.
Water	48.5 - 94.5	7732-18-5
Sodium hydroxide	5.5 - 51.5	1310-73-2
Sodium chloride (NaCl)	1 - 5	7647-14-5

## 4. FIRST AID MEASURES

**Inhalation:** If adverse effects occur, remove to uncontaminated area. Give artificial respiration if not breathing. If breathing is difficult, oxygen should be administered by qualified personnel. If respiration or pulse has stopped, have a trained person administer basic life support (Cardio-Pulmonary Resuscitation/Automatic External Defibrillator) and CALL FOR EMERGENCY SERVICES IMMEDIATELY.

**Skin Contact:** Immediately flush contaminated areas with water. Remove contaminated clothing, jewelry, and shoes immediately. Wash contaminated areas with soap and water. Thoroughly clean and dry contaminated clothing before reuse. Discard contaminated leather goods. GET MEDICAL ATTENTION IMMEDIATELY.

## CAUSTIC SODA LIQUID (ALL GRADES)

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### 4. FIRST AID MEASURES

**Eye Contact:** Immediately flush eyes with a directed stream of water for at least 15 minutes, forcibly holding eyelids apart to ensure complete irrigation of all eye and lid tissues. Washing eyes within several seconds is essential to achieve maximum effectiveness. GET MEDICAL ATTENTION IMMEDIATELY.

**Ingestion:** Never give anything by mouth to an unconscious or convulsive person. If swallowed, do not induce vomiting. Give large amounts of water. If vomiting occurs spontaneously, keep airway clear. Give more water when vomiting stops. GET MEDICAL ATTENTION IMMEDIATELY.

**Notes to Physician:** The absence of visible signs or symptoms of burns does NOT reliably exclude the presence of actual tissue damage. Probable mucosal damage may contraindicate the use of gastric lavage.

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### 5. FIRE-FIGHTING MEASURES

**Fire Hazard:** Negligible fire hazard.

**Extinguishing Media:** Use media appropriate for surrounding fire

**Fire Fighting:** Move container from fire area if it can be done without risk. Cool containers with water. Avoid contact with skin.

**Sensitivity to Mechanical Impact:** Not sensitive.

**Sensitivity to Static Discharge:** Not sensitive.

**Flash point:** Not flammable

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### 6. ACCIDENTAL RELEASE MEASURES

**Occupational Release:**

Wear appropriate personal protective equipment recommended in Section 8 of the MSDS. Completely contain spilled material with dikes, sandbags, etc. Shovel dry material into suitable container. Liquid material may be removed with a vacuum truck. Remaining material may be diluted with water and neutralized with dilute acid, then absorbed and collected. Flush spill area with water, if appropriate. Keep product and flush water out of water supplies and sewers. This material is alkaline and may raise the pH of surface waters with low buffering capacity. Releases should be reported, if required, to appropriate agencies.

---

### 7. HANDLING AND STORAGE

**Storage Conditions:** Store and handle in accordance with all current regulations and standards. Keep container tightly closed and properly labeled. Do not store in aluminum container or use aluminum fittings or transfer lines, as flammable hydrogen gas may be generated. Keep separated from incompatible substances.

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# CAUSTIC SODA LIQUID (ALL GRADES)

MSDS No.: M32415

Rev. Date: 05/29/2009

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## 7. HANDLING AND STORAGE

**Handling Procedures:** Avoid breathing vapor or mist. Do not get in eyes, on skin, or on clothing. Wash thoroughly after handling. When mixing, slowly add to water to minimize heat generation and spattering.

## 8. EXPOSURE CONTROLS / PERSONAL PROTECTION

### OSHA Regulatory Exposure limit(s):

Hazardous Component	CAS - No.	OSHA Final PEL TWA	OSHA Final PEL STEL	OSHA Final PEL Ceiling
Sodium hydroxide	1310-73-2	2 mg/m <sup>3</sup>	-----	-----

### Non-Regulatory Exposure Limit(s):

The Non-Regulatory OSHA limits shown in the table are the Vacated 1989 PEL's (vacated by 58 FR 35338, June 30, 1993).

Hazardous Component	CAS - No.	ACGIH TWA	ACGIH STEL	ACGIH Ceiling	OSHA TWA (Vacated)	OSHA STEL (Vacated)	OSHA Ceiling (Vacated)
Sodium hydroxide	1310-73-2	----	----	2 mg/m <sup>3</sup>	----	----	2 mg/m <sup>3</sup>

**ENGINEERING CONTROLS:** Provide local exhaust ventilation where dust or mist may be generated. Ensure compliance with applicable exposure limits.

### PERSONAL PROTECTIVE EQUIPMENT:

**Eye Protection:** Wear chemical safety goggles with a faceshield to protect against eye and skin contact when appropriate. Provide an emergency eye wash fountain and quick drench shower in the immediate work area.

**Skin and Body Protection:** Wear chemical resistant clothing and rubber boots when potential for contact with the material exists. Contaminated clothing should be removed, then discarded or laundered.

**Hand Protection:** Wear appropriate chemical resistant gloves

**Protective Material Types:** Natural rubber, Neoprene, Nitrile

Hazardous Component	Immediately Dangerous to Life/ Health (IDLH)
Sodium hydroxide	10 mg/m <sup>3</sup> IDLH

**Respiratory Protection:** A NIOSH approved respirator with N95 (dust, fume, mist) cartridges may be permissible under certain circumstances where airborne concentrations are expected to exceed exposure limits, or when symptoms have been observed that are indicative of overexposure. If eye irritation occurs, a full face style mask should be used. A respiratory protection program that meets 29 CFR 1910.134 must be followed whenever workplace conditions warrant use of a respirator.

## 9. PHYSICAL AND CHEMICAL PROPERTIES

<b>Physical State:</b>	Liquid
<b>Appearance:</b>	Clear to opaque
<b>Color:</b>	Colorless to slightly colored
<b>Odor:</b>	Odorless
<b>Boiling Point/Range:</b>	230 – 291 F (110 – 144 C)

# CAUSTIC SODA LIQUID (ALL GRADES)

MSDS No.: M32415

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## 9. PHYSICAL AND CHEMICAL PROPERTIES

Freezing Point/Range:	-26 to 59 F (-32 to 15 C)
Vapor Pressure:	13 - 135 mmHg @ 60 C
Vapor Density (air=1):	No data available
Specific Gravity (water=1):	1.11 - 1.53 @ 15.6 C
Water Solubility:	100%
pH:	14.0 (7.5% solution)
Volatility:	No data available
Evaporation Rate (ether=1):	No data available
Partition Coefficient (n-octanol/water):	No data available

## 10. STABILITY AND REACTIVITY

Reactivity/ Stability:	Stable at normal temperatures and pressures.
Conditions to Avoid:	Mixing with water, acid or incompatible materials may cause splattering and release of large amounts of heat. Will react with some metals forming flammable hydrogen gas. Carbon monoxide gas may form upon contact with reducing sugars, food and beverage products in enclosed spaces.
Incompatibilities/ Materials to Avoid:	Acids, Halogenated compounds, Prolonged contact with aluminum, brass, bronze, copper, lead, tin, zinc or other alkali sensitive metals or alloys
Hazardous Decomposition Products:	Toxic fumes of sodium oxide
Hazardous Polymerization:	Will not occur

## 11. TOXICOLOGICAL INFORMATION

### TOXICITY DATA:

Hazardous Component	LD50 Oral	LC50 Inhalation	LD50 Dermal
Sodium hydroxide	Not listed	Not listed	1350 mg/kg (Rabbit)
Sodium chloride (NaCl)	3 g/kg (Rat)	42 g/m <sup>3</sup> (1 hr-Rat)	10 g/kg (Rabbit)

### TOXICITY:

The severity of the tissue damage is a function of its concentration, the length of tissue contact time, and local tissue conditions. After exposure there may be a time delay before irritation and other effects occur. This material is a strong irritant and is corrosive to the skin, eyes, and mucous membranes. This material may cause severe burns and permanent damage to any tissue with which it comes into contact. Inhalation will cause severe irritation, possible burns with pulmonary edema, which may lead to pneumonitis. Skin contact with this material may cause severe irritation and corrosion of tissue. Repeated exposure may cause dermatitis. Eye contact can cause severe irritation, corrosion with possible corneal damage and blindness. Ingestion may cause irritation, corrosion/ulceration, nausea, and vomiting.

**CARCINOGENICITY:** This product is not classified as a carcinogen by NTP, IARC or OSHA.



# CAUSTIC SODA LIQUID (ALL GRADES)

MSDS No.: M32415

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## 12. ECOLOGICAL INFORMATION

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**AQUATIC TOXICITY:** This material has exhibited moderate toxicity to aquatic organisms. Data provided are for sodium hydroxide.

**Freshwater Fish Data:**

LC50 brook trout: 25 ppm/24 hr

LC50 king salmon: 48 ppm

**Invertebrate Toxicity Data:**

EC50 daphnia magna: 100 ppm

EC50 shrimp: 33 – 100 ppm/48 hr

EC50 cockle: 330 – 1000 ppm/48 hr

**BIODEGRADATION:** This material is inorganic and not subject to biodegradation.

**PERSISTENCE:** This material is alkaline and may raise the pH of surface waters with low buffering capacity. This material is believed to exist in the disassociated state in the environment.

**BIOCONCENTRATION:** This material is not expected to bioconcentrate in organisms.

**ADDITIONAL ECOLOGICAL INFORMATION:** This material has exhibited slight toxicity to terrestrial organisms.

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## 13. DISPOSAL CONSIDERATIONS

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Reuse or reprocess, if possible. Dispose in accordance with all applicable regulations. May be subject to disposal regulations: U.S. EPA 40 CFR 261. Hazardous Waste Number(s): D002

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## 14. TRANSPORT INFORMATION

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**U.S.DOT 49 CFR 172.101:**

<b>PROPER SHIPPING NAME:</b>	Sodium Hydroxide Solution
<b>DOT UN NUMBER:</b>	UN1824
<b>HAZARD CLASS/ DIVISION:</b>	8
<b>PACKING GROUP:</b>	II
<b>LABELING REQUIREMENTS:</b>	8
<b>DOT RQ (lbs):</b>	RQ 1000 lbs. (Sodium Hydroxide)

**CANADIAN TRANSPORTATION OF DANGEROUS GOODS:**

<b>SHIPPING NAME:</b>	Sodium hydroxide solution
<b>UN NUMBER:</b>	UN1824
<b>CLASS:</b>	8
<b>PACKING/RISK GROUP:</b>	II

---

# CAUSTIC SODA LIQUID (ALL GRADES)

MSDS No.: M32415

Rev. Date: 05/29/2009

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## 15. REGULATORY INFORMATION

### U.S. REGULATIONS

#### OSHA REGULATORY STATUS:

This material is considered hazardous by the OSHA Hazard Communication Standard (29 CFR 1910.1200) (US).

#### CERCLA SECTIONS 102a/103 HAZARDOUS SUBSTANCES (40 CFR 302.4):

If a release is reportable under CERCLA section 103, notify the state emergency response commission and local emergency planning committee. In addition, notify the National Response Center at (800) 424-8802 or (202) 426-2675.

Hazardous Component	CERCLA Reportable Quantities
Sodium hydroxide	1000 lb (final RQ)

EPCRA EXTREMELY HAZARDOUS SUBSTANCES (40 CFR 355.30): No components are listed.

#### EPCRA SECTIONS 311/312 HAZARD CATEGORIES (40 CFR 370.21):

Acute Health Hazard

EPCRA SECTION 313 (40 CFR 372.65): No components are listed.

OSHA PROCESS SAFETY (29 CFR 1910.119): Not regulated

### NATIONAL INVENTORY STATUS

U.S. INVENTORY STATUS (TSCA): All components are listed or exempt

TSCA 12(b): This product is not subject to export notification

CANADIAN DOMESTIC SUBSTANCE LIST (DSL/NDSL): All components are listed.

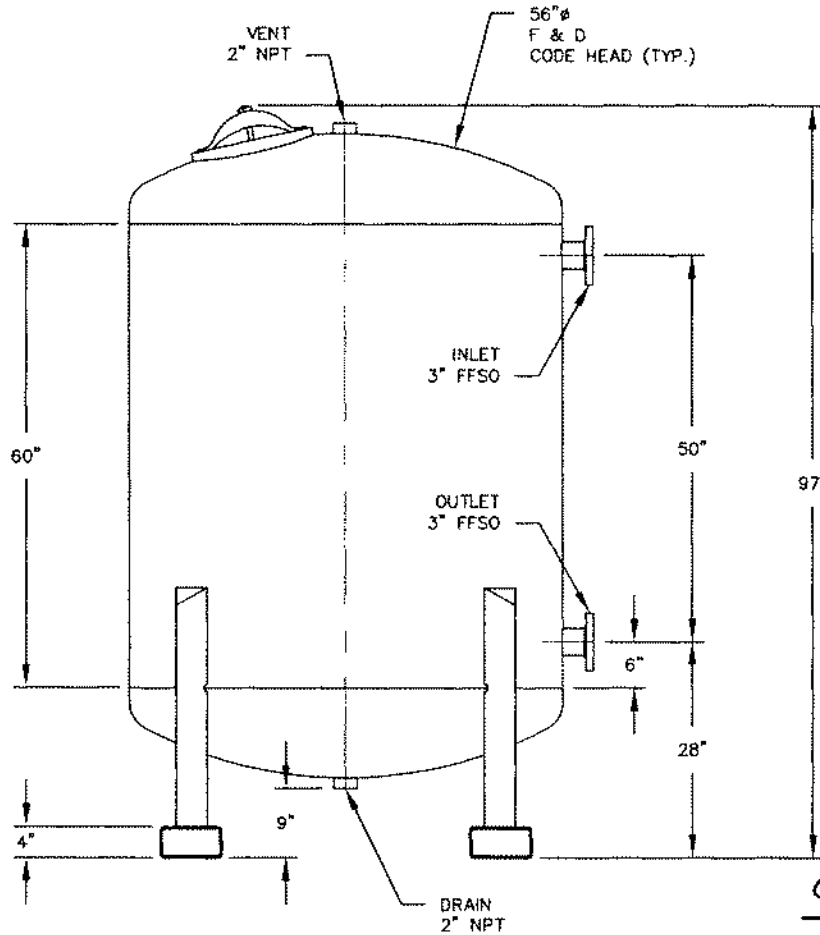
### STATE REGULATIONS

**California Proposition 65:** This product is not listed, but it may contain contaminants known to the State of California to cause cancer or reproductive toxicity as listed under Proposition 65 State Drinking Water and Toxic Enforcement Act. For additional information, contact OxyChem Customer Service.

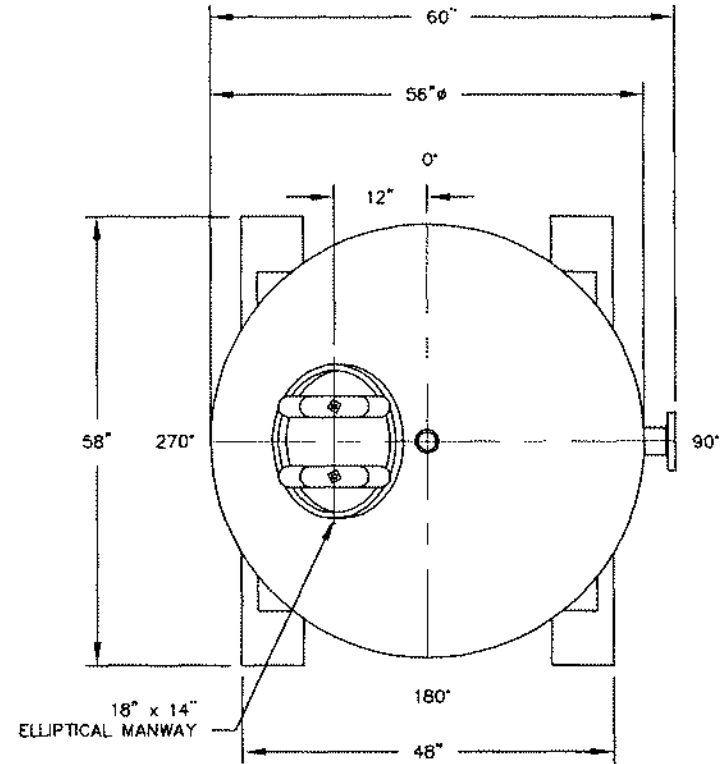
Hazardous Component	Sodium hydroxide
California Proposition 65 Cancer WARNING:	Not Listed
California Proposition 65 CRT List - Male reproductive toxin:	Not Listed
California Proposition 65 CRT List - Female reproductive toxin:	Not Listed
Massachusetts Right to Know Hazardous Substance List	Listed
New Jersey Right to Know Hazardous Substance List	Listed
New Jersey Special Health Hazards Substance List	Listed
Pennsylvania Right to Know Hazardous Substance List	Listed
Pennsylvania Right to Know Environmental Hazard List	Listed
Rhode Island Right to Know Hazardous Substance List	Listed

Treatment Vessel Schematic Drawing  
(Ion Exchange or Granular Carbon If Required)  
Granular Activated Carbon Media  
Ion Exchange Resin

Treatment vessel for Granular Activated Carbon



ELEVATION



PLAN

VESSEL TO BE USED FOR GRANULATED ACTIVATED CARBON & ION RESIN

VESSEL STANDARDS

VESSEL MATERIALS : 516-70 CARBON STEEL	VESSEL ACCESS : 18" X 14" ELLIPTICAL MANWAY
LINING : EPOXY	MAX. MEDIA FILL : 94 FT. <sup>3</sup>
EXTERIOR PAINT : EPOXY BASE W/ URETHANE TOP COAT	TOTAL VOLUME OF VESSEL : 105 FT. <sup>3</sup>
HEAD THICKNESS : 1/4" ASME CODE F & D	EMPTY WT. : 1550 LBS
SHELL THICKNESS : 1/4"	MAX. OPERATING PRESSURE : 75 PSIG
INTERNALS : PVC PIPE	MAX. OPERATING TEMP. : 130F

2	FLANGED NOZZLES & INCREASE DIA. TO 58"	JB	4/24/09
1	REMOVE HANDHOLE	JB	8/21/07
NO.	REVISION	BY	DATE
PROJECT			
CP-2000			
PROJ. NO. SALES			
P.O. NO.			
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DRAWN BY JB			
DESIGN BY BB			
CHKD. BY BB			
DATE 11/18/05			
SCALE NTS			
DWC. NO. CP-2000-1001			REV. 2



PLAN & ELEVATION

## DSR-C 8X30

### Granular Activated Carbon

#### Description

DSR-C is a grade of reactivated carbon designed for the removal of organic contaminants from industrial wastewater or process water. The carbon is manufactured by the reactivation of bituminous coal-based products to produce a high-density, high surface area durable product capable of withstanding repeated cycles of use and reactivation.

DSR-C is effective in a wide range of applications and fluctuating flows providing reliable removal of dissolved organic compounds, and is screened prior to packaging to ensure consistent performance and low pressure drop.

#### Applications

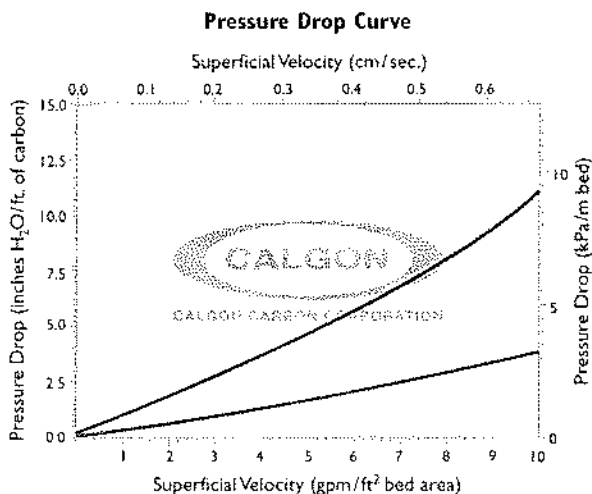
- Point source treatment to remove chemicals
- Pre-treatment to biological waste treatment systems
- Product recovery from wastewater
- Recycling wastewater
- Polishing effluent from biological waste treatment systems
- Providing total wastewater treatment

#### Design Considerations

The design of an activated carbon adsorption system is dependent on the adsorbate type, influent concentration, temperature, flow rate, performance objective, and other factors. Calgon Carbon has experience designing systems and can help evaluate the suitability of DSR-C to satisfy specific needs and assist in the design of an adsorption system. In addition to the supply of activated carbon, Calgon Carbon offers a complete line of standardized, pre-engineered adsorption systems. For additional information on adsorption capacity of organic compounds, please contact the Inside Sales Representative for your area by calling 1-800-4-CARBON.

#### Specifications

Iodine Number, mg/g (min)	800
Ash, weight % (max)	9
Moisture, weight % (max)	2
Apparent Density, g/cc (max)	0.60
Screen Size, US Sieve Series, weight %	
Smaller than 30 mesh (max)	5



#### Product Options

In addition to DSR-C, Calgon Carbon offers a variety of products and services to meet your treatment requirements:

##### Granular Carbon Products

- FILTRASORB® 300 & 400 - virgin liquid phase products.
- REACT PH® - for pH sensitive applications.
- React AW - for acid purification.

##### Equipment Products

- Standardized, pre-engineered adsorption systems capable of treatment flows from 1 gpm to 1400 gpm.
- Custom engineered systems - to meet unique treatment requirements.

##### Service Products

- Technical services including design assistance, calculations of carbon use rates, laboratory and pilot studies, start-up and operations assistance.
- On-site exchange services and reactivation service reduce labor requirements and minimize disposal cost.

**DSR-C is not for use in potable water or food grade applications.**

#### Carbon and Process Media

Visit our website at [www.calgoncarbon.com](http://www.calgoncarbon.com), or call 800-422-7266 to learn more about our complete range of products and services, and obtain local contact information.

CPM-LC604-0604

# DSR-C 8X30

## Granular Activated Carbon

### Features

#### Raw Material:

- Metallurgical grade, bituminous coal based

#### Miscellaneous:

- Reactivated product

- Recyclable product

- High surface area/pore structure

- Product is screened prior to packaging

### Packaging

1,000 lb. Super Sacks

Bulk Trucks

### Safety Message

Wet activated carbon preferentially removes oxygen from air. In closed or partially closed containers and vessels, oxygen depletion may reach hazardous levels. If workers are to enter a vessel containing carbon, appropriate sampling and work procedures for potentially low oxygen spaces should be followed, including all applicable Federal and State requirements.

### Benefits

- Produces a strongly adsorbing pore structure for a broad range of contaminants and concentrations

- Economical alternative to virgin carbon

- Provides ultimate disposal of pollutants

- Eliminates landfill costs and concerns

- Propagates the cycle of responsible resource utilization

- Efficient in removing a wide range of dissolved organic compounds

- Reliable - accommodates variations in flows or concentrations

- Results in less fines and lower pressure drop

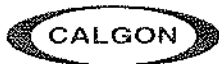
- Minimizes backwashing

### Limitations of Liability

The Supplier's liability and the Purchaser's exclusive remedy for any cause of action arising out of this transaction, including, but not limited to, breach of warranty, negligence and/or indemnification, is expressly limited to a maximum of the purchase price of spare parts or equipment sold hereunder. All claims of whatsoever nature shall be deemed waived unless made in writing within forty-five (45) days of the occurrence giving rise to the claim. In no event shall the Supplier, for any reason or pursuant to any provision of the warranty, be liable for incidental or consequential damages or damages in excess of the purchase price, nor shall the Supplier be liable for loss of profits or fines imposed by governmental agencies.

**DSR-C is not for use in potable water or food grade applications.**

Visit our website at [www.calgoncarbon.com](http://www.calgoncarbon.com)



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Calgon Carbon Corporation  
P.O. Box 717  
Pittsburgh, PA USA 15230-0717  
1-800-422-7266  
Tel: 412-787-6700  
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**Chemviron  
Carbon**

European Operations of Calgon  
Carbon Corporation  
Zoning Industriel C de Feluy  
B-7181 Feluy, Belgium  
Tel: + 32 (0) 64 51 18 11  
Fax: + 32 (0) 64 54 15 91

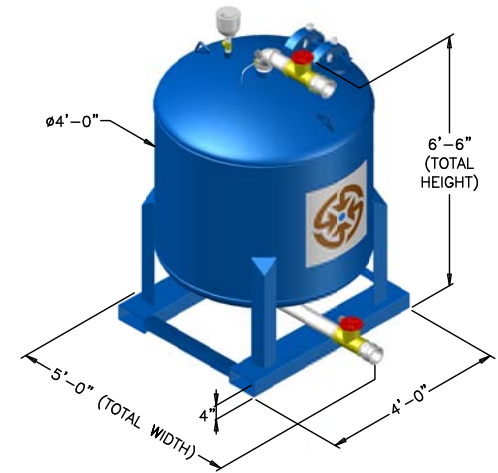
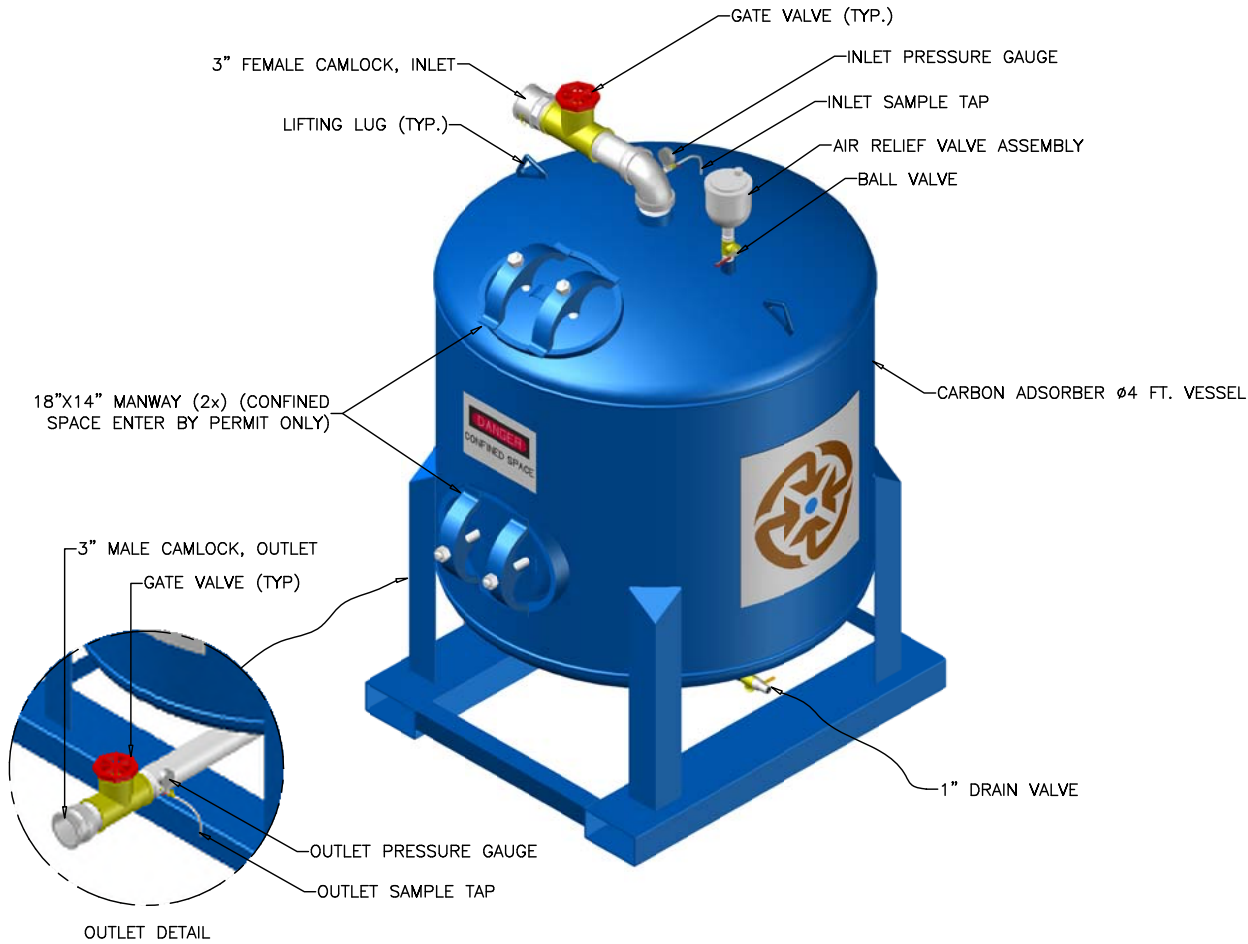
Your local office

CPM-LC604-0604

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I:\Cad Files\Rentals - STANDARD DRAWINGS\EQUIPMENT SPECIFICATION\CARBON ADSORBERS\ST-0021-SPC Rev-B 1K Carbon Adsorber Unit.dwg

**Treatment Vessel for ION Exchange**



NOTE: THIS DRAWING DEPICTS A "TYPICAL" SKID. ACTUAL DETAILS AND DIMENSIONS MAY VARY.

**1,000 POUNDS CARBON ADSORBER SPECIFICATIONS**

- CARBON FILL: 1,000 Lbs.
- DESIGN STANDARD PRESSURE: 50 PSI
- MAX. FLOW RATE: 50 GPM
- EBCT @ 50 GPM: 5.25 min.
- HOUSING CONSTRUCTION: A-36 CARBON STEEL
- INLET CONNECTION: 3" FEMALE CAMLOCK
- OUTLET CONNECTION: 3" MALE CAMLOCK
- DRAIN: 1" HOSE BARB
- CARBON FILL VOLUME: 40 Cu.ft.
- CARBON ADSORBER WEIGHT
  - EMPTY: 1,500 Lbs.
  - SHIPPING (W/CARBON): 2,500 Lbs.
  - OPERATING: 5,000 Lbs.

B	TYPICAL	06/10/09
NO.	REVISIONS	DATE
<p><b>1,000 Lb. CARBON ADSORBER STANDARD EQUIPMENT SPECIFICATION</b></p>		
SCALE: NTS	APPROVED BY: JB	DRAWN BY: AAV
DATE: 12/10/08		
<p><b>GROUND/WATER TREATMENT &amp; TECHNOLOGY</b> P.O. BOX 1174 DENVER, NJ 07834</p>		
<p>THIS DRAWING IS THE PROPERTY OF GROUND/WATER TREATMENT &amp; TECHNOLOGY, INC</p>		
DWG SIZE: A	SHEET: 1 OF 1	DRAWING NUMBER: ST-0021-SPC B

**USF A-284 OH ANION RESIN****Description:**

USF A-284 OH is a strong base, Type I, gel anion resin consisting of a styrene divinylbenzene matrix supplied in the hydroxide form. The general appearance is a hard spherical bead that is amber in color. This resin has the ability to remove anions and weak acids from aqueous solutions, such as carbonic and silicic acids. This resin is particularly well-suited for low silica effluent requirements.

**Chemical Properties**

Ionic Form (as shipped)	Hydroxide
Moisture Content	43 - 48% (Cl form)
Exchange Capacity	1.2 meq / ml minimum (OH form)
Conversion to Hydroxide Form	94% minimum
Impurities	
Chloride (Cl)	3% maximum
Carbonate (CO <sub>3</sub> )	5% maximum
Kinetics	> 15 megohm (USFilter Kinetics Test)

**Physical Properties**

Particle Screen Sizing	
+16 Mesh	5% maximum
-50 Mesh	1% maximum
Uniformity Coefficient	1.5
Whole Beads (%)	90 minimum
Shipping Weight	42 lbs. / cu. ft.

**Operating Conditions**

Operating pH Range	0 to 14
Service Flow Rate	2 - 4 gpm / cu. ft.
Regenerant Flow Rate	0.25 - 0.5 gpm / cu. ft.
Rinse Flow Rate	0.25 - 0.5 gpm / cu. ft. initially, then 1.5 gpm / cu. ft.
Rinse Volume	60 - 75 gallons / cu. ft.
Maximum Operating Temperature	140°F



Water Meter w/Totalizer  
Manufacturer's Information

**DESCRIPTION**

Badger Meter offers the Recordall Disc meter in Cast Bronze and a Low Lead Alloy. The Low Lead Alloy (Trade Designation: M170 LL) version complies with NSF/ANSI Standard 61 and carries the NSF-61 Mark on the housing. All components of the Low Lead Alloy meter, i.e., disc, chamber, housing, seals, etc., comprise the certified system.

**APPLICATIONS:** For use in measurement of potable cold water in residential, commercial and industrial services where flow is in one direction only.

**OPERATION:** Water flows through the meter's strainer and into the measuring chamber where it causes the disc to rotate. The disc, which moves freely, rotates on its own ball, guided by a thrust roller. A drive magnet transmits the motion of the disc to a follower magnet located within the permanently-sealed register. The follower magnet is connected to the register gear train. The gear train reduces the disc rotations into volume totalization units displayed on the register dial face.

**OPERATING PERFORMANCE:** The Badger Recordall Disc meters meet or exceed registration accuracy for the low flow rates (95%), normal operating flow rates (100 ± 1.5%), and maximum continuous operation flow rates as specifically stated by AWWA Standard C700.

**CONSTRUCTION:** Badger Recordall Disc meter construction, which complies with ANSI/AWWA standard C700, consists of three basic components: bronze meter housing, measuring chamber, and permanently, sealed register. A corrosion-resistant thermoplastic material is used for the measuring chamber.

To simplify maintenance, the register, measuring chamber, and strainer can be replaced without removing the meter housing from the installation. No change gears are required for accuracy calibration. Interchangeability of parts among like-sized meters also minimizes spare parts inventory investment. The built-in strainer has an effective straining area of twice the inlet size.

**MAGNETIC DRIVE:** Direct magnetic drive, through the use of high-strength magnets, provides positive, reliable and dependable register coupling for straight-reading, remote or automatic meter reading options.

**SEALED REGISTER:** The standard register consists of a straight-reading, odometer-type totalization display, 360° test circle with center sweep hand and flow linder to detect leaks. Register gearing consists of self-lubricating thermoplastic gears to minimize friction and provides long life. Permanently sealed; dirt, moisture, tampering and lens logging problems are eliminated. Multi-position register simplifies meter installation and reading. Generator-type remote reading and automatic meter reading systems are available for all Recordall Disc meters. All reading options are removable from the meter without disrupting water service.

**TAMPER-PROOF FEATURES:** Customer removal of the register to obtain free water can be prevented when the optional tamper detection seal wire screw/or Torx® tamper seat resistant screw is added to the meter. Both can be installed at the meter site or at the factory.

**MAINTENANCE:** Badger Recordall Disc meters are designed and manufactured to provide long-term service with minimal maintenance. When maintenance is required, it can be performed easily either at the meter installation or at any other convenient location. As an alternative to repair by the utility, Badger offers various maintenance and meter component exchange programs to fit the needs of the utility.

**CONNECTIONS:** Tailpieces/Flanges for installations of meters on various pipe types and sizes, including misaligned pipes, are available as an option.



Model 170 shown with optional 1" Test Plug

**SPECIFICATIONS**

<b>Typical Operating Range (100% ± 1.5%)</b>	2 1/2 - 170 GPM (.57 to 39 m³/hr)
<b>Low Flow (Min. 95%)</b>	1 1/2 GPM (.34 m³/hr)
<b>Maximum Continuous Operation</b>	100 GPM (23 m³/hr)
<b>Pressure Loss at Maximum Continuous Operation</b>	3.3 PSI at 100 GPM (.23 bar at 23 m³/hr)
<b>Maximum Operating Temperature</b>	80°F (26°C)
<b>Maximum Operating Pressure</b>	150 PSI (10 bar)
<b>Measuring Element</b>	Nutating disc, positive displacement
<b>Register Type</b>	Straight reading, permanently sealed magnetic drive standard. Remote reading or Automatic Meter Reading units optional.
<b>Registration</b>	100 Gallons, 10 Cubic Feet, 1 m³
<b>Register Capacity</b>	100,000,000 Gallons, 10,000,000 Cubic Feet, 1,000,000 m³. 6 odometer wheels.
<b>Meter Connections</b>	2" AWWA two bolt elliptical flange, drilled, or 2" · 11 1/2 NPT internal pipe threads.
<b>Optional Test Plug</b>	1" NPT test plug (TP) available on elliptical long and short versions.

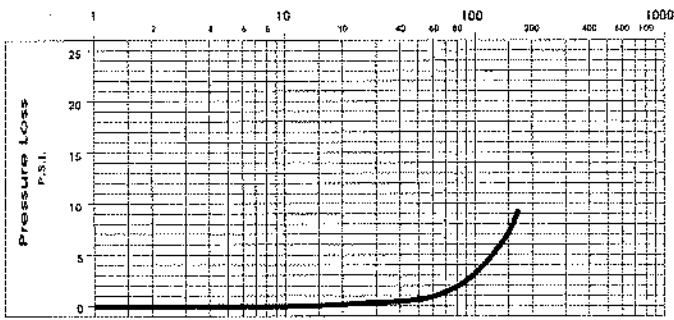
**MATERIALS**

<b>Meter Housing</b>	Cast Bronze, Low Lead Alloy
<b>Housing Top Plates</b>	Bronze, Low Lead Alloy
<b>Measuring Chamber</b>	Thermoplastic
<b>Disc</b>	Thermoplastic
<b>Trim</b>	Stainless Steel/Bronze
<b>Strainer</b>	Thermoplastic
<b>Disc Spindle</b>	Stainless Steel
<b>Magnet</b>	Ceramic
<b>Magnet Spindle</b>	Stainless Steel
<b>Register Lid and Box</b>	Thermoplastic or Bronze
<b>Generator Housing</b>	Thermoplastic



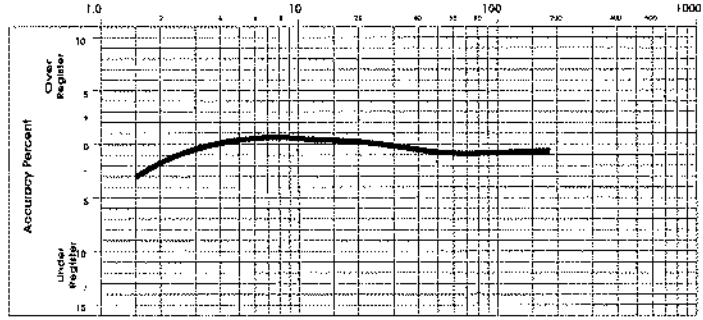
**PRESSURE LOSS CHART**

Rate of Flow, in Gallons per Minute



**ACCURACY CHART**

Rate of Flow, in Gallons per Minute



METER SIZE	METER MODEL	A LAYING LENGTH	B HEIGHT REG./RTR	C HEIGHT GEN.	D CENTERLINE BASE	WIDTH	APPROX. SHIPPING WEIGHT
2" (50mm)	170 EL, Hex. 170 EL, TP	15 1/4" (387mm)	8" (203mm)	9 3/8" (238mm)	2 7/8" (73mm)	9 1/2" (241mm)	30 lb. (13.6kg)
2" (50mm)	170 ELL, 170 ELL, TP	17" (432mm)	8" (203mm)	9 3/8" (238mm)	2 7/8" (73mm)	9 1/2" (241mm)	30 lb. (13.6kg)

EL = Elliptical

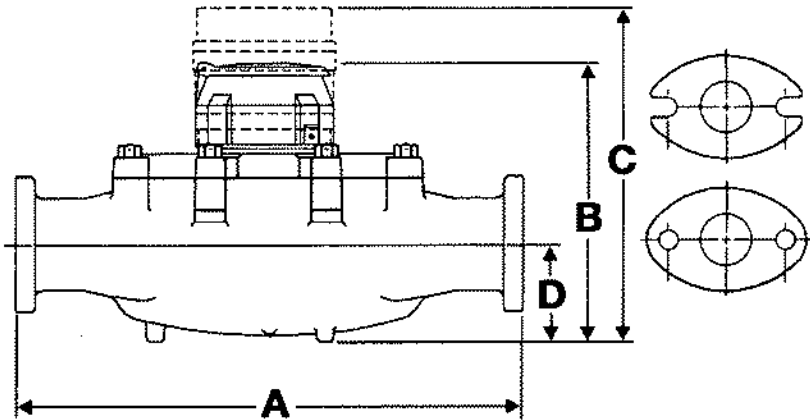
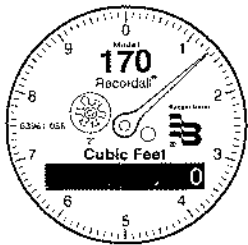
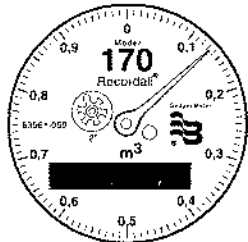
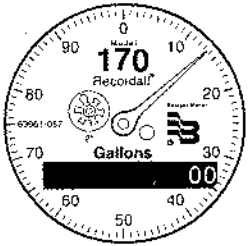
ELL = Elliptical Long

Hex = Hexagon, 2" - 1 1/2 NPT Thread

TP=Test Plug 1"

**Sweep Hand Registration**

MODEL	GALLON	CU.FT.	CU. METER
M170	100	10	1



RTR® and Recordall® are registered trademarks of Badger Meter, Inc. TORX® is a registered trademark of Camcar, Division of Textron, Inc.



Please see our website at [www.badgermeter.com](http://www.badgermeter.com) for specific contacts.

Due to continuous research, product improvements and enhancements, Badger Meter reserves the right to change product or system specifications without notice, except to the extent an outstanding contractual obligation exists.



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