NOTICE OF INTENT FOR DISCHARGE PURSUANT TO MASSACHUSETTS REMEDIATION GENERAL PERMIT MAG910000

RESIDENCES AT CENTRE AND MAIN
PHASE 2 – LOT 4
45 PETRONELLI WAY

BROCKTON, MASSACHUSETTS

JANUARY 15, 2021

Prepared For:

United States Environmental Protection Agency
Office of Ecosystem Protection
5 Post Office Square, Suite 100
Mail Code OEP06-01
Boston, MA 02109-3912

On Behalf Of:

Trinity Brockton Limited Partnership
75 Federal Street, 4th Floor
Boston, MA 02110

PROJECT NO. 5159

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

January 15, 2021

United States Environmental Protection Agency
Office of Ecosystem Protection
5 Post Office Square, Suite 100
Mail Code OEP06-01
Boston, MA 02109-3912

Attention: EPA/OEP RGP Applications Coordinator
Reference: Residences at Centre and Main Phase 2 – Lot 4; Brockton, Massachusetts
Notice of Intent for Temporary Construction Dewatering Discharge;
Massachusetts Remediation General Permit MAG910000

Ladies and Gentlemen:

Enclosed herein is our Notice of Intent for Temporary Construction Dewatering Discharge for the Residences at Centre and Main Phase 2 – Lot 4 project in Brockton, Massachusetts. These services were performed, and this permit application was prepared with the authorization of our client, Trinity Brockton Limited Partnership.

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

Very truly yours,

McPHAIL ASSOCIATES, LLC

Amy Falconeiri

Peter J. DeChaves, L.S.P.

N:\Working Documents\Reports\5159_Brockton Phase 2-Lot 4_RGP_011521.docx

AMF/pjd

GEOTECHNICAL AND GEOENVIRONMENTAL ENGINEERS
2269 Massachusetts Avenue
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CONTENTS:

FIGURES:

TABLES:

APPENDICES:

1.0 - INTRODUCTION

1.1 - GENERAL

In accordance with the provisions of the Remediation General Permit MAG910000 that has been prepared for the Commonwealth of Massachusetts, the following is a summary of the site and groundwater quality information in support of a Notice of Intent for the temporary discharge of groundwater into Trout Brook via the City of Brockton municipal storm drain system. The temporary discharge of construction dewatering will occur as part of the work associated with the proposed redevelopment of the property identified as Residences at Centre and Main Phase 2 – Lot 4 in Brockton, Massachusetts (subject site). Refer to **Figure 1,** Project Location Plan for the general site locus.

These services were performed and this permit application was prepared with the authorization of our client, Trinity Brockton Limited Partnership. These services are subject to the limitations contained in **Appendix A**.

The required Notice of Intent Form contained in the RGP permit is included in **Appendix B**. This project is considered Activity Category III-G as defined in the RGP. Based on the activity category, and in accordance with the RGP, contamination Type A: Inorganics and Type D: Non-Halogenated Semi-Volatile Organic Compounds (SVOCs) as defined in Table 2 of the RGP apply.

1.2 – APPLICANT/OPERATOR

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

Aberthaw Construction Company, Inc.
672 Suffolk Street, Suite 200
Lowell, MA 01854

Attention: Mr. Sean P. Cashman
Telephone: (978) 654-4500 ext. 113
Email: sean.cashman@aberthawcc.com

1.3 – SITE OWNER

Trinity Brockton Limited Partnership
c/o Trinity Financial, Inc.
75 Federal Street; 4th Floor
Boston, MA 02110

Attention: Mr. Lawrence J. Sparrow
Telephone: (617) 720-8400
Email: lsparrow@trinityfinancial.com

2.0 – SITE AND PROJECT DESCRIPTION

2.1 – EXISTING SITE CONDITIONS

The subject site, referred to as Lot 4, is part of the Phase 2 portion of the larger Residence at Centre and Main development. The entire Residences at Centre and Main property is bounded by Centre Street to the south, Main Street to the west, Petronelli Way to the north and Montello Street to the east. The Phase 2 portion of the development consists of two parcels referred to as Lot 3 and Lot 4 (subject site). The 0.97-acre Lot 4 subject site fronts onto Petronelli Way to the north, and is bounded by Montello Street to the east, the residential building constructed as part of Phase 1 development to the south, and a recently constructed multi-level parking garage located to the west of the subject site referred to as Phase 2 – Lot 3.

The subject site currently consists of a paved surface parking lot. Ground surface across the site generally slopes slightly downward from northwest to southeast from approximately Elevation +106 to +104.

The limits of the subject site are shown on **Figure 2** which was prepared from a 20-scale drawing entitled "Existing Conditions Plan (Phase 2)" dated August 5, 2016 by ICON Architecture.

2.2 – PROPOSED DEVELOPMENT

The project is understood to include the construction of a 5-story C-shaped multi-unit residential building with one level of below-grade parking. The below-grade level will occupy an approximate 30,926 square-foot plan area and will extend outward from the footprint of the approximate 23,642 square-foot above-grade structure. Currently, the lowest level slab of the below-grade level is proposed to be at Elevation +98.

Construction of the foundation for the below-grade garage will require an excavation that is anticipated to extend 10 to 15 feet below the existing ground surface. This excavation will be conducted within an engineered lateral earth support system.

2.3 – SITE ENVIRONMENTAL SETTING AND SURROUNDING HISTORICAL PLACES

Based on an on-line edition of the Massachusetts Geographic Information Systems MassDEP Bureau of Waste Site Cleanup Phase I Site Assessment Map, the subject site is not located within the boundaries of a Potentially Productive Aquifer or within a Zone II, Interim Wellhead Protection Area as defined by the DEP. Further, there are no public or private drinking water supply wells, no Areas of Critical Environmental Concern, no fish habitats, no habitats of Species of Special Concern or Threatened or Endangered Species within specified distances of the MCP site. The Map indicates that there are no water bodies or wetland areas on or within 500 feet of the subject site. The closest surface water body is Trout Brook, which is located approximately 1,200 feet to the east of the subject site and Salisbury Brook, which is located approximately 1,200 feet to the south of the subject site.

There are no areas designated as solid waste sites (landfills) noted as being located within 1,000 feet of the subject site. A copy of the Massachusetts DEP Phase I Site Assessment Map is included in **Appendix C**.

A review of information provided by the U.S. Fish and Wildlife Service in an Information for Planning and Conservation (IPaC) Trust Resource Report for the project site did not identify the presence of threatened or endangered species at or in the vicinity of the discharge location and/or discharge outfall. Further, the Trust Resource Report did not identify the presence of a critical habitat in the vicinity of the discharge outfall and/or discharge location. Based upon the above, the site is considered a Criterion A pursuant to Appendix IV of the RGP. A copy of the IPaC Trust Resource Report and U.S. Fish and Wildlife Service's Nationwide Standard Conservation Measures are included in **Appendix C**.

The subject site is not listed on the State or National Register of Historical Places. The nearest location that is listed on the State Register of Historical Places is 95 Montello Street, approximately 150 feet south of the site. A copy of the State of Massachusetts Cultural Resource Information System (MACRIS) report is included in **Appendix C**.

As further discussed below, construction dewatering may not be necessary at the subject site given that excavation for proposed building foundation is unlikely to extend below the surface of groundwater. However, if dewatering is considered necessary, treated construction dewatering effluent will be discharged into the City of Brockton dedicated storm drain system that flows into Trout Brook. If encountered, the dewatering of groundwater at the subject site will be temporary and intermittent. Groundwater discharged as part of the proposed project will be controlled and monitored. Treatment systems will consist of temporary structures. Therefore, based on the anticipated duration of construction dewatering and the location of its discharge into Trout Brook, construction dewatering activities are not considered to affect the historical elements of the nearby historical listings. Hence, the site meets Permit Eligibility Criterion A in accordance with Appendix III of the RGP.

2.4 – SITE AND RELEASE HISTORY

Based on available records, the subject site had been primarily occupied by shoe factories in the late 1800s through the mid-1900s. The buildings were demolished at the subject site during 2008. The subject site remained undeveloped from 2008 until 2017 when the existing parking lot was constructed.

MCP Release History

During a preliminary pre-characterization exploration program completed on Lot 4 and a drive lane connecting Petronelli Way and the existing below grade parking for the residential building located at 50 Centre Street, soil samples were tested for the presence of compounds typically required by in-state disposal facilities in accordance with DEP Policy #COMM-97-001 entitled "Reuse and Disposal of Contaminated Soils at Massachusetts Landfills". Select samples were also analyzed for the presence of extractable petroleum

hydrocarbons (EPH) fractions. The presence of naphthalene and Extractable Petroleum Hydrocarbon (EPH) fraction C11-C22 Aromatics were detected in soil samples at concentrations in excess of the applicable RCS-1 Reportable Concentrations. Accordingly, a Release Notification Form (RNF) was submitted to the DEP on April 10, 2017 by Trinity Brockton Limited Partnership, the property owner. The DEP assigned Release Tracking Number (RTN) 4-26598 to the release. A Phase I Initial Site Investigation and Tier Classification Report was submitted to the DEP for the release listed under RTN 4-26598 on April 18, 2018 by Trinity Brockton Limited Partnership. The site is classified as a Tier II release site.

A Release Abatement Measure (RAM) Plan was filed with the DEP on October 22, 2019 for the release of naphthalene by the Brockton Redevelopment Authority. The release of C11-C22 Aromatics is located on the eastern portion of the subject site and response actions are to be conducted in conjunction with site redevelopment. A RAM Completion Report for remediation of the naphthalene-impacted soil was submitted to the DEP for RTN 4-26598 on February 12, 2020.

The limits of the C11-C22 Aromatic-impacted soil has been defined as part of a recent Phase II Environmental Site Assessment. Based on the limits of the C11-C22 aromatic release, it is estimated that approximately 200 cubic yards of soil has been impacted by the C11-C22 aromatic release. The soil impacted by C11-C22 aromatics will be managed in accordance with a RAM Plan to be prepared and submitted to the DEP.

A release of 2-methylnaphthalene to soil was identified on the Phase 1 portion of the Residences at Centre and Main project site and a release of naphthalene to soil was identified on the eastern portion of the Phase 2 – Lot 4 Residences at Centre and Main project site (the subject site) during completion of a Phase II ESA in July 2011. The release conditions were reported to the DEP by Trinity Brockton Limited Partnership upon obtaining ownership of the property. Specifically, the release conditions were reported to the DEP on December 21, 2012. The DEP assigned RTN 4-24346 to the release. A Class B-1 Response Action Outcome (RAO) Statement was submitted to the DEP on April 8, 2014 for the release of naphthalene and 2-methylnaphthalene.

3.0 – CONSTRUCTION SITE DEWATERING AND TREATMENT

3.1 – SITE DEWATERING DETAILS

Groundwater was observed within newly installed observation well B-413(OW) at a depth of 9.5 feet below the existing ground surface, corresponding to Elevation +94.9.

As noted above, Construction of the foundations for the below-grade garage will require an excavation that is anticipated to extend up to about 10 to 15 feet below the existing ground surface, corresponding to Elevation +89 to +96. As a result, it is unlikely that the excavation to construction the proposed building foundations will encounter groundwater.

However, in the event that groundwater levels are higher than those observed or during heavy precipitation events that require construction dewatering to facilitate excavation, the maximum rate of dewatering will be on the order of 100 gallons per minute (gpm). Given the extent of excavation, temporary on-site collection and recharge of groundwater is not feasible as part of the proposed construction activities. As a result, construction dewatering will require the discharge of collected groundwater into the municipal storm drain system under the requested Remediation General Permit.

A review of available subgrade utility plans provided by the City of Brockton Department of Public Works indicates that stormwater is collected within a catch basin on Petronelli Way and connects to the stormwater drain system. The stormwater drain beneath Petronelli Way runs east before shifting north beneath Montello Street, and then east beneath the intersection of the Montello Street and Court Street. The stormwater drain system eventually discharges into Trout Brook at an outfall identified by the City of Brockton as Outfall ID 658 and Facility Identifier 8547. The location of the relevant stormwater catch basin in relation to the subject site is indicated on **Figure 3**. The flow path of the discharge is shown in plans provided by the City of Brockton which is also included in **Figure 3**.

3.2 – SUMMARY OF GROUNDWATER ANALYSIS

In December 2020, McPhail Associates, LLC obtained one (1) sample of groundwater at the subject site from monitoring well B-413(OW). The groundwater sample was submitted to a certified laboratory for analysis for the presence of compounds required to be tested under the EPA's Remediation General Permit (RGP) application, including total suspended solids (TSS), pH, total residual chlorine, cyanide, nitrogen - ammonia, chloride, total recoverable metals, petroleum aromatic hydrocarbons (PAHs), non-halogenated semi-volatile organic compounds (SVOCs) including naphthalene. Analytical results of the testing of the above referenced groundwater sample that was obtained in December 2020 are summarized on the enclosed **Table 1**, and laboratory data is included in **Appendix D**. The approximate location of B-413(OW) is indicated on the enclosed **Figure 2.**

Additionally, previous groundwater testing was completed to evaluate the nature and extent of the above referenced release sites. As summarized in the tables contained in **Appendix E**, groundwater samples were submitted for laboratory analysis for the presence of dissolved metals, EPH, volatile petroleum hydrocarbons (VPH), SVOCs and VOCs. In summary, the results of the laboratory testing did not detect concentrations of the tested constituents in excess of the applicable RCGW-2 reporting thresholds.

A surface water sample was obtained from Trout Brook (42° 05' 08.42'' N, 71° 00' 47.74'' W) in December 2020 and analyzed for the presence of chloride, pH, hardness, total suspended solids, total cyanide, total residual chlorine, ammonia nitrogen, and total metals. The approximate location of sample collection is indicated on the enclosed **Figure 3**, analytical test results are included on the enclosed **Table 2**, and laboratory data is included in **Appendix D**.

A Dilution Factor (DF) was calculated for the detected levels of metals pursuant to the procedure contained in RGP MAG910000, Appendix V. The purpose of the DF calculation is to establish Total Recoverable Limits for metals, taking into consideration the anticipated dilution of the detected analyte upon discharge into Trout Brook. The calculated DF was then used to find the appropriate Dilution Range Concentrations (DRCs) contained in MAG910000, Appendix IV. The Minimum Flow Rate calculated by the USGS Streamstats GIS database at the location of discharge into Trout Brook for 7 consecutive days with a recurrence interval of 10 years (7Q10 flow) is 0.254 ft^3/sec thus resulting in a DF of 2.14 assuming a design flow rate of 100 GPM. A copy of the DF calculation confirmation e-mail from the DEP is included in **Appendix C**.

In summary, groundwater testing performed at the subject site has detected concentrations of total copper above the applicable Water Quality Based Effluent Limitations contained in Table 2 of Section 2.1 of the RGP. The detected concentrations of the tested constituents detected in the on-site groundwater and surface water samples are further summarized in the MA Limits book tables that are included in **Appendix C**.

In accordance with the RGP and given that the subject site is a listed DEP release site, the proposed dewatering associated with this permit application is considered Contaminated/Formerly Contaminated Site Dewatering (Category III). Given that the site contamination is considered "Known", this project is considered Activity Category III-G as defined in the RGP. Based on the activity category, and in accordance with the RGP, contamination Type A: Inorganics and Type D: Non-Halogenated SVOCs as defined in Table 2 of the RGP apply.

3.3 – GROUNDWATER TREATMENT

Based upon the anticipated rates of construction dewatering in conjunction with the results of the above referenced groundwater analyses, it is our opinion that a treatment system consisting of an approximately 10,000-gallon capacity settling tank and bag filters in series is necessary to meet the effluent limitations of the RGP. These treatment components will be used to settle out particulate matter containing inorganic compounds in the effluent to meet the applicable discharge limits established by the US EPA prior to discharge. While not detected during the analysis of groundwater at the site, given the site history it is possible that a localized area of petroleum contamination may be encountered in soil and/or groundwater during the course of construction. If this condition is encountered, a granular activated carbon filter will be included as an additional treatment component to the treatment system. In addition, if increased pH levels are detected in the effluent (such as during the placement of concrete for the foundation system) carbon dioxide gas for pH adjustment will be utilized, if necessary, as construction activities at the subject site transition from excavation to installation of concrete footings. If the addition of concrete requires a pH conditioner to meet permit effluent limitations or applicable water quality standards, a Notice of Change (NOC) will be filed on behalf of the operator with the specific laboratory data sheets and necessary information attached.

A schematic of the treatment system is shown on **Figure 4**.

A Best Management Practices Plan (BMPP) has been prepared as **Appendix F** to the RGP and will be posted at the site during the time period that temporary construction dewatering is occurring at the site.

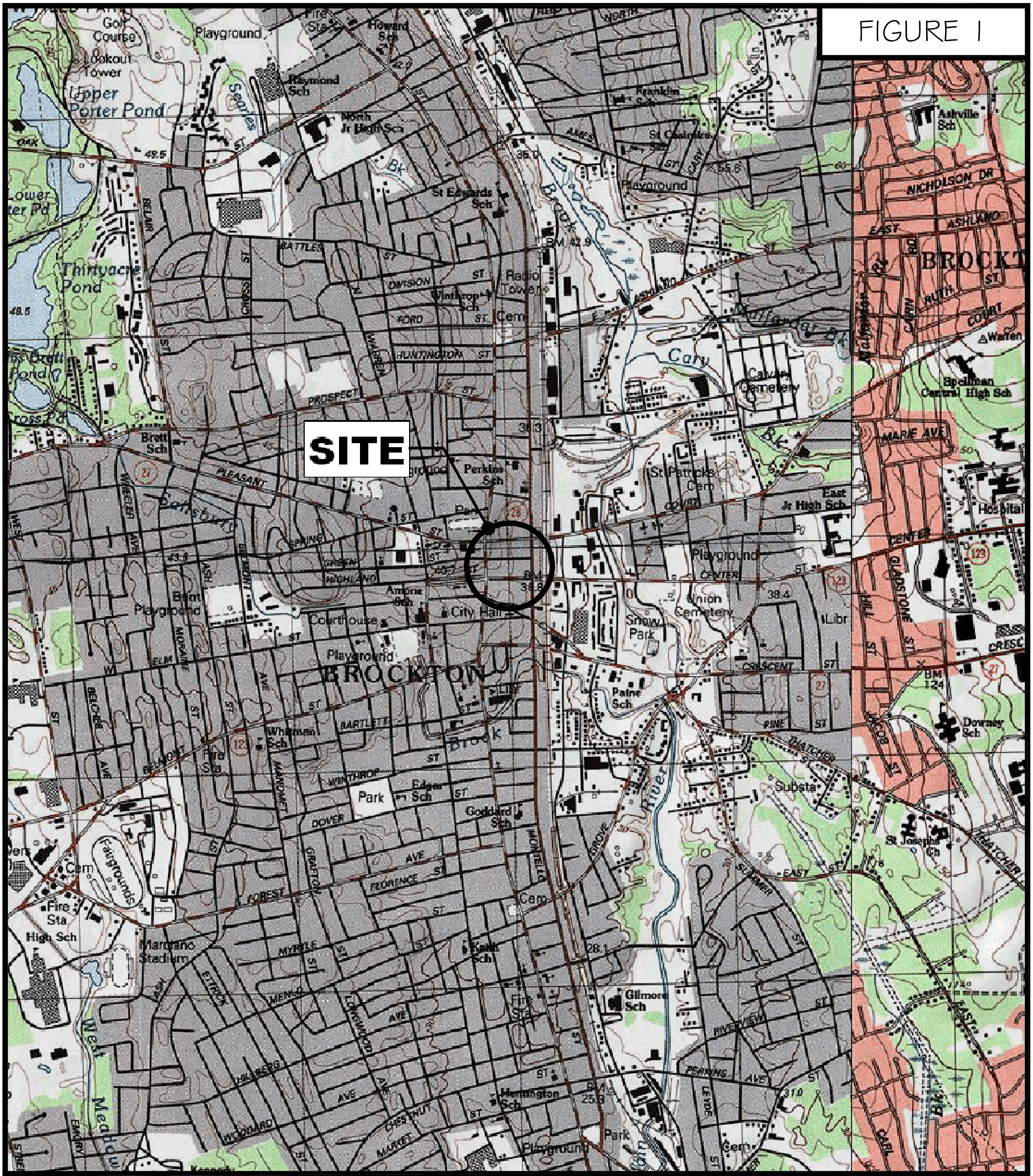
4.0 – SUMMARY AND CONCLUSIONS

The purpose of this report is to summarize site environmental conditions and groundwater data to support a Notice of Intent to discharge under the Remediation General Permit, for the off-site discharge of dewatered groundwater which may be encountered during the redevelopment of the subject site. The groundwater testing results reported in this application have been provided to the site owner.

Based on the results of the above referenced groundwater analyses, treatment of construction dewatering effluent will be necessary to meet the discharge limits for inorganic compounds established by the US EPA prior to off-site discharge. While not detected during the analysis of groundwater at the site, given the site history it is possible that a localized area of petroleum contamination may be encountered in soil and/or groundwater during the course of construction. The proposed construction dewatering effluent treatment system will consist of a 10,000-gallon capacity settling tank, bag filters and, if required, pH adjustment tank and GAC filters in series in order to meet the discharge limits established by the RGP. However, should the effluent monitoring results identify concentrations of contaminants that are in excess of the limits established by the RGP, additional mitigative measures will be implemented to meet the allowable discharge limits.

FIGURES

FIGURE 1



PROJECT LOCATION PLAN

THE RESIDENCES AT CENTRE AND MAIN
PHASE 2 - LOT 4

BROCKTON MASSACHUSETTS

N

SCALE 1:25,000

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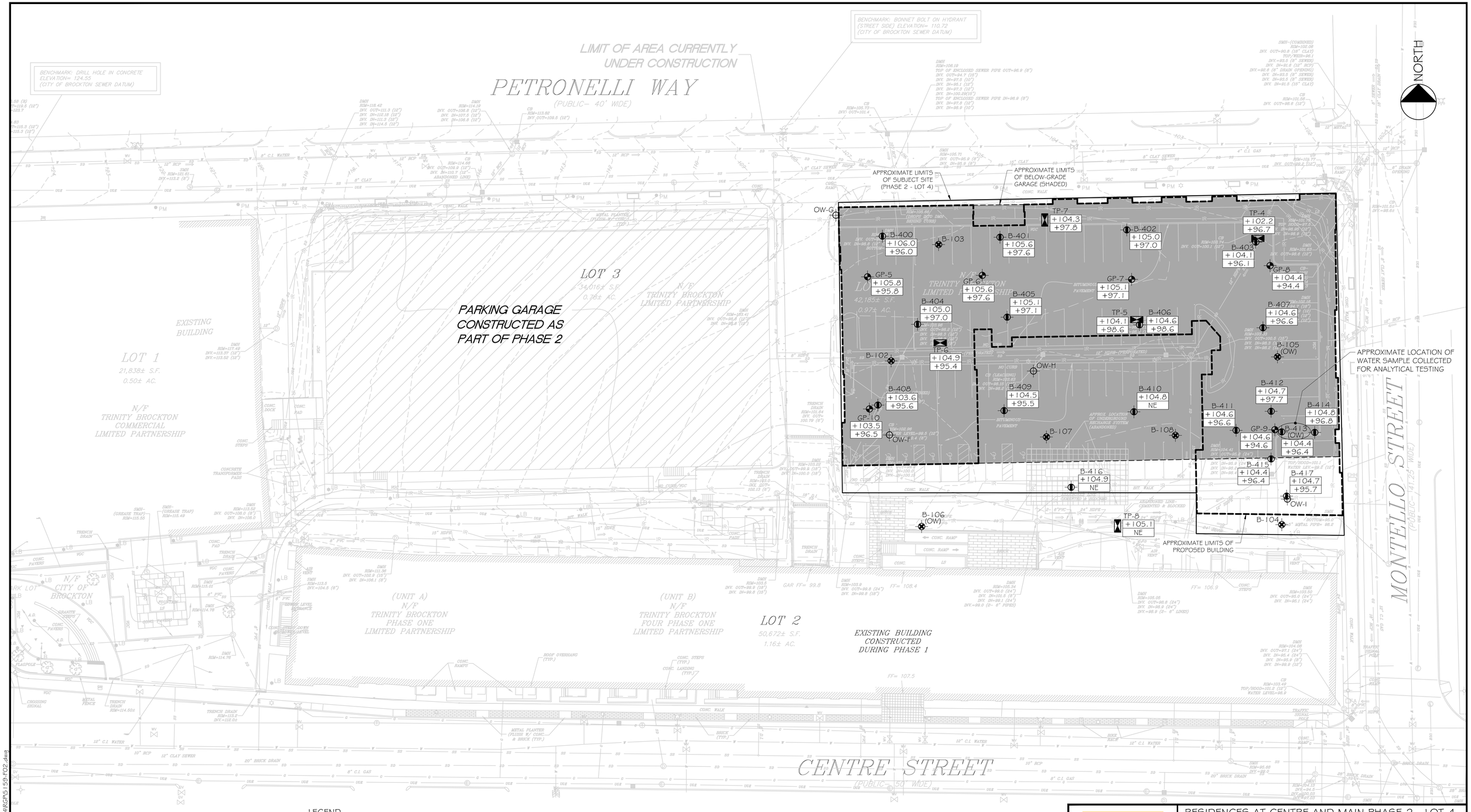

LEGEND

- ⊕ — APPROXIMATE LOCATION OF BORING PERFORMED BY TECHNICAL DRILLING SERVICES, INC. FROM JULY 21 TO JULY 28, 2020 FOR McPHAIL ASSOCIATES, LLC
- ⊕ — APPROXIMATE LOCATION OF GEOPROBE OR BORING COMPLETED BY CARR-DEE CORP. ON OCTOBER 21, 2016 UNDER CONTRACT TO McPHAIL ASSOCIATES, LLC
- ⊕ — APPROXIMATE LOCATION OF BORINGS PERFORMED BY CARR-DEE CORP. DURING MAY 25 THROUGH 27, 2011 UNDER CONTRACT TO McPHAIL ASSOCIATES, INC.
- ⊕ — APPROXIMATE LOCATION OF MONITORING WELL INSTALLED BY OTHERS
- ⋈ — APPROXIMATE LOCATION OF TEST PITS PERFORMED BY LANDSCAPE CREATIONS ON MAY 25, 2011 UNDER CONTRACT TO McPHAIL ASSOCIATES, INC.

(OW) — INDICATES OBSERVATION WELL INSTALLED WITHIN COMPLETED BOREHOLE

REFERENCE: THIS PLAN WAS PREPARED FROM A 20-SCALE DRAWING ENTITLED, "EXISTING CONDITION PLAN (PHASE 2)" DATED AUGUST 5, 2016 PREPARED BY ICON ARCHITECTURE

+106.0 / +96.0 — ELEVATION OF EXISTING GROUND SURFACE / ELEVATION OF TOP OF GLACIAL OUTWASH DEPOSIT

NE — INDICATES GLACIAL OUTWASH NOT ENCOUNTERED

GRAPHIC SCALE
20 0 20 40 80

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RESIDENCES AT CENTRE AND MAIN PHASE 2 - LOT 4

BROCKTON MASSACHUSETTS

SUBSURFACE EXPLORATION PLAN

FOR

TRINITY BROCKTON LIMITED PARTNERSHIP

BY

McPHAIL ASSOCIATES, LLC

Date: JANUARY 2021	Dwn: M.B.S.	Chkd: A.M.F.	Scale: 1" = 20'
Project No: 5159			FIGURE 2

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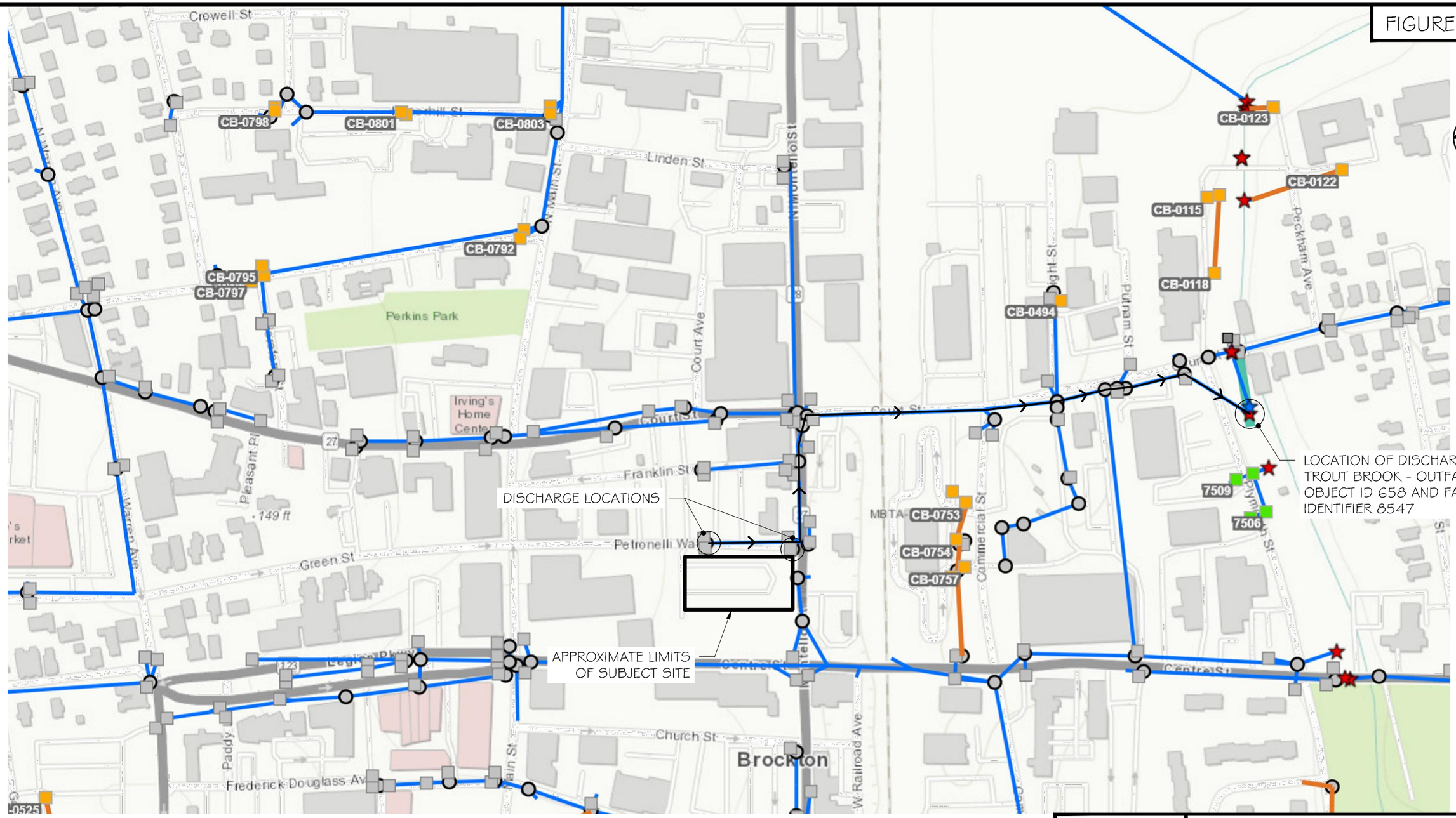
FIGURE 3



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RESIDENCES AT CENTRE AND MAIN PHASE 2 - LOT 4

BROCKTON MASSACHUSETTS

STORM DRAIN DISCHARGE FLOW PATH PLAN

FOR

TRINITY BROCKTON LIMITED PARTNERSHIP

BY

McPHAIL ASSOCIATES, LLC

Date: JANUARY 2021	Dwn: M.B.S.	Chkd: A.M.F.	Scale: N.T.S.
Project No: 5159			

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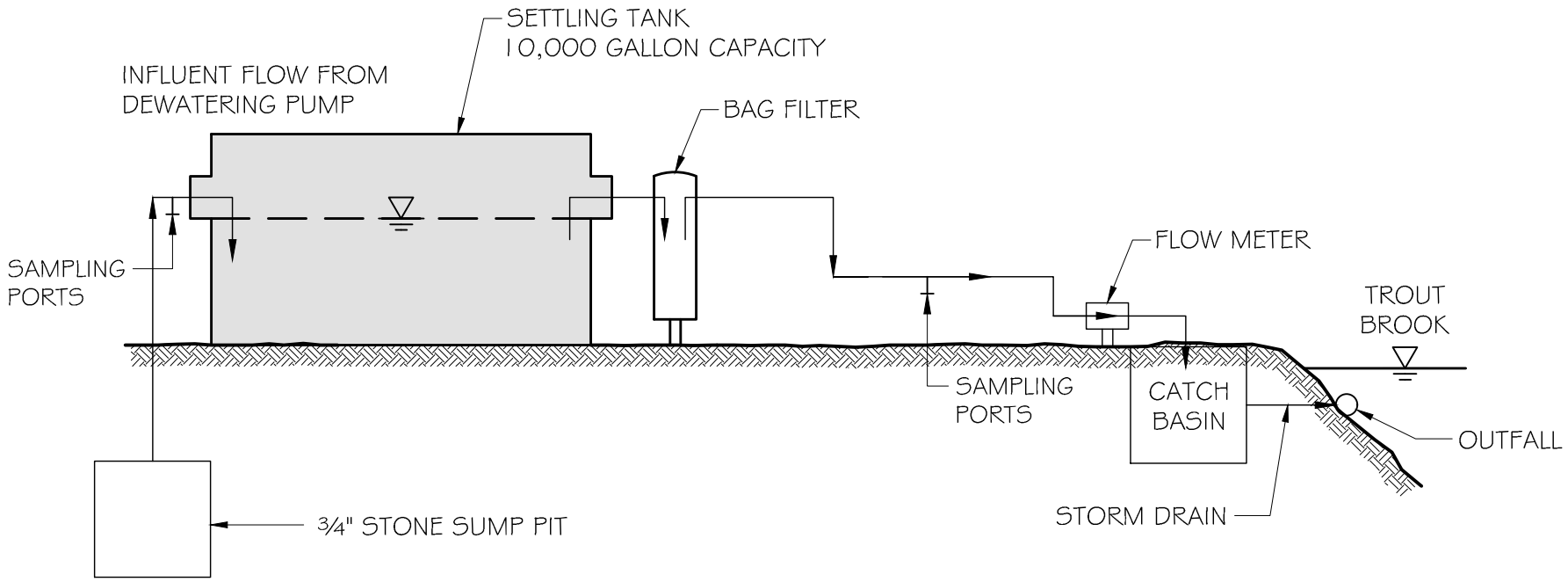
FIGURE 4



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RESIDENCE AT CENTRE AND MAIN PHASE 2 - LOT 4

BROCKTON MASSACHUSETTS

SCHEMATIC OF TREATMENT SYSTEM

FOR

TRINITY BROCKTON LIMITED PARTNERSHIP

BY

McPHAIL ASSOCIATES, LLC

CONSULTING GEOTECHNICAL ENGINEERS

Date: JANUARY 2021	Dwn: M.B.S.	Chkd: A.M.F.	Scale: N.T.S.
Project No: 6463			

TABLES

Table 1
Laboratry Analytical Results - Groundwater

Residences at Centre Main Phase 2 - Lot 4
Brockton, MA
McPhail Project No. 5159

LOCATION	DEP RCGW-2	Technology Based Effluent Limitation (TBEL)	Water Quality Based Effluent Limitation (WQBEL)	B-413(OW) (SOURCE WATER)
SAMPLING DATE				12/14/2020
LAB SAMPLE ID				L2055911-01 & L2100023
SAMPLE TYPE				WATER
A. Inorganics				
Nitrogen, Ammonia (mg/L)				0.114
Chloride (ug/L)			230000	**315000**
Total Residual Chlorine (mg/L)		0.2	0.011	ND(0.02)
Total Suspended Solids (mg/L)		30		15
Antimony, Total (ug/L)	8000	206	640	ND(4)
Arsenic, Total (ug/L)	900	104	10	ND(1)
Cadmium, Total (ug/L)	4	10.2	0.25	ND(0.2)
Chromium, Total (ug/L)	300			8.24
Chromium, Hexavalent (ug/L)		323	74	ND(10)
Chromium, Trivalent (ug/L)		323	11	ND(10)
Copper, Total (ug/L)	1000	242	9	**15.98**
Iron, Total (ug/L)		5000	1000	463
Lead, Total (ug/L)	10	160	2.5	1.94
Mercury, Total (ug/L)	20	0.739	0.77	ND(0.2)
Nickel, Total (ug/L)	200	1450	52	4.01
Selenium, Total (ug/L)	100	235.8	5	**ND(5)**
Silver, Total (ug/L)	7	35.1	3.2	ND(0.4)
Zinc, Total (ug/L)	900	420	120	ND(10)
Cyanide, Total (mg/L)	0.03	178	0.0052	ND(0.005)
Hardness (mg/L)				72.2
pH (H)		6.5-8.3	6.5-8.3	7.1
B. Non-Halogenated SVOCs (ug/l)				
Acenaphthene	1000			ND(0.1)
Fluoranthene	200			ND(0.1)
Naphthalene	700	20		ND(0.1)
Total Group I PAHs (ug/L)		1		
Benzo(a)anthracene	1000	As Total Group I PAHs	0.0038	ND(0.1)
Benzo(a)pyrene	500		0.0038	ND(0.1)
Benzo(b)fluoranthene	400		0.0038	ND(0.1)
Benzo(k)fluoranthene	100		0.0038	ND(0.1)
Chrysene	70		0.0038	ND(0.1)
Dibenzo(a,h)anthracene	40		0.0038	ND(0.1)
Indeno(1,2,3-cd)pyrene	100		0.0038	ND(0.1)
Acenaphthylene	10000			ND(0.1)
Anthracene	30			ND(0.1)
Benzo(ghi)perylene	20			ND(0.1)
Fluorene	40			ND(0.1)
Phenanthrene	10000			ND(0.1)
Pyrene	20			ND(0.1)
TPH, SGT-HEM (mg/L)	5	5		ND(4)

ND-Not Detected Above Laboratory Detection Limits
Bold-Detected Above WQBEL

Table 2
Laboratory Analytical Results - Receiving Water

Residences at Centre Main Phase 2 - Lot 4
Brockton, MA
McPhail Project No. 5159

LOCATION	EPA-National Recommended Water Quality Criteria - Freshwater Aquatic (chronic) Criteria	TROUT BROOK (RECEIVING WATER)
SAMPLING DATE		12/14/2020
LAB SAMPLE ID		L2055911-02 & L2100023-02
SAMPLE TYPE		WATER
A. Inorganics		
General Chemistry (ug/l)		
Chloride	230000	119000
pH		7
Hardness		52.6
Chromium, Trivalent	74	ND(10)
Solids, Total Suspended		12000
Cyanide, Total	5.2	ND(5)
Chlorine, Total Residual		ND(20)
Nitrogen, Ammonia		116
Chromium, Hexavalent	11	ND
Total Metals (ug/l)		
Antimony, Total		ND(4)
Arsenic, Total	150	ND(1)
Cadmium, Total	0.25	ND(0.2)
Chromium, Total		ND(1)
Copper, Total		3.17
Iron, Total	1000	**1210**
Lead, Total	2.5	**6.48**
Mercury, Total	0.77	ND(0.2)
Nickel, Total	52	2.21
Selenium, Total	5	**ND(5)**
Silver, Total		ND(0.4)
Zinc, Total	120	36.44

ND-Not Detected Above
Laboratory Method Detection Limits
Bold-Detected Above

APPENDIX A:

LIMITATIONS

LIMITATIONS

The purpose of this report is to present the results of testing of groundwater samples obtained from an on-site monitoring well in connection with the redevelopment of the Residences at Centre & Main Phase 2 – Lot 4 property in Brockton, Massachusetts, in support of an application for approval of construction site dewatering discharge into surface waters of the Commonwealth of Massachusetts under EPA's Massachusetts Remediation General Permit MAG910000.

The observations were made under the conditions stated in this report. The conclusions presented above were based on these observations. If variations in the nature and extent of subsurface conditions between the spaced subsurface explorations become evident in the future, it will be necessary to re-evaluate the conclusions presented herein after performing on-site observations and noting the characteristics of any variations.

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

Laboratory analyses have been performed for specific constituents during the course of this assessment, as described in the text.

This report and application have been prepared on behalf of and for the exclusive use of Trinity Brockton Limited Partnership and Aberthaw Construction Company, Inc. This report and the findings contained herein shall not, in whole or in part, be disseminated or conveyed to any other party, other than submission to relevant governmental agencies, nor used in whole or in part by any other party without the prior written consent of McPhail Associates, LLC.

APPENDIX B:

NOTICE OF INTENT TRANSMITTAL FORM

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

A. General site information:

<table>
<tr><td rowspan="2">1. Name of site:
Trinity Brockton Phase 2 - Lot 4</td><td colspan="3">Site address: 45
Street: Petronelli Way</td></tr>
<tr><td>City: Brockton</td><td>State: MA</td><td>Zip: 02301</td></tr>
<tr><td rowspan="4">2. Site owner
Trinity Brockton Limited Partnership

Owner is (check one): ☐ Federal ☐ State/Tribal ■ Private
☐ Other; if so, specify:</td><td colspan="3">Contact Person: Lawrence Sparrow</td></tr>
<tr><td colspan="2">Telephone: 617-720-8400</td><td>Email: lsparrow@trinityfinancial.com</td></tr>
<tr><td colspan="3">Mailing address: 75 Federal Street; 4th Floor
Street:</td></tr>
<tr><td>City: Boston</td><td>State: MA</td><td>Zip: 02110</td></tr>
<tr><td rowspan="4">3. Site operator, if different than owner
Aberthaw Construction Company, Inc.</td><td colspan="3">Contact Person: Sean P. Cashman</td></tr>
<tr><td colspan="2">Telephone: 978-654-4500 ext. 113</td><td>Email: sean.cashman@aberthawcc.com</td></tr>
<tr><td colspan="3">Mailing address:
Street: 672 Suffolk Street, Suite 200</td></tr>
<tr><td>City: Lowell</td><td>State: MA</td><td>Zip: 01854</td></tr>
<tr><td>4. NPDES permit number assigned by EPA:

NPDES permit is (check all that apply: ☐ RGP ☐ DGP ☐ CGP
☐ MSGP ☐ Individual NPDES permit ☐ Other; if so, specify:</td><td colspan="3">5. Other regulatory program(s) that apply to the site (check all that apply):
■ MA Chapter 21e; list RTN(s):
RTNs 4-26598 & 4-24346
☐ NH Groundwater Management Permit or Groundwater Release Detection Permit:
☐ CERCLA
☐ UIC Program
☐ POTW Pretreatment
☐ CWA Section 404</td></tr>
</table>

B. Receiving water information:

1. Name of receiving water(s):	Waterbody identification of receiving water(s):	Classification of receiving water(s):
Trout Brook	MA62-07	Class B

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

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

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

3. Indicate if the receiving water(s) is listed in the State's Integrated List of Waters (i.e., CWA Section 303(d)). Include which designated uses are impaired, and any pollutants indicated. Also, indicate if a final TMDL is available for any of the indicated pollutants. For more information, contact the appropriate State as noted in Part 4.6 of the RGP. Listed impairments include Dissolved Oxygen and Fecal Coliform.

4. Indicate the seven day-ten-year low flow (7Q10) of the receiving water determined in accordance with the instructions in Appendix V for sites located in Massachusetts and Appendix VI for sites located in New Hampshire.	0.254
5. Indicate the requested dilution factor for the calculation of water quality-based effluent limitations (WQBELs) determined in accordance with the instructions in Appendix V for sites in Massachusetts and Appendix VI for sites in New Hampshire.	2.14

6. Has the operator received confirmation from the appropriate State for the 7Q10and dilution factor indicated? (check one): ■ Yes ☐ No
If yes, indicate date confirmation received: 12/9/2020

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

C. Source water information:

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

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

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

D. Discharge information

1.The discharge(s) is a(n) (check any that apply): ☐ Existing discharge ■ New discharge ☐ New source	
Outfall(s): Object ID 654 Facility Identifier 8547	Outfall location(s): (Latitude, Longitude) 42.085696, -71.01375
Discharges enter the receiving water(s) via (check any that apply): ☐ Direct discharge to the receiving water ■ Indirect discharge, if so, specify: Discharge indirectly into Trout Brook through City of Brockton Drainage system ☐ A private storm sewer system ■ A municipal storm sewer system If the discharge enters the receiving water via a private or municipal storm sewer system: Has notification been provided to the owner of this system? (check one): ■ Yes ☐ No Has the operator has received permission from the owner to use such system for discharges? (check one): ☐ Yes ■ No, if so, explain, with an estimated timeframe for obtaining permission: Upon approval of this NOI Has the operator attached a summary of any additional requirements the owner of this system has specified? (check one): ☐ Yes ☐ No	
Provide the expected start and end dates of discharge(s) (month/year): 3/1/2021 to 2/28/2022 Indicate if the discharge is expected to occur over a duration of: ■ less than 12 months ☐ 12 months or more ☐ is an emergency discharge	
Has the operator attached a site plan in accordance with the instructions in D, above? (check one): ■ Yes ☐ No	

<table>
<tr><td>2. Activity Category: (check all that apply)</td><td colspan="2">3. Contamination Type Category: (check all that apply)</td></tr>
<tr><td rowspan="5">■ I – Petroleum-Related Site Remediation
☐ II – Non-Petroleum-Related Site Remediation
■ III – Contaminated Site Dewatering
☐ IV – Dewatering of Pipelines and Tanks
☐ V – Aquifer Pump Testing
☐ VI – Well Development/Rehabilitation
☐ VII – Collection Structure Dewatering/Remediation
☐ VIII – Dredge-Related Dewatering</td><td colspan="2">a. If Activity Category I or II: (check all that apply)

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

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

4. Influent and Effluent Characteristics

Parameter	Known or believed absent	Known or believed present	# of samples	Test method (#)	Detection limit (µg/l)	Influent		Effluent Limitations	
						Daily maximum (µg/l)	Daily average (µg/l)	TBEL	WQBEL
A. Inorganics									
Ammonia		✔	1	1214500		114		Report mg/L	---
Chloride		✔	1	44300		315000		Report µg/l	---
Total Residual Chlorine	✔		1	1214500	0.2	ND		0.2 mg/L	
Total Suspended Solids		✔	1	1212540D		15		30 mg/L	
Antimony	✔		1	3,200.8	4	ND		206 µg/L	
Arsenic	✔		1	3,200.8	1	ND		104 µg/L	
Cadmium	✔		1	3,200.8	.2	ND		10.2 µg/L	
Chromium III	✔		1	107,-	10	ND		323 µg/L	
Chromium VI		✔	1	3,200.8		8.24		323 µg/L	
Copper		✔	1	3,200.8		15.98		242 µg/L	
Iron		✔	1	19,200.7		463		5,000 µg/L	
Lead		✔	1	3,200.8		1.94		160 µg/L	
Mercury	✔		1	3,245.1	0.2	ND		0.739 µg/L	
Nickel		✔	1	3,200.8		4.01		1,450 µg/L	
Selenium	✔		1	3,200.8	5	ND		235.8 µg/L	
Silver	✔		1	3,200.8	.4	ND		35.1 µg/L	
Zinc	✔		1	3,200.8	10	ND		420 µg/L	
Cyanide	✔		1	121,4500	5	ND		178 mg/L	
B. Non-Halogenated VOCs									
Total BTEX								100 µg/L	---
Benzene								5.0 µg/L	---
1,4 Dioxane								200 µg/L	---
Acetone								7.97 mg/L	---
Phenol								1,080 µg/L	

Parameter	Known or believed absent	Known or believed present	# of samples	Test method (#)	Detection limit (µg/l)	Influent		Effluent Limitations	
						Daily maximum (µg/l)	Daily average (µg/l)	TBEL	WQBEL
C. Halogenated VOCs									
Carbon Tetrachloride								4.4 µg/L	
1,2 Dichlorobenzene								600 µg/L	---
1,3 Dichlorobenzene								320 µg/L	---
1,4 Dichlorobenzene								5.0 µg/L	---
Total dichlorobenzene								763 µg/L in NH	---
1,1 Dichloroethane								70 µg/L	---
1,2 Dichloroethane								5.0 µg/L	---
1,1 Dichloroethylene								3.2 µg/L	---
Ethylene Dibromide								0.05 µg/L	---
Methylene Chloride								4.6 µg/L	---
1,1,1 Trichloroethane								200 µg/L	---
1,1,2 Trichloroethane								5.0 µg/L	---
Trichloroethylene								5.0 µg/L	---
Tetrachloroethylene								5.0 µg/L	
cis-1,2 Dichloroethylene								70 µg/L	---
Vinyl Chloride								2.0 µg/L	---
D. Non-Halogenated SVOCs									
Total Phthalates	✔		1					190 µg/L	
Diethylhexyl phthalate	✔		1	129,625.1-				101 µg/L	
Total Group I PAHs	✔		1	129,625.1-	4000	ND		1.0 µg/L	---
Benzo(a)anthracene	✔		1	129,625.1-	0.1	ND		As Total PAHs	
Benzo(a)pyrene	✔		1	129,625.1-	0.1	ND			
Benzo(b)fluoranthene	✔		1	129,625.1-	0.1	ND			
Benzo(k)fluoranthene	✔		1	129,625.1-	0.1	ND			
Chrysene	✔		1	129,625.1-	0.1	ND			
Dibenzo(a,h)anthracene	✔		1	129,625.1-	0.1	ND			
Indeno(1,2,3-cd)pyrene	✔		1	129,625.1-	0.1	ND			

Parameter	Known or believed absent	Known or believed present	# of samples	Test method (#)	Detection limit (µg/l)	Influent		Effluent Limitations	
						Daily maximum (µg/l)	Daily average (µg/l)	TBEL	WQBEL
Total Group II PAHs	✔		1					100 µg/L	---
Naphthalene	✔		1	129,625.1-	0.1	ND		20 µg/L	---
E. Halogenated SVOCs									
Total PCBs	✔							0.000064 µg/L	---
Pentachlorophenol	✔							1.0 µg/L	---
F. Fuels Parameters									
Total Petroleum Hydrocarbons	✔							5.0 mg/L	---
Ethanol	✔							Report mg/L	---
Methyl-tert-Butyl Ether	✔							70 µg/L	
tert-Butyl Alcohol	✔							120 µg/L in MA 40 µg/L in NH	---
tert-Amyl Methyl Ether	✔							90 µg/L in MA 140 µg/L in NH	---
Other (i.e., pH, temperature, hardness, salinity, LC_{50}, additional pollutants present); if so, specify:									
PH		✔	1	121,4500H		7.1			
Temperature		✔	1	Theragun		16 C			
Hardness		✔	1	19,200.7		72.2			

E. Treatment system information

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

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

2. Provide a written description of all treatment system(s) or processes that will be applied to the effluent prior to discharge.
Settling Tank and bag filters in series

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

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

3. Provide the **design flow capacity** in gallons per minute (gpm) of the most limiting component. Indicate the most limiting component: settling tank Is use of a flow meter feasible? (check one): ■ Yes ☐ No, if so, provide justification:	100
Provide the proposed maximum effluent flow in gpm.	100
Provide the average effluent flow in gpm.	50
If Activity Category IV applies, indicate the estimated total volume of water that will be discharged:	

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

F. Chemical and additive information

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

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

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

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

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

G. Endangered Species Act eligibility determination

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

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

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

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

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

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

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

H. National Historic Preservation Act eligibility determination

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

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

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

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

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

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

I. Supplemental information

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

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

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

J. Certification requirement

I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gathered and evaluated the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I have no personal knowledge that the information submitted is other than true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

BMPP certification statement:	BMPP has been implemented in accordance with good engineering practices following Part 2.5 of the RGP
Notification provided to the appropriate State, including a copy of this NOI, if required.	Check one: Yes ■ No ☐
Notification provided to the municipality in which the discharge is located, including a copy of this NOI, if requested.	Check one: Yes ■ No ☐
Notification provided to the owner of a private or municipal storm sewer system, if such system is used for site discharges, including a copy of this NOI, if requested.	Check one: Yes ■ No ☐ NA ☐
Permission obtained from the owner of a private or municipal storm sewer system, if such system is used for site discharges. If yes, attach additional conditions. If no, attach explanation and timeframe for obtaining permission.	Check one: Yes ☐ No ■ NA ☐
Notification provided to the owner/operator of the area associated with activities covered by an additional discharge permit(s). Additional discharge permit is (check one): ☐ RGP ☐ DGP ☐ CGP ☐ MSGP ☐ Individual NPDES permit ☐ Other; if so, specify:	Check one: Yes ☐ No ■ NA ☐
Signature: 	Date: 01/18/2021
Print Name and Title: Sean P. Cashman, Vice President	

APPENDIX C:

ADDITIONAL NOI SUPPORT INFORMATION

MassDEP - Bureau of Waste Site Cleanup

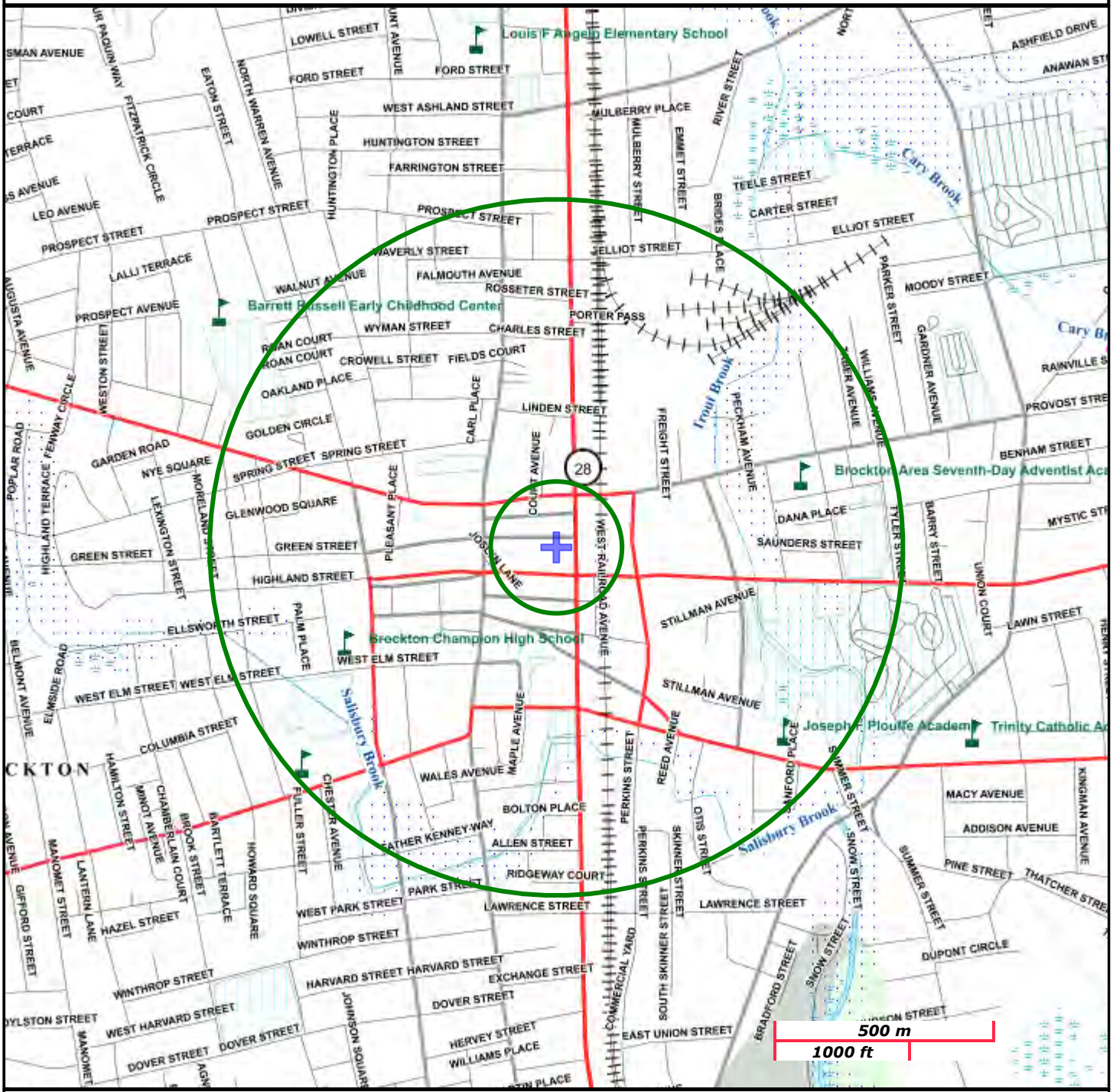
Phase 1 Site Assessment Map: 500 feet & 0.5 Mile Radii

Site Information:
45 PETRONELLI WAY
45 PETRONELLI WAY BROCKTON, MA

NAD83 UTM Meters:
4661142mN , 333108mE (Zone: 19)
December 4, 2020

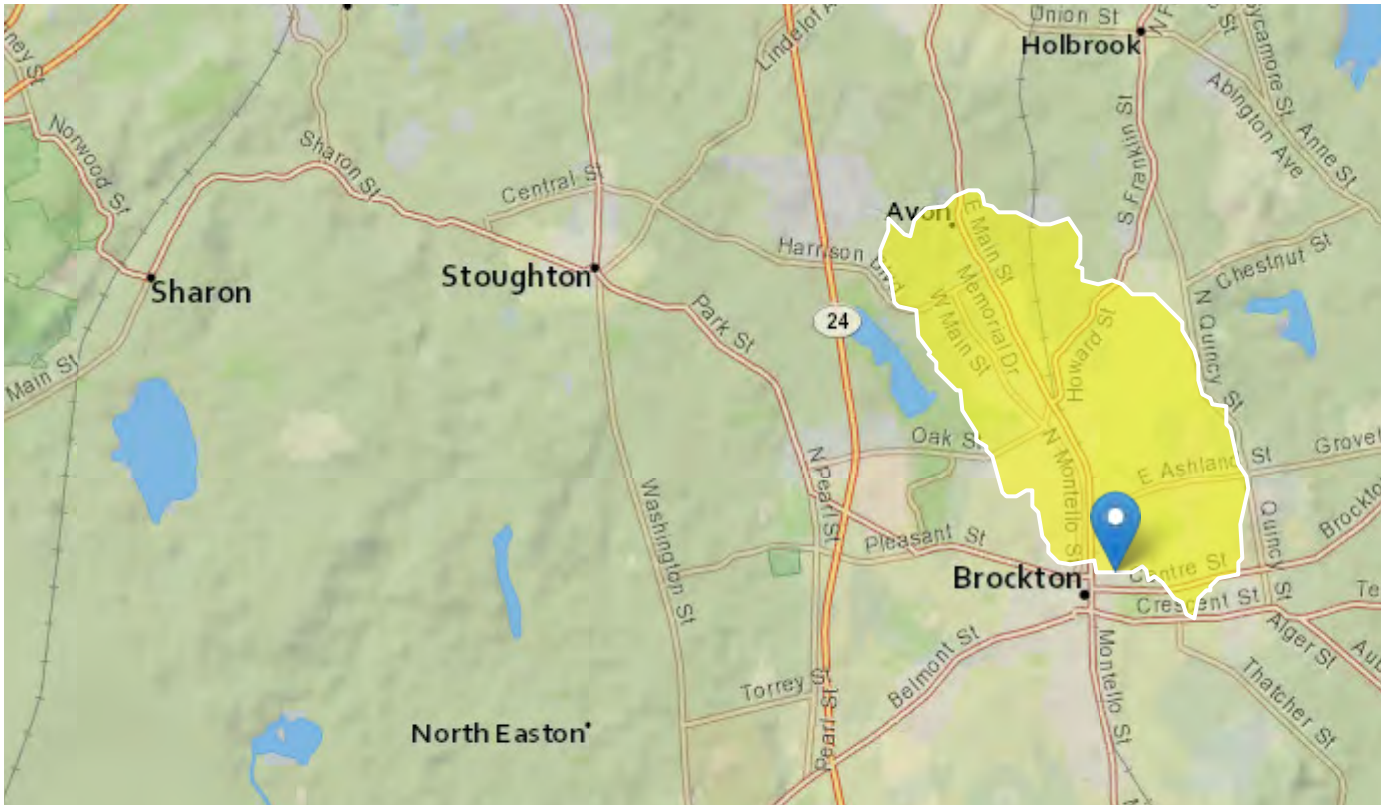
The information shown is the best available at the date of printing. However, it may be incomplete. The responsible party and LSP are ultimately responsible for ascertaining the true conditions surrounding the site. Metadata for data layers shown on this map can be found at: https://www.mass.gov/orgs/massgis-bureau-of-geographic-information.

MassDEP
Commonwealth of Massachusetts
Department of Environmental Protection



StreamStats Report

Region ID: MA
Workspace ID: MA20201208165536216000
Clicked Point (Latitude, Longitude): 42.08615, -71.01329
Time: 2020-12-08 11:53:47 -0500



Basin Characteristics

Parameter Code	Parameter Description	Value	Unit
DRNAREA	Area that drains to a point on a stream	6.53	square miles
BSLDEM250	Mean basin slope computed from 1:250K DEM	1.577	percent
DRFTPERSTR	Area of stratified drift per unit of stream length	0.24	square mile per mile
MAREGION	Region of Massachusetts 0 for Eastern 1 for Western	0	dimensionless

Low-Flow Statistics Parameters[Statewide Low Flow WRIR00 4135]

Parameter Code	Parameter Name	Value	Units	Min Limit	Max Limit
DRNAREA	Drainage Area	6.53	square miles	1.61	149
BSLDEM250	Mean Basin Slope from 250K DEM	1.577	percent	0.32	24.6
DRFTPERSTR	Stratified Drift per Stream Length	0.24	square mile per mile	0	1.29
MAREGION	Massachusetts Region	0	dimensionless	0	1

Low-Flow Statistics Flow Report[Statewide Low Flow WRIR00 4135]

PII: Prediction Interval-Lower, PIu: Prediction Interval-Upper, SEp: Standard Error of Prediction, SE: Standard Error (other -- see report)

Statistic	Value	Unit	PII	PIu	SE	SEp
7 Day 2 Year Low Flow	0.647	ft^3/s	0.239	1.69	49.5	49.5
7 Day 10 Year Low Flow	0.254	ft^3/s	0.0727	0.827	70.8	70.8

Low-Flow Statistics Citations

Ries, K.G., III,2000, Methods for estimating low-flow statistics for Massachusetts streams: U.S. Geological Survey Water Resources Investigations Report 00-4135, 81 p. (http://pubs.usgs.gov/wri/wri004135/)

Application Version: 4.4.0

Amy Falconeiri

From: Ruan, Xiaodan (DEP) <xiaodan.ruan@state.ma.us>
Sent: Wednesday, December 9, 2020 10:45 PM
To: Amy Falconeiri
Cc: Vakalopoulos, Catherine (DEP)
Subject: RE: 45 Petronelli Way, Cambridge - RGP Dilution Factor [Filed 10 Dec 2020 17:56]

Hi Amy,

I can confirm that the 7Q10 of 0.254 cfs and a dilution factor of 2.14 for the proposed discharge with a design flow (max flow rate) of 100 gpm at 45 Petronelli Way in Brockton are correct.

Here is water quality information in assisting you in filling out the NOI:

> Waterbody and ID: Trout Brook (MA62-07) within Taunton River Watershed
> Classification: B
> Outstanding Resource Water?: no
> State's most recent Integrated List is located here: https://www.epa.gov/sites/production/files/2020-01/documents/2016-ma-303d-list-report.pdf, search for "MA62-07" to see the causes of impairments.
> TMDLs: there is one Final Pathogen TMDL for this segment.

If this is not a *current* MCP site, then in addition to submitting the NOI to EPA, you need to apply with MassDEP and submit a $500 fee (unless fee exempt, e.g., municipality) using the ePLACE. The instructions are located on this page: https://www.mass.gov/how-to/wm-15-npdes-general-permit-notice-of-intent. Technical assistant information is available on the front page of the ePLACE application webpage.

Please let me know if you have any questions.

Sincerely,
Xiaodan

Xiaodan Ruan
Massachusetts Department of Environmental Protection
One Winter Street, Boston, MA 02108
(617) 654-6517
xiaodan.ruan@mass.gov

From: Vakalopoulos, Catherine (DEP) <catherine.vakalopoulos@mass.gov>
Sent: Tuesday, December 8, 2020 4:23 PM
To: Ruan, Xiaodan (DEP) <xiaodan.ruan@mass.gov>
Cc: Amy Falconeiri <afalconeiri@mcphailgeo.com>
Subject: FW: 45 Petronelli Way, Cambridge - RGP Dilution Factor

Hi Xiaodan,
Do you have time to look at this?
Thanks,
Cathy

From: Amy Falconeiri <afalconeiri@mcphailgeo.com>
Date: Tuesday, December 8, 2020 at 2:04 PM
To: "Vakalopoulos, Catherine (DEP)" <catherine.vakalopoulos@mass.gov>
Subject: 45 Petronelli Way, Cambridge - RGP Dilution Factor

Hi Cathy,

I am currently preparing a NOI to discharge under the RGP for the proposed project located at 45 Petronelli Way in Brockton. The Contractor would like to discharge treated groundwater off-site into a storm drain that discharges into Trout Brook. Before we submit our NOI to the EPA, I wanted to confirm the dilution factor we planned to use.

Here is what I calculated (the Streamstats sheet for Trout Brook is attached):

7Q10 for Trout Brook: 0.254 cfs = 0.1642 MGD

Design flow: 100 gpm = 0.144 MGD

DF = (0.1642 + 0.144)/0.144 = 2.14

Can you please confirm if this DF is acceptable?

Thank you,

Amy M. Falconeiri

McPHAIL ASSOCIATES, LLC
2269 Massachusetts Avenue
Cambridge, MA 02140
Tel: 617-868-1420 Ext. 335
Cell: 508-498-1531
www.mcphailgeo.com

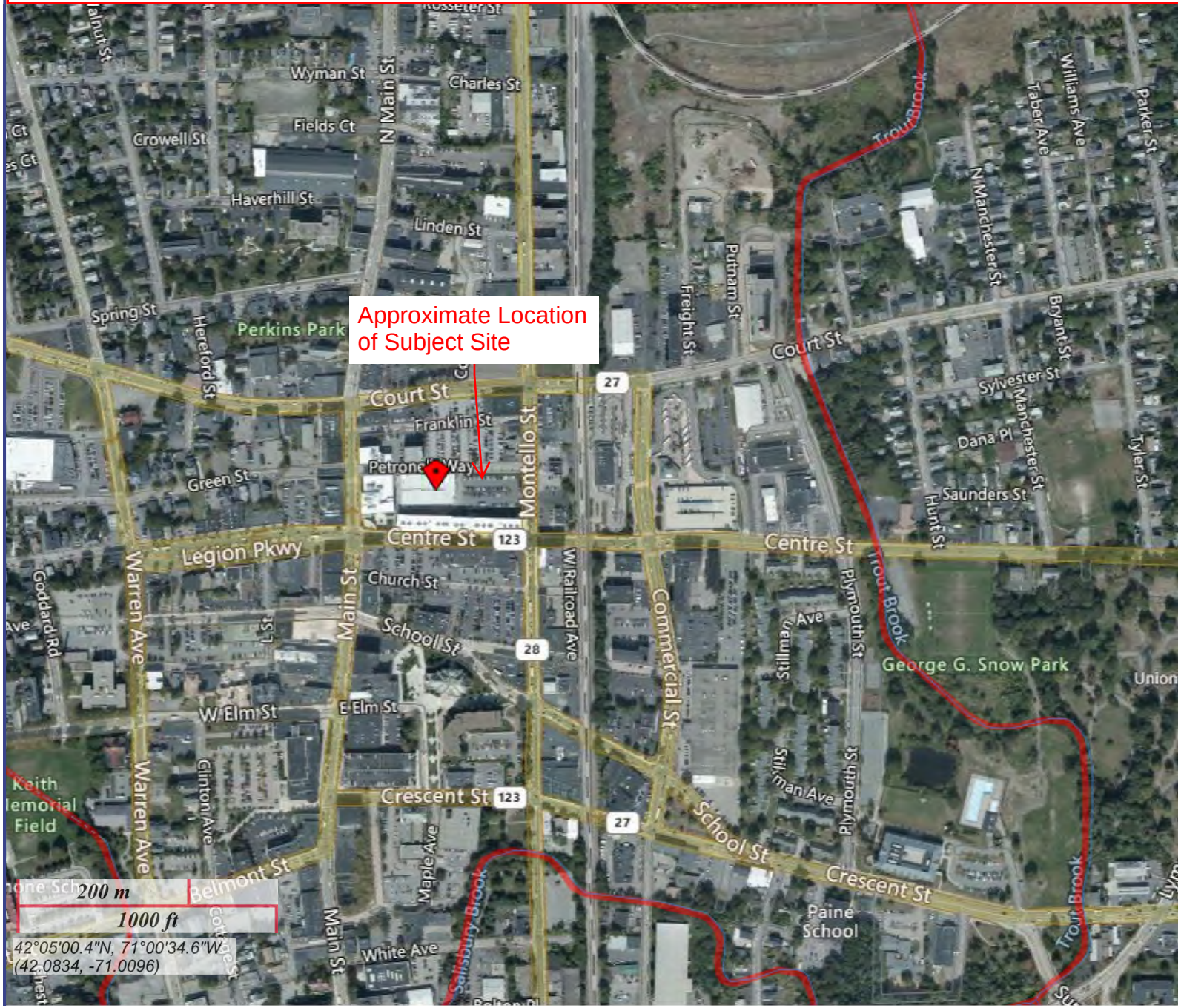
MassDEP Online Map Viewer

2014 Integrated List of Waters Map

Helpful Links:

- The Clean Water Act
- MassDEP Total Maximum Daily Loads

Mass.gov



United States Department of the Interior

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

In Reply Refer To: January 14, 2021
Consultation Code: 05E1NE00-2021-SLI-0998
Event Code: 05E1NE00-2021-E-03129
Project Name: 45 Petronelli Way

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

To Whom It May Concern:

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

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

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

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

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

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

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

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

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

Attachment(s):

- Official Species List

Official Species List

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

This species list is provided by:

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

Project Summary

Consultation Code: 05E1NE00-2021-SLI-0998
Event Code: 05E1NE00-2021-E-03129
Project Name: 45 Petronelli Way
Project Type: DEVELOPMENT
Project Description: Site Redevelopment
Project Location:

Approximate location of the project can be viewed in Google Maps: https://www.google.com/maps/@42.084624,-71.01783585840587,14z

Counties: Plymouth County, Massachusetts

Endangered Species Act Species

There is a total of 0 threatened, endangered, or candidate species on this species list.

Species on this list should be considered in an effects analysis for your project and could include species that exist in another geographic area. For example, certain fish may appear on the species list because a project could affect downstream species.

IPaC does not display listed species or critical habitats under the sole jurisdiction of NOAA Fisheries[1], as USFWS does not have the authority to speak on behalf of NOAA and the Department of Commerce.

See the "Critical habitats" section below for those critical habitats that lie wholly or partially within your project area under this office's jurisdiction. Please contact the designated FWS office if you have questions.

---

1. NOAA Fisheries, also known as the National Marine Fisheries Service (NMFS), is an office of the National Oceanic and Atmospheric Administration within the Department of Commerce.

Critical habitats

THERE ARE NO CRITICAL HABITATS WITHIN YOUR PROJECT AREA UNDER THIS OFFICE'S JURISDICTION.

United States Department of the Interior

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http://www.fws.gov/newengland

In Reply Refer To: January 14, 2021
Consultation Code: 05E1NE00-2021-SLI-0999
Event Code: 05E1NE00-2021-E-03132
Project Name: 45 Petronelli Way

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

To Whom It May Concern:

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

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

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

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

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

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

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

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

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

Attachment(s):

- Official Species List

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

This species list is provided by:

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

Project Summary

Consultation Code: 05E1NE00-2021-SLI-0999
Event Code: 05E1NE00-2021-E-03132
Project Name: 45 Petronelli Way
Project Type: DEVELOPMENT
Project Description: Development
Project Location:

Approximate location of the project can be viewed in Google Maps: https://www.google.com/maps/@42.0855954,-71.01309327544755,14z

Counties: Plymouth County, Massachusetts

Endangered Species Act Species

There is a total of 0 threatened, endangered, or candidate species on this species list.

Species on this list should be considered in an effects analysis for your project and could include species that exist in another geographic area. For example, certain fish may appear on the species list because a project could affect downstream species.

IPaC does not display listed species or critical habitats under the sole jurisdiction of NOAA Fisheries[1], as USFWS does not have the authority to speak on behalf of NOAA and the Department of Commerce.

See the "Critical habitats" section below for those critical habitats that lie wholly or partially within your project area under this office's jurisdiction. Please contact the designated FWS office if you have questions.

---

1. NOAA Fisheries, also known as the National Marine Fisheries Service (NMFS), is an office of the National Oceanic and Atmospheric Administration within the Department of Commerce.

Critical habitats

THERE ARE NO CRITICAL HABITATS WITHIN YOUR PROJECT AREA UNDER THIS OFFICE'S JURISDICTION.

Massachusetts Cultural Resource Information System

MACRIS

MACRIS Search Results

Search Criteria: Town(s): Brockton; Street No: 45; Street Name: petronelli way;

Inv. No.	Property Name	Street	Town	Year

Category 5 waters listed alphabetically by major watershed
The 303(d) List – "Waters requiring a TMDL"

Water Body	Segment ID	Description	Size	Units	Impairment	EPA TMDL No.
Taunton River	MA62-03	From Berkley Bridge, Dighton/Berkley to confluence with Assonet River at a line from Sandy Point, Somerset northeasterly to the southwestern tip of Assonet Neck, Berkley.	0.92	Square Miles	Dissolved Oxygen	
					Fecal Coliform	40310
Taunton River	MA62-04	From confluence with Assonet River at a line from Sandy Point, Somerset northeasterly to the southwestern tip of Assonet Neck, Berkley to mouth just upstream of the Braga Bridge, Somerset/Fall River.	2.60	Square Miles	Dissolved Oxygen	
					Enterococcus	40310
					Fecal Coliform	40310
					Fish Bioassessments	
Trout Brook	MA62-07	Headwaters, perennial portion, northeast of Argyle Avenue and west of Conrail Line, Avon to mouth at confluence with Salisbury Brook forming headwaters Salisbury Plain River, Brockton.	3.40	Miles	Dissolved Oxygen	
					Escherichia Coli (E. Coli)	40308
					Fecal Coliform	40308
Unnamed Tributary	MA62-42	Headwaters, south of Slab Bridge Road (in Cedar Swamp portion of Freetown-Fall River State Forest), Freetown to mouth at confluence with Cedar Swamp River, Lakeville.	4.00	Miles	Benthic Macroinvertebrates	
					Fish Bioassessments	
Unnamed Tributary	MA62-48	Channel from Taunton Municipal Lighting Plant, Taunton to mouth at confluence with the Taunton River, Taunton.	0.002	Square Miles	(Flow Regime Modification*)	
					(Physical substrate habitat alterations*)	
					Benthic Macroinvertebrates	
					Fish Bioassessments	
					Temperature	
Wading River	MA62-47	Headwaters, outlet Furnace Lake, Foxborough to Balcolm Street, Mansfield (through former pond segments; Robinson Pond MA62163 and Blakes Pond MA62221) (formerly part of segment MA62-17) (1987 Wrentham quad depicts river incorrectly) .	5.00	Miles	Algae	
					Dissolved Oxygen	
Watson Pond	MA62205	Taunton.	78.00	Acres	(Non-Native Aquatic Plants*)	
					Algae	
					Dissolved Oxygen	
					Enterococcus	
					Phosphorus, Total	
					Transparency / Clarity	
Woods Pond	MA62220	Middleborough.	51.00	Acres	(Non-Native Aquatic Plants*)	
					Turbidity	

Appendix 1
Assessment units and integrated list categories presented alphabetically by major watershed

Water Body	Segment ID	Description	Size	Units	Category
Taunton River	MA62-01	Headwaters, confluence of Town and Matfield rivers, Bridgewater to Route 24 bridge, Taunton/Raynham.	19.50	Miles	5
Taunton River	MA62-02	From Route 24 bridge, Taunton/Raynham to Berkley Bridge, Dighton/Berkley.	0.28	Square Miles	4a
Taunton River	MA62-03	From Berkley Bridge, Dighton/Berkley to confluence with Assonet River at a line from Sandy Point, Somerset northeasterly to the southwestern tip of Assonet Neck, Berkley.	0.92	Square Miles	5
Taunton River	MA62-04	From confluence with Assonet River at a line from Sandy Point, Somerset northeasterly to the southwestern tip of Assonet Neck, Berkley to mouth just upstream of the Braga Bridge, Somerset/Fall River.	2.60	Square Miles	5
The Reservoir	MA62189	Lakeville.	23.00	Acres	3
Thirtyacre Pond	MA62190	Brockton.	26.00	Acres	4c
Three Mile River	MA62-56	Confluence of Wading and Rumford rivers, Norton to dam (NATID: MA03083) behind 66 South Street (Harodite Finishing Co.), Taunton (excluding the approximately 0.5 mile through Oakland Pond segment MA62136 and the appproximatley 1.0 mile through Mount Hope Mill Pond segment MA62122) (formerly part of segment MA62-16).	10.50	Miles	2
Three Mile River	MA62-57	From dam (NATID: MA03083) behind 66 South Street (Harodite Finishing Co.), Taunton/Dighton to mouth at confluence with the Taunton River, Taunton/Dighton (formerly part of segment MA62-16).	0.02	Square Miles	4a
Thurston Street Pond	MA62192	Wrentham.	7.00	Acres	3
Tispaquin Pond	MA62195	Middleborough.	195.00	Acres	3
Town River	MA62-11	Headwaters, outlet Lake Nippenicket, Bridgewater to Route 28 bridge, West Bridgewater.	4.50	Miles	3
Town River	MA62-12	Route 28 bridge, West Bridgewater to Bridgewater WWTP (NPDES: MA0100641) discharge, Bridgewater.	3.90	Miles	3
Town River	MA62-13	From Bridgewater WWTP (NPDES: MA0100641) discharge, Bridgewater to mouth at confluence with the Matfield River forming headwaters Taunton River, Bridgewater.	2.30	Miles	3
Trout Brook	MA62-07	Headwaters, perennial portion, northeast of Argyle Avenue and west of Conrail Line, Avon to mouth at confluence with Salisbury Brook forming headwaters Salisbury Plain River, Brockton.	3.40	Miles	5
Turnpike Lake	MA62198	Plainville.	99.00	Acres	4c
Unnamed Tributary	MA62-42	Headwaters, south of Slab Bridge Road (in Cedar Swamp portion of Freetown-Fall River State Forest), Freetown to mouth at confluence with Cedar Swamp River, Lakeville.	4.00	Miles	5
Unnamed Tributary	MA62-48	Channel from Taunton Municipal Lighting Plant, Taunton to mouth at confluence with the Taunton River, Taunton.	0.002	Square Miles	5
Upper Leach Pond	MA62123	(Mountain Street Pond) Sharon.	28.00	Acres	3
Upper Porter Pond	MA62200	Brockton.	11.00	Acres	4c
Wading River	MA62-47	Headwaters, outlet Furnace Lake, Foxborough to Balcolm Street, Mansfield (through former pond segments; Robinson Pond MA62163 and Blakes Pond MA62221) (formerly part of segment MA62-17) (1987 Wrentham quad depicts river incorrectly) .	5.00	Miles	5

Appendix 3
Impairments *removed* from categories 4 or 5 of the integrated list in 2016
(waters listed alphabetically by major watershed)

Water Body	Segment ID	Category 2014	Category 2016	Impairment Cause	EPA TMDL No.	Explanation
Salisbury Plain River	MA62-06	5	5	(Debris/Floatables/Trash*)		Applicable WQS attained; reason for recovery unspecified.
				Escherichia Coli (E. Coli)	40308	New impairment, covered under existing TMDL [CN 256.0, 6/16/2011], added to this segment for 2016.
Shumatuscacant River	MA62-33	5	5	Turbidity		Historic impairment from former segment (MA62090) transferred to this segment. Applicable WQS attained; reason for recovery unspecified.
Taunton River	MA62-02	4A	4A	Enterococcus	40310	New impairment, covered under existing TMDL [CN 256.0, 6/16/2011], added to this segment for 2016.
Taunton River	MA62-04	5	5	Enterococcus	40310	New impairment, covered under existing TMDL [CN 256.0, 6/16/2011], added to this segment for 2016.
Three Mile River	MA62-56	4A	2	Fecal Coliform	40308	Applicable WQS attained; due to change in WQS.
Trout Brook	MA62-07	5	5	Escherichia Coli (E. Coli)	40308	New impairment, covered under existing TMDL [CN 256.0, 6/16/2011], added to this segment for 2016.
				Total Suspended Solids (TSS)		Applicable WQS attained; reason for recovery unspecified.
				Turbidity		Applicable WQS attained; reason for recovery unspecified.
Wading River	MA62-47	5	5	Fecal Coliform	40307	Applicable WQS attained; due to change in WQS.
Wading River	MA62-60	--	4C	Fecal Coliform	40308	New segment - Historic impairment from former segment (MA62-49) transferred to this segment. Applicable WQS attained; due to change in WQS.
Wading River	MA62-61	--	2	Fecal Coliform	40308	New segment - Historic impairment from former segment (MA62-49) transferred to this segment. Applicable WQS attained; due to change in WQS.
Ten Mile						
Bungay River	MA52-06	5	5	Fecal Coliform		Applicable WQS attained; due to change in WQS.
Ten Mile River	MA52-02	5	5	Excess Algal Growth		Applicable WQS attained; reason for recovery unspecified.
				Phosphorus, Total		Original basis for listing was incorrect.
				Turbidity		Applicable WQS attained; reason for recovery unspecified.
Ten Mile River	MA52-03	5	5	Aquatic Plants (Macrophytes)		Not caused by a pollutant, impairment still exists.
				Chlordane		Impairment changed from "Chlordane" to "Chlordane in Fish Tissue".
				Dissolved Oxygen Supersaturation		Applicable WQS attained; according to new assessment method.
Westfield						
Moose Meadow Brook	MA32-40	--	2	Fecal Coliform		New segment - Historic impairment from former segment (MA32-23) transferred to this segment. Original basis for listing was incorrect.
				Turbidity		New segment - Historic impairment from former segment (MA32-23) transferred to this segment. Original basis for listing was incorrect.

APPENDIX D:

LABORATORY ANALYTICAL DATA – ON-SITE GROUNDWATER AND SURFACE WATER

ANALYTICAL REPORT

Lab Number:	L2055911
Client:	McPhail Associates 2269 Massachusetts Avenue Cambridge, MA 02140
ATTN:	Ambrose Donovan
Phone:	(617) 868-1420
Project Name:	TRINITY BROCKTON PHA 2-LOT 4
Project Number:	5159.9.E4
Report Date:	12/28/20

Certifications & Approvals: MA (M-MA086), NH NELAP (2064), CT (PH-0574), IL (200077), ME (MA00086), MD (348), NJ (MA935), NY (11148), NC (25700/666), PA (68-03671), RI (LAO00065), TX (T104704476), VT (VT-0935), VA (460195), USDA (Permit #P330-17-00196).

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

Project Name: TRINITY BROCKTON PHA 2-LOT 4
Project Number: 5159.9.E4

Lab Number: L2055911
Report Date: 12/28/20

Alpha Sample ID	Client ID	Matrix	Sample Location	Collection Date/Time	Receive Date
L2055911-01	B-413(OW) (SOURCE WATER)	WATER	BROCKTON, MA	12/14/20 11:15	12/14/20
L2055911-02	TROUT BROOK (RECEIVING WATER)	WATER	BROCKTON, MA	12/14/20 10:20	12/14/20

Project Name:	TRINITY BROCKTON PHA 2-LOT 4	**Lab Number:**	L2055911
Project Number:	5159.9.E4	**Report Date:**	12/28/20

Case Narrative

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

Results contained within this report relate only to the samples submitted under this Alpha Lab Number and meet NELAP requirements for all NELAP accredited parameters unless otherwise noted in the following narrative. The data presented in this report is organized by parameter (i.e. VOC, SVOC, etc.). Sample specific Quality Control data (i.e. Surrogate Spike Recovery) is reported at the end of the target analyte list for each individual sample, followed by the Laboratory Batch Quality Control at the end of each parameter. Tentatively Identified Compounds (TICs), if requested, are reported for compounds identified to be present and are not part of the method/program Target Compound List, even if only a subset of the TCL are being reported. If a sample was re-analyzed or re-extracted due to a required quality control corrective action and if both sets of data are reported, the Laboratory ID of the re-analysis or re-extraction is designated with an "R" or "RE", respectively.

When multiple Batch Quality Control elements are reported (e.g. more than one LCS), the associated samples for each element are noted in the grey shaded header line of each data table. Any Laboratory Batch, Sample Specific % recovery or RPD value that is outside the listed Acceptance Criteria is bolded in the report. 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 Outlier Summary Report, located directly after the Case Narrative. QC information is also incorporated in the Data Usability Assessment table (Format 11) of our Data Merger tool, where it can be reviewed in conjunction with the sample result, associated regulatory criteria and any associated data 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.

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 Alpha Project Manager 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 Project Management at 800-624-9220 with any questions.

Project Name:	TRINITY BROCKTON PHA 2-LOT 4	**Lab Number:**	L2055911
Project Number:	5159.9.E4	**Report Date:**	12/28/20

Case Narrative (continued)

Sample Receipt

L2055911-02: Containers for the TPH and Semivolatile Organics analyses were received for the "TROUT BROOK (RECEIVING WATER)" sample, but were not listed on the chain of custody. At the client's request, the analyses were not performed.

Total Metals

The WG1447347-4 Laboratory Duplicate RPD for iron (45%), performed on L2055911-01, is outside the acceptance criteria. The elevated RPD has been attributed to the non-homogeneous nature of the native sample.

The WG1447348-4 Laboratory Duplicate RPD for chromium (27%), performed on L2055911-01, is outside the acceptance criteria. The elevated RPD has been attributed to the non-homogeneous nature of the native sample.

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: Melissa Sturgis Melissa Sturgis

Title: Technical Director/Representative Date: 12/28/20

ORGANICS

SEMIVOLATILES

Project Name: TRINITY BROCKTON PHA 2-LOT 4 **Lab Number:** L2055911

Project Number: 5159.9.E4 **Report Date:** 12/28/20

SAMPLE RESULTS

Lab ID: L2055911-01
Client ID: B-413(OW) (SOURCE WATER)
Sample Location: BROCKTON, MA

Date Collected: 12/14/20 11:15
Date Received: 12/14/20
Field Prep: Not Specified

Sample Depth:
Matrix: Water
Analytical Method: 129,625.1-SIM
Analytical Date: 12/20/20 14:42
Analyst: ALS

Extraction Method: EPA 625.1
Extraction Date: 12/19/20 04:21

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Semivolatile Organics by GC/MS-SIM - Westborough Lab						
Acenaphthene	ND		ug/l	0.100	--	1
Fluoranthene	ND		ug/l	0.100	--	1
Naphthalene	ND		ug/l	0.100	--	1
Benzo(a)anthracene	ND		ug/l	0.100	--	1
Benzo(a)pyrene	ND		ug/l	0.100	--	1
Benzo(b)fluoranthene	ND		ug/l	0.100	--	1
Benzo(k)fluoranthene	ND		ug/l	0.100	--	1
Chrysene	ND		ug/l	0.100	--	1
Acenaphthylene	ND		ug/l	0.100	--	1
Anthracene	ND		ug/l	0.100	--	1
Benzo(ghi)perylene	ND		ug/l	0.100	--	1
Fluorene	ND		ug/l	0.100	--	1
Phenanthrene	ND		ug/l	0.100	--	1
Dibenzo(a,h)anthracene	ND		ug/l	0.100	--	1
Indeno(1,2,3-cd)pyrene	ND		ug/l	0.100	--	1
Pyrene	ND		ug/l	0.100	--	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
2-Fluorophenol	44		25-87
Phenol-d6	34		16-65
Nitrobenzene-d5	81		42-122
2-Fluorobiphenyl	87		46-121
2,4,6-Tribromophenol	88		45-128
4-Terphenyl-d14	72		47-138

Project Name: TRINITY BROCKTON PHA 2-LOT 4 **Lab Number:** L2055911

Project Number: 5159.9.E4 **Report Date:** 12/28/20

Method Blank Analysis
Batch Quality Control

Analytical Method: 129,625.1-SIM
Analytical Date: 12/20/20 14:26
Analyst: ALS

Extraction Method: EPA 625.1
Extraction Date: 12/19/20 04:21

Parameter	Result	Qualifier	Units	RL	MDL
Semivolatile Organics by GC/MS-SIM - Westborough Lab for sample(s): 01 Batch: WG1446991-1					
Acenaphthene	ND		ug/l	0.100	--
Fluoranthene	ND		ug/l	0.100	--
Naphthalene	ND		ug/l	0.100	--
Benzo(a)anthracene	ND		ug/l	0.100	--
Benzo(a)pyrene	ND		ug/l	0.100	--
Benzo(b)fluoranthene	ND		ug/l	0.100	--
Benzo(k)fluoranthene	ND		ug/l	0.100	--
Chrysene	ND		ug/l	0.100	--
Acenaphthylene	ND		ug/l	0.100	--
Anthracene	ND		ug/l	0.100	--
Benzo(ghi)perylene	ND		ug/l	0.100	--
Fluorene	ND		ug/l	0.100	--
Phenanthrene	ND		ug/l	0.100	--
Dibenzo(a,h)anthracene	ND		ug/l	0.100	--
Indeno(1,2,3-cd)pyrene	ND		ug/l	0.100	--
Pyrene	ND		ug/l	0.100	--

Surrogate	%Recovery	Qualifier	Acceptance Criteria
2-Fluorophenol	45		25-87
Phenol-d6	37		16-65
Nitrobenzene-d5	87		42-122
2-Fluorobiphenyl	85		46-121
2,4,6-Tribromophenol	75		45-128
4-Terphenyl-d14	79		47-138

Lab Control Sample Analysis

Batch Quality Control

Project Name: TRINITY BROCKTON PHA 2-LOT 4

Project Number: 5159.9.E4

Lab Number: L2055911

Report Date: 12/28/20

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: WG1446991-2								
Acenaphthene	79		-		60-132	-		30
Fluoranthene	95		-		43-121	-		30
Naphthalene	78		-		36-120	-		30
Benzo(a)anthracene	93		-		42-133	-		30
Benzo(a)pyrene	89		-		32-148	-		30
Benzo(b)fluoranthene	86		-		42-140	-		30
Benzo(k)fluoranthene	92		-		25-146	-		30
Chrysene	90		-		44-140	-		30
Acenaphthylene	92		-		54-126	-		30
Anthracene	88		-		43-120	-		30
Benzo(ghi)perylene	83		-		1-195	-		30
Fluorene	82		-		70-120	-		30
Phenanthrene	83		-		65-120	-		30
Dibenzo(a,h)anthracene	84		-		1-200	-		30
Indeno(1,2,3-cd)pyrene	85		-		1-151	-		30
Pyrene	97		-		70-120	-		30

Lab Control Sample Analysis

Batch Quality Control

Project Name: TRINITY BROCKTON PHA 2-LOT 4

Project Number: 5159.9.E4

Lab Number: L2055911

Report Date: 12/28/20

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: WG1446991-2								

Surrogate	LCS %Recovery	Qual	LCSD %Recovery	Qual	Acceptance Criteria
2-Fluorophenol	49				25-87
Phenol-d6	39				16-65
Nitrobenzene-d5	86				42-122
2-Fluorobiphenyl	82				46-121
2,4,6-Tribromophenol	88				45-128
4-Terphenyl-d14	78				47-138

METALS

Project Name: TRINITY BROCKTON PHA 2-LOT 4 **Lab Number:** L2055911

Project Number: 5159.9.E4 **Report Date:** 12/28/20

SAMPLE RESULTS

Lab ID: L2055911-01 Date Collected: 12/14/20 11:15

Client ID: B-413(OW) (SOURCE WATER) Date Received: 12/14/20

Sample Location: BROCKTON, MA Field Prep: Not Specified

Sample Depth:

Matrix: Water

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Prep Method	Analytical Method	Analyst
Total Metals - Mansfield Lab											
Antimony, Total	ND		mg/l	0.00400	--	1	12/20/20 15:20	12/21/20 11:55	EPA 3005A	3,200.8	AM
Arsenic, Total	ND		mg/l	0.00100	--	1	12/20/20 15:20	12/21/20 11:55	EPA 3005A	3,200.8	AM
Cadmium, Total	ND		mg/l	0.00020	--	1	12/20/20 15:20	12/21/20 11:55	EPA 3005A	3,200.8	AM
Chromium, Total	0.00824		mg/l	0.00100	--	1	12/20/20 15:20	12/21/20 11:55	EPA 3005A	3,200.8	AM
Copper, Total	0.01598		mg/l	0.00100	--	1	12/20/20 15:20	12/21/20 11:55	EPA 3005A	3,200.8	AM
Iron, Total	0.463		mg/l	0.050	--	1	12/20/20 15:20	12/21/20 12:08	EPA 3005A	19,200.7	GD
Lead, Total	0.00194		mg/l	0.00100	--	1	12/20/20 15:20	12/21/20 11:55	EPA 3005A	3,200.8	AM
Mercury, Total	ND		mg/l	0.00020	--	1	12/20/20 15:50	12/22/20 15:31	EPA 245.1	3,245.1	EW
Nickel, Total	0.00401		mg/l	0.00200	--	1	12/20/20 15:20	12/21/20 11:55	EPA 3005A	3,200.8	AM
Selenium, Total	ND		mg/l	0.00500	--	1	12/20/20 15:20	12/21/20 11:55	EPA 3005A	3,200.8	AM
Silver, Total	ND		mg/l	0.00040	--	1	12/20/20 15:20	12/21/20 11:55	EPA 3005A	3,200.8	AM
Zinc, Total	ND		mg/l	0.01000	--	1	12/20/20 15:20	12/21/20 11:55	EPA 3005A	3,200.8	AM
General Chemistry - Mansfield Lab											
Chromium, Trivalent	ND		mg/l	0.010	--	1		12/21/20 11:55	NA	107,-	

Project Name: TRINITY BROCKTON PHA 2-LOT 4 **Lab Number:** L2055911

Project Number: 5159.9.E4 **Report Date:** 12/28/20

SAMPLE RESULTS

Lab ID: L2055911-02 Date Collected: 12/14/20 10:20

Client ID: TROUT BROOK (RECEIVING WATER) Date Received: 12/14/20

Sample Location: BROCKTON, MA Field Prep: Not Specified

Sample Depth:

Matrix: Water

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Prep Method	Analytical Method	Analyst
Total Metals - Mansfield Lab											
Antimony, Total	ND		mg/l	0.00400	--	1	12/20/20 15:20	12/21/20 12:00	EPA 3005A	3,200.8	AM
Arsenic, Total	ND		mg/l	0.00100	--	1	12/20/20 15:20	12/21/20 12:00	EPA 3005A	3,200.8	AM
Cadmium, Total	ND		mg/l	0.00020	--	1	12/20/20 15:20	12/21/20 12:00	EPA 3005A	3,200.8	AM
Chromium, Total	ND		mg/l	0.00100	--	1	12/20/20 15:20	12/21/20 12:00	EPA 3005A	3,200.8	AM
Copper, Total	0.00317		mg/l	0.00100	--	1	12/20/20 15:20	12/21/20 12:00	EPA 3005A	3,200.8	AM
Iron, Total	1.21		mg/l	0.050	--	1	12/20/20 15:20	12/21/20 12:31	EPA 3005A	19,200.7	GD
Lead, Total	0.00648		mg/l	0.00100	--	1	12/20/20 15:20	12/21/20 12:00	EPA 3005A	3,200.8	AM
Mercury, Total	ND		mg/l	0.00020	--	1	12/20/20 15:50	12/22/20 15:34	EPA 245.1	3,245.1	EW
Nickel, Total	0.00221		mg/l	0.00200	--	1	12/20/20 15:20	12/21/20 12:00	EPA 3005A	3,200.8	AM
Selenium, Total	ND		mg/l	0.00500	--	1	12/20/20 15:20	12/21/20 12:00	EPA 3005A	3,200.8	AM
Silver, Total	ND		mg/l	0.00040	--	1	12/20/20 15:20	12/21/20 12:00	EPA 3005A	3,200.8	AM
Zinc, Total	0.03644		mg/l	0.01000	--	1	12/20/20 15:20	12/21/20 12:00	EPA 3005A	3,200.8	AM
General Chemistry - Mansfield Lab											
Chromium, Trivalent	ND		mg/l	0.010	--	1		12/21/20 12:00	NA	107,-	

Project Name: TRINITY BROCKTON PHA 2-LOT 4 **Lab Number:** L2055911

Project Number: 5159.9.E4 **Report Date:** 12/28/20

Method Blank Analysis
Batch Quality Control

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
Total Metals - Mansfield Lab for sample(s): 01-02 Batch: WG1447347-1										
Iron, Total	ND		mg/l	0.050	--	1	12/20/20 15:20	12/21/20 11:54	19,200.7	GD

Prep Information

Digestion Method: EPA 3005A

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
Total Metals - Mansfield Lab for sample(s): 01-02 Batch: WG1447348-1										
Antimony, Total	ND		mg/l	0.00400	--	1	12/20/20 15:20	12/21/20 11:38	3,200.8	AM
Arsenic, Total	ND		mg/l	0.00100	--	1	12/20/20 15:20	12/21/20 11:38	3,200.8	AM
Cadmium, Total	ND		mg/l	0.00020	--	1	12/20/20 15:20	12/21/20 11:38	3,200.8	AM
Chromium, Total	ND		mg/l	0.00100	--	1	12/20/20 15:20	12/21/20 11:38	3,200.8	AM
Copper, Total	ND		mg/l	0.00100	--	1	12/20/20 15:20	12/21/20 11:38	3,200.8	AM
Lead, Total	ND		mg/l	0.00100	--	1	12/20/20 15:20	12/21/20 11:38	3,200.8	AM
Nickel, Total	ND		mg/l	0.00200	--	1	12/20/20 15:20	12/21/20 11:38	3,200.8	AM
Selenium, Total	ND		mg/l	0.00500	--	1	12/20/20 15:20	12/21/20 11:38	3,200.8	AM
Silver, Total	ND		mg/l	0.00040	--	1	12/20/20 15:20	12/21/20 11:38	3,200.8	AM
Zinc, Total	ND		mg/l	0.01000	--	1	12/20/20 15:20	12/21/20 11:38	3,200.8	AM

Prep Information

Digestion Method: EPA 3005A

Lab Control Sample Analysis

Batch Quality Control

Project Name: TRINITY BROCKTON PHA 2-LOT 4

Project Number: 5159.9.E4

Lab Number: L2055911

Report Date: 12/28/20

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Total Metals - Mansfield Lab Associated sample(s): 01-02 Batch: WG1447347-2								
Iron, Total	102		-		85-115	-		
Total Metals - Mansfield Lab Associated sample(s): 01-02 Batch: WG1447348-2								
Antimony, Total	91		-		85-115	-		
Arsenic, Total	100		-		85-115	-		
Cadmium, Total	101		-		85-115	-		
Chromium, Total	97		-		85-115	-		
Copper, Total	102		-		85-115	-		
Lead, Total	98		-		85-115	-		
Nickel, Total	97		-		85-115	-		
Selenium, Total	100		-		85-115	-		
Silver, Total	100		-		85-115	-		
Zinc, Total	106		-		85-115	-		
Total Metals - Mansfield Lab Associated sample(s): 01-02 Batch: WG1447350-2								
Mercury, Total	108		-		85-115	-		

Matrix Spike Analysis
Batch Quality Control

Project Name: TRINITY BROCKTON PHA 2-LOT 4
Project Number: 5159.9.E4

Lab Number: L2055911
Report Date: 12/28/20

Parameter	Native Sample	MS Added	MS Found	MS %Recovery	Qual	MSD Found	MSD %Recovery	Qual	Recovery Limits	RPD	Qual	RPD Limits
Total Metals - Mansfield Lab Associated sample(s): 01-02 QC Batch ID: WG1447347-3 QC Sample: L2055911-01 Client ID: B-413(OW) (SOURCE WATER)												
Iron, Total	0.463	1	1.56	110		-	-		75-125	-		20
Total Metals - Mansfield Lab Associated sample(s): 01-02 QC Batch ID: WG1447347-7 QC Sample: L2055911-02 Client ID: TROUT BROOK (RECEIVING WATER)												
Iron, Total	1.21	1	2.20	99		-	-		75-125	-		20
Total Metals - Mansfield Lab Associated sample(s): 01-02 QC Batch ID: WG1447348-3 QC Sample: L2055911-01 Client ID: B-413(OW) (SOURCE WATER)												
Antimony, Total	ND	0.5	0.4585	92		-	-		70-130	-		20
Arsenic, Total	ND	0.12	0.1180	98		-	-		70-130	-		20
Cadmium, Total	ND	0.051	0.04957	97		-	-		70-130	-		20
Chromium, Total	0.00824	0.2	0.2009	96		-	-		70-130	-		20
Copper, Total	0.01598	0.25	0.2622	98		-	-		70-130	-		20
Lead, Total	0.00194	0.51	0.4953	97		-	-		70-130	-		20
Nickel, Total	0.00401	0.5	0.4583	91		-	-		70-130	-		20
Selenium, Total	ND	0.12	0.1215	101		-	-		70-130	-		20
Silver, Total	ND	0.05	0.04868	97		-	-		70-130	-		20
Zinc, Total	ND	0.5	0.5194	104		-	-		70-130	-		20
Total Metals - Mansfield Lab Associated sample(s): 01-02 QC Batch ID: WG1447350-3 QC Sample: L2033286-124 Client ID: MS Sample												
Mercury, Total	ND	0.005	0.00524	105		-	-		70-130	-		20

Lab Duplicate Analysis

Batch Quality Control

Project Name: TRINITY BROCKTON PHA 2-LOT 4

Project Number: 5159.9.E4

Lab Number: L2055911

Report Date: 12/28/20

Parameter	Native Sample	Duplicate Sample	Units	RPD	Qual	RPD Limits
Total Metals - Mansfield Lab Associated sample(s): 01-02 QC Batch ID: WG1447347-4 QC Sample: L2055911-01 Client ID: B-413(OW) (SOURCE WATER)						
Iron, Total	0.463	0.731	mg/l	**45**	Q	20
Total Metals - Mansfield Lab Associated sample(s): 01-02 QC Batch ID: WG1447347-8 QC Sample: L2055911-02 Client ID: TROUT BROOK (RECEIVING WATER)						
Iron, Total	1.21	1.25	mg/l	3		20
Total Metals - Mansfield Lab Associated sample(s): 01-02 QC Batch ID: WG1447348-4 QC Sample: L2055911-01 Client ID: B-413(OW) (SOURCE WATER)						
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	0.00824	0.01080	mg/l	**27**	Q	20
Copper, Total	0.01598	0.01608	mg/l	1		20
Lead, Total	0.00194	0.00212	mg/l	9		20
Nickel, Total	0.00401	0.00422	mg/l	5		20
Selenium, Total	ND	ND	mg/l	NC		20
Silver, Total	ND	ND	mg/l	NC		20
Zinc, Total	ND	0.01133	mg/l	NC		20
Total Metals - Mansfield Lab Associated sample(s): 01-02 QC Batch ID: WG1447350-4 QC Sample: L2033286-124 Client ID: DUP Sample						
Mercury, Total	ND	ND	mg/l	NC		20

INORGANICS
&
MISCELLANEOUS

Project Name: TRINITY BROCKTON PHA 2-LOT 4
Project Number: 5159.9.E4
Lab Number: L2055911
Report Date: 12/28/20

SAMPLE RESULTS

Lab ID: L2055911-01
Client ID: B-413(OW) (SOURCE WATER)
Sample Location: BROCKTON, MA
Sample Depth:
Matrix: Water

Date Collected: 12/14/20 11:15
Date Received: 12/14/20
Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Westborough Lab										
Solids, Total Suspended	15.		mg/l	5.0	NA	1	-	12/18/20 16:15	121,2540D	AC
Cyanide, Total	ND		mg/l	0.005	--	1	12/22/20 23:10	12/23/20 15:23	121,4500CN-CE	JO
Chlorine, Total Residual	ND		mg/l	0.02	--	1	-	12/15/20 03:09	121,4500CL-D	AW
Nitrogen, Ammonia	0.114		mg/l	0.075	--	1	12/21/20 12:00	12/22/20 20:18	121,4500NH3-BH	AT
TPH, SGT-HEM	ND		mg/l	4.00	--	1	12/17/20 16:30	12/17/20 17:30	74,1664A	TL
Chromium, Hexavalent	ND		mg/l	0.010	--	1	12/15/20 07:53	12/15/20 08:22	1,7196A	KP
Anions by Ion Chromatography - Westborough Lab										
Chloride	315.		mg/l	12.5	--	25	-	12/16/20 19:45	44,300.0	AT

Project Name: TRINITY BROCKTON PHA 2-LOT 4
Project Number: 5159.9.E4
Lab Number: L2055911
Report Date: 12/28/20

SAMPLE RESULTS

Lab ID: L2055911-02
Client ID: TROUT BROOK (RECEIVING WATER)
Sample Location: BROCKTON, MA
Sample Depth:
Matrix: Water
Date Collected: 12/14/20 10:20
Date Received: 12/14/20
Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Westborough Lab										
Solids, Total Suspended	12.		mg/l	5.0	NA	1	-	12/18/20 16:15	121,2540D	AC
Cyanide, Total	ND		mg/l	0.005	--	1	12/22/20 23:10	12/23/20 15:24	121,4500CN-CE	JO
Chlorine, Total Residual	ND		mg/l	0.02	--	1	-	12/15/20 03:09	121,4500CL-D	AW
Nitrogen, Ammonia	0.116		mg/l	0.075	--	1	12/21/20 12:00	12/22/20 20:21	121,4500NH3-BH	AT
Chromium, Hexavalent	ND		mg/l	0.010	--	1	12/15/20 07:53	12/15/20 08:24	1,7196A	KP
Anions by Ion Chromatography - Westborough Lab										
Chloride	119.		mg/l	12.5	--	25	-	12/16/20 19:56	44,300.0	AT

Project Name: TRINITY BROCKTON PHA 2-LOT 4 **Lab Number:** L2055911

Project Number: 5159.9.E4 **Report Date:** 12/28/20

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: WG1445063-1										
Chlorine, Total Residual	ND		mg/l	0.02	--	1	-	12/15/20 03:09	121,4500CL-D	AW
General Chemistry - Westborough Lab for sample(s): 01-02 Batch: WG1445184-1										
Chromium, Hexavalent	ND		mg/l	0.010	--	1	12/15/20 07:53	12/15/20 08:20	1,7196A	KP
Anions by Ion Chromatography - Westborough Lab for sample(s): 01-02 Batch: WG1446207-1										
Chloride	ND		mg/l	0.500	--	1	-	12/16/20 17:01	44,300.0	AT
General Chemistry - Westborough Lab for sample(s): 01 Batch: WG1446319-1										
TPH, SGT-HEM	ND		mg/l	4.00	--	1	12/17/20 16:30	12/17/20 17:30	74,1664A	TL
General Chemistry - Westborough Lab for sample(s): 01-02 Batch: WG1446609-1										
Solids, Total Suspended	ND		mg/l	5.0	NA	1	-	12/18/20 16:15	121,2540D	AC
General Chemistry - Westborough Lab for sample(s): 01-02 Batch: WG1447686-1										
Nitrogen, Ammonia	ND		mg/l	0.075	--	1	12/21/20 12:00	12/22/20 19:57	121,4500NH3-BH	AT
General Chemistry - Westborough Lab for sample(s): 01-02 Batch: WG1448349-1										
Cyanide, Total	ND		mg/l	0.005	--	1	12/22/20 23:10	12/23/20 14:57	121,4500CN-CE	JO

Lab Control Sample Analysis

Batch Quality Control

Project Name: TRINITY BROCKTON PHA 2-LOT 4

Project Number: 5159.9.E4

Lab Number: L2055911

Report Date: 12/28/20

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
General Chemistry - Westborough Lab Associated sample(s): 01-02 Batch: WG1445063-2								
Chlorine, Total Residual	108		-		90-110	-		
General Chemistry - Westborough Lab Associated sample(s): 01-02 Batch: WG1445184-2								
Chromium, Hexavalent	107		-		85-115	-		20
Anions by Ion Chromatography - Westborough Lab Associated sample(s): 01-02 Batch: WG1446207-2								
Chloride	100		-		90-110	-		
General Chemistry - Westborough Lab Associated sample(s): 01 Batch: WG1446319-2								
TPH	85		-		64-132	-		34
General Chemistry - Westborough Lab Associated sample(s): 01-02 Batch: WG1446609-2								
Solids, Total Suspended	118		-		80-120	-		
General Chemistry - Westborough Lab Associated sample(s): 01-02 Batch: WG1447686-2								
Nitrogen, Ammonia	98		-		80-120	-		20
General Chemistry - Westborough Lab Associated sample(s): 01-02 Batch: WG1448349-2								
Cyanide, Total	94		-		90-110	-		

Matrix Spike Analysis
Batch Quality Control

Project Name: TRINITY BROCKTON PHA 2-LOT 4
Project Number: 5159.9.E4

Lab Number: L2055911
Report Date: 12/28/20

Parameter	Native Sample	MS Added	MS Found	MS %Recovery	Qual	MSD Found	MSD %Recovery	Qual	Recovery Limits	RPD	Qual	RPD Limits
General Chemistry - Westborough Lab Associated sample(s): 01-02 (RECEIVING WATER) QC Batch ID: WG1445063-4 QC Sample: L2055911-02 Client ID: TROUT BROOK												
Chlorine, Total Residual	ND	0.25	0.23	92		-	-		80-120	-		20
General Chemistry - Westborough Lab Associated sample(s): 01-02 (RECEIVING WATER) QC Batch ID: WG1445184-4 QC Sample: L2055911-02 Client ID: TROUT BROOK												
Chromium, Hexavalent	ND	0.1	0.105	105		-	-		85-115	-		20
Anions by Ion Chromatography - Westborough Lab Associated sample(s): 01-02 QC Batch ID: WG1446207-3 QC Sample: L2055792-01 Client ID: MS Sample												
Chloride	26.4	4	29.1	**67**	Q	-	-		90-110	-		18
General Chemistry - Westborough Lab Associated sample(s): 01 QC Batch ID: WG1446319-4 QC Sample: L2053228-116 Client ID: MS Sample												
TPH	ND	18.9	10.2	**54**	Q	-	-		64-132	-		34
General Chemistry - Westborough Lab Associated sample(s): 01-02 QC Batch ID: WG1447686-4 QC Sample: L2053228-148 Client ID: MS Sample												
Nitrogen, Ammonia	1.30	4	4.95	91		-	-		80-120	-		20
General Chemistry - Westborough Lab Associated sample(s): 01-02 QC Batch ID: WG1448349-3 WG1448349-4 QC Sample: L2055242-15 Client ID: MS Sample												
Cyanide, Total	3.07	0.2	3.64	**285**	Q	3.57	**250**	Q	90-110	2		30

Lab Duplicate Analysis

Batch Quality Control

Project Name: TRINITY BROCKTON PHA 2-LOT 4

Project Number: 5159.9.E4

Lab Number: L2055911

Report Date: 12/28/20

Parameter	Native Sample	Duplicate Sample	Units	RPD	Qual	RPD Limits
General Chemistry - Westborough Lab Associated sample(s): 01-02 QC Batch ID: WG1445063-3 QC Sample: L2055911-01 Client ID: B-413(OW) (SOURCE WATER)						
Chlorine, Total Residual	ND	ND	mg/l	NC		20
General Chemistry - Westborough Lab Associated sample(s): 01-02 QC Batch ID: WG1445184-3 QC Sample: L2055911-01 Client ID: B-413(OW) (SOURCE WATER)						
Chromium, Hexavalent	ND	ND	mg/l	NC		20
Anions by Ion Chromatography - Westborough Lab Associated sample(s): 01-02 QC Batch ID: WG1446207-4 QC Sample: L2055792-01 Client ID: DUP Sample						
Chloride	26.4	26.2	mg/l	1		18
General Chemistry - Westborough Lab Associated sample(s): 01 QC Batch ID: WG1446319-3 QC Sample: L2053228-115 Client ID: DUP Sample						
TPH	ND	ND	mg/l	NC		34
General Chemistry - Westborough Lab Associated sample(s): 01-02 QC Batch ID: WG1446609-3 QC Sample: L2055821-08 Client ID: DUP Sample						
Solids, Total Suspended	11000	12000	mg/l	9		29
General Chemistry - Westborough Lab Associated sample(s): 01-02 QC Batch ID: WG1447686-3 QC Sample: L2053228-148 Client ID: DUP Sample						
Nitrogen, Ammonia	1.30	1.28	mg/l	2		20

Project Name: TRINITY BROCKTON PHA 2-LOT 4
Project Number: 5159.9.E4

Lab Number: L2055911
Report Date: 12/28/20

Sample Receipt and Container Information

Were project specific reporting limits specified? YES

Cooler Information

Cooler	Custody Seal
A	Absent

Container Information

Container ID	Container Type	Cooler	Initial pH	Final pH	Temp deg C	Pres	Seal	Frozen Date/Time	Analysis(*)
L2055911-01A	Plastic 250ml HNO3 preserved	A	<2	<2	3.5	Y	Absent		CD-2008T(180),NI-2008T(180),ZN-2008T(180),FE-UI(180),CU-2008T(180),SE-2008T(180),AG-2008T(180),AS-2008T(180),HG-U(28),CR-2008T(180),PB-2008T(180),SB-2008T(180)
L2055911-01B	Plastic 250ml NaOH preserved	A	>12	>12	3.5	Y	Absent		TCN-4500(14)
L2055911-01C	Plastic 500ml H2SO4 preserved	A	<2	<2	3.5	Y	Absent		NH3-4500(28)
L2055911-01D	Plastic 950ml unpreserved	A	7	7	3.5	Y	Absent		HEXCR-7196(1),CL-300(28),TRC-4500(1)
L2055911-01E	Plastic 950ml unpreserved	A	7	7	3.5	Y	Absent		TSS-2540(7)
L2055911-01F	Amber 1000ml Na2S2O3	A	7	7	3.5	Y	Absent		625.1-SIM-RGP(7)
L2055911-01G	Amber 1000ml Na2S2O3	A	7	7	3.5	Y	Absent		625.1-SIM-RGP(7)
L2055911-01H	Amber 1000ml HCl preserved	A	NA		3.5	Y	Absent		TPH-1664(28)
L2055911-01I	Amber 1000ml HCl preserved	A	NA		3.5	Y	Absent		TPH-1664(28)
L2055911-02A	Plastic 250ml HNO3 preserved	A	<2	<2	3.5	Y	Absent		CD-2008T(180),NI-2008T(180),ZN-2008T(180),CU-2008T(180),FE-UI(180),AG-2008T(180),AS-2008T(180),HG-U(28),SE-2008T(180),PB-2008T(180),SB-2008T(180),CR-2008T(180)
L2055911-02B	Plastic 250ml NaOH preserved	A	>12	>12	3.5	Y	Absent		TCN-4500(14)
L2055911-02C	Plastic 500ml H2SO4 preserved	A	<2	<2	3.5	Y	Absent		NH3-4500(28)
L2055911-02D	Plastic 950ml unpreserved	A	7	7	3.5	Y	Absent		CL-300(28),HEXCR-7196(1),TRC-4500(1)
L2055911-02E	Plastic 950ml unpreserved	A	7	7	3.5	Y	Absent		TSS-2540(7)
L2055911-02F	Amber 1000ml Na2S2O3	A	7	7	3.5	Y	Absent		HOLD-8270(7)
L2055911-02G	Amber 1000ml Na2S2O3	A	7	7	3.5	Y	Absent		HOLD-8270(7)
L2055911-02H	Plastic 950 mL HCL preserved	A	<2	<2	3.5	Y	Absent		HOLD-WETCHEM()
L2055911-02I	Plastic 950 mL HCL preserved	A	<2	<2	3.5	Y	Absent		HOLD-WETCHEM()

*Values in parentheses indicate holding time in days

Project Name:	TRINITY BROCKTON PHA 2-LOT 4	**Lab Number:**	L2055911
Project Number:	5159.9.E4	**Report Date:**	12/28/20

GLOSSARY

Acronyms

DL	- 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 limit of quantitation (LOQ). The DL includes any adjustments from dilutions, concentrations or moisture content, where applicable. (DoD report formats only.)
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).
EMPC	- Estimated Maximum Possible Concentration: The concentration that results from the signal present at the retention time of an analyte when the ions meet all of the identification criteria except the ion abundance ratio criteria. An EMPC is a worst-case estimate of the concentration.
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.
LOD	- Limit of Detection: This value represents the level to which a target analyte can reliably be detected for a specific analyte in a specific matrix by a specific method. The LOD includes any adjustments from dilutions, concentrations or moisture content, where applicable. (DoD report formats only.)
LOQ	- Limit of Quantitation: The value at which an instrument can accurately measure an analyte at a specific concentration. The LOQ includes any adjustments from dilutions, concentrations or moisture content, where applicable. (DoD report formats only.) Limit of Quantitation: The value at which an instrument can accurately measure an analyte at a specific concentration. The LOQ includes any adjustments from dilutions, concentrations or moisture content, where applicable. (DoD report formats only.)
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. For Method 332.0, the spike recovery is calculated using the native concentration, including estimated values.
MSD	- Matrix Spike Sample Duplicate: Refer to MS.
NA	- Not Applicable.
NC	- Not Calculated: Term is utilized when one or more of the results utilized in the calculation are non-detect at the parameter's reporting unit.
NDPA/DPA	- N-Nitrosodiphenylamine/Diphenylamine.
NI	- Not Ignitable.
NP	- Non-Plastic: Term is utilized for the analysis of Atterberg Limits in soil.
NR	- No Results: Term is utilized when 'No Target Compounds Requested' is reported for the analysis of Volatile or Semivolatile Organic TIC only requests.
RL	- Reporting Limit: The value at which an instrument can accurately measure an analyte at a specific concentration. The RL includes any adjustments from dilutions, concentrations or moisture content, where applicable.
RPD	- Relative Percent Difference: The results from matrix and/or matrix spike duplicates are primarily designed to assess the precision of analytical results in a given matrix and are expressed as relative percent difference (RPD). Values which are less than five times the reporting limit for any individual parameter are evaluated by utilizing the absolute difference between the values; although the RPD value will be provided in the report.
SRM	- Standard Reference Material: A reference sample of a known or certified value that is of the same or similar matrix as the associated field samples.
STLP	- Semi-dynamic Tank Leaching Procedure per EPA Method 1315.
TEF	- Toxic Equivalency Factors: The values assigned to each dioxin and furan to evaluate their toxicity relative to 2,3,7,8-TCDD.
TEQ	- Toxic Equivalent: The measure of a sample's toxicity derived by multiplying each dioxin and furan by its corresponding TEF and then summing the resulting values.
TIC	- Tentatively Identified Compound: A compound that has been identified to be present and is not part of the target compound list (TCL) for the method and/or program. All TICs are qualitatively identified and reported as estimated concentrations.

Report Format: Data Usability Report

Project Name:	TRINITY BROCKTON PHA 2-LOT 4	**Lab Number:**	L2055911
Project Number:	5159.9.E4	**Report Date:**	12/28/20

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.

Difference: With respect to Total Oxidizable Precursor (TOP) Assay analysis, the difference is defined as the Post-Treatment value minus the Pre-Treatment value.

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

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

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

PAH Total: With respect to Alkylated PAH analyses, the 'PAHs, Total' result is defined as the summation of results for all or a subset of the following compounds: Naphthalene, C1-C4 Naphthalenes, 2-Methylnaphthalene, 1-Methylnaphthalene, Biphenyl, Acenaphthylene, Acenaphthene, Fluorene, C1-C3 Fluorenes, Phenanthrene, C1-C4 Phenanthrenes/Anthracenes, Anthracene, Fluoranthene, Pyrene, C1-C4 Fluoranthenes/Pyrenes, Benz(a)anthracene, Chrysene, C1-C4 Chrysenes, Benzo(b)fluoranthene, Benzo(j)+(k)fluoranthene, Benzo(e)pyrene, Benzo(a)pyrene, Perylene, Indeno(1,2,3-cd)pyrene, Dibenz(ah)+(ac)anthracene, Benzo(g,h,i)perylene. If a 'Total' result is requested, the results of its individual components will also be reported.

PFAS Total: With respect to PFAS analyses, the 'PFAS, Total (5)' result is defined as the summation of results for: PFHpA, PFHxS, PFOA, PFNA and PFOS. In addition, the 'PFAS, Total (6)' result is defined as the summation of results at or above the RL for: PFHpA, PFHxS, PFOA, PFNA, PFDA and PFOS. (Note: 'PFAS, Total (6)' is applicable to MassDEP DW compliance analysis only.). If a 'Total' result is requested, the results of its individual components will also be reported.

The target compound Chlordane (CAS No. 57-74-9) is reported for GC ECD analyses. Per EPA,this compound "refers to a mixture of chlordane isomers, other chlorinated hydrocarbons and numerous other components." (Reference: USEPA Toxicological Review of Chlordane, In Support of Summary Information on the Integrated Risk Information System (IRIS), December 1997.)

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

Data Qualifiers

A - Spectra identified as "Aldol Condensates" are byproducts of the extraction/concentration procedures when acetone is introduced in the process.

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.

F - The ratio of quantifier ion response to qualifier ion response falls outside of the laboratory criteria. Results are considered to be an estimated maximum concentration.

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.

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

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

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

NJ - Presumptive evidence of compound. This represents an estimated concentration for Tentatively Identified Compounds (TICs), where

Report Format: Data Usability Report

Project Name:	TRINITY BROCKTON PHA 2-LOT 4	**Lab Number:**	L2055911
Project Number:	5159.9.E4	**Report Date:**	12/28/20

Data Qualifiers

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.

Report Format: Data Usability Report

Project Name:	TRINITY BROCKTON PHA 2-LOT 4	**Lab Number:**	L2055911
Project Number:	5159.9.E4	**Report Date:**	12/28/20

REFERENCES

1 Test Methods for Evaluating Solid Waste: Physical/Chemical Methods. EPA SW-846. Third Edition. Updates I - VI, 2018.

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

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

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.

107 Alpha Analytical - In-house calculation method.

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

129 Method 625.1: Base/Neutrals and Acids by GC/MS, EPA 821-R-16-007, December 2016.

LIMITATION OF LIABILITIES

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

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

Certification Information

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

Westborough Facility
EPA 624/624.1: m/p-xylene, o-xylene, Naphthalene
EPA 8260C: NPW: 1,2,4,5-Tetramethylbenzene; 4-Ethyltoluene, Azobenzene; SCM: Iodomethane (methyl iodide), 1,2,4,5-Tetramethylbenzene; 4-Ethyltoluene.
EPA 8270D: NPW: Dimethylnaphthalene,1,4-Diphenylhydrazine; SCM: Dimethylnaphthalene,1,4-Diphenylhydrazine.
SM4500: NPW: Amenable Cyanide; SCM: Total Phosphorus, TKN, NO2, NO3.

Mansfield Facility
SM 2540D: TSS
EPA 8082A: NPW: PCB: 1, 5, 31, 87,101, 110, 141, 151, 153, 180, 183, 187.
EPA TO-15: Halothane, 2,4,4-Trimethyl-2-pentene, 2,4,4-Trimethyl-1-pentene, Thiophene, 2-Methylthiophene, 3-Methylthiophene, 2-Ethylthiophene, 1,2,3-Trimethylbenzene, Indan, Indene, 1,2,4,5-Tetramethylbenzene, Benzothiophene, 1-Methylnaphthalene.
EPA TO-12 Non-methane organics
EPA 3C Fixed gases
Biological Tissue Matrix: EPA 3050B

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

Westborough Facility:

Drinking Water
EPA 300.0: Chloride, Nitrate-N, Fluoride, Sulfate; **EPA 353.2**: Nitrate-N, Nitrite-N; **SM4500NO3-F**: Nitrate-N, Nitrite-N; **SM4500F-C, SM4500CN-CE, EPA 180.1, SM2130B, SM4500Cl-D, SM2320B, SM2540C, SM4500H-B, SM4500NO2-B**
EPA 332: Perchlorate; **EPA 524.2:** THMs and VOCs; **EPA 504.1:** EDB, DBCP.
Microbiology: **SM9215B; SM9223-P/A, SM9223B-Colilert-QT,SM9222D**.

Non-Potable Water
SM4500H,B, EPA 120.1, SM2510B, SM2540C, SM2320B, SM4500CL-E, SM4500F-BC, SM4500NH3-BH: Ammonia-N and Kjeldahl-N, **EPA 350.1**: Ammonia-N, **LACHAT 10-107-06-1-B**: Ammonia-N, **EPA 351.1, SM4500NO3-F, EPA 353.2**: Nitrate-N**, SM4500P-E, SM4500P-B, E, SM4500SO4-E, SM5220D, EPA 410.4, SM5210B, SM5310C, SM4500CL-D, EPA 1664, EPA 420.1, SM4500-CN-CE, SM2540D, EPA 300: Chloride, Sulfate, Nitrate.**
EPA 624.1: Volatile Halocarbons & Aromatics,
EPA 608.3: 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 625.1: SVOC (Acid/Base/Neutral Extractables), **EPA 600/4-81-045**: PCB-Oil.
Microbiology: **SM9223B-Colilert-QT; Enterolert-QT, SM9221E, EPA 1600, EPA 1603.**

Mansfield Facility:

Drinking Water
EPA 200.7: Al, Ba, Cd, Cr, Cu, Fe, Mn, Ni, Na, Ag, Ca, Zn. **EPA 200.8:** Al, Sb, As, Ba, Be, Cd, Cr, Cu, Pb, Mn, Ni, Se, Ag, TL, Zn. **EPA 245.1** Hg.
EPA 522.

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

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

ALPHA ANALYTICAL
World Class Chemistry

CHAIN OF COUSTODY

PAGE 1 OF 1

Date Rec'd in Lab: 12/14/20

ALPHA Job #: L2055911

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

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

Project Information

Project Name: Trinity Brockton Pha 2 - Lot 4

Project Location: Brockton, MA

Project #: 5159.9.E4

Project Manager: Amy Falconeiri

ALPHA Quote #:

Client Information

Client: McPhail Associates, LLC

Address: 2269 Massachusetts Avenue

Cambridge, MA 02140

Phone: (617) 868-1420

Fax:

Email: afalconeiri@mcphailgeo.com

☐ These samples have been Previously analyzed by Alpha

Turn-Around Time

☒ Standard ☐ Rush (ONLY IF PRE-APPROVED)

Due Date: Time:

Report Information Data Deliverables

☐ FAX ☒ EMAIL

☒ ADEx ☐ Add'l Deliverables

Billing Information

☐ Same as Client info

PO #:

Regulatory Requirements/Report Limits

State/Fed Program	Criteria
NPDES RGP	

Other Project Specific Requirements/Comments/Detection Limits:

HARDNESS PH
Sect. A inorganics: Ammonia, Chloride, TRC,TSS,CrVI,CrIII, Tot-CN, RGP Metals

ANALYSIS

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

ALPHA Lab ID (Lab Use Only)	Sample ID	Collection Date	Collection Time	Sample Matrix	Sampler's Initials	RGP Metals (200.8) (A)	TSS- (A)	Ammonia (4500 (A))	TCN (A)	HexCr (7196), TRC, Cl- (A)	8260 (B, C, F)/8260SIM (B)	Tphenol-420 (B)	504-EDB (C)	8270/8270SIM- (D, E)	PCB-608- (E)	TPH-1664-(F)	625.1-SIM RGP (PAHs)	Sample Specific Comments	TOTAL # BOTTLES
55911-01	B-413(OW) (Source water)	12/14/20	11:15AM	GW	EKC	☒	☒	☒	☒	☒	☐	☐	☐	☐	☐	☒	☒		9
02	Trout Brook (Recieving water)	121420	10:20AM	SW	EKC	☒	☒	☒	☒	☒	☐	☐	☐	☐	☐	☐	☐		9
						☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐		
						☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐		
						☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐		
						☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐		
						☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐		
						☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐		
						☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐		
						☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐		
					Container Type	P	P	P	P	P	V	A	V	A	A	A	V		
					Preservative	C	A	D	E	A	B	D	H	A	H	B	B		

Relinquished By:	Date/Time	Received By:	Date/Time
EKC	11:30	DLX	12/14/20 ~~[illegible]~~ 1600
DLC	12/14/20 1700		12/14/20 1200

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

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

ANALYTICAL REPORT

Lab Number:	L2100023
Client:	McPhail Associates 2269 Massachusetts Avenue Cambridge, MA 02140
ATTN:	Ambrose Donovan
Phone:	(617) 868-1420
Project Name:	TRINITY BROCKTON PHA 2-LOT 4
Project Number:	5159.9.E4
Report Date:	01/08/21

Certifications & Approvals: MA (M-MA086), NH NELAP (2064), CT (PH-0574), IL (200077), ME (MA00086), MD (348), NJ (MA935), NY (11148), NC (25700/666), PA (68-03671), RI (LAO00065), TX (T104704476), VT (VT-0935), VA (460195), USDA (Permit #P330-17-00196).

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

Project Name: TRINITY BROCKTON PHA 2-LOT 4
Project Number: 5159.9.E4

Lab Number: L2100023
Report Date: 01/08/21

Alpha Sample ID	Client ID	Matrix	Sample Location	Collection Date/Time	Receive Date
L2100023-01	B-413(OW) (SOURCE WATER)	WATER	BROCKTON, MA	12/14/20 11:15	12/14/20
L2100023-02	TROUT BROOK (RECEIVING WATER)	WATER	BROCKTON, MA	12/14/20 10:20	12/14/20

Project Name:	TRINITY BROCKTON PHA 2-LOT 4	**Lab Number:**	L2100023
Project Number:	5159.9.E4	**Report Date:**	01/08/21

Case Narrative

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

Results contained within this report relate only to the samples submitted under this Alpha Lab Number and meet NELAP requirements for all NELAP accredited parameters unless otherwise noted in the following narrative. The data presented in this report is organized by parameter (i.e. VOC, SVOC, etc.). Sample specific Quality Control data (i.e. Surrogate Spike Recovery) is reported at the end of the target analyte list for each individual sample, followed by the Laboratory Batch Quality Control at the end of each parameter. Tentatively Identified Compounds (TICs), if requested, are reported for compounds identified to be present and are not part of the method/program Target Compound List, even if only a subset of the TCL are being reported. If a sample was re-analyzed or re-extracted due to a required quality control corrective action and if both sets of data are reported, the Laboratory ID of the re-analysis or re-extraction is designated with an "R" or "RE", respectively.

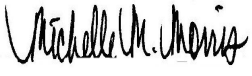
When multiple Batch Quality Control elements are reported (e.g. more than one LCS), the associated samples for each element are noted in the grey shaded header line of each data table. Any Laboratory Batch, Sample Specific % recovery or RPD value that is outside the listed Acceptance Criteria is bolded in the report. 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 Outlier Summary Report, located directly after the Case Narrative. QC information is also incorporated in the Data Usability Assessment table (Format 11) of our Data Merger tool, where it can be reviewed in conjunction with the sample result, associated regulatory criteria and any associated data 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.

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 Alpha Project Manager 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 Project Management 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: 01/08/21

METALS

Project Name: TRINITY BROCKTON PHA 2-LOT 4 **Lab Number:** L2100023

Project Number: 5159.9.E4 **Report Date:** 01/08/21

SAMPLE RESULTS

Lab ID: L2100023-01 Date Collected: 12/14/20 11:15

Client ID: B-413(OW) (SOURCE WATER) Date Received: 12/14/20

Sample Location: BROCKTON, MA Field Prep: Not Specified

Sample Depth:

Matrix: Water

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Prep Method	Analytical Method	Analyst
Total Hardness by SM 2340B - Mansfield Lab											
Hardness	72.2		mg/l	0.660	NA	1	01/06/21 14:12	01/08/21 16:11	EPA 3005A	19,200.7	BV

Project Name: TRINITY BROCKTON PHA 2-LOT 4 **Lab Number:** L2100023

Project Number: 5159.9.E4 **Report Date:** 01/08/21

SAMPLE RESULTS

Lab ID: L2100023-02 Date Collected: 12/14/20 10:20

Client ID: TROUT BROOK (RECEIVING WATER) Date Received: 12/14/20

Sample Location: BROCKTON, MA Field Prep: Not Specified

Sample Depth:

Matrix: Water

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Prep Method	Analytical Method	Analyst
Total Hardness by SM 2340B - Mansfield Lab											
Hardness	52.6		mg/l	0.660	NA	1	01/06/21 14:12	01/08/21 16:15	EPA 3005A	19,200.7	BV

Project Name: TRINITY BROCKTON PHA 2-LOT 4 **Lab Number:** L2100023

Project Number: 5159.9.E4 **Report Date:** 01/08/21

Method Blank Analysis
Batch Quality Control

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
Total Hardness by SM 2340B - Mansfield Lab for sample(s): 01-02 Batch: WG1452040-1										
Hardness	ND		mg/l	0.660	NA	1	01/06/21 14:12	01/08/21 15:57	19,200.7	GD

Prep Information

Digestion Method: EPA 3005A

Lab Control Sample Analysis

Batch Quality Control

Project Name: TRINITY BROCKTON PHA 2-LOT 4

Project Number: 5159.9.E4

Lab Number: L2100023

Report Date: 01/08/21

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Total Hardness by SM 2340B - Mansfield Lab Associated sample(s): 01-02 Batch: WG1452040-2								
Hardness	107		-		85-115	-		

Matrix Spike Analysis
Batch Quality Control

Project Name: TRINITY BROCKTON PHA 2-LOT 4
Project Number: 5159.9.E4

Lab Number: L2100023
Report Date: 01/08/21

Parameter	Native Sample	MS Added	MS Found	MS %Recovery	Qual	MSD Found	MSD %Recovery	Qual	Recovery Limits	RPD	Qual	RPD Limits
Total Hardness by SM 2340B - Mansfield Lab Associated sample(s): 01-02 QC Batch ID: WG1452040-3 QC Sample: L2100209-01 Client ID: MS Sample												
Hardness	221	66.2	287	100		-	-		75-125	-		20

INORGANICS
&
MISCELLANEOUS

Project Name: TRINITY BROCKTON PHA 2-LOT 4
Project Number: 5159.9.E4

Lab Number: L2100023
Report Date: 01/08/21

SAMPLE RESULTS

Lab ID: L2100023-01
Client ID: B-413(OW) (SOURCE WATER)
Sample Location: BROCKTON, MA

Date Collected: 12/14/20 11:15
Date Received: 12/14/20
Field Prep: Not Specified

Sample Depth:
Matrix: Water

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Westborough Lab										
pH (H)	7.1		SU	-	NA	1	-	01/04/21 17:55	121,4500H+-B	AS

Project Name: TRINITY BROCKTON PHA 2-LOT 4
Project Number: 5159.9.E4

Lab Number: L2100023
Report Date: 01/08/21

SAMPLE RESULTS

Lab ID: L2100023-02
Client ID: TROUT BROOK (RECEIVING WATER)
Sample Location: BROCKTON, MA

Date Collected: 12/14/20 10:20
Date Received: 12/14/20
Field Prep: Not Specified

Sample Depth:
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	-	01/05/21 18:40	121,4500H+-B	AS

Lab Control Sample Analysis

Batch Quality Control

Project Name: TRINITY BROCKTON PHA 2-LOT 4

Project Number: 5159.9.E4

Lab Number: L2100023

Report Date: 01/08/21

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
General Chemistry - Westborough Lab Associated sample(s): 01 Batch: WG1451463-1								
pH	100		-		99-101	-		5
General Chemistry - Westborough Lab Associated sample(s): 02 Batch: WG1451888-1								
pH	101		-		99-101	-		5

Lab Duplicate Analysis

Batch Quality Control

Project Name: TRINITY BROCKTON PHA 2-LOT 4

Project Number: 5159.9.E4

Lab Number: L2100023

Report Date: 01/08/21

Parameter	Native Sample	Duplicate Sample	Units	RPD	Qual	RPD Limits
General Chemistry - Westborough Lab Associated sample(s): 01 QC Batch ID: WG1451463-2 QC Sample: L2100023-01 Client ID: B-413(OW) (SOURCE WATER)						
pH (H)	7.1	7.1	SU	0		5
General Chemistry - Westborough Lab Associated sample(s): 02 QC Batch ID: WG1451888-2 QC Sample: L2100023-02 Client ID: TROUT BROOK (RECEIVING WATER)						
pH (H)	7.0	6.9	SU	1		5

Project Name: TRINITY BROCKTON PHA 2-LOT 4
Project Number: 5159.9.E4

Lab Number: L2100023
Report Date: 01/08/21

Sample Receipt and Container Information

Were project specific reporting limits specified? YES

Cooler Information

Cooler	Custody Seal
A	Absent

Container Information

Container ID	Container Type	Cooler	Initial pH	Final pH	Temp deg C	Pres	Seal	Frozen Date/Time	Analysis(*)
L2100023-01A	Plastic 250ml HNO3 preserved	A	<2	<2	3.5	Y	Absent		HARDU(180)
L2100023-01B	Plastic 950ml unpreserved	A	7	7	3.5	Y	Absent		PH-4500(.01)
L2100023-02A	Plastic 250ml HNO3 preserved	A	<2	<2	3.5	Y	Absent		HARDU(180)
L2100023-02B	Plastic 950ml unpreserved	A	7	7	3.5	Y	Absent		PH-4500(.01)

*Values in parentheses indicate holding time in days

Project Name:	TRINITY BROCKTON PHA 2-LOT 4	**Lab Number:**	L2100023
Project Number:	5159.9.E4	**Report Date:**	01/08/21

GLOSSARY

Acronyms

DL	- 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 limit of quantitation (LOQ). The DL includes any adjustments from dilutions, concentrations or moisture content, where applicable. (DoD report formats only.)
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).
EMPC	- Estimated Maximum Possible Concentration: The concentration that results from the signal present at the retention time of an analyte when the ions meet all of the identification criteria except the ion abundance ratio criteria. An EMPC is a worst-case estimate of the concentration.
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.
LOD	- Limit of Detection: This value represents the level to which a target analyte can reliably be detected for a specific analyte in a specific matrix by a specific method. The LOD includes any adjustments from dilutions, concentrations or moisture content, where applicable. (DoD report formats only.)
LOQ	- Limit of Quantitation: The value at which an instrument can accurately measure an analyte at a specific concentration. The LOQ includes any adjustments from dilutions, concentrations or moisture content, where applicable. (DoD report formats only.) Limit of Quantitation: The value at which an instrument can accurately measure an analyte at a specific concentration. The LOQ includes any adjustments from dilutions, concentrations or moisture content, where applicable. (DoD report formats only.)
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. For Method 332.0, the spike recovery is calculated using the native concentration, including estimated values.
MSD	- Matrix Spike Sample Duplicate: Refer to MS.
NA	- Not Applicable.
NC	- Not Calculated: Term is utilized when one or more of the results utilized in the calculation are non-detect at the parameter's reporting unit.
NDPA/DPA	- N-Nitrosodiphenylamine/Diphenylamine.
NI	- Not Ignitable.
NP	- Non-Plastic: Term is utilized for the analysis of Atterberg Limits in soil.
NR	- No Results: Term is utilized when 'No Target Compounds Requested' is reported for the analysis of Volatile or Semivolatile Organic TIC only requests.
RL	- Reporting Limit: The value at which an instrument can accurately measure an analyte at a specific concentration. The RL includes any adjustments from dilutions, concentrations or moisture content, where applicable.
RPD	- Relative Percent Difference: The results from matrix and/or matrix spike duplicates are primarily designed to assess the precision of analytical results in a given matrix and are expressed as relative percent difference (RPD). Values which are less than five times the reporting limit for any individual parameter are evaluated by utilizing the absolute difference between the values; although the RPD value will be provided in the report.
SRM	- Standard Reference Material: A reference sample of a known or certified value that is of the same or similar matrix as the associated field samples.
STLP	- Semi-dynamic Tank Leaching Procedure per EPA Method 1315.
TEF	- Toxic Equivalency Factors: The values assigned to each dioxin and furan to evaluate their toxicity relative to 2,3,7,8-TCDD.
TEQ	- Toxic Equivalent: The measure of a sample's toxicity derived by multiplying each dioxin and furan by its corresponding TEF and then summing the resulting values.
TIC	- Tentatively Identified Compound: A compound that has been identified to be present and is not part of the target compound list (TCL) for the method and/or program. All TICs are qualitatively identified and reported as estimated concentrations.

Report Format: Data Usability Report

Project Name:	TRINITY BROCKTON PHA 2-LOT 4	**Lab Number:**	L2100023
Project Number:	5159.9.E4	**Report Date:**	01/08/21

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.

Difference: With respect to Total Oxidizable Precursor (TOP) Assay analysis, the difference is defined as the Post-Treatment value minus the Pre-Treatment value.

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

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

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

PAH Total: With respect to Alkylated PAH analyses, the 'PAHs, Total' result is defined as the summation of results for all or a subset of the following compounds: Naphthalene, C1-C4 Naphthalenes, 2-Methylnaphthalene, 1-Methylnaphthalene, Biphenyl, Acenaphthylene, Acenaphthene, Fluorene, C1-C3 Fluorenes, Phenanthrene, C1-C4 Phenanthrenes/Anthracenes, Anthracene, Fluoranthene, Pyrene, C1-C4 Fluoranthenes/Pyrenes, Benz(a)anthracene, Chrysene, C1-C4 Chrysenes, Benzo(b)fluoranthene, Benzo(j)+(k)fluoranthene, Benzo(e)pyrene, Benzo(a)pyrene, Perylene, Indeno(1,2,3-cd)pyrene, Dibenz(ah)+(ac)anthracene, Benzo(g,h,i)perylene. If a 'Total' result is requested, the results of its individual components will also be reported.

PFAS Total: With respect to PFAS analyses, the 'PFAS, Total (5)' result is defined as the summation of results for: PFHpA, PFHxS, PFOA, PFNA and PFOS. In addition, the 'PFAS, Total (6)' result is defined as the summation of results at or above the RL for: PFHpA, PFHxS, PFOA, PFNA, PFDA and PFOS. (Note: 'PFAS, Total (6)' is applicable to MassDEP DW compliance analysis only.). If a 'Total' result is requested, the results of its individual components will also be reported.

The target compound Chlordane (CAS No. 57-74-9) is reported for GC ECD analyses. Per EPA,this compound "refers to a mixture of chlordane isomers, other chlorinated hydrocarbons and numerous other components." (Reference: USEPA Toxicological Review of Chlordane, In Support of Summary Information on the Integrated Risk Information System (IRIS), December 1997.)

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

Data Qualifiers

A - Spectra identified as "Aldol Condensates" are byproducts of the extraction/concentration procedures when acetone is introduced in the process.

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.

F - The ratio of quantifier ion response to qualifier ion response falls outside of the laboratory criteria. Results are considered to be an estimated maximum concentration.

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.

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

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

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

NJ - Presumptive evidence of compound. This represents an estimated concentration for Tentatively Identified Compounds (TICs), where

Report Format: Data Usability Report

Project Name:	TRINITY BROCKTON PHA 2-LOT 4	**Lab Number:**	L2100023
Project Number:	5159.9.E4	**Report Date:**	01/08/21

Data Qualifiers

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.

Report Format: Data Usability Report

Project Name:	TRINITY BROCKTON PHA 2-LOT 4	**Lab Number:**	L2100023
Project Number:	5159.9.E4	**Report Date:**	01/08/21

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.

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

LIMITATION OF LIABILITIES

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

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

Certification Information

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

Westborough Facility
EPA 624/624.1: m/p-xylene, o-xylene, Naphthalene
EPA 8260C: NPW: 1,2,4,5-Tetramethylbenzene; 4-Ethyltoluene, Azobenzene; SCM: Iodomethane (methyl iodide), 1,2,4,5-Tetramethylbenzene; 4-Ethyltoluene.
EPA 8270D: NPW: Dimethylnaphthalene,1,4-Diphenylhydrazine; SCM: Dimethylnaphthalene,1,4-Diphenylhydrazine.
SM4500: NPW: Amenable Cyanide; SCM: Total Phosphorus, TKN, NO2, NO3.

Mansfield Facility
SM 2540D: TSS
EPA 8082A: NPW: PCB: 1, 5, 31, 87,101, 110, 141, 151, 153, 180, 183, 187.
EPA TO-15: Halothane, 2,4,4-Trimethyl-2-pentene, 2,4,4-Trimethyl-1-pentene, Thiophene, 2-Methylthiophene, 3-Methylthiophene, 2-Ethylthiophene, 1,2,3-Trimethylbenzene, Indan, Indene, 1,2,4,5-Tetramethylbenzene, Benzothiophene, 1-Methylnaphthalene.
EPA TO-12 Non-methane organics
EPA 3C Fixed gases
Biological Tissue Matrix: EPA 3050B

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

Westborough Facility:

Drinking Water
EPA 300.0: Chloride, Nitrate-N, Fluoride, Sulfate; **EPA 353.2**: Nitrate-N, Nitrite-N; **SM4500NO3-F**: Nitrate-N, Nitrite-N; **SM4500F-C, SM4500CN-CE, EPA 180.1, SM2130B, SM4500Cl-D, SM2320B, SM2540C, SM4500H-B, SM4500NO2-B**
EPA 332: Perchlorate; **EPA 524.2:** THMs and VOCs; **EPA 504.1:** EDB, DBCP.
Microbiology: **SM9215B; SM9223-P/A, SM9223B-Colilert-QT,SM9222D**.

Non-Potable Water
SM4500H,B, EPA 120.1, SM2510B, SM2540C, SM2320B, SM4500CL-E, SM4500F-BC, SM4500NH3-BH: Ammonia-N and Kjeldahl-N, **EPA 350.1**: Ammonia-N, **LACHAT 10-107-06-1-B**: Ammonia-N, **EPA 351.1, SM4500NO3-F, EPA 353.2**: Nitrate-N**, SM4500P-E, SM4500P-B, E, SM4500SO4-E, SM5220D, EPA 410.4, SM5210B, SM5310C, SM4500CL-D, EPA 1664, EPA 420.1, SM4500-CN-CE, SM2540D, EPA 300: Chloride, Sulfate, Nitrate.**
EPA 624.1: Volatile Halocarbons & Aromatics,
EPA 608.3: 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 625.1: SVOC (Acid/Base/Neutral Extractables), **EPA 600/4-81-045**: PCB-Oil.
Microbiology: **SM9223B-Colilert-QT; Enterolert-QT, SM9221E, EPA 1600, EPA 1603.**

Mansfield Facility:

Drinking Water
EPA 200.7: Al, Ba, Cd, Cr, Cu, Fe, Mn, Ni, Na, Ag, Ca, Zn. **EPA 200.8:** Al, Sb, As, Ba, Be, Cd, Cr, Cu, Pb, Mn, Ni, Se, Ag, TL, Zn. **EPA 245.1** Hg.
EPA 522.

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

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

L2100023 1/4/21

CHAIN OF CUSTODY

PAGE 1 OF 1

ALPHA ANALYTICAL

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

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

Date Rec'd in Lab: 12/14/20

ALPHA Job #: ~~L005591~~

Project Information

Project Name: Trinity Brockton Pha 2 - Lot 4

Project Location: Brockton, MA

Project #: 5159.9.E4

Project Manager: Amy Falconeiri

ALPHA Quote #:

Client Information

Client: McPhail Associates, LLC

Address: 2269 Massachusetts Avenue

Cambridge, MA 02140

Phone: (617) 868-1420

Fax:

Email: afalconeiri@mcphailgeo.com

☐ These samples have been Previously analyzed by Alpha

Turn-Around Time

☒ Standard ☐ Rush (ONLY IF PRE-APPROVED)

Due Date: Time:

Report Information Data Deliverables

☐ FAX ☒ EMAIL

☒ ADEx ☐ Add'l Deliverables

Billing Information

☐ Same as Client Info

PO #:

Regulatory Requirements/Report Limits

State/Fed Program	Criteria
NPDES RGP	

Other Project Specific Requirements/Comments/Detection Limits:

HARDNESS PH
Sect. A Inorganics: Ammonia, Chloride, TRC,TSS,CrVI,CrIII, Tot-CN, RGP Metals

ANALYSIS

ALPHA Lab ID (Lab Use Only)	Sample ID	Collection Date	Collection Time	Sample Matrix	Sampler's Initials	~~RGP Metals (200.8) (A)~~	~~TSS (A)~~	~~Ammonia (4500) (A)~~	~~TCN (A)~~	~~HexCr (7196), TRC, Cl (A)~~	~~8260(B, C, F)/8260SIM (B)~~	~~Tphenol-420 (D)~~ PH-4500	~~504 EDB (H)~~ Hardness	~~8270/8270SIM (D,E)~~	~~PCB-608 (E)~~	~~TPH-1664 (F)~~	~~625.1-SIM RGP (PAHs)~~	Sample Specific Comments	TOTAL # BOTTLES
~~5591~~-01	B-413(OW) (Source Water)	12/14/20	11:15AM	GW	EKC	☒	☒	☒	☒	☒	☐	☒	☒	☐	☐	☒	☒		9
00023 ~~-02~~ -02	Trout Brook (Recieving water)	121420	10:20AM	SW	EKC	☒	☒	☒	☒	☒	☐	☒	☒	☐	☐	☐	☐		9
						☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐		
						☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐		
						☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐		
						☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐		
						☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐		
						☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐		
						☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐		
						☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐		
						☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐		
						☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐		
					Container Type	P	P	P	P	P	V	A	V	A	A	A	V		
					Preservative	C	A	D	E	A	B	D	H	A	H	B	B		

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

Relinquished By:	Date/Time	Received By:	Date/Time
EKC	~~[illegible]~~:30	DCX	12/14/20 ~~[illegible]~~ 1600
DCX	12/14/20 1700		12/14/20 1700

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

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

APPENDIX E:

LABORATORY ANALYTICAL DATA – ADDITIONAL GROUNDWATER TESTING PREVIOUSLY PERFORMED

Residences at Center Main Phase 2 - Lot 4
Brockton, Massachusetts
Job #5159
Summary of Chemical Test Results - Groundwater

	RCGW-2	B-413 (OW) 7/28/2020
Extractable Petroleum Hydrocarbons (EPH) (µg/L)		
C9-C18 ALIPHATICS	5000	ND (100)
C19-C36 ALIPHATICS	50000	ND (100)
C11-C22 AROMATICS	5000	ND (100)
ACENAPHTHENE	6000	ND (2.0)
ACENAPHTHYLENE	40	ND (2.0)
ANTHRACENE	30	ND (2.0)
BENZO(A)ANTHRACENE	1000	**ND (2.0) ***
BENZO(A)PYRENE	500	**ND (2.0) ***
BENZO(B)FLUORANTHENE	400	**ND (2.0) ***
BENZO(G,H,I)PERYLENE	20	ND (2.0)
BENZO(K)FLUORANTHENE	100	**ND (2.0) ***
CHRYSENE	70	ND (2.0)
DIBENZ(A,H)ANTHRACENE	40	**ND (2.0) ***
FLUORANTHENE	200	ND (2.0)
FLUORENE	40	ND (2.0)
INDENO(1,2,3-CD)PYRENE	100	**ND (2.0) ***
2-METHYLNAPHTHALENE	2000	ND (2.0)
NAPHTHALENE	700	ND (2.0)
PHENANTHRENE	10000	ND (2.0)
PYRENE	20	ND (2.0)

ND - Not Detected Above
Laboratory Method Detection Limits
(XX) - Laboratory Method
Detection Limits

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August 10, 2020

Amy Falconeiri
McPhail Associates
2269 Massachusetts Avenue
Cambridge, MA 02140

Project Location: Montello St & Petronelli Way, Brockton, MA
Client Job Number:
Project Number: 5159.9.E3
Laboratory Work Order Number: 20G1287

Enclosed are results of analyses for samples received by the laboratory on July 28, 2020. If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Jessica L. Hoffman
Project Manager

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McPhail Associates
2269 Massachusetts Avenue
Cambridge, MA 02140
ATTN: Amy Falconeiri

REPORT DATE: 8/10/2020

PURCHASE ORDER NUMBER:

PROJECT NUMBER: 5159.9.E3

ANALYTICAL SUMMARY

WORK ORDER NUMBER: 20G1287

The results of analyses performed on the following samples submitted to the CON-TEST Analytical Laboratory are found in this report.

PROJECT LOCATION: Montello St & Petronelli Way, Brockton, MA

FIELD SAMPLE #	LAB ID:	MATRIX	SAMPLE DESCRIPTION	TEST	SUB LAB
B-417 Comp 0-4', S-2	20G1287-01	Soil		SM 2540G SM21-22 2510B Modified SW-846 1030 SW-846 6010D SW-846 7471B SW-846 8082A SW-846 8100 Modified SW-846 8260C-D SW-846 8270D-E SW-846 9014 SW-846 9030A SW-846 9045C	
B-417 Comp 4-9', S-3	20G1287-02	Soil		SM 2540G SM21-22 2510B Modified SW-846 1030 SW-846 6010D SW-846 7471B SW-846 8082A SW-846 8100 Modified SW-846 8260C-D SW-846 8270D-E SW-846 9014 SW-846 9030A SW-846 9045C	
B-411 Comp 4-8'	20G1287-03	Soil		MADEP EPH rev 2.1 SM 2540G	
B-410 Comp 0-4', S-1	20G1287-04	Soil		SM 2540G SM21-22 2510B Modified SW-846 1030 SW-846 6010D SW-846 7471B SW-846 8082A SW-846 8100 Modified SW-846 8260C-D SW-846 8270D-E SW-846 9014 SW-846 9030A SW-846 9045C	

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McPhail Associates
2269 Massachusetts Avenue
Cambridge, MA 02140
ATTN: Amy Falconeiri

REPORT DATE: 8/10/2020

PURCHASE ORDER NUMBER:

PROJECT NUMBER: 5159.9.E3

ANALYTICAL SUMMARY

WORK ORDER NUMBER: 20G1287

The results of analyses performed on the following samples submitted to the CON-TEST Analytical Laboratory are found in this report.

PROJECT LOCATION: Montello St & Petronelli Way, Brockton, MA

FIELD SAMPLE #	LAB ID:	MATRIX	SAMPLE DESCRIPTION	TEST	SUB LAB
~~B-410 Comp 4-8, S-3~~	~~20G1287-05~~	~~Soil~~		~~SM 2540G~~	
				SM21-22 2510B Modified	
				SW-846 1030	
				SW-846 6010D	
				SW-846 7471B	
				SW-846 8082A	
				SW-846 8100 Modified	
				SW-846 8260C-D	
				SW-846 8270D-E	
				SW-846 9014	
				SW-846 9030A	
				SW-846 9045C	
B-413	20G1287-06	Water		MADEP EPH rev 2.1	

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CASE NARRATIVE SUMMARY

All reported results are within defined laboratory quality control objectives unless listed below or otherwise qualified in this report.

For method MA EPH, only hydrocarbon ranges were requested and reported for sample 20G1287-03.

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SW-846 8082A

Qualifications:

O-32

A dilution was performed as part of the standard analytical procedure.

Analyte & Samples(s) Qualified:

20G1287-01[B-417 Comp 0-4', S-2], 20G1287-02[B-417 Comp 4-9', S-3], 20G1287-04[B-410 Comp 0-4', S-1], 20G1287-05[B-410 Comp 4-8, S-3]

SW-846 8100 Modified

Qualifications:

MS-19

Sample to spike ratio is greater than or equal to 4:1. Spiked amount is not representative of the native amount in the sample. Appropriate or meaningful recoveries cannot be calculated.

Analyte & Samples(s) Qualified:

TPH (C9-C36)

20G1287-01[B-417 Comp 0-4', S-2], B263472-MS1, B263472-MSD1

SW-846 8260C-D

Qualifications:

L-07

Either laboratory fortified blank/laboratory control sample or duplicate recovery is outside of control limits, but the other is within limits. RPD between the two LFB/LCS results is within method specified criteria.

Analyte & Samples(s) Qualified:

Bromochloromethane

B263354-BS1

V-05

Continuing calibration verification (CCV) did not meet method specifications and was biased on the low side for this compound.

Analyte & Samples(s) Qualified:

Naphthalene

20G1287-01[B-417 Comp 0-4', S-2], 20G1287-02[B-417 Comp 4-9', S-3], 20G1287-04[B-410 Comp 0-4', S-1], 20G1287-05[B-410 Comp 4-8, S-3], B263354-BLK1, B263354-BS1, B263354-BSD1, S050870-CCV1

V-16

Response factor is less than method specified minimum acceptable value. Reduced precision and accuracy may be associated with reported result.

Analyte & Samples(s) Qualified:

1,4-Dioxane

20G1287-01[B-417 Comp 0-4', S-2], 20G1287-02[B-417 Comp 4-9', S-3], 20G1287-04[B-410 Comp 0-4', S-1], 20G1287-05[B-410 Comp 4-8, S-3], B263354-BLK1, B263354-BS1, B263354-BSD1

Tetrahydrofuran

20G1287-01[B-417 Comp 0-4', S-2], 20G1287-02[B-417 Comp 4-9', S-3], 20G1287-04[B-410 Comp 0-4', S-1], 20G1287-05[B-410 Comp 4-8, S-3], B263354-BLK1, B263354-BS1, B263354-BSD1

V-20

Continuing calibration verification (CCV) did not meet method specifications and was biased on the high side. Data validation is not affected since sample result was "not detected" for this compound.

Analyte & Samples(s) Qualified:

2-Butanone (MEK)

B263354-BS1, B263354-BSD1, S050870-CCV1

2-Hexanone (MBK)

B263354-BS1, B263354-BSD1, S050870-CCV1

4-Methyl-2-pentanone (MIBK)

B263354-BS1, B263354-BSD1, S050870-CCV1

Acetone

B263354-BS1, B263354-BSD1, S050870-CCV1

Methylene Chloride

B263354-BS1, B263354-BSD1, S050870-CCV1

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V-34

Initial calibration verification (ICV) did not meet method specifications and was biased on the low side for this compound. Reported result is estimated.

Analyte & Samples(s) Qualified:

Bromomethane

20G1287-01[B-417 Comp 0-4', S-2], 20G1287-02[B-417 Comp 4-9', S-3], 20G1287-04[B-410 Comp 0-4', S-1], 20G1287-05[B-410 Comp 4-8, S-3], B263354-BLK1, B263354-BS1, B263354-BSD1, S050870-CCV1

SW-846 8270D-E

Qualifications:

L-04

Laboratory fortified blank/laboratory control sample recovery and duplicate recovery are outside of control limits. Reported value for this compound is likely to be biased on the low side.

Analyte & Samples(s) Qualified:

Aniline

20G1287-01[B-417 Comp 0-4', S-2], 20G1287-02[B-417 Comp 4-9', S-3], 20G1287-04[B-410 Comp 0-4', S-1], 20G1287-05[B-410 Comp 4-8, S-3], B263474-BLK1, B263474-BS1, B263474-BSD1, B263474-MS1, B263474-MSD1

M-09

The interference check sample was outside of control limits. Possibility of interference that may lead to a high bias for reported result.

Analyte & Samples(s) Qualified:

Aniline

20G1287-01[B-417 Comp 0-4', S-2], B263474-MS1, B263474-MSD1

MS-09

Matrix spike recovery and/or matrix spike duplicate recovery outside of control limits. Possibility of sample matrix effects that lead to a low bias for reported result or non-homogeneous sample aliquots cannot be eliminated.

Analyte & Samples(s) Qualified:

2,4-Dinitrophenol

20G1287-01[B-417 Comp 0-4', S-2], B263474-MS1, B263474-MSD1

Pentachlorophenol

20G1287-01[B-417 Comp 0-4', S-2], B263474-MS1, B263474-MSD1

MS-22

Either matrix spike or MS duplicate is outside of control limits, but the other is within limits. RPD between the two MS/MSD results is within method specified criteria.

Analyte & Samples(s) Qualified:

Hexachloroethane

B263474-MSD1

R-06

Matrix spike duplicate RPD is outside of control limits. Reduced precision is anticipated for reported result for this compound in this sample.

Analyte & Samples(s) Qualified:

Benzo(g,h,i)perylene

20G1287-01[B-417 Comp 0-4', S-2], B263474-MS1, B263474-MSD1

V-05

Continuing calibration verification (CCV) did not meet method specifications and was biased on the low side for this compound.

Analyte & Samples(s) Qualified:

Aniline

20G1287-01[B-417 Comp 0-4', S-2], 20G1287-02[B-417 Comp 4-9', S-3], 20G1287-04[B-410 Comp 0-4', S-1], 20G1287-05[B-410 Comp 4-8, S-3], B263474-BLK1, B263474-BS1, B263474-BSD1, B263474-MS1, B263474-MSD1, S050972-CCV1, S050993-CCV1, S051007-CCV1

Di-n-octylphthalate

B263474-BLK1, B263474-BS1, B263474-BSD1, S050972-CCV1

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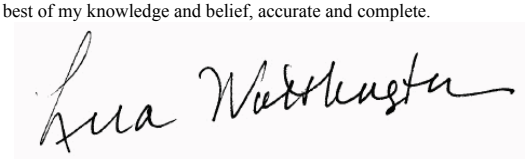
SW-846 8100 Modified

TPH (C9-C36) is quantitated against a calibration made with a diesel standard.

The results of analyses reported only relate to samples submitted to the Con-Test Analytical Laboratory for testing.
I certify that the analyses listed above, unless specifically listed as subcontracted, if any, were performed under my direction according to the approved methodologies listed in this document, and that based upon my inquiry of those individuals immediately responsible for obtaining the information, the material contained in this report is, to the best of my knowledge and belief, accurate and complete.



Lisa A. Worthington
Technical Representative

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Project Location: Montello St & Petronelli Way, Bro Sample Description: Work Order: 20G1287

Date Received: 7/28/2020

Field Sample #: B-417 Comp 0-4', S-2

Sample ID: 20G1287-01 Start Date/Time: 7/28/2020 8:30:00AM

Sample Matrix: Soil Stop Date/Time: 7/28/2020 8:55:00AM

Volatile Organic Compounds by GC/MS

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Acetone	ND	0.12	mg/Kg dry	1		SW-846 8260C-D	8/3/20	8/4/20 1:34	MFF
tert-Amyl Methyl Ether (TAME)	ND	0.0012	mg/Kg dry	1		SW-846 8260C-D	8/3/20	8/4/20 1:34	MFF
Benzene	ND	0.0024	mg/Kg dry	1		SW-846 8260C-D	8/3/20	8/4/20 1:34	MFF
Bromobenzene	ND	0.0024	mg/Kg dry	1		SW-846 8260C-D	8/3/20	8/4/20 1:34	MFF
Bromochloromethane	ND	0.0024	mg/Kg dry	1		SW-846 8260C-D	8/3/20	8/4/20 1:34	MFF
Bromodichloromethane	ND	0.0024	mg/Kg dry	1		SW-846 8260C-D	8/3/20	8/4/20 1:34	MFF
Bromoform	ND	0.0024	mg/Kg dry	1		SW-846 8260C-D	8/3/20	8/4/20 1:34	MFF
Bromomethane	ND	0.012	mg/Kg dry	1	V-34	SW-846 8260C-D	8/3/20	8/4/20 1:34	MFF
2-Butanone (MEK)	ND	0.047	mg/Kg dry	1		SW-846 8260C-D	8/3/20	8/4/20 1:34	MFF
n-Butylbenzene	ND	0.0024	mg/Kg dry	1		SW-846 8260C-D	8/3/20	8/4/20 1:34	MFF
sec-Butylbenzene	ND	0.0024	mg/Kg dry	1		SW-846 8260C-D	8/3/20	8/4/20 1:34	MFF
tert-Butylbenzene	ND	0.0024	mg/Kg dry	1		SW-846 8260C-D	8/3/20	8/4/20 1:34	MFF
tert-Butyl Ethyl Ether (TBEE)	ND	0.0012	mg/Kg dry	1		SW-846 8260C-D	8/3/20	8/4/20 1:34	MFF
Carbon Disulfide	ND	0.0071	mg/Kg dry	1		SW-846 8260C-D	8/3/20	8/4/20 1:34	MFF
Carbon Tetrachloride	ND	0.0024	mg/Kg dry	1		SW-846 8260C-D	8/3/20	8/4/20 1:34	MFF
Chlorobenzene	ND	0.0024	mg/Kg dry	1		SW-846 8260C-D	8/3/20	8/4/20 1:34	MFF
Chlorodibromomethane	ND	0.0012	mg/Kg dry	1		SW-846 8260C-D	8/3/20	8/4/20 1:34	MFF
Chloroethane	ND	0.012	mg/Kg dry	1		SW-846 8260C-D	8/3/20	8/4/20 1:34	MFF
Chloroform	ND	0.0047	mg/Kg dry	1		SW-846 8260C-D	8/3/20	8/4/20 1:34	MFF
Chloromethane	ND	0.012	mg/Kg dry	1		SW-846 8260C-D	8/3/20	8/4/20 1:34	MFF
2-Chlorotoluene	ND	0.0024	mg/Kg dry	1		SW-846 8260C-D	8/3/20	8/4/20 1:34	MFF
4-Chlorotoluene	ND	0.0024	mg/Kg dry	1		SW-846 8260C-D	8/3/20	8/4/20 1:34	MFF
1,2-Dibromo-3-chloropropane (DBCP)	ND	0.0024	mg/Kg dry	1		SW-846 8260C-D	8/3/20	8/4/20 1:34	MFF
1,2-Dibromoethane (EDB)	ND	0.0012	mg/Kg dry	1		SW-846 8260C-D	8/3/20	8/4/20 1:34	MFF
Dibromomethane	ND	0.0024	mg/Kg dry	1		SW-846 8260C-D	8/3/20	8/4/20 1:34	MFF
1,2-Dichlorobenzene	ND	0.0024	mg/Kg dry	1		SW-846 8260C-D	8/3/20	8/4/20 1:34	MFF
1,3-Dichlorobenzene	ND	0.0024	mg/Kg dry	1		SW-846 8260C-D	8/3/20	8/4/20 1:34	MFF
1,4-Dichlorobenzene	ND	0.0024	mg/Kg dry	1		SW-846 8260C-D	8/3/20	8/4/20 1:34	MFF
Dichlorodifluoromethane (Freon 12)	ND	0.012	mg/Kg dry	1		SW-846 8260C-D	8/3/20	8/4/20 1:34	MFF
1,1-Dichloroethane	ND	0.0024	mg/Kg dry	1		SW-846 8260C-D	8/3/20	8/4/20 1:34	MFF
1,2-Dichloroethane	ND	0.0024	mg/Kg dry	1		SW-846 8260C-D	8/3/20	8/4/20 1:34	MFF
1,1-Dichloroethylene	ND	0.0047	mg/Kg dry	1		SW-846 8260C-D	8/3/20	8/4/20 1:34	MFF
cis-1,2-Dichloroethylene	ND	0.0024	mg/Kg dry	1		SW-846 8260C-D	8/3/20	8/4/20 1:34	MFF
trans-1,2-Dichloroethylene	ND	0.0024	mg/Kg dry	1		SW-846 8260C-D	8/3/20	8/4/20 1:34	MFF
1,2-Dichloropropane	ND	0.0024	mg/Kg dry	1		SW-846 8260C-D	8/3/20	8/4/20 1:34	MFF
1,3-Dichloropropane	ND	0.0012	mg/Kg dry	1		SW-846 8260C-D	8/3/20	8/4/20 1:34	MFF
2,2-Dichloropropane	ND	0.0024	mg/Kg dry	1		SW-846 8260C-D	8/3/20	8/4/20 1:34	MFF
1,1-Dichloropropene	ND	0.0024	mg/Kg dry	1		SW-846 8260C-D	8/3/20	8/4/20 1:34	MFF
cis-1,3-Dichloropropene	ND	0.0012	mg/Kg dry	1		SW-846 8260C-D	8/3/20	8/4/20 1:34	MFF
trans-1,3-Dichloropropene	ND	0.0012	mg/Kg dry	1		SW-846 8260C-D	8/3/20	8/4/20 1:34	MFF
Diethyl Ether	ND	0.012	mg/Kg dry	1		SW-846 8260C-D	8/3/20	8/4/20 1:34	MFF
Diisopropyl Ether (DIPE)	ND	0.0012	mg/Kg dry	1		SW-846 8260C-D	8/3/20	8/4/20 1:34	MFF
1,4-Dioxane	ND	0.12	mg/Kg dry	1	V-16	SW-846 8260C-D	8/3/20	8/4/20 1:34	MFF
Ethylbenzene	ND	0.0024	mg/Kg dry	1		SW-846 8260C-D	8/3/20	8/4/20 1:34	MFF

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Project Location: Montello St & Petronelli Way, Bro Sample Description: Work Order: 20G1287

Date Received: 7/28/2020

Field Sample #: B-417 Comp 0-4', S-2

Sample ID: 20G1287-01 Start Date/Time: 7/28/2020 8:30:00AM

Sample Matrix: Soil Stop Date/Time: 7/28/2020 8:55:00AM

Volatile Organic Compounds by GC/MS

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Hexachlorobutadiene	ND	0.0024	mg/Kg dry	1		SW-846 8260C-D	8/3/20	8/4/20 1:34	MFF
2-Hexanone (MBK)	ND	0.024	mg/Kg dry	1		SW-846 8260C-D	8/3/20	8/4/20 1:34	MFF
Isopropylbenzene (Cumene)	ND	0.0024	mg/Kg dry	1		SW-846 8260C-D	8/3/20	8/4/20 1:34	MFF
p-Isopropyltoluene (p-Cymene)	ND	0.0024	mg/Kg dry	1		SW-846 8260C-D	8/3/20	8/4/20 1:34	MFF
Methyl tert-Butyl Ether (MTBE)	ND	0.0047	mg/Kg dry	1		SW-846 8260C-D	8/3/20	8/4/20 1:34	MFF
Methylene Chloride	ND	0.012	mg/Kg dry	1		SW-846 8260C-D	8/3/20	8/4/20 1:34	MFF
4-Methyl-2-pentanone (MIBK)	ND	0.024	mg/Kg dry	1		SW-846 8260C-D	8/3/20	8/4/20 1:34	MFF
Naphthalene	ND	0.0047	mg/Kg dry	1	V-05	SW-846 8260C-D	8/3/20	8/4/20 1:34	MFF
n-Propylbenzene	ND	0.0024	mg/Kg dry	1		SW-846 8260C-D	8/3/20	8/4/20 1:34	MFF
Styrene	ND	0.0024	mg/Kg dry	1		SW-846 8260C-D	8/3/20	8/4/20 1:34	MFF
1,1,1,2-Tetrachloroethane	ND	0.0024	mg/Kg dry	1		SW-846 8260C-D	8/3/20	8/4/20 1:34	MFF
1,1,2,2-Tetrachloroethane	ND	0.0012	mg/Kg dry	1		SW-846 8260C-D	8/3/20	8/4/20 1:34	MFF
Tetrachloroethylene	ND	0.0024	mg/Kg dry	1		SW-846 8260C-D	8/3/20	8/4/20 1:34	MFF
Tetrahydrofuran	ND	0.012	mg/Kg dry	1	V-16	SW-846 8260C-D	8/3/20	8/4/20 1:34	MFF
Toluene	ND	0.0024	mg/Kg dry	1		SW-846 8260C-D	8/3/20	8/4/20 1:34	MFF
1,2,3-Trichlorobenzene	ND	0.0024	mg/Kg dry	1		SW-846 8260C-D	8/3/20	8/4/20 1:34	MFF
1,2,4-Trichlorobenzene	ND	0.0024	mg/Kg dry	1		SW-846 8260C-D	8/3/20	8/4/20 1:34	MFF
1,1,1-Trichloroethane	ND	0.0024	mg/Kg dry	1		SW-846 8260C-D	8/3/20	8/4/20 1:34	MFF
1,1,2-Trichloroethane	ND	0.0024	mg/Kg dry	1		SW-846 8260C-D	8/3/20	8/4/20 1:34	MFF
Trichloroethylene	ND	0.0024	mg/Kg dry	1		SW-846 8260C-D	8/3/20	8/4/20 1:34	MFF
Trichlorofluoromethane (Freon 11)	ND	0.012	mg/Kg dry	1		SW-846 8260C-D	8/3/20	8/4/20 1:34	MFF
1,2,3-Trichloropropane	ND	0.0024	mg/Kg dry	1		SW-846 8260C-D	8/3/20	8/4/20 1:34	MFF
1,2,4-Trimethylbenzene	ND	0.0024	mg/Kg dry	1		SW-846 8260C-D	8/3/20	8/4/20 1:34	MFF
1,3,5-Trimethylbenzene	ND	0.0024	mg/Kg dry	1		SW-846 8260C-D	8/3/20	8/4/20 1:34	MFF
Vinyl Chloride	ND	0.012	mg/Kg dry	1		SW-846 8260C-D	8/3/20	8/4/20 1:34	MFF
m+p Xylene	ND	0.0047	mg/Kg dry	1		SW-846 8260C-D	8/3/20	8/4/20 1:34	MFF
o-Xylene	ND	0.0024	mg/Kg dry	1		SW-846 8260C-D	8/3/20	8/4/20 1:34	MFF

Surrogates	% Recovery	Recovery Limits	Flag/Qual	
1,2-Dichloroethane-d4	102	70-130		8/4/20 1:34
Toluene-d8	101	70-130		8/4/20 1:34
4-Bromofluorobenzene	105	70-130		8/4/20 1:34

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39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

Project Location: Montello St & Petronelli Way, Bro Sample Description: Work Order: 20G1287

Date Received: 7/28/2020

Field Sample #: B-417 Comp 0-4', S-2

Sample ID: 20G1287-01 Start Date/Time: 7/28/2020 8:30:00AM

Sample Matrix: Soil Stop Date/Time: 7/28/2020 8:55:00AM

Semivolatile Organic Compounds by GC/MS

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Acenaphthene	ND	0.18	mg/Kg dry	1		SW-846 8270D-E	8/4/20	8/6/20 22:38	IMR
Acenaphthylene	ND	0.18	mg/Kg dry	1		SW-846 8270D-E	8/4/20	8/6/20 22:38	IMR
Acetophenone	ND	0.36	mg/Kg dry	1		SW-846 8270D-E	8/4/20	8/6/20 22:38	IMR
Aniline	ND	0.36	mg/Kg dry	1	V-05, L-04, M-09	SW-846 8270D-E	8/4/20	8/6/20 22:38	IMR
Anthracene	ND	0.18	mg/Kg dry	1		SW-846 8270D-E	8/4/20	8/6/20 22:38	IMR
Benzo(a)anthracene	0.40	0.18	mg/Kg dry	1		SW-846 8270D-E	8/4/20	8/6/20 22:38	IMR
Benzo(a)pyrene	0.38	0.18	mg/Kg dry	1		SW-846 8270D-E	8/4/20	8/6/20 22:38	IMR
Benzo(b)fluoranthene	0.44	0.18	mg/Kg dry	1		SW-846 8270D-E	8/4/20	8/6/20 22:38	IMR
Benzo(g,h,i)perylene	ND	0.18	mg/Kg dry	1	R-06	SW-846 8270D-E	8/4/20	8/6/20 22:38	IMR
Benzo(k)fluoranthene	ND	0.18	mg/Kg dry	1		SW-846 8270D-E	8/4/20	8/6/20 22:38	IMR
Bis(2-chloroethoxy)methane	ND	0.36	mg/Kg dry	1		SW-846 8270D-E	8/4/20	8/6/20 22:38	IMR
Bis(2-chloroethyl)ether	ND	0.36	mg/Kg dry	1		SW-846 8270D-E	8/4/20	8/6/20 22:38	IMR
Bis(2-chloroisopropyl)ether	ND	0.36	mg/Kg dry	1		SW-846 8270D-E	8/4/20	8/6/20 22:38	IMR
Bis(2-Ethylhexyl)phthalate	ND	0.36	mg/Kg dry	1		SW-846 8270D-E	8/4/20	8/6/20 22:38	IMR
4-Bromophenylphenylether	ND	0.36	mg/Kg dry	1		SW-846 8270D-E	8/4/20	8/6/20 22:38	IMR
Butylbenzylphthalate	ND	0.36	mg/Kg dry	1		SW-846 8270D-E	8/4/20	8/6/20 22:38	IMR
4-Chloroaniline	ND	0.71	mg/Kg dry	1		SW-846 8270D-E	8/4/20	8/6/20 22:38	IMR
2-Chloronaphthalene	ND	0.36	mg/Kg dry	1		SW-846 8270D-E	8/4/20	8/6/20 22:38	IMR
2-Chlorophenol	ND	0.36	mg/Kg dry	1		SW-846 8270D-E	8/4/20	8/6/20 22:38	IMR
Chrysene	0.40	0.18	mg/Kg dry	1		SW-846 8270D-E	8/4/20	8/6/20 22:38	IMR
Dibenz(a,h)anthracene	ND	0.18	mg/Kg dry	1		SW-846 8270D-E	8/4/20	8/6/20 22:38	IMR
Dibenzofuran	ND	0.36	mg/Kg dry	1		SW-846 8270D-E	8/4/20	8/6/20 22:38	IMR
Di-n-butylphthalate	ND	0.36	mg/Kg dry	1		SW-846 8270D-E	8/4/20	8/6/20 22:38	IMR
1,2-Dichlorobenzene	ND	0.36	mg/Kg dry	1		SW-846 8270D-E	8/4/20	8/6/20 22:38	IMR
1,3-Dichlorobenzene	ND	0.36	mg/Kg dry	1		SW-846 8270D-E	8/4/20	8/6/20 22:38	IMR
1,4-Dichlorobenzene	ND	0.36	mg/Kg dry	1		SW-846 8270D-E	8/4/20	8/6/20 22:38	IMR
3,3-Dichlorobenzidine	ND	0.18	mg/Kg dry	1		SW-846 8270D-E	8/4/20	8/6/20 22:38	IMR
2,4-Dichlorophenol	ND	0.36	mg/Kg dry	1		SW-846 8270D-E	8/4/20	8/6/20 22:38	IMR
Diethylphthalate	ND	0.36	mg/Kg dry	1		SW-846 8270D-E	8/4/20	8/6/20 22:38	IMR
2,4-Dimethylphenol	ND	0.36	mg/Kg dry	1		SW-846 8270D-E	8/4/20	8/6/20 22:38	IMR
Dimethylphthalate	ND	0.36	mg/Kg dry	1		SW-846 8270D-E	8/4/20	8/6/20 22:38	IMR
2,4-Dinitrophenol	ND	0.71	mg/Kg dry	1	MS-09	SW-846 8270D-E	8/4/20	8/6/20 22:38	IMR
2,4-Dinitrotoluene	ND	0.36	mg/Kg dry	1		SW-846 8270D-E	8/4/20	8/6/20 22:38	IMR
2,6-Dinitrotoluene	ND	0.36	mg/Kg dry	1		SW-846 8270D-E	8/4/20	8/6/20 22:38	IMR
Di-n-octylphthalate	ND	0.36	mg/Kg dry	1		SW-846 8270D-E	8/4/20	8/6/20 22:38	IMR
1,2-Diphenylhydrazine/Azobenzene	ND	0.36	mg/Kg dry	1		SW-846 8270D-E	8/4/20	8/6/20 22:38	IMR
Fluoranthene	0.60	0.18	mg/Kg dry	1		SW-846 8270D-E	8/4/20	8/6/20 22:38	IMR
Fluorene	ND	0.18	mg/Kg dry	1		SW-846 8270D-E	8/4/20	8/6/20 22:38	IMR
Hexachlorobenzene	ND	0.36	mg/Kg dry	1		SW-846 8270D-E	8/4/20	8/6/20 22:38	IMR
Hexachlorobutadiene	ND	0.36	mg/Kg dry	1		SW-846 8270D-E	8/4/20	8/6/20 22:38	IMR
Hexachloroethane	ND	0.36	mg/Kg dry	1		SW-846 8270D-E	8/4/20	8/6/20 22:38	IMR
Indeno(1,2,3-cd)pyrene	0.19	0.18	mg/Kg dry	1		SW-846 8270D-E	8/4/20	8/6/20 22:38	IMR
Isophorone	ND	0.36	mg/Kg dry	1		SW-846 8270D-E	8/4/20	8/6/20 22:38	IMR
2-Methylnaphthalene	ND	0.18	mg/Kg dry	1		SW-846 8270D-E	8/4/20	8/6/20 22:38	IMR

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Project Location: Montello St & Petronelli Way, Bro Sample Description: Work Order: 20G1287

Date Received: 7/28/2020

Field Sample #: B-417 Comp 0-4', S-2

Sample ID: 20G1287-01 Start Date/Time: 7/28/2020 8:30:00AM

Sample Matrix: Soil Stop Date/Time: 7/28/2020 8:55:00AM

Semivolatile Organic Compounds by GC/MS

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
2-Methylphenol	ND	0.36	mg/Kg dry	1		SW-846 8270D-E	8/4/20	8/6/20 22:38	IMR
3/4-Methylphenol	ND	0.36	mg/Kg dry	1		SW-846 8270D-E	8/4/20	8/6/20 22:38	IMR
Naphthalene	ND	0.18	mg/Kg dry	1		SW-846 8270D-E	8/4/20	8/6/20 22:38	IMR
Nitrobenzene	ND	0.36	mg/Kg dry	1		SW-846 8270D-E	8/4/20	8/6/20 22:38	IMR
2-Nitrophenol	ND	0.36	mg/Kg dry	1		SW-846 8270D-E	8/4/20	8/6/20 22:38	IMR
4-Nitrophenol	ND	0.71	mg/Kg dry	1		SW-846 8270D-E	8/4/20	8/6/20 22:38	IMR
Pentachlorophenol	ND	0.36	mg/Kg dry	1	MS-09	SW-846 8270D-E	8/4/20	8/6/20 22:38	IMR
Phenanthrene	0.40	0.18	mg/Kg dry	1		SW-846 8270D-E	8/4/20	8/6/20 22:38	IMR
Phenol	ND	0.36	mg/Kg dry	1		SW-846 8270D-E	8/4/20	8/6/20 22:38	IMR
Pyrene	0.83	0.18	mg/Kg dry	1		SW-846 8270D-E	8/4/20	8/6/20 22:38	IMR
1,2,4-Trichlorobenzene	ND	0.36	mg/Kg dry	1		SW-846 8270D-E	8/4/20	8/6/20 22:38	IMR
2,4,5-Trichlorophenol	ND	0.36	mg/Kg dry	1		SW-846 8270D-E	8/4/20	8/6/20 22:38	IMR
2,4,6-Trichlorophenol	ND	0.36	mg/Kg dry	1		SW-846 8270D-E	8/4/20	8/6/20 22:38	IMR

Surrogates	% Recovery	Recovery Limits	Flag/Qual	
2-Fluorophenol	52.1	30-130		8/6/20 22:38
Phenol-d6	54.1	30-130		8/6/20 22:38
Nitrobenzene-d5	51.2	30-130		8/6/20 22:38
2-Fluorobiphenyl	58.7	30-130		8/6/20 22:38
2,4,6-Tribromophenol	54.6	30-130		8/6/20 22:38
p-Terphenyl-d14	68.9	30-130		8/6/20 22:38

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Project Location: Montello St & Petronelli Way, Bro Sample Description: Work Order: 20G1287

Date Received: 7/28/2020

Field Sample #: B-417 Comp 0-4', S-2

Sample ID: 20G1287-01 Start Date/Time: 7/28/2020 8:30:00AM

Sample Matrix: Soil Stop Date/Time: 7/28/2020 8:55:00AM

Sample Flags: O-32

Polychlorinated Biphenyls By GC/ECD

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Aroclor-1016 [1]	ND	0.086	mg/Kg dry	4		SW-846 8082A	8/6/20	8/8/20 11:38	JMB
Aroclor-1221 [1]	ND	0.086	mg/Kg dry	4		SW-846 8082A	8/6/20	8/8/20 11:38	JMB
Aroclor-1232 [1]	ND	0.086	mg/Kg dry	4		SW-846 8082A	8/6/20	8/8/20 11:38	JMB
Aroclor-1242 [1]	ND	0.086	mg/Kg dry	4		SW-846 8082A	8/6/20	8/8/20 11:38	JMB
Aroclor-1248 [1]	ND	0.086	mg/Kg dry	4		SW-846 8082A	8/6/20	8/8/20 11:38	JMB
Aroclor-1254 [1]	ND	0.086	mg/Kg dry	4		SW-846 8082A	8/6/20	8/8/20 11:38	JMB
Aroclor-1260 [1]	ND	0.086	mg/Kg dry	4		SW-846 8082A	8/6/20	8/8/20 11:38	JMB
Aroclor-1262 [1]	ND	0.086	mg/Kg dry	4		SW-846 8082A	8/6/20	8/8/20 11:38	JMB
Aroclor-1268 [1]	ND	0.086	mg/Kg dry	4		SW-846 8082A	8/6/20	8/8/20 11:38	JMB

Surrogates	% Recovery	Recovery Limits	Flag/Qual	
Decachlorobiphenyl [1]	94.8	30-150		8/8/20 11:38
Decachlorobiphenyl [2]	91.1	30-150		8/8/20 11:38
Tetrachloro-m-xylene [1]	93.6	30-150		8/8/20 11:38
Tetrachloro-m-xylene [2]	82.4	30-150		8/8/20 11:38

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Date Received: 7/28/2020

Field Sample #: B-417 Comp 0-4', S-2

Sample ID: 20G1287-01 Start Date/Time: 7/28/2020 8:30:00AM

Sample Matrix: Soil Stop Date/Time: 7/28/2020 8:55:00AM

Petroleum Hydrocarbons Analyses

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
TPH (C9-C36)	160	45	mg/Kg dry	5	MS-19	SW-846 8100 Modified	8/4/20	8/8/20 10:18	RDD

Surrogates	% Recovery	Recovery Limits	Flag/Qual				
2-Fluorobiphenyl	51.5	40-140				8/8/20 10:18	

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Field Sample #: B-417 Comp 0-4', S-2

Sample ID: 20G1287-01 Start Date/Time: 7/28/2020 8:30:00AM

Sample Matrix: Soil Stop Date/Time: 7/28/2020 8:55:00AM

Metals Analyses (Total)

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Arsenic	ND	3.6	mg/Kg dry	1		SW-846 6010D	8/3/20	8/4/20 18:55	TBC
Barium	31	1.8	mg/Kg dry	1		SW-846 6010D	8/3/20	8/4/20 18:55	TBC
Cadmium	ND	0.36	mg/Kg dry	1		SW-846 6010D	8/3/20	8/4/20 18:55	TBC
Chromium	14	0.71	mg/Kg dry	1		SW-846 6010D	8/3/20	8/4/20 18:55	TBC
Lead	33	0.54	mg/Kg dry	1		SW-846 6010D	8/3/20	8/5/20 10:54	TBC
Mercury	0.059	0.027	mg/Kg dry	1		SW-846 7471B	8/3/20	8/5/20 10:15	CJV
Selenium	ND	3.6	mg/Kg dry	1		SW-846 6010D	8/3/20	8/5/20 10:54	TBC
Silver	ND	0.36	mg/Kg dry	1		SW-846 6010D	8/3/20	8/4/20 18:55	TBC

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Project Location: Montello St & Petronelli Way, Bro Sample Description: Work Order: 20G1287

Date Received: 7/28/2020

Field Sample #: B-417 Comp 0-4', S-2

Sample ID: 20G1287-01 Start Date/Time: 7/28/2020 8:30:00AM

Sample Matrix: Soil Stop Date/Time: 7/28/2020 8:55:00AM

Conventional Chemistry Parameters by EPA/APHA/SW-846 Methods (Total)

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
% Solids	92.7		% Wt	1		SM 2540G	8/5/20	8/6/20 9:36	JDN
Ignitability	Absent		present/absent	1		SW-846 1030	8/5/20	8/5/20 23:50	AWA
pH @20.9°C	8.2		pH Units	1		SW-846 9045C	7/28/20	7/28/20 21:15	AWA
Reactive Cyanide	ND	4.0	mg/Kg	1		SW-846 9014	8/4/20	8/5/20 21:05	EC
Reactive Sulfide	ND	20	mg/Kg	1		SW-846 9030A	8/4/20	8/5/20 20:00	EC
Specific conductance	23	2.0	µmhos/cm	1		SM21-22 2510B Modified	8/4/20	8/4/20 18:30	EC

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Project Location: Montello St & Petronelli Way, Bro Sample Description: Work Order: 20G1287

Date Received: 7/28/2020

Field Sample #: B-417 Comp 4-9', S-3

Sample ID: 20G1287-02 Start Date/Time: 7/28/2020 9:00:00AM

Sample Matrix: Soil Stop Date/Time: 7/28/2020 9:05:00AM

Volatile Organic Compounds by GC/MS

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Acetone	0.093	0.088	mg/Kg dry	1		SW-846 8260C-D	8/3/20	8/4/20 2:01	MFF
tert-Amyl Methyl Ether (TAME)	ND	0.00088	mg/Kg dry	1		SW-846 8260C-D	8/3/20	8/4/20 2:01	MFF
Benzene	ND	0.0018	mg/Kg dry	1		SW-846 8260C-D	8/3/20	8/4/20 2:01	MFF
Bromobenzene	ND	0.0018	mg/Kg dry	1		SW-846 8260C-D	8/3/20	8/4/20 2:01	MFF
Bromochloromethane	ND	0.0018	mg/Kg dry	1		SW-846 8260C-D	8/3/20	8/4/20 2:01	MFF
Bromodichloromethane	ND	0.0018	mg/Kg dry	1		SW-846 8260C-D	8/3/20	8/4/20 2:01	MFF
Bromoform	ND	0.0018	mg/Kg dry	1		SW-846 8260C-D	8/3/20	8/4/20 2:01	MFF
Bromomethane	ND	0.0088	mg/Kg dry	1	V-34	SW-846 8260C-D	8/3/20	8/4/20 2:01	MFF
2-Butanone (MEK)	ND	0.035	mg/Kg dry	1		SW-846 8260C-D	8/3/20	8/4/20 2:01	MFF
n-Butylbenzene	ND	0.0018	mg/Kg dry	1		SW-846 8260C-D	8/3/20	8/4/20 2:01	MFF
sec-Butylbenzene	ND	0.0018	mg/Kg dry	1		SW-846 8260C-D	8/3/20	8/4/20 2:01	MFF
tert-Butylbenzene	ND	0.0018	mg/Kg dry	1		SW-846 8260C-D	8/3/20	8/4/20 2:01	MFF
tert-Butyl Ethyl Ether (TBEE)	ND	0.00088	mg/Kg dry	1		SW-846 8260C-D	8/3/20	8/4/20 2:01	MFF
Carbon Disulfide	ND	0.0053	mg/Kg dry	1		SW-846 8260C-D	8/3/20	8/4/20 2:01	MFF
Carbon Tetrachloride	ND	0.0018	mg/Kg dry	1		SW-846 8260C-D	8/3/20	8/4/20 2:01	MFF
Chlorobenzene	ND	0.0018	mg/Kg dry	1		SW-846 8260C-D	8/3/20	8/4/20 2:01	MFF
Chlorodibromomethane	ND	0.00088	mg/Kg dry	1		SW-846 8260C-D	8/3/20	8/4/20 2:01	MFF
Chloroethane	ND	0.0088	mg/Kg dry	1		SW-846 8260C-D	8/3/20	8/4/20 2:01	MFF
Chloroform	ND	0.0035	mg/Kg dry	1		SW-846 8260C-D	8/3/20	8/4/20 2:01	MFF
Chloromethane	ND	0.0088	mg/Kg dry	1		SW-846 8260C-D	8/3/20	8/4/20 2:01	MFF
2-Chlorotoluene	ND	0.0018	mg/Kg dry	1		SW-846 8260C-D	8/3/20	8/4/20 2:01	MFF
4-Chlorotoluene	ND	0.0018	mg/Kg dry	1		SW-846 8260C-D	8/3/20	8/4/20 2:01	MFF
1,2-Dibromo-3-chloropropane (DBCP)	ND	0.0018	mg/Kg dry	1		SW-846 8260C-D	8/3/20	8/4/20 2:01	MFF
1,2-Dibromoethane (EDB)	ND	0.00088	mg/Kg dry	1		SW-846 8260C-D	8/3/20	8/4/20 2:01	MFF
Dibromomethane	ND	0.0018	mg/Kg dry	1		SW-846 8260C-D	8/3/20	8/4/20 2:01	MFF
1,2-Dichlorobenzene	ND	0.0018	mg/Kg dry	1		SW-846 8260C-D	8/3/20	8/4/20 2:01	MFF
1,3-Dichlorobenzene	ND	0.0018	mg/Kg dry	1		SW-846 8260C-D	8/3/20	8/4/20 2:01	MFF
1,4-Dichlorobenzene	ND	0.0018	mg/Kg dry	1		SW-846 8260C-D	8/3/20	8/4/20 2:01	MFF
Dichlorodifluoromethane (Freon 12)	ND	0.0088	mg/Kg dry	1		SW-846 8260C-D	8/3/20	8/4/20 2:01	MFF
1,1-Dichloroethane	ND	0.0018	mg/Kg dry	1		SW-846 8260C-D	8/3/20	8/4/20 2:01	MFF
1,2-Dichloroethane	ND	0.0018	mg/Kg dry	1		SW-846 8260C-D	8/3/20	8/4/20 2:01	MFF
1,1-Dichloroethylene	ND	0.0035	mg/Kg dry	1		SW-846 8260C-D	8/3/20	8/4/20 2:01	MFF
cis-1,2-Dichloroethylene	ND	0.0018	mg/Kg dry	1		SW-846 8260C-D	8/3/20	8/4/20 2:01	MFF
trans-1,2-Dichloroethylene	ND	0.0018	mg/Kg dry	1		SW-846 8260C-D	8/3/20	8/4/20 2:01	MFF
1,2-Dichloropropane	ND	0.0018	mg/Kg dry	1		SW-846 8260C-D	8/3/20	8/4/20 2:01	MFF
1,3-Dichloropropane	ND	0.00088	mg/Kg dry	1		SW-846 8260C-D	8/3/20	8/4/20 2:01	MFF
2,2-Dichloropropane	ND	0.0018	mg/Kg dry	1		SW-846 8260C-D	8/3/20	8/4/20 2:01	MFF
1,1-Dichloropropene	ND	0.0018	mg/Kg dry	1		SW-846 8260C-D	8/3/20	8/4/20 2:01	MFF
cis-1,3-Dichloropropene	ND	0.00088	mg/Kg dry	1		SW-846 8260C-D	8/3/20	8/4/20 2:01	MFF
trans-1,3-Dichloropropene	ND	0.00088	mg/Kg dry	1		SW-846 8260C-D	8/3/20	8/4/20 2:01	MFF
Diethyl Ether	ND	0.0088	mg/Kg dry	1		SW-846 8260C-D	8/3/20	8/4/20 2:01	MFF
Diisopropyl Ether (DIPE)	ND	0.00088	mg/Kg dry	1		SW-846 8260C-D	8/3/20	8/4/20 2:01	MFF
1,4-Dioxane	ND	0.088	mg/Kg dry	1	V-16	SW-846 8260C-D	8/3/20	8/4/20 2:01	MFF
Ethylbenzene	ND	0.0018	mg/Kg dry	1		SW-846 8260C-D	8/3/20	8/4/20 2:01	MFF

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39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

Project Location: Montello St & Petronelli Way, Bro Sample Description: Work Order: 20G1287

Date Received: 7/28/2020

Field Sample #: B-417 Comp 4-9', S-3

Sample ID: 20G1287-02 Start Date/Time: 7/28/2020 9:00:00AM

Sample Matrix: Soil Stop Date/Time: 7/28/2020 9:05:00AM

Volatile Organic Compounds by GC/MS

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Hexachlorobutadiene	ND	0.0018	mg/Kg dry	1		SW-846 8260C-D	8/3/20	8/4/20 2:01	MFF
2-Hexanone (MBK)	ND	0.018	mg/Kg dry	1		SW-846 8260C-D	8/3/20	8/4/20 2:01	MFF
Isopropylbenzene (Cumene)	ND	0.0018	mg/Kg dry	1		SW-846 8260C-D	8/3/20	8/4/20 2:01	MFF
p-Isopropyltoluene (p-Cymene)	ND	0.0018	mg/Kg dry	1		SW-846 8260C-D	8/3/20	8/4/20 2:01	MFF
Methyl tert-Butyl Ether (MTBE)	ND	0.0035	mg/Kg dry	1		SW-846 8260C-D	8/3/20	8/4/20 2:01	MFF
Methylene Chloride	ND	0.0088	mg/Kg dry	1		SW-846 8260C-D	8/3/20	8/4/20 2:01	MFF
4-Methyl-2-pentanone (MIBK)	ND	0.018	mg/Kg dry	1		SW-846 8260C-D	8/3/20	8/4/20 2:01	MFF
Naphthalene	ND	0.0035	mg/Kg dry	1	V-05	SW-846 8260C-D	8/3/20	8/4/20 2:01	MFF
n-Propylbenzene	ND	0.0018	mg/Kg dry	1		SW-846 8260C-D	8/3/20	8/4/20 2:01	MFF
Styrene	ND	0.0018	mg/Kg dry	1		SW-846 8260C-D	8/3/20	8/4/20 2:01	MFF
1,1,1,2-Tetrachloroethane	ND	0.0018	mg/Kg dry	1		SW-846 8260C-D	8/3/20	8/4/20 2:01	MFF
1,1,2,2-Tetrachloroethane	ND	0.00088	mg/Kg dry	1		SW-846 8260C-D	8/3/20	8/4/20 2:01	MFF
Tetrachloroethylene	ND	0.0018	mg/Kg dry	1		SW-846 8260C-D	8/3/20	8/4/20 2:01	MFF
Tetrahydrofuran	ND	0.0088	mg/Kg dry	1	V-16	SW-846 8260C-D	8/3/20	8/4/20 2:01	MFF
Toluene	ND	0.0018	mg/Kg dry	1		SW-846 8260C-D	8/3/20	8/4/20 2:01	MFF
1,2,3-Trichlorobenzene	ND	0.0018	mg/Kg dry	1		SW-846 8260C-D	8/3/20	8/4/20 2:01	MFF
1,2,4-Trichlorobenzene	ND	0.0018	mg/Kg dry	1		SW-846 8260C-D	8/3/20	8/4/20 2:01	MFF
1,1,1-Trichloroethane	ND	0.0018	mg/Kg dry	1		SW-846 8260C-D	8/3/20	8/4/20 2:01	MFF
1,1,2-Trichloroethane	ND	0.0018	mg/Kg dry	1		SW-846 8260C-D	8/3/20	8/4/20 2:01	MFF
Trichloroethylene	ND	0.0018	mg/Kg dry	1		SW-846 8260C-D	8/3/20	8/4/20 2:01	MFF
Trichlorofluoromethane (Freon 11)	ND	0.0088	mg/Kg dry	1		SW-846 8260C-D	8/3/20	8/4/20 2:01	MFF
1,2,3-Trichloropropane	ND	0.0018	mg/Kg dry	1		SW-846 8260C-D	8/3/20	8/4/20 2:01	MFF
1,2,4-Trimethylbenzene	ND	0.0018	mg/Kg dry	1		SW-846 8260C-D	8/3/20	8/4/20 2:01	MFF
1,3,5-Trimethylbenzene	ND	0.0018	mg/Kg dry	1		SW-846 8260C-D	8/3/20	8/4/20 2:01	MFF
Vinyl Chloride	ND	0.0088	mg/Kg dry	1		SW-846 8260C-D	8/3/20	8/4/20 2:01	MFF
m+p Xylene	ND	0.0035	mg/Kg dry	1		SW-846 8260C-D	8/3/20	8/4/20 2:01	MFF
o-Xylene	ND	0.0018	mg/Kg dry	1		SW-846 8260C-D	8/3/20	8/4/20 2:01	MFF

Surrogates	% Recovery	Recovery Limits	Flag/Qual	
1,2-Dichloroethane-d4	102	70-130		8/4/20 2:01
Toluene-d8	102	70-130		8/4/20 2:01
4-Bromofluorobenzene	102	70-130		8/4/20 2:01

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39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

Project Location: Montello St & Petronelli Way, Bro Sample Description: Work Order: 20G1287

Date Received: 7/28/2020

Field Sample #: B-417 Comp 4-9', S-3

Sample ID: 20G1287-02 Start Date/Time: 7/28/2020 9:00:00AM

Sample Matrix: Soil Stop Date/Time: 7/28/2020 9:05:00AM

Semivolatile Organic Compounds by GC/MS

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Acenaphthene	ND	0.19	mg/Kg dry	1		SW-846 8270D-E	8/4/20	8/6/20 23:03	IMR
Acenaphthylene	ND	0.19	mg/Kg dry	1		SW-846 8270D-E	8/4/20	8/6/20 23:03	IMR
Acetophenone	ND	0.38	mg/Kg dry	1		SW-846 8270D-E	8/4/20	8/6/20 23:03	IMR
Aniline	ND	0.38	mg/Kg dry	1	L-04, V-05	SW-846 8270D-E	8/4/20	8/6/20 23:03	IMR
Anthracene	ND	0.19	mg/Kg dry	1		SW-846 8270D-E	8/4/20	8/6/20 23:03	IMR
Benzo(a)anthracene	0.33	0.19	mg/Kg dry	1		SW-846 8270D-E	8/4/20	8/6/20 23:03	IMR
Benzo(a)pyrene	0.33	0.19	mg/Kg dry	1		SW-846 8270D-E	8/4/20	8/6/20 23:03	IMR
Benzo(b)fluoranthene	0.38	0.19	mg/Kg dry	1		SW-846 8270D-E	8/4/20	8/6/20 23:03	IMR
Benzo(g,h,i)perylene	ND	0.19	mg/Kg dry	1		SW-846 8270D-E	8/4/20	8/6/20 23:03	IMR
Benzo(k)fluoranthene	ND	0.19	mg/Kg dry	1		SW-846 8270D-E	8/4/20	8/6/20 23:03	IMR
Bis(2-chloroethoxy)methane	ND	0.38	mg/Kg dry	1		SW-846 8270D-E	8/4/20	8/6/20 23:03	IMR
Bis(2-chloroethyl)ether	ND	0.38	mg/Kg dry	1		SW-846 8270D-E	8/4/20	8/6/20 23:03	IMR
Bis(2-chloroisopropyl)ether	ND	0.38	mg/Kg dry	1		SW-846 8270D-E	8/4/20	8/6/20 23:03	IMR
Bis(2-Ethylhexyl)phthalate	ND	0.38	mg/Kg dry	1		SW-846 8270D-E	8/4/20	8/6/20 23:03	IMR
4-Bromophenylphenylether	ND	0.38	mg/Kg dry	1		SW-846 8270D-E	8/4/20	8/6/20 23:03	IMR
Butylbenzylphthalate	ND	0.38	mg/Kg dry	1		SW-846 8270D-E	8/4/20	8/6/20 23:03	IMR
4-Chloroaniline	ND	0.74	mg/Kg dry	1		SW-846 8270D-E	8/4/20	8/6/20 23:03	IMR
2-Chloronaphthalene	ND	0.38	mg/Kg dry	1		SW-846 8270D-E	8/4/20	8/6/20 23:03	IMR
2-Chlorophenol	ND	0.38	mg/Kg dry	1		SW-846 8270D-E	8/4/20	8/6/20 23:03	IMR
Chrysene	0.34	0.19	mg/Kg dry	1		SW-846 8270D-E	8/4/20	8/6/20 23:03	IMR
Dibenz(a,h)anthracene	ND	0.19	mg/Kg dry	1		SW-846 8270D-E	8/4/20	8/6/20 23:03	IMR
Dibenzofuran	ND	0.38	mg/Kg dry	1		SW-846 8270D-E	8/4/20	8/6/20 23:03	IMR
Di-n-butylphthalate	ND	0.38	mg/Kg dry	1		SW-846 8270D-E	8/4/20	8/6/20 23:03	IMR
1,2-Dichlorobenzene	ND	0.38	mg/Kg dry	1		SW-846 8270D-E	8/4/20	8/6/20 23:03	IMR
1,3-Dichlorobenzene	ND	0.38	mg/Kg dry	1		SW-846 8270D-E	8/4/20	8/6/20 23:03	IMR
1,4-Dichlorobenzene	ND	0.38	mg/Kg dry	1		SW-846 8270D-E	8/4/20	8/6/20 23:03	IMR
3,3-Dichlorobenzidine	ND	0.19	mg/Kg dry	1		SW-846 8270D-E	8/4/20	8/6/20 23:03	IMR
2,4-Dichlorophenol	ND	0.38	mg/Kg dry	1		SW-846 8270D-E	8/4/20	8/6/20 23:03	IMR
Diethylphthalate	ND	0.38	mg/Kg dry	1		SW-846 8270D-E	8/4/20	8/6/20 23:03	IMR
2,4-Dimethylphenol	ND	0.38	mg/Kg dry	1		SW-846 8270D-E	8/4/20	8/6/20 23:03	IMR
Dimethylphthalate	ND	0.38	mg/Kg dry	1		SW-846 8270D-E	8/4/20	8/6/20 23:03	IMR
2,4-Dinitrophenol	ND	0.74	mg/Kg dry	1		SW-846 8270D-E	8/4/20	8/6/20 23:03	IMR
2,4-Dinitrotoluene	ND	0.38	mg/Kg dry	1		SW-846 8270D-E	8/4/20	8/6/20 23:03	IMR
2,6-Dinitrotoluene	ND	0.38	mg/Kg dry	1		SW-846 8270D-E	8/4/20	8/6/20 23:03	IMR
Di-n-octylphthalate	ND	0.38	mg/Kg dry	1		SW-846 8270D-E	8/4/20	8/6/20 23:03	IMR
1,2-Diphenylhydrazine/Azobenzene	ND	0.38	mg/Kg dry	1		SW-846 8270D-E	8/4/20	8/6/20 23:03	IMR
Fluoranthene	0.49	0.19	mg/Kg dry	1		SW-846 8270D-E	8/4/20	8/6/20 23:03	IMR
Fluorene	ND	0.19	mg/Kg dry	1		SW-846 8270D-E	8/4/20	8/6/20 23:03	IMR
Hexachlorobenzene	ND	0.38	mg/Kg dry	1		SW-846 8270D-E	8/4/20	8/6/20 23:03	IMR
Hexachlorobutadiene	ND	0.38	mg/Kg dry	1		SW-846 8270D-E	8/4/20	8/6/20 23:03	IMR
Hexachloroethane	ND	0.38	mg/Kg dry	1		SW-846 8270D-E	8/4/20	8/6/20 23:03	IMR
Indeno(1,2,3-cd)pyrene	ND	0.19	mg/Kg dry	1		SW-846 8270D-E	8/4/20	8/6/20 23:03	IMR
Isophorone	ND	0.38	mg/Kg dry	1		SW-846 8270D-E	8/4/20	8/6/20 23:03	IMR
2-Methylnaphthalene	ND	0.19	mg/Kg dry	1		SW-846 8270D-E	8/4/20	8/6/20 23:03	IMR

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Project Location: Montello St & Petronelli Way, Bro Sample Description: Work Order: 20G1287

Date Received: 7/28/2020

Field Sample #: B-417 Comp 4-9', S-3

Sample ID: 20G1287-02 Start Date/Time: 7/28/2020 9:00:00AM

Sample Matrix: Soil Stop Date/Time: 7/28/2020 9:05:00AM

Semivolatile Organic Compounds by GC/MS

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
2-Methylphenol	ND	0.38	mg/Kg dry	1		SW-846 8270D-E	8/4/20	8/6/20 23:03	IMR
3/4-Methylphenol	ND	0.38	mg/Kg dry	1		SW-846 8270D-E	8/4/20	8/6/20 23:03	IMR
Naphthalene	ND	0.19	mg/Kg dry	1		SW-846 8270D-E	8/4/20	8/6/20 23:03	IMR
Nitrobenzene	ND	0.38	mg/Kg dry	1		SW-846 8270D-E	8/4/20	8/6/20 23:03	IMR
2-Nitrophenol	ND	0.38	mg/Kg dry	1		SW-846 8270D-E	8/4/20	8/6/20 23:03	IMR
4-Nitrophenol	ND	0.74	mg/Kg dry	1		SW-846 8270D-E	8/4/20	8/6/20 23:03	IMR
Pentachlorophenol	ND	0.38	mg/Kg dry	1		SW-846 8270D-E	8/4/20	8/6/20 23:03	IMR
Phenanthrene	0.29	0.19	mg/Kg dry	1		SW-846 8270D-E	8/4/20	8/6/20 23:03	IMR
Phenol	ND	0.38	mg/Kg dry	1		SW-846 8270D-E	8/4/20	8/6/20 23:03	IMR
Pyrene	0.68	0.19	mg/Kg dry	1		SW-846 8270D-E	8/4/20	8/6/20 23:03	IMR
1,2,4-Trichlorobenzene	ND	0.38	mg/Kg dry	1		SW-846 8270D-E	8/4/20	8/6/20 23:03	IMR
2,4,5-Trichlorophenol	ND	0.38	mg/Kg dry	1		SW-846 8270D-E	8/4/20	8/6/20 23:03	IMR
2,4,6-Trichlorophenol	ND	0.38	mg/Kg dry	1		SW-846 8270D-E	8/4/20	8/6/20 23:03	IMR

Surrogates	% Recovery	Recovery Limits	Flag/Qual	
2-Fluorophenol	46.9	30-130		8/6/20 23:03
Phenol-d6	49.6	30-130		8/6/20 23:03
Nitrobenzene-d5	47.1	30-130		8/6/20 23:03
2-Fluorobiphenyl	50.8	30-130		8/6/20 23:03
2,4,6-Tribromophenol	47.3	30-130		8/6/20 23:03
p-Terphenyl-d14	64.1	30-130		8/6/20 23:03

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Project Location: Montello St & Petronelli Way, Bro Sample Description: Work Order: 20G1287

Date Received: 7/28/2020

Field Sample #: B-417 Comp 4-9', S-3

Sample ID: 20G1287-02 Start Date/Time: 7/28/2020 9:00:00AM

Sample Matrix: Soil Stop Date/Time: 7/28/2020 9:05:00AM

Sample Flags: O-32

Polychlorinated Biphenyls By GC/ECD

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Aroclor-1016 [1]	ND	0.091	mg/Kg dry	4		SW-846 8082A	8/6/20	8/8/20 11:56	JMB
Aroclor-1221 [1]	ND	0.091	mg/Kg dry	4		SW-846 8082A	8/6/20	8/8/20 11:56	JMB
Aroclor-1232 [1]	ND	0.091	mg/Kg dry	4		SW-846 8082A	8/6/20	8/8/20 11:56	JMB
Aroclor-1242 [1]	ND	0.091	mg/Kg dry	4		SW-846 8082A	8/6/20	8/8/20 11:56	JMB
Aroclor-1248 [1]	ND	0.091	mg/Kg dry	4		SW-846 8082A	8/6/20	8/8/20 11:56	JMB
Aroclor-1254 [1]	ND	0.091	mg/Kg dry	4		SW-846 8082A	8/6/20	8/8/20 11:56	JMB
Aroclor-1260 [1]	ND	0.091	mg/Kg dry	4		SW-846 8082A	8/6/20	8/8/20 11:56	JMB
Aroclor-1262 [1]	ND	0.091	mg/Kg dry	4		SW-846 8082A	8/6/20	8/8/20 11:56	JMB
Aroclor-1268 [1]	ND	0.091	mg/Kg dry	4		SW-846 8082A	8/6/20	8/8/20 11:56	JMB

Surrogates	% Recovery	Recovery Limits	Flag/Qual	
Decachlorobiphenyl [1]	98.3	30-150		8/8/20 11:56
Decachlorobiphenyl [2]	92.2	30-150		8/8/20 11:56
Tetrachloro-m-xylene [1]	97.8	30-150		8/8/20 11:56
Tetrachloro-m-xylene [2]	85.2	30-150		8/8/20 11:56

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Project Location: Montello St & Petronelli Way, Bro Sample Description: Work Order: 20G1287

Date Received: 7/28/2020

Field Sample #: B-417 Comp 4-9', S-3

Sample ID: 20G1287-02 Start Date/Time: 7/28/2020 9:00:00AM

Sample Matrix: Soil Stop Date/Time: 7/28/2020 9:05:00AM

Petroleum Hydrocarbons Analyses

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
TPH (C9-C36)	180	47	mg/Kg dry	5		SW-846 8100 Modified	8/4/20	8/8/20 11:20	RDD

Surrogates	% Recovery	Recovery Limits	Flag/Qual				
2-Fluorobiphenyl	51.4	40-140					8/8/20 11:20

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Date Received: 7/28/2020

Field Sample #: B-417 Comp 4-9', S-3

Sample ID: 20G1287-02 Start Date/Time: 7/28/2020 9:00:00AM

Sample Matrix: Soil Stop Date/Time: 7/28/2020 9:05:00AM

Metals Analyses (Total)

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Arsenic	ND	3.8	mg/Kg dry	1		SW-846 6010D	8/3/20	8/4/20 19:11	TBC
Barium	280	1.9	mg/Kg dry	1		SW-846 6010D	8/3/20	8/4/20 19:11	TBC
Cadmium	ND	0.38	mg/Kg dry	1		SW-846 6010D	8/3/20	8/4/20 19:11	TBC
Chromium	18	0.76	mg/Kg dry	1		SW-846 6010D	8/3/20	8/4/20 19:11	TBC
Lead	150	0.57	mg/Kg dry	1		SW-846 6010D	8/3/20	8/4/20 19:11	TBC
Mercury	0.089	0.028	mg/Kg dry	1		SW-846 7471B	8/3/20	8/5/20 10:17	CJV
Selenium	ND	3.8	mg/Kg dry	1		SW-846 6010D	8/3/20	8/4/20 19:11	TBC
Silver	ND	0.38	mg/Kg dry	1		SW-846 6010D	8/3/20	8/4/20 19:11	TBC

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Project Location: Montello St & Petronelli Way, Bro Sample Description: Work Order: 20G1287

Date Received: 7/28/2020

Field Sample #: B-417 Comp 4-9', S-3

Sample ID: 20G1287-02 Start Date/Time: 7/28/2020 9:00:00AM

Sample Matrix: Soil Stop Date/Time: 7/28/2020 9:05:00AM

Conventional Chemistry Parameters by EPA/APHA/SW-846 Methods (Total)

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
% Solids	88.3		% Wt	1		SM 2540G	8/5/20	8/6/20 9:37	JDN
Ignitability	Absent		present/absent	1		SW-846 1030	8/5/20	8/5/20 23:50	AWA
pH @20.5°C	8.9		pH Units	1		SW-846 9045C	7/28/20	7/28/20 21:15	AWA
Reactive Cyanide	ND	4.0	mg/Kg	1		SW-846 9014	8/4/20	8/5/20 21:05	EC
Reactive Sulfide	ND	20	mg/Kg	1		SW-846 9030A	8/4/20	8/5/20 20:00	EC
Specific conductance	45	2.0	µmhos/cm	1		SM21-22 2510B Modified	8/4/20	8/4/20 18:30	EC

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Project Location: Montello St & Petronelli Way, Bro Sample Description: Work Order: 20G1287

Date Received: 7/28/2020

Field Sample #: B-411 Comp 4-8' Sampled: 7/28/2020 16:00

Sample ID: 20G1287-03

Sample Matrix: Soil

Petroleum Hydrocarbons Analyses - EPH

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
C9-C18 Aliphatics	13	12	mg/Kg dry	1		MADEP EPH rev 2.1	8/3/20	8/6/20 11:07	RDD
C19-C36 Aliphatics	80	12	mg/Kg dry	1		MADEP EPH rev 2.1	8/3/20	8/6/20 11:07	RDD
Unadjusted C11-C22 Aromatics	550	24	mg/Kg dry	2		MADEP EPH rev 2.1	8/3/20	8/6/20 13:22	RDD
C11-C22 Aromatics	350	24	mg/Kg dry	2		MADEP EPH rev 2.1	8/3/20	8/6/20 13:22	RDD

Surrogates	% Recovery	Recovery Limits	Flag/Qual	
Chlorooctadecane (COD)	70.7	40-140		8/6/20 11:07
o-Terphenyl (OTP)	104	40-140		8/6/20 11:07
o-Terphenyl (OTP)	88.9	40-140		8/6/20 13:22
2-Bromonaphthalene	128	40-140		8/6/20 11:07
2-Fluorobiphenyl	128	40-140		8/6/20 11:07

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Project Location: Montello St & Petronelli Way, Bro Sample Description: Work Order: 20G1287

Date Received: 7/28/2020

Field Sample #: B-411 Comp 4-8' Sampled: 7/28/2020 16:00

Sample ID: 20G1287-03

Sample Matrix: Soil

Conventional Chemistry Parameters by EPA/APHA/SW-846 Methods (Total)

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
% Solids	84.3		% Wt	1		SM 2540G	8/5/20	8/6/20 9:37	JDN

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Project Location: Montello St & Petronelli Way, Bro Sample Description: Work Order: 20G1287

Date Received: 7/28/2020

Field Sample #: B-410 Comp 0-4', S-1

Sample ID: 20G1287-04 Start Date/Time: 7/28/2020 10:35:00AM

Sample Matrix: Soil Stop Date/Time: 7/28/2020 10:40:00AM

Volatile Organic Compounds by GC/MS

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Acetone	ND	0.10	mg/Kg dry	1		SW-846 8260C-D	8/3/20	8/4/20 2:28	MFF
tert-Amyl Methyl Ether (TAME)	ND	0.0010	mg/Kg dry	1		SW-846 8260C-D	8/3/20	8/4/20 2:28	MFF
Benzene	ND	0.0021	mg/Kg dry	1		SW-846 8260C-D	8/3/20	8/4/20 2:28	MFF
Bromobenzene	ND	0.0021	mg/Kg dry	1		SW-846 8260C-D	8/3/20	8/4/20 2:28	MFF
Bromochloromethane	ND	0.0021	mg/Kg dry	1		SW-846 8260C-D	8/3/20	8/4/20 2:28	MFF
Bromodichloromethane	ND	0.0021	mg/Kg dry	1		SW-846 8260C-D	8/3/20	8/4/20 2:28	MFF
Bromoform	ND	0.0021	mg/Kg dry	1		SW-846 8260C-D	8/3/20	8/4/20 2:28	MFF
Bromomethane	ND	0.010	mg/Kg dry	1	V-34	SW-846 8260C-D	8/3/20	8/4/20 2:28	MFF
2-Butanone (MEK)	ND	0.042	mg/Kg dry	1		SW-846 8260C-D	8/3/20	8/4/20 2:28	MFF
n-Butylbenzene	ND	0.0021	mg/Kg dry	1		SW-846 8260C-D	8/3/20	8/4/20 2:28	MFF
sec-Butylbenzene	ND	0.0021	mg/Kg dry	1		SW-846 8260C-D	8/3/20	8/4/20 2:28	MFF
tert-Butylbenzene	ND	0.0021	mg/Kg dry	1		SW-846 8260C-D	8/3/20	8/4/20 2:28	MFF
tert-Butyl Ethyl Ether (TBEE)	ND	0.0010	mg/Kg dry	1		SW-846 8260C-D	8/3/20	8/4/20 2:28	MFF
Carbon Disulfide	ND	0.0063	mg/Kg dry	1		SW-846 8260C-D	8/3/20	8/4/20 2:28	MFF
Carbon Tetrachloride	ND	0.0021	mg/Kg dry	1		SW-846 8260C-D	8/3/20	8/4/20 2:28	MFF
Chlorobenzene	ND	0.0021	mg/Kg dry	1		SW-846 8260C-D	8/3/20	8/4/20 2:28	MFF
Chlorodibromomethane	ND	0.0010	mg/Kg dry	1		SW-846 8260C-D	8/3/20	8/4/20 2:28	MFF
Chloroethane	ND	0.010	mg/Kg dry	1		SW-846 8260C-D	8/3/20	8/4/20 2:28	MFF
Chloroform	ND	0.0042	mg/Kg dry	1		SW-846 8260C-D	8/3/20	8/4/20 2:28	MFF
Chloromethane	ND	0.010	mg/Kg dry	1		SW-846 8260C-D	8/3/20	8/4/20 2:28	MFF
2-Chlorotoluene	ND	0.0021	mg/Kg dry	1		SW-846 8260C-D	8/3/20	8/4/20 2:28	MFF
4-Chlorotoluene	ND	0.0021	mg/Kg dry	1		SW-846 8260C-D	8/3/20	8/4/20 2:28	MFF
1,2-Dibromo-3-chloropropane (DBCP)	ND	0.0021	mg/Kg dry	1		SW-846 8260C-D	8/3/20	8/4/20 2:28	MFF
1,2-Dibromoethane (EDB)	ND	0.0010	mg/Kg dry	1		SW-846 8260C-D	8/3/20	8/4/20 2:28	MFF
Dibromomethane	ND	0.0021	mg/Kg dry	1		SW-846 8260C-D	8/3/20	8/4/20 2:28	MFF
1,2-Dichlorobenzene	ND	0.0021	mg/Kg dry	1		SW-846 8260C-D	8/3/20	8/4/20 2:28	MFF
1,3-Dichlorobenzene	ND	0.0021	mg/Kg dry	1		SW-846 8260C-D	8/3/20	8/4/20 2:28	MFF
1,4-Dichlorobenzene	ND	0.0021	mg/Kg dry	1		SW-846 8260C-D	8/3/20	8/4/20 2:28	MFF
Dichlorodifluoromethane (Freon 12)	ND	0.010	mg/Kg dry	1		SW-846 8260C-D	8/3/20	8/4/20 2:28	MFF
1,1-Dichloroethane	ND	0.0021	mg/Kg dry	1		SW-846 8260C-D	8/3/20	8/4/20 2:28	MFF
1,2-Dichloroethane	ND	0.0021	mg/Kg dry	1		SW-846 8260C-D	8/3/20	8/4/20 2:28	MFF
1,1-Dichloroethylene	ND	0.0042	mg/Kg dry	1		SW-846 8260C-D	8/3/20	8/4/20 2:28	MFF
cis-1,2-Dichloroethylene	ND	0.0021	mg/Kg dry	1		SW-846 8260C-D	8/3/20	8/4/20 2:28	MFF
trans-1,2-Dichloroethylene	ND	0.0021	mg/Kg dry	1		SW-846 8260C-D	8/3/20	8/4/20 2:28	MFF
1,2-Dichloropropane	ND	0.0021	mg/Kg dry	1		SW-846 8260C-D	8/3/20	8/4/20 2:28	MFF
1,3-Dichloropropane	ND	0.0010	mg/Kg dry	1		SW-846 8260C-D	8/3/20	8/4/20 2:28	MFF
2,2-Dichloropropane	ND	0.0021	mg/Kg dry	1		SW-846 8260C-D	8/3/20	8/4/20 2:28	MFF
1,1-Dichloropropene	ND	0.0021	mg/Kg dry	1		SW-846 8260C-D	8/3/20	8/4/20 2:28	MFF
cis-1,3-Dichloropropene	ND	0.0010	mg/Kg dry	1		SW-846 8260C-D	8/3/20	8/4/20 2:28	MFF
trans-1,3-Dichloropropene	ND	0.0010	mg/Kg dry	1		SW-846 8260C-D	8/3/20	8/4/20 2:28	MFF
Diethyl Ether	ND	0.010	mg/Kg dry	1		SW-846 8260C-D	8/3/20	8/4/20 2:28	MFF
Diisopropyl Ether (DIPE)	ND	0.0010	mg/Kg dry	1		SW-846 8260C-D	8/3/20	8/4/20 2:28	MFF
1,4-Dioxane	ND	0.10	mg/Kg dry	1	V-16	SW-846 8260C-D	8/3/20	8/4/20 2:28	MFF
Ethylbenzene	ND	0.0021	mg/Kg dry	1		SW-846 8260C-D	8/3/20	8/4/20 2:28	MFF

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Project Location: Montello St & Petronelli Way, Bro Sample Description: Work Order: 20G1287

Date Received: 7/28/2020

Field Sample #: B-410 Comp 0-4', S-1

Sample ID: 20G1287-04 Start Date/Time: 7/28/2020 10:35:00AM

Sample Matrix: Soil Stop Date/Time: 7/28/2020 10:40:00AM

Volatile Organic Compounds by GC/MS

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Hexachlorobutadiene	ND	0.0021	mg/Kg dry	1		SW-846 8260C-D	8/3/20	8/4/20 2:28	MFF
2-Hexanone (MBK)	ND	0.021	mg/Kg dry	1		SW-846 8260C-D	8/3/20	8/4/20 2:28	MFF
Isopropylbenzene (Cumene)	ND	0.0021	mg/Kg dry	1		SW-846 8260C-D	8/3/20	8/4/20 2:28	MFF
p-Isopropyltoluene (p-Cymene)	ND	0.0021	mg/Kg dry	1		SW-846 8260C-D	8/3/20	8/4/20 2:28	MFF
Methyl tert-Butyl Ether (MTBE)	ND	0.0042	mg/Kg dry	1		SW-846 8260C-D	8/3/20	8/4/20 2:28	MFF
Methylene Chloride	ND	0.010	mg/Kg dry	1		SW-846 8260C-D	8/3/20	8/4/20 2:28	MFF
4-Methyl-2-pentanone (MIBK)	ND	0.021	mg/Kg dry	1		SW-846 8260C-D	8/3/20	8/4/20 2:28	MFF
Naphthalene	ND	0.0042	mg/Kg dry	1	V-05	SW-846 8260C-D	8/3/20	8/4/20 2:28	MFF
n-Propylbenzene	ND	0.0021	mg/Kg dry	1		SW-846 8260C-D	8/3/20	8/4/20 2:28	MFF
Styrene	ND	0.0021	mg/Kg dry	1		SW-846 8260C-D	8/3/20	8/4/20 2:28	MFF
1,1,1,2-Tetrachloroethane	ND	0.0021	mg/Kg dry	1		SW-846 8260C-D	8/3/20	8/4/20 2:28	MFF
1,1,2,2-Tetrachloroethane	ND	0.0010	mg/Kg dry	1		SW-846 8260C-D	8/3/20	8/4/20 2:28	MFF
Tetrachloroethylene	ND	0.0021	mg/Kg dry	1		SW-846 8260C-D	8/3/20	8/4/20 2:28	MFF
Tetrahydrofuran	ND	0.010	mg/Kg dry	1	V-16	SW-846 8260C-D	8/3/20	8/4/20 2:28	MFF
Toluene	ND	0.0021	mg/Kg dry	1		SW-846 8260C-D	8/3/20	8/4/20 2:28	MFF
1,2,3-Trichlorobenzene	ND	0.0021	mg/Kg dry	1		SW-846 8260C-D	8/3/20	8/4/20 2:28	MFF
1,2,4-Trichlorobenzene	ND	0.0021	mg/Kg dry	1		SW-846 8260C-D	8/3/20	8/4/20 2:28	MFF
1,1,1-Trichloroethane	ND	0.0021	mg/Kg dry	1		SW-846 8260C-D	8/3/20	8/4/20 2:28	MFF
1,1,2-Trichloroethane	ND	0.0021	mg/Kg dry	1		SW-846 8260C-D	8/3/20	8/4/20 2:28	MFF
Trichloroethylene	ND	0.0021	mg/Kg dry	1		SW-846 8260C-D	8/3/20	8/4/20 2:28	MFF
Trichlorofluoromethane (Freon 11)	ND	0.010	mg/Kg dry	1		SW-846 8260C-D	8/3/20	8/4/20 2:28	MFF
1,2,3-Trichloropropane	ND	0.0021	mg/Kg dry	1		SW-846 8260C-D	8/3/20	8/4/20 2:28	MFF
1,2,4-Trimethylbenzene	ND	0.0021	mg/Kg dry	1		SW-846 8260C-D	8/3/20	8/4/20 2:28	MFF
1,3,5-Trimethylbenzene	ND	0.0021	mg/Kg dry	1		SW-846 8260C-D	8/3/20	8/4/20 2:28	MFF
Vinyl Chloride	ND	0.010	mg/Kg dry	1		SW-846 8260C-D	8/3/20	8/4/20 2:28	MFF
m+p Xylene	ND	0.0042	mg/Kg dry	1		SW-846 8260C-D	8/3/20	8/4/20 2:28	MFF
o-Xylene	ND	0.0021	mg/Kg dry	1		SW-846 8260C-D	8/3/20	8/4/20 2:28	MFF

Surrogates	% Recovery	Recovery Limits	Flag/Qual	
1,2-Dichloroethane-d4	102	70-130		8/4/20 2:28
Toluene-d8	104	70-130		8/4/20 2:28
4-Bromofluorobenzene	98.3	70-130		8/4/20 2:28

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Project Location: Montello St & Petronelli Way, Bro Sample Description: Work Order: 20G1287

Date Received: 7/28/2020

Field Sample #: B-410 Comp 0-4', S-1

Sample ID: 20G1287-04 Start Date/Time: 7/28/2020 10:35:00AM

Sample Matrix: Soil Stop Date/Time: 7/28/2020 10:40:00AM

Semivolatile Organic Compounds by GC/MS

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Acenaphthene	0.18	0.18	mg/Kg dry	1		SW-846 8270D-E	8/4/20	8/6/20 23:27	IMR
Acenaphthylene	0.26	0.18	mg/Kg dry	1		SW-846 8270D-E	8/4/20	8/6/20 23:27	IMR
Acetophenone	ND	0.36	mg/Kg dry	1		SW-846 8270D-E	8/4/20	8/6/20 23:27	IMR
Aniline	ND	0.36	mg/Kg dry	1	L-04, V-05	SW-846 8270D-E	8/4/20	8/6/20 23:27	IMR
Anthracene	0.56	0.18	mg/Kg dry	1		SW-846 8270D-E	8/4/20	8/6/20 23:27	IMR
Benzo(a)anthracene	2.4	0.18	mg/Kg dry	1		SW-846 8270D-E	8/4/20	8/6/20 23:27	IMR
Benzo(a)pyrene	2.2	0.18	mg/Kg dry	1		SW-846 8270D-E	8/4/20	8/6/20 23:27	IMR
Benzo(b)fluoranthene	2.4	0.18	mg/Kg dry	1		SW-846 8270D-E	8/4/20	8/6/20 23:27	IMR
Benzo(g,h,i)perylene	0.84	0.18	mg/Kg dry	1		SW-846 8270D-E	8/4/20	8/6/20 23:27	IMR
Benzo(k)fluoranthene	1.0	0.18	mg/Kg dry	1		SW-846 8270D-E	8/4/20	8/6/20 23:27	IMR
Bis(2-chloroethoxy)methane	ND	0.36	mg/Kg dry	1		SW-846 8270D-E	8/4/20	8/6/20 23:27	IMR
Bis(2-chloroethyl)ether	ND	0.36	mg/Kg dry	1		SW-846 8270D-E	8/4/20	8/6/20 23:27	IMR
Bis(2-chloroisopropyl)ether	ND	0.36	mg/Kg dry	1		SW-846 8270D-E	8/4/20	8/6/20 23:27	IMR
Bis(2-Ethylhexyl)phthalate	ND	0.36	mg/Kg dry	1		SW-846 8270D-E	8/4/20	8/6/20 23:27	IMR
4-Bromophenylphenylether	ND	0.36	mg/Kg dry	1		SW-846 8270D-E	8/4/20	8/6/20 23:27	IMR
Butylbenzylphthalate	ND	0.36	mg/Kg dry	1		SW-846 8270D-E	8/4/20	8/6/20 23:27	IMR
4-Chloroaniline	ND	0.70	mg/Kg dry	1		SW-846 8270D-E	8/4/20	8/6/20 23:27	IMR
2-Chloronaphthalene	ND	0.36	mg/Kg dry	1		SW-846 8270D-E	8/4/20	8/6/20 23:27	IMR
2-Chlorophenol	ND	0.36	mg/Kg dry	1		SW-846 8270D-E	8/4/20	8/6/20 23:27	IMR
Chrysene	2.5	0.18	mg/Kg dry	1		SW-846 8270D-E	8/4/20	8/6/20 23:27	IMR
Dibenz(a,h)anthracene	0.25	0.18	mg/Kg dry	1		SW-846 8270D-E	8/4/20	8/6/20 23:27	IMR
Dibenzofuran	ND	0.36	mg/Kg dry	1		SW-846 8270D-E	8/4/20	8/6/20 23:27	IMR
Di-n-butylphthalate	ND	0.36	mg/Kg dry	1		SW-846 8270D-E	8/4/20	8/6/20 23:27	IMR
1,2-Dichlorobenzene	ND	0.36	mg/Kg dry	1		SW-846 8270D-E	8/4/20	8/6/20 23:27	IMR
1,3-Dichlorobenzene	ND	0.36	mg/Kg dry	1		SW-846 8270D-E	8/4/20	8/6/20 23:27	IMR
1,4-Dichlorobenzene	ND	0.36	mg/Kg dry	1		SW-846 8270D-E	8/4/20	8/6/20 23:27	IMR
3,3-Dichlorobenzidine	ND	0.18	mg/Kg dry	1		SW-846 8270D-E	8/4/20	8/6/20 23:27	IMR
2,4-Dichlorophenol	ND	0.36	mg/Kg dry	1		SW-846 8270D-E	8/4/20	8/6/20 23:27	IMR
Diethylphthalate	ND	0.36	mg/Kg dry	1		SW-846 8270D-E	8/4/20	8/6/20 23:27	IMR
2,4-Dimethylphenol	ND	0.36	mg/Kg dry	1		SW-846 8270D-E	8/4/20	8/6/20 23:27	IMR
Dimethylphthalate	ND	0.36	mg/Kg dry	1		SW-846 8270D-E	8/4/20	8/6/20 23:27	IMR
2,4-Dinitrophenol	ND	0.70	mg/Kg dry	1		SW-846 8270D-E	8/4/20	8/6/20 23:27	IMR
2,4-Dinitrotoluene	ND	0.36	mg/Kg dry	1		SW-846 8270D-E	8/4/20	8/6/20 23:27	IMR
2,6-Dinitrotoluene	ND	0.36	mg/Kg dry	1		SW-846 8270D-E	8/4/20	8/6/20 23:27	IMR
Di-n-octylphthalate	ND	0.36	mg/Kg dry	1		SW-846 8270D-E	8/4/20	8/6/20 23:27	IMR
1,2-Diphenylhydrazine/Azobenzene	ND	0.36	mg/Kg dry	1		SW-846 8270D-E	8/4/20	8/6/20 23:27	IMR
Fluoranthene	3.6	0.18	mg/Kg dry	1		SW-846 8270D-E	8/4/20	8/6/20 23:27	IMR
Fluorene	0.22	0.18	mg/Kg dry	1		SW-846 8270D-E	8/4/20	8/6/20 23:27	IMR
Hexachlorobenzene	ND	0.36	mg/Kg dry	1		SW-846 8270D-E	8/4/20	8/6/20 23:27	IMR
Hexachlorobutadiene	ND	0.36	mg/Kg dry	1		SW-846 8270D-E	8/4/20	8/6/20 23:27	IMR
Hexachloroethane	ND	0.36	mg/Kg dry	1		SW-846 8270D-E	8/4/20	8/6/20 23:27	IMR
Indeno(1,2,3-cd)pyrene	0.98	0.18	mg/Kg dry	1		SW-846 8270D-E	8/4/20	8/6/20 23:27	IMR
Isophorone	ND	0.36	mg/Kg dry	1		SW-846 8270D-E	8/4/20	8/6/20 23:27	IMR
2-Methylnaphthalene	ND	0.18	mg/Kg dry	1		SW-846 8270D-E	8/4/20	8/6/20 23:27	IMR

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Project Location: Montello St & Petronelli Way, Bro Sample Description: Work Order: 20G1287

Date Received: 7/28/2020

Field Sample #: B-410 Comp 0-4', S-1

Sample ID: 20G1287-04 Start Date/Time: 7/28/2020 10:35:00AM

Sample Matrix: Soil Stop Date/Time: 7/28/2020 10:40:00AM

Semivolatile Organic Compounds by GC/MS

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
2-Methylphenol	ND	0.36	mg/Kg dry	1		SW-846 8270D-E	8/4/20	8/6/20 23:27	IMR
3/4-Methylphenol	ND	0.36	mg/Kg dry	1		SW-846 8270D-E	8/4/20	8/6/20 23:27	IMR
Naphthalene	ND	0.18	mg/Kg dry	1		SW-846 8270D-E	8/4/20	8/6/20 23:27	IMR
Nitrobenzene	ND	0.36	mg/Kg dry	1		SW-846 8270D-E	8/4/20	8/6/20 23:27	IMR
2-Nitrophenol	ND	0.36	mg/Kg dry	1		SW-846 8270D-E	8/4/20	8/6/20 23:27	IMR
4-Nitrophenol	ND	0.70	mg/Kg dry	1		SW-846 8270D-E	8/4/20	8/6/20 23:27	IMR
Pentachlorophenol	ND	0.36	mg/Kg dry	1		SW-846 8270D-E	8/4/20	8/6/20 23:27	IMR
Phenanthrene	3.1	0.18	mg/Kg dry	1		SW-846 8270D-E	8/4/20	8/6/20 23:27	IMR
Phenol	ND	0.36	mg/Kg dry	1		SW-846 8270D-E	8/4/20	8/6/20 23:27	IMR
Pyrene	5.6	0.72	mg/Kg dry	4		SW-846 8270D-E	8/4/20	8/7/20 10:44	IMR
1,2,4-Trichlorobenzene	ND	0.36	mg/Kg dry	1		SW-846 8270D-E	8/4/20	8/6/20 23:27	IMR
2,4,5-Trichlorophenol	ND	0.36	mg/Kg dry	1		SW-846 8270D-E	8/4/20	8/6/20 23:27	IMR
2,4,6-Trichlorophenol	ND	0.36	mg/Kg dry	1		SW-846 8270D-E	8/4/20	8/6/20 23:27	IMR

Surrogates	% Recovery	Recovery Limits	Flag/Qual	
2-Fluorophenol	48.8	30-130		8/6/20 23:27
2-Fluorophenol	55.0	30-130		8/7/20 10:44
Phenol-d6	51.7	30-130		8/6/20 23:27
Phenol-d6	59.4	30-130		8/7/20 10:44
Nitrobenzene-d5	48.5	30-130		8/6/20 23:27
Nitrobenzene-d5	54.2	30-130		8/7/20 10:44
2-Fluorobiphenyl	55.8	30-130		8/6/20 23:27
2-Fluorobiphenyl	58.4	30-130		8/7/20 10:44
2,4,6-Tribromophenol	47.8	30-130		8/6/20 23:27
2,4,6-Tribromophenol	49.5	30-130		8/7/20 10:44
p-Terphenyl-d14	62.8	30-130		8/6/20 23:27
p-Terphenyl-d14	65.3	30-130		8/7/20 10:44

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Project Location: Montello St & Petronelli Way, Bro Sample Description: Work Order: 20G1287

Date Received: 7/28/2020

Field Sample #: B-410 Comp 0-4', S-1

Sample ID: 20G1287-04 Start Date/Time: 7/28/2020 10:35:00AM

Sample Matrix: Soil Stop Date/Time: 7/28/2020 10:40:00AM

Sample Flags: O-32

Polychlorinated Biphenyls By GC/ECD

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Aroclor-1016 [1]	ND	0.084	mg/Kg dry	4		SW-846 8082A	8/6/20	8/8/20 12:13	JMB
Aroclor-1221 [1]	ND	0.084	mg/Kg dry	4		SW-846 8082A	8/6/20	8/8/20 12:13	JMB
Aroclor-1232 [1]	ND	0.084	mg/Kg dry	4		SW-846 8082A	8/6/20	8/8/20 12:13	JMB
Aroclor-1242 [1]	ND	0.084	mg/Kg dry	4		SW-846 8082A	8/6/20	8/8/20 12:13	JMB
Aroclor-1248 [1]	ND	0.084	mg/Kg dry	4		SW-846 8082A	8/6/20	8/8/20 12:13	JMB
Aroclor-1254 [1]	ND	0.084	mg/Kg dry	4		SW-846 8082A	8/6/20	8/8/20 12:13	JMB
Aroclor-1260 [1]	ND	0.084	mg/Kg dry	4		SW-846 8082A	8/6/20	8/8/20 12:13	JMB
Aroclor-1262 [1]	ND	0.084	mg/Kg dry	4		SW-846 8082A	8/6/20	8/8/20 12:13	JMB
Aroclor-1268 [1]	ND	0.084	mg/Kg dry	4		SW-846 8082A	8/6/20	8/8/20 12:13	JMB

Surrogates	% Recovery	Recovery Limits	Flag/Qual	
Decachlorobiphenyl [1]	84.2	30-150		8/8/20 12:13
Decachlorobiphenyl [2]	84.4	30-150		8/8/20 12:13
Tetrachloro-m-xylene [1]	87.0	30-150		8/8/20 12:13
Tetrachloro-m-xylene [2]	74.7	30-150		8/8/20 12:13

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Date Received: 7/28/2020

Field Sample #: B-410 Comp 0-4', S-1

Sample ID: 20G1287-04 Start Date/Time: 7/28/2020 10:35:00AM

Sample Matrix: Soil Stop Date/Time: 7/28/2020 10:40:00AM

Petroleum Hydrocarbons Analyses

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
TPH (C9-C36)	660	88	mg/Kg dry	10		SW-846 8100 Modified	8/4/20	8/8/20 11:41	RDD

Surrogates	% Recovery	Recovery Limits	Flag/Qual	
2-Fluorobiphenyl	52.0	40-140		8/8/20 11:41

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Project Location: Montello St & Petronelli Way, Bro Sample Description: Work Order: 20G1287

Date Received: 7/28/2020

Field Sample #: B-410 Comp 0-4', S-1

Sample ID: 20G1287-04 Start Date/Time: 7/28/2020 10:35:00AM

Sample Matrix: Soil Stop Date/Time: 7/28/2020 10:40:00AM

Metals Analyses (Total)

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Arsenic	10	3.6	mg/Kg dry	1		SW-846 6010D	8/3/20	8/4/20 19:15	TBC
Barium	53	1.8	mg/Kg dry	1		SW-846 6010D	8/3/20	8/4/20 19:15	TBC
Cadmium	0.50	0.36	mg/Kg dry	1		SW-846 6010D	8/3/20	8/4/20 19:15	TBC
Chromium	18	0.71	mg/Kg dry	1		SW-846 6010D	8/3/20	8/4/20 19:15	TBC
Lead	83	0.54	mg/Kg dry	1		SW-846 6010D	8/3/20	8/4/20 19:15	TBC
Mercury	0.15	0.027	mg/Kg dry	1		SW-846 7471B	8/3/20	8/5/20 10:19	CJV
Selenium	ND	3.6	mg/Kg dry	1		SW-846 6010D	8/3/20	8/4/20 19:15	TBC
Silver	ND	0.36	mg/Kg dry	1		SW-846 6010D	8/3/20	8/4/20 19:15	TBC

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Sample ID: 20G1287-04 Start Date/Time: 7/28/2020 10:35:00AM

Sample Matrix: Soil Stop Date/Time: 7/28/2020 10:40:00AM

Conventional Chemistry Parameters by EPA/APHA/SW-846 Methods (Total)

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
% Solids	93.9		% Wt	1		SM 2540G	8/5/20	8/6/20 9:37	JDN
Ignitability	Absent		present/absent	1		SW-846 1030	8/5/20	8/5/20 23:50	AWA
pH @20.2°C	8.8		pH Units	1		SW-846 9045C	7/28/20	7/28/20 21:15	AWA
Reactive Cyanide	ND	3.9	mg/Kg	1		SW-846 9014	8/4/20	8/5/20 21:05	EC
Reactive Sulfide	ND	20	mg/Kg	1		SW-846 9030A	8/4/20	8/5/20 20:00	EC
Specific conductance	33	2.0	µmhos/cm	1		SM21-22 2510B Modified	8/4/20	8/4/20 18:30	EC

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Project Location: Montello St & Petronelli Way, Bro Sample Description: Work Order: 20G1287

Date Received: 7/28/2020

Field Sample #: B-410 Comp 4-8, S-3

Sample ID: 20G1287-05 Start Date/Time: 7/28/2020 11:15:00AM

Sample Matrix: Soil Stop Date/Time: 7/28/2020 11:20:00AM

Volatile Organic Compounds by GC/MS

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Acetone	ND	0.15	mg/Kg dry	1		SW-846 8260C-D	8/3/20	8/4/20 2:56	MFF
tert-Amyl Methyl Ether (TAME)	ND	0.0015	mg/Kg dry	1		SW-846 8260C-D	8/3/20	8/4/20 2:56	MFF
Benzene	ND	0.0030	mg/Kg dry	1		SW-846 8260C-D	8/3/20	8/4/20 2:56	MFF
Bromobenzene	ND	0.0030	mg/Kg dry	1		SW-846 8260C-D	8/3/20	8/4/20 2:56	MFF
Bromochloromethane	ND	0.0030	mg/Kg dry	1		SW-846 8260C-D	8/3/20	8/4/20 2:56	MFF
Bromodichloromethane	ND	0.0030	mg/Kg dry	1		SW-846 8260C-D	8/3/20	8/4/20 2:56	MFF
Bromoform	ND	0.0030	mg/Kg dry	1		SW-846 8260C-D	8/3/20	8/4/20 2:56	MFF
Bromomethane	ND	0.015	mg/Kg dry	1	V-34	SW-846 8260C-D	8/3/20	8/4/20 2:56	MFF
2-Butanone (MEK)	ND	0.060	mg/Kg dry	1		SW-846 8260C-D	8/3/20	8/4/20 2:56	MFF
n-Butylbenzene	ND	0.0030	mg/Kg dry	1		SW-846 8260C-D	8/3/20	8/4/20 2:56	MFF
sec-Butylbenzene	ND	0.0030	mg/Kg dry	1		SW-846 8260C-D	8/3/20	8/4/20 2:56	MFF
tert-Butylbenzene	ND	0.0030	mg/Kg dry	1		SW-846 8260C-D	8/3/20	8/4/20 2:56	MFF
tert-Butyl Ethyl Ether (TBEE)	ND	0.0015	mg/Kg dry	1		SW-846 8260C-D	8/3/20	8/4/20 2:56	MFF
Carbon Disulfide	ND	0.0089	mg/Kg dry	1		SW-846 8260C-D	8/3/20	8/4/20 2:56	MFF
Carbon Tetrachloride	ND	0.0030	mg/Kg dry	1		SW-846 8260C-D	8/3/20	8/4/20 2:56	MFF
Chlorobenzene	ND	0.0030	mg/Kg dry	1		SW-846 8260C-D	8/3/20	8/4/20 2:56	MFF
Chlorodibromomethane	ND	0.0015	mg/Kg dry	1		SW-846 8260C-D	8/3/20	8/4/20 2:56	MFF
Chloroethane	ND	0.015	mg/Kg dry	1		SW-846 8260C-D	8/3/20	8/4/20 2:56	MFF
Chloroform	ND	0.0060	mg/Kg dry	1		SW-846 8260C-D	8/3/20	8/4/20 2:56	MFF
Chloromethane	ND	0.015	mg/Kg dry	1		SW-846 8260C-D	8/3/20	8/4/20 2:56	MFF
2-Chlorotoluene	ND	0.0030	mg/Kg dry	1		SW-846 8260C-D	8/3/20	8/4/20 2:56	MFF
4-Chlorotoluene	ND	0.0030	mg/Kg dry	1		SW-846 8260C-D	8/3/20	8/4/20 2:56	MFF
1,2-Dibromo-3-chloropropane (DBCP)	ND	0.0030	mg/Kg dry	1		SW-846 8260C-D	8/3/20	8/4/20 2:56	MFF
1,2-Dibromoethane (EDB)	ND	0.0015	mg/Kg dry	1		SW-846 8260C-D	8/3/20	8/4/20 2:56	MFF
Dibromomethane	ND	0.0030	mg/Kg dry	1		SW-846 8260C-D	8/3/20	8/4/20 2:56	MFF
1,2-Dichlorobenzene	ND	0.0030	mg/Kg dry	1		SW-846 8260C-D	8/3/20	8/4/20 2:56	MFF
1,3-Dichlorobenzene	ND	0.0030	mg/Kg dry	1		SW-846 8260C-D	8/3/20	8/4/20 2:56	MFF
1,4-Dichlorobenzene	ND	0.0030	mg/Kg dry	1		SW-846 8260C-D	8/3/20	8/4/20 2:56	MFF
Dichlorodifluoromethane (Freon 12)	ND	0.015	mg/Kg dry	1		SW-846 8260C-D	8/3/20	8/4/20 2:56	MFF
1,1-Dichloroethane	ND	0.0030	mg/Kg dry	1		SW-846 8260C-D	8/3/20	8/4/20 2:56	MFF
1,2-Dichloroethane	ND	0.0030	mg/Kg dry	1		SW-846 8260C-D	8/3/20	8/4/20 2:56	MFF
1,1-Dichloroethylene	ND	0.0060	mg/Kg dry	1		SW-846 8260C-D	8/3/20	8/4/20 2:56	MFF
cis-1,2-Dichloroethylene	ND	0.0030	mg/Kg dry	1		SW-846 8260C-D	8/3/20	8/4/20 2:56	MFF
trans-1,2-Dichloroethylene	ND	0.0030	mg/Kg dry	1		SW-846 8260C-D	8/3/20	8/4/20 2:56	MFF
1,2-Dichloropropane	ND	0.0030	mg/Kg dry	1		SW-846 8260C-D	8/3/20	8/4/20 2:56	MFF
1,3-Dichloropropane	ND	0.0015	mg/Kg dry	1		SW-846 8260C-D	8/3/20	8/4/20 2:56	MFF
2,2-Dichloropropane	ND	0.0030	mg/Kg dry	1		SW-846 8260C-D	8/3/20	8/4/20 2:56	MFF
1,1-Dichloropropene	ND	0.0030	mg/Kg dry	1		SW-846 8260C-D	8/3/20	8/4/20 2:56	MFF
cis-1,3-Dichloropropene	ND	0.0015	mg/Kg dry	1		SW-846 8260C-D	8/3/20	8/4/20 2:56	MFF
trans-1,3-Dichloropropene	ND	0.0015	mg/Kg dry	1		SW-846 8260C-D	8/3/20	8/4/20 2:56	MFF
Diethyl Ether	ND	0.015	mg/Kg dry	1		SW-846 8260C-D	8/3/20	8/4/20 2:56	MFF
Diisopropyl Ether (DIPE)	ND	0.0015	mg/Kg dry	1		SW-846 8260C-D	8/3/20	8/4/20 2:56	MFF
1,4-Dioxane	ND	0.15	mg/Kg dry	1	V-16	SW-846 8260C-D	8/3/20	8/4/20 2:56	MFF
Ethylbenzene	ND	0.0030	mg/Kg dry	1		SW-846 8260C-D	8/3/20	8/4/20 2:56	MFF

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Project Location: Montello St & Petronelli Way, Bro Sample Description: Work Order: 20G1287

Date Received: 7/28/2020

Field Sample #: B-410 Comp 4-8, S-3

Sample ID: 20G1287-05 Start Date/Time: 7/28/2020 11:15:00AM

Sample Matrix: Soil Stop Date/Time: 7/28/2020 11:20:00AM

Volatile Organic Compounds by GC/MS

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Hexachlorobutadiene	ND	0.0030	mg/Kg dry	1		SW-846 8260C-D	8/3/20	8/4/20 2:56	MFF
2-Hexanone (MBK)	ND	0.030	mg/Kg dry	1		SW-846 8260C-D	8/3/20	8/4/20 2:56	MFF
Isopropylbenzene (Cumene)	ND	0.0030	mg/Kg dry	1		SW-846 8260C-D	8/3/20	8/4/20 2:56	MFF
p-Isopropyltoluene (p-Cymene)	ND	0.0030	mg/Kg dry	1		SW-846 8260C-D	8/3/20	8/4/20 2:56	MFF
Methyl tert-Butyl Ether (MTBE)	ND	0.0060	mg/Kg dry	1		SW-846 8260C-D	8/3/20	8/4/20 2:56	MFF
Methylene Chloride	ND	0.015	mg/Kg dry	1		SW-846 8260C-D	8/3/20	8/4/20 2:56	MFF
4-Methyl-2-pentanone (MIBK)	ND	0.030	mg/Kg dry	1		SW-846 8260C-D	8/3/20	8/4/20 2:56	MFF
Naphthalene	ND	0.0060	mg/Kg dry	1	V-05	SW-846 8260C-D	8/3/20	8/4/20 2:56	MFF
n-Propylbenzene	ND	0.0030	mg/Kg dry	1		SW-846 8260C-D	8/3/20	8/4/20 2:56	MFF
Styrene	ND	0.0030	mg/Kg dry	1		SW-846 8260C-D	8/3/20	8/4/20 2:56	MFF
1,1,1,2-Tetrachloroethane	ND	0.0030	mg/Kg dry	1		SW-846 8260C-D	8/3/20	8/4/20 2:56	MFF
1,1,2,2-Tetrachloroethane	ND	0.0015	mg/Kg dry	1		SW-846 8260C-D	8/3/20	8/4/20 2:56	MFF
Tetrachloroethylene	ND	0.0030	mg/Kg dry	1		SW-846 8260C-D	8/3/20	8/4/20 2:56	MFF
Tetrahydrofuran	ND	0.015	mg/Kg dry	1	V-16	SW-846 8260C-D	8/3/20	8/4/20 2:56	MFF
Toluene	ND	0.0030	mg/Kg dry	1		SW-846 8260C-D	8/3/20	8/4/20 2:56	MFF
1,2,3-Trichlorobenzene	ND	0.0030	mg/Kg dry	1		SW-846 8260C-D	8/3/20	8/4/20 2:56	MFF
1,2,4-Trichlorobenzene	ND	0.0030	mg/Kg dry	1		SW-846 8260C-D	8/3/20	8/4/20 2:56	MFF
1,1,1-Trichloroethane	ND	0.0030	mg/Kg dry	1		SW-846 8260C-D	8/3/20	8/4/20 2:56	MFF
1,1,2-Trichloroethane	ND	0.0030	mg/Kg dry	1		SW-846 8260C-D	8/3/20	8/4/20 2:56	MFF
Trichloroethylene	ND	0.0030	mg/Kg dry	1		SW-846 8260C-D	8/3/20	8/4/20 2:56	MFF
Trichlorofluoromethane (Freon 11)	ND	0.015	mg/Kg dry	1		SW-846 8260C-D	8/3/20	8/4/20 2:56	MFF
1,2,3-Trichloropropane	ND	0.0030	mg/Kg dry	1		SW-846 8260C-D	8/3/20	8/4/20 2:56	MFF
1,2,4-Trimethylbenzene	ND	0.0030	mg/Kg dry	1		SW-846 8260C-D	8/3/20	8/4/20 2:56	MFF
1,3,5-Trimethylbenzene	ND	0.0030	mg/Kg dry	1		SW-846 8260C-D	8/3/20	8/4/20 2:56	MFF
Vinyl Chloride	ND	0.015	mg/Kg dry	1		SW-846 8260C-D	8/3/20	8/4/20 2:56	MFF
m+p Xylene	ND	0.0060	mg/Kg dry	1		SW-846 8260C-D	8/3/20	8/4/20 2:56	MFF
o-Xylene	ND	0.0030	mg/Kg dry	1		SW-846 8260C-D	8/3/20	8/4/20 2:56	MFF

Surrogates	% Recovery	Recovery Limits	Flag/Qual	
1,2-Dichloroethane-d4	101	70-130		8/4/20 2:56
Toluene-d8	99.9	70-130		8/4/20 2:56
4-Bromofluorobenzene	100	70-130		8/4/20 2:56

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Project Location: Montello St & Petronelli Way, Bro Sample Description: Work Order: 20G1287

Date Received: 7/28/2020

Field Sample #: B-410 Comp 4-8, S-3

Sample ID: 20G1287-05 Start Date/Time: 7/28/2020 11:15:00AM

Sample Matrix: Soil Stop Date/Time: 7/28/2020 11:20:00AM

Semivolatile Organic Compounds by GC/MS

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Acenaphthene	1.6	0.19	mg/Kg dry	1		SW-846 8270D-E	8/4/20	8/6/20 23:51	IMR
Acenaphthylene	0.67	0.19	mg/Kg dry	1		SW-846 8270D-E	8/4/20	8/6/20 23:51	IMR
Acetophenone	ND	0.38	mg/Kg dry	1		SW-846 8270D-E	8/4/20	8/6/20 23:51	IMR
Aniline	ND	0.38	mg/Kg dry	1	L-04, V-05	SW-846 8270D-E	8/4/20	8/6/20 23:51	IMR
Anthracene	3.6	0.19	mg/Kg dry	1		SW-846 8270D-E	8/4/20	8/6/20 23:51	IMR
Benzo(a)anthracene	9.2	1.9	mg/Kg dry	10		SW-846 8270D-E	8/4/20	8/7/20 11:31	IMR
Benzo(a)pyrene	8.2	1.9	mg/Kg dry	10		SW-846 8270D-E	8/4/20	8/7/20 11:31	IMR
Benzo(b)fluoranthene	9.1	1.9	mg/Kg dry	10		SW-846 8270D-E	8/4/20	8/7/20 11:31	IMR
Benzo(g,h,i)perylene	2.7	0.19	mg/Kg dry	1		SW-846 8270D-E	8/4/20	8/6/20 23:51	IMR
Benzo(k)fluoranthene	3.3	0.19	mg/Kg dry	1		SW-846 8270D-E	8/4/20	8/6/20 23:51	IMR
Bis(2-chloroethoxy)methane	ND	0.38	mg/Kg dry	1		SW-846 8270D-E	8/4/20	8/6/20 23:51	IMR
Bis(2-chloroethyl)ether	ND	0.38	mg/Kg dry	1		SW-846 8270D-E	8/4/20	8/6/20 23:51	IMR
Bis(2-chloroisopropyl)ether	ND	0.38	mg/Kg dry	1		SW-846 8270D-E	8/4/20	8/6/20 23:51	IMR
Bis(2-Ethylhexyl)phthalate	ND	0.38	mg/Kg dry	1		SW-846 8270D-E	8/4/20	8/6/20 23:51	IMR
4-Bromophenylphenylether	ND	0.38	mg/Kg dry	1		SW-846 8270D-E	8/4/20	8/6/20 23:51	IMR
Butylbenzylphthalate	ND	0.38	mg/Kg dry	1		SW-846 8270D-E	8/4/20	8/6/20 23:51	IMR
4-Chloroaniline	ND	0.74	mg/Kg dry	1		SW-846 8270D-E	8/4/20	8/6/20 23:51	IMR
2-Chloronaphthalene	ND	0.38	mg/Kg dry	1		SW-846 8270D-E	8/4/20	8/6/20 23:51	IMR
2-Chlorophenol	ND	0.38	mg/Kg dry	1		SW-846 8270D-E	8/4/20	8/6/20 23:51	IMR
Chrysene	8.6	1.9	mg/Kg dry	10		SW-846 8270D-E	8/4/20	8/7/20 11:31	IMR
Dibenz(a,h)anthracene	0.75	0.19	mg/Kg dry	1		SW-846 8270D-E	8/4/20	8/6/20 23:51	IMR
Dibenzofuran	1.6	0.38	mg/Kg dry	1		SW-846 8270D-E	8/4/20	8/6/20 23:51	IMR
Di-n-butylphthalate	ND	0.38	mg/Kg dry	1		SW-846 8270D-E	8/4/20	8/6/20 23:51	IMR
1,2-Dichlorobenzene	ND	0.38	mg/Kg dry	1		SW-846 8270D-E	8/4/20	8/6/20 23:51	IMR
1,3-Dichlorobenzene	ND	0.38	mg/Kg dry	1		SW-846 8270D-E	8/4/20	8/6/20 23:51	IMR
1,4-Dichlorobenzene	ND	0.38	mg/Kg dry	1		SW-846 8270D-E	8/4/20	8/6/20 23:51	IMR
3,3-Dichlorobenzidine	ND	0.19	mg/Kg dry	1		SW-846 8270D-E	8/4/20	8/6/20 23:51	IMR
2,4-Dichlorophenol	ND	0.38	mg/Kg dry	1		SW-846 8270D-E	8/4/20	8/6/20 23:51	IMR
Diethylphthalate	ND	0.38	mg/Kg dry	1		SW-846 8270D-E	8/4/20	8/6/20 23:51	IMR
2,4-Dimethylphenol	ND	0.38	mg/Kg dry	1		SW-846 8270D-E	8/4/20	8/6/20 23:51	IMR
Dimethylphthalate	ND	0.38	mg/Kg dry	1		SW-846 8270D-E	8/4/20	8/6/20 23:51	IMR
2,4-Dinitrophenol	ND	0.74	mg/Kg dry	1		SW-846 8270D-E	8/4/20	8/6/20 23:51	IMR
2,4-Dinitrotoluene	ND	0.38	mg/Kg dry	1		SW-846 8270D-E	8/4/20	8/6/20 23:51	IMR
2,6-Dinitrotoluene	ND	0.38	mg/Kg dry	1		SW-846 8270D-E	8/4/20	8/6/20 23:51	IMR
Di-n-octylphthalate	ND	0.38	mg/Kg dry	1		SW-846 8270D-E	8/4/20	8/6/20 23:51	IMR
1,2-Diphenylhydrazine/Azobenzene	ND	0.38	mg/Kg dry	1		SW-846 8270D-E	8/4/20	8/6/20 23:51	IMR
Fluoranthene	22	1.9	mg/Kg dry	10		SW-846 8270D-E	8/4/20	8/7/20 11:31	IMR
Fluorene	1.9	0.19	mg/Kg dry	1		SW-846 8270D-E	8/4/20	8/6/20 23:51	IMR
Hexachlorobenzene	ND	0.38	mg/Kg dry	1		SW-846 8270D-E	8/4/20	8/6/20 23:51	IMR
Hexachlorobutadiene	ND	0.38	mg/Kg dry	1		SW-846 8270D-E	8/4/20	8/6/20 23:51	IMR
Hexachloroethane	ND	0.38	mg/Kg dry	1		SW-846 8270D-E	8/4/20	8/6/20 23:51	IMR
Indeno(1,2,3-cd)pyrene	3.1	0.19	mg/Kg dry	1		SW-846 8270D-E	8/4/20	8/6/20 23:51	IMR
Isophorone	ND	0.38	mg/Kg dry	1		SW-846 8270D-E	8/4/20	8/6/20 23:51	IMR
2-Methylnaphthalene	0.87	0.19	mg/Kg dry	1		SW-846 8270D-E	8/4/20	8/6/20 23:51	IMR

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39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

Project Location: Montello St & Petronelli Way, Bro Sample Description: Work Order: 20G1287

Date Received: 7/28/2020

Field Sample #: B-410 Comp 4-8, S-3

Sample ID: 20G1287-05 Start Date/Time: 7/28/2020 11:15:00AM

Sample Matrix: Soil Stop Date/Time: 7/28/2020 11:20:00AM

Semivolatile Organic Compounds by GC/MS

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
2-Methylphenol	ND	0.38	mg/Kg dry	1		SW-846 8270D-E	8/4/20	8/6/20 23:51	IMR
3/4-Methylphenol	ND	0.38	mg/Kg dry	1		SW-846 8270D-E	8/4/20	8/6/20 23:51	IMR
Naphthalene	1.7	0.19	mg/Kg dry	1		SW-846 8270D-E	8/4/20	8/6/20 23:51	IMR
Nitrobenzene	ND	0.38	mg/Kg dry	1		SW-846 8270D-E	8/4/20	8/6/20 23:51	IMR
2-Nitrophenol	ND	0.38	mg/Kg dry	1		SW-846 8270D-E	8/4/20	8/6/20 23:51	IMR
4-Nitrophenol	ND	0.74	mg/Kg dry	1		SW-846 8270D-E	8/4/20	8/6/20 23:51	IMR
Pentachlorophenol	ND	0.38	mg/Kg dry	1		SW-846 8270D-E	8/4/20	8/6/20 23:51	IMR
Phenanthrene	21	1.9	mg/Kg dry	10		SW-846 8270D-E	8/4/20	8/7/20 11:31	IMR
Phenol	ND	0.38	mg/Kg dry	1		SW-846 8270D-E	8/4/20	8/6/20 23:51	IMR
Pyrene	21	1.9	mg/Kg dry	10		SW-846 8270D-E	8/4/20	8/7/20 11:31	IMR
1,2,4-Trichlorobenzene	ND	0.38	mg/Kg dry	1		SW-846 8270D-E	8/4/20	8/6/20 23:51	IMR
2,4,5-Trichlorophenol	ND	0.38	mg/Kg dry	1		SW-846 8270D-E	8/4/20	8/6/20 23:51	IMR
2,4,6-Trichlorophenol	ND	0.38	mg/Kg dry	1		SW-846 8270D-E	8/4/20	8/6/20 23:51	IMR

Surrogates	% Recovery	Recovery Limits	Flag/Qual	
2-Fluorophenol	55.9	30-130		8/6/20 23:51
2-Fluorophenol	61.2	30-130		8/7/20 11:31
Phenol-d6	59.2	30-130		8/6/20 23:51
Phenol-d6	67.7	30-130		8/7/20 11:31
Nitrobenzene-d5	54.8	30-130		8/6/20 23:51
Nitrobenzene-d5	60.7	30-130		8/7/20 11:31
2-Fluorobiphenyl	62.5	30-130		8/6/20 23:51
2-Fluorobiphenyl	65.9	30-130		8/7/20 11:31
2,4,6-Tribromophenol	51.0	30-130		8/6/20 23:51
2,4,6-Tribromophenol	53.8	30-130		8/7/20 11:31
p-Terphenyl-d14	68.2	30-130		8/6/20 23:51
p-Terphenyl-d14	74.8	30-130		8/7/20 11:31

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Date Received: 7/28/2020

Field Sample #: B-410 Comp 4-8, S-3

Sample ID: 20G1287-05 Start Date/Time: 7/28/2020 11:15:00AM

Sample Matrix: Soil Stop Date/Time: 7/28/2020 11:20:00AM

Sample Flags: O-32

Polychlorinated Biphenyls By GC/ECD

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Aroclor-1016 [1]	ND	0.090	mg/Kg dry	4		SW-846 8082A	8/6/20	8/8/20 12:31	JMB
Aroclor-1221 [1]	ND	0.090	mg/Kg dry	4		SW-846 8082A	8/6/20	8/8/20 12:31	JMB
Aroclor-1232 [1]	ND	0.090	mg/Kg dry	4		SW-846 8082A	8/6/20	8/8/20 12:31	JMB
Aroclor-1242 [1]	ND	0.090	mg/Kg dry	4		SW-846 8082A	8/6/20	8/8/20 12:31	JMB
Aroclor-1248 [1]	ND	0.090	mg/Kg dry	4		SW-846 8082A	8/6/20	8/8/20 12:31	JMB
Aroclor-1254 [1]	ND	0.090	mg/Kg dry	4		SW-846 8082A	8/6/20	8/8/20 12:31	JMB
Aroclor-1260 [1]	ND	0.090	mg/Kg dry	4		SW-846 8082A	8/6/20	8/8/20 12:31	JMB
Aroclor-1262 [1]	ND	0.090	mg/Kg dry	4		SW-846 8082A	8/6/20	8/8/20 12:31	JMB
Aroclor-1268 [1]	ND	0.090	mg/Kg dry	4		SW-846 8082A	8/6/20	8/8/20 12:31	JMB

Surrogates	% Recovery	Recovery Limits	Flag/Qual	
Decachlorobiphenyl [1]	88.5	30-150		8/8/20 12:31
Decachlorobiphenyl [2]	100	30-150		8/8/20 12:31
Tetrachloro-m-xylene [1]	91.7	30-150		8/8/20 12:31
Tetrachloro-m-xylene [2]	76.8	30-150		8/8/20 12:31

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Project Location: Montello St & Petronelli Way, Bro Sample Description: Work Order: 20G1287

Date Received: 7/28/2020

Field Sample #: B-410 Comp 4-8, S-3

Sample ID: 20G1287-05 Start Date/Time: 7/28/2020 11:15:00AM

Sample Matrix: Soil Stop Date/Time: 7/28/2020 11:20:00AM

Petroleum Hydrocarbons Analyses

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
TPH (C9-C36)	850	94	mg/Kg dry	10		SW-846 8100 Modified	8/4/20	8/8/20 12:02	RDD

Surrogates	% Recovery	Recovery Limits	Flag/Qual				
2-Fluorobiphenyl	63.8	40-140					8/8/20 12:02

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Project Location: Montello St & Petronelli Way, Bro Sample Description: Work Order: 20G1287

Date Received: 7/28/2020

Field Sample #: B-410 Comp 4-8, S-3

Sample ID: 20G1287-05 Start Date/Time: 7/28/2020 11:15:00AM

Sample Matrix: Soil Stop Date/Time: 7/28/2020 11:20:00AM

Metals Analyses (Total)

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Arsenic	ND	3.7	mg/Kg dry	1		SW-846 6010D	8/3/20	8/4/20 19:19	TBC
Barium	51	1.9	mg/Kg dry	1		SW-846 6010D	8/3/20	8/4/20 19:19	TBC
Cadmium	ND	0.37	mg/Kg dry	1		SW-846 6010D	8/3/20	8/4/20 19:19	TBC
Chromium	33	0.75	mg/Kg dry	1		SW-846 6010D	8/3/20	8/4/20 19:19	TBC
Lead	110	0.56	mg/Kg dry	1		SW-846 6010D	8/3/20	8/4/20 19:19	TBC
Mercury	0.13	0.028	mg/Kg dry	1		SW-846 7471B	8/3/20	8/5/20 10:24	CJV
Selenium	ND	3.7	mg/Kg dry	1		SW-846 6010D	8/3/20	8/4/20 19:19	TBC
Silver	ND	0.37	mg/Kg dry	1		SW-846 6010D	8/3/20	8/4/20 19:19	TBC

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Project Location: Montello St & Petronelli Way, Bro Sample Description: Work Order: 20G1287

Date Received: 7/28/2020

Field Sample #: B-410 Comp 4-8, S-3

Sample ID: 20G1287-05 Start Date/Time: 7/28/2020 11:15:00AM

Sample Matrix: Soil Stop Date/Time: 7/28/2020 11:20:00AM

Conventional Chemistry Parameters by EPA/APHA/SW-846 Methods (Total)

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
% Solids	88.4		% Wt	1		SM 2540G	8/5/20	8/6/20 9:37	JDN
Ignitability	Absent		present/absent	1		SW-846 1030	8/5/20	8/5/20 23:50	AWA
pH @19.9°C	9.5		pH Units	1		SW-846 9045C	7/28/20	7/28/20 21:15	AWA
Reactive Cyanide	ND	3.9	mg/Kg	1		SW-846 9014	8/4/20	8/5/20 21:05	EC
Reactive Sulfide	ND	20	mg/Kg	1		SW-846 9030A	8/4/20	8/5/20 20:00	EC
Specific conductance	48	2.0	µmhos/cm	1		SM21-22 2510B Modified	8/4/20	8/4/20 18:30	EC

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Project Location: Montello St & Petronelli Way, Bro Sample Description: Work Order: 20G1287

Date Received: 7/28/2020

Field Sample #: B-413 Sampled: 7/28/2020 12:20

Sample ID: 20G1287-06

Sample Matrix: Water

Petroleum Hydrocarbons Analyses - EPH

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
C9-C18 Aliphatics	ND	100	µg/L	1		MADEP EPH rev 2.1	8/7/20	8/10/20 13:42	RDD
C19-C36 Aliphatics	ND	100	µg/L	1		MADEP EPH rev 2.1	8/7/20	8/10/20 13:42	RDD
Unadjusted C11-C22 Aromatics	ND	100	µg/L	1		MADEP EPH rev 2.1	8/7/20	8/10/20 13:42	RDD
C11-C22 Aromatics	ND	100	µg/L	1		MADEP EPH rev 2.1	8/7/20	8/10/20 13:42	RDD
Acenaphthene	ND	2.0	µg/L	1		MADEP EPH rev 2.1	8/7/20	8/10/20 13:42	RDD
Acenaphthylene	ND	2.0	µg/L	1		MADEP EPH rev 2.1	8/7/20	8/10/20 13:42	RDD
Anthracene	ND	2.0	µg/L	1		MADEP EPH rev 2.1	8/7/20	8/10/20 13:42	RDD
Benzo(a)anthracene	ND	2.0	µg/L	1		MADEP EPH rev 2.1	8/7/20	8/10/20 13:42	RDD
Benzo(a)pyrene	ND	2.0	µg/L	1		MADEP EPH rev 2.1	8/7/20	8/10/20 13:42	RDD
Benzo(b)fluoranthene	ND	2.0	µg/L	1		MADEP EPH rev 2.1	8/7/20	8/10/20 13:42	RDD
Benzo(g,h,i)perylene	ND	2.0	µg/L	1		MADEP EPH rev 2.1	8/7/20	8/10/20 13:42	RDD
Benzo(k)fluoranthene	ND	2.0	µg/L	1		MADEP EPH rev 2.1	8/7/20	8/10/20 13:42	RDD
Chrysene	ND	2.0	µg/L	1		MADEP EPH rev 2.1	8/7/20	8/10/20 13:42	RDD
Dibenz(a,h)anthracene	ND	2.0	µg/L	1		MADEP EPH rev 2.1	8/7/20	8/10/20 13:42	RDD
Fluoranthene	ND	2.0	µg/L	1		MADEP EPH rev 2.1	8/7/20	8/10/20 13:42	RDD
Fluorene	ND	2.0	µg/L	1		MADEP EPH rev 2.1	8/7/20	8/10/20 13:42	RDD
Indeno(1,2,3-cd)pyrene	ND	2.0	µg/L	1		MADEP EPH rev 2.1	8/7/20	8/10/20 13:42	RDD
2-Methylnaphthalene	ND	2.0	µg/L	1		MADEP EPH rev 2.1	8/7/20	8/10/20 13:42	RDD
Naphthalene	ND	2.0	µg/L	1		MADEP EPH rev 2.1	8/7/20	8/10/20 13:42	RDD
Phenanthrene	ND	2.0	µg/L	1		MADEP EPH rev 2.1	8/7/20	8/10/20 13:42	RDD
Pyrene	ND	2.0	µg/L	1		MADEP EPH rev 2.1	8/7/20	8/10/20 13:42	RDD

Surrogates	% Recovery	Recovery Limits	Flag/Qual	
Chlorooctadecane (COD)	79.0	40-140		8/10/20 13:42
o-Terphenyl (OTP)	80.6	40-140		8/10/20 13:42
2-Bromonaphthalene	80.5	40-140		8/10/20 13:42
2-Fluorobiphenyl	88.8	40-140		8/10/20 13:42

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Sample Extraction Data

Prep Method: SW-846 3546 **Analytical Method: MADEP EPH rev 2.1**

Lab Number [Field ID]	Batch	Initial [g]	Final [mL]	Date
20G1287-03 [B-411 Comp 4-8']	B263280	20.0	2.00	08/03/20
20G1287-03RE1 [B-411 Comp 4-8']	B263280	20.0	2.00	08/03/20

Prep Method: SW-846 3510C **Analytical Method: MADEP EPH rev 2.1**

Lab Number [Field ID]	Batch	Initial [mL]	Final [mL]	Date
20G1287-06RE1 [B-413]	B263721	1000	2.00	08/07/20

Prep Method: % Solids **Analytical Method: SM 2540G**

Lab Number [Field ID]	Batch	Date
20G1287-01 [B-417 Comp 0-4', S-2]	B263557	08/05/20
20G1287-02 [B-417 Comp 4-9', S-3]	B263557	08/05/20
20G1287-03 [B-411 Comp 4-8']	B263557	08/05/20
20G1287-04 [B-410 Comp 0-4', S-1]	B263557	08/05/20
20G1287-05 [B-410 Comp 4-8, S-3]	B263557	08/05/20

SM21-22 2510B Modified

Lab Number [Field ID]	Batch	Initial [g]	Date
20G1287-01 [B-417 Comp 0-4', S-2]	B263425	1.00	08/04/20
20G1287-02 [B-417 Comp 4-9', S-3]	B263425	1.00	08/04/20
20G1287-04 [B-410 Comp 0-4', S-1]	B263425	1.00	08/04/20
20G1287-05 [B-410 Comp 4-8, S-3]	B263425	1.00	08/04/20

SW-846 1030

Lab Number [Field ID]	Batch	Initial [g]	Date
20G1287-01 [B-417 Comp 0-4', S-2]	B263601	50.0	08/05/20
20G1287-02 [B-417 Comp 4-9', S-3]	B263601	50.0	08/05/20
20G1287-04 [B-410 Comp 0-4', S-1]	B263601	50.0	08/05/20
20G1287-05 [B-410 Comp 4-8, S-3]	B263601	50.0	08/05/20

Prep Method: SW-846 3050B **Analytical Method: SW-846 6010D**

Lab Number [Field ID]	Batch	Initial [g]	Final [mL]	Date
20G1287-01 [B-417 Comp 0-4', S-2]	B263332	1.51	50.0	08/03/20
20G1287-02 [B-417 Comp 4-9', S-3]	B263332	1.48	50.0	08/03/20
20G1287-04 [B-410 Comp 0-4', S-1]	B263332	1.49	50.0	08/03/20
20G1287-05 [B-410 Comp 4-8, S-3]	B263332	1.51	50.0	08/03/20

Prep Method: SW-846 7471 **Analytical Method: SW-846 7471B**

Lab Number [Field ID]	Batch	Initial [g]	Final [mL]	Date
20G1287-01 [B-417 Comp 0-4', S-2]	B263357	0.605	50.0	08/03/20
20G1287-02 [B-417 Comp 4-9', S-3]	B263357	0.597	50.0	08/03/20
20G1287-04 [B-410 Comp 0-4', S-1]	B263357	0.581	50.0	08/03/20

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Sample Extraction Data

Prep Method: SW-846 7471 **Analytical Method: SW-846 7471B**

Lab Number [Field ID]	Batch	Initial [g]	Final [mL]	Date
20G1287-05 [B-410 Comp 4-8, S-3]	B263357	0.609	50.0	08/03/20

Prep Method: SW-846 3546 **Analytical Method: SW-846 8082A**

Lab Number [Field ID]	Batch	Initial [g]	Final [mL]	Date
20G1287-01 [B-417 Comp 0-4', S-2]	B263621	10.0	10.0	08/06/20
20G1287-02 [B-417 Comp 4-9', S-3]	B263621	10.0	10.0	08/06/20
20G1287-04 [B-410 Comp 0-4', S-1]	B263621	10.2	10.0	08/06/20
20G1287-05 [B-410 Comp 4-8, S-3]	B263621	10.0	10.0	08/06/20

Prep Method: SW-846 3546 **Analytical Method: SW-846 8100 Modified**

Lab Number [Field ID]	Batch	Initial [g]	Final [mL]	Date
20G1287-01 [B-417 Comp 0-4', S-2]	B263472	30.2	1.00	08/04/20
20G1287-02 [B-417 Comp 4-9', S-3]	B263472	30.4	1.00	08/04/20
20G1287-04 [B-410 Comp 0-4', S-1]	B263472	30.2	1.00	08/04/20
20G1287-05 [B-410 Comp 4-8, S-3]	B263472	30.2	1.00	08/04/20

Prep Method: SW-846 5035 **Analytical Method: SW-846 8260C-D**

Lab Number [Field ID]	Batch	Initial [g]	Final [mL]	Date
20G1287-01 [B-417 Comp 0-4', S-2]	B263354	4.59	10.0	08/03/20
20G1287-02 [B-417 Comp 4-9', S-3]	B263354	6.43	10.0	08/03/20
20G1287-04 [B-410 Comp 0-4', S-1]	B263354	5.10	10.0	08/03/20
20G1287-05 [B-410 Comp 4-8, S-3]	B263354	3.80	10.0	08/03/20

Prep Method: SW-846 3546 **Analytical Method: SW-846 8270D-E**

Lab Number [Field ID]	Batch	Initial [g]	Final [mL]	Date
20G1287-01 [B-417 Comp 0-4', S-2]	B263474	30.2	1.00	08/04/20
20G1287-02 [B-417 Comp 4-9', S-3]	B263474	30.4	1.00	08/04/20
20G1287-04 [B-410 Comp 0-4', S-1]	B263474	30.2	1.00	08/04/20
20G1287-04RE1 [B-410 Comp 0-4', S-1]	B263474	30.2	1.00	08/04/20
20G1287-05 [B-410 Comp 4-8, S-3]	B263474	30.2	1.00	08/04/20
20G1287-05RE1 [B-410 Comp 4-8, S-3]	B263474	30.2	1.00	08/04/20

SW-846 9014

Lab Number [Field ID]	Batch	Initial [g]	Final [mL]	Date
20G1287-01 [B-417 Comp 0-4', S-2]	B263427	25.2	250	08/04/20
20G1287-02 [B-417 Comp 4-9', S-3]	B263427	25.3	250	08/04/20
20G1287-04 [B-410 Comp 0-4', S-1]	B263427	25.3	250	08/04/20
20G1287-05 [B-410 Comp 4-8, S-3]	B263427	25.4	250	08/04/20

SW-846 9030A

Lab Number [Field ID]	Batch	Initial [g]	Final [mL]	Date

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Sample Extraction Data

SW-846 9030A

Lab Number [Field ID]	Batch	Initial [g]	Final [mL]	Date
20G1287-01 [B-417 Comp 0-4', S-2]	B263430	25.2	250	08/04/20
20G1287-02 [B-417 Comp 4-9', S-3]	B263430	25.3	250	08/04/20
20G1287-04 [B-410 Comp 0-4', S-1]	B263430	25.3	250	08/04/20
20G1287-05 [B-410 Comp 4-8, S-3]	B263430	25.4	250	08/04/20

SW-846 9045C

Lab Number [Field ID]	Batch	Initial [g]	Date
20G1287-01 [B-417 Comp 0-4', S-2]	B262894	20.0	07/28/20
20G1287-02 [B-417 Comp 4-9', S-3]	B262894	20.0	07/28/20
20G1287-04 [B-410 Comp 0-4', S-1]	B262894	20.0	07/28/20
20G1287-05 [B-410 Comp 4-8, S-3]	B262894	20.0	07/28/20

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QUALITY CONTROL

Volatile Organic Compounds by GC/MS - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch B263354 - SW-846 5035										
Blank (B263354-BLK1)				Prepared & Analyzed: 08/03/20						
Acetone	ND	0.10	mg/Kg wet							
tert-Amyl Methyl Ether (TAME)	ND	0.0010	mg/Kg wet							
Benzene	ND	0.0020	mg/Kg wet							
Bromobenzene	ND	0.0020	mg/Kg wet							
Bromochloromethane	ND	0.0020	mg/Kg wet							
Bromodichloromethane	ND	0.0020	mg/Kg wet							
Bromoform	ND	0.0020	mg/Kg wet							
Bromomethane	ND	0.010	mg/Kg wet							V-34
2-Butanone (MEK)	ND	0.040	mg/Kg wet							
n-Butylbenzene	ND	0.0020	mg/Kg wet							
sec-Butylbenzene	ND	0.0020	mg/Kg wet							
tert-Butylbenzene	ND	0.0020	mg/Kg wet							
tert-Butyl Ethyl Ether (TBEE)	ND	0.0010	mg/Kg wet							
Carbon Disulfide	ND	0.0060	mg/Kg wet							
Carbon Tetrachloride	ND	0.0020	mg/Kg wet							
Chlorobenzene	ND	0.0020	mg/Kg wet							
Chlorodibromomethane	ND	0.0010	mg/Kg wet							
Chloroethane	ND	0.010	mg/Kg wet							
Chloroform	ND	0.0040	mg/Kg wet							
Chloromethane	ND	0.010	mg/Kg wet							
2-Chlorotoluene	ND	0.0020	mg/Kg wet							
4-Chlorotoluene	ND	0.0020	mg/Kg wet							
1,2-Dibromo-3-chloropropane (DBCP)	ND	0.0020	mg/Kg wet							
1,2-Dibromoethane (EDB)	ND	0.0010	mg/Kg wet							
Dibromomethane	ND	0.0020	mg/Kg wet							
1,2-Dichlorobenzene	ND	0.0020	mg/Kg wet							
1,3-Dichlorobenzene	ND	0.0020	mg/Kg wet							
1,4-Dichlorobenzene	ND	0.0020	mg/Kg wet							
Dichlorodifluoromethane (Freon 12)	ND	0.010	mg/Kg wet							
1,1-Dichloroethane	ND	0.0020	mg/Kg wet							
1,2-Dichloroethane	ND	0.0020	mg/Kg wet							
1,1-Dichloroethylene	ND	0.0040	mg/Kg wet							
cis-1,2-Dichloroethylene	ND	0.0020	mg/Kg wet							
trans-1,2-Dichloroethylene	ND	0.0020	mg/Kg wet							
1,2-Dichloropropane	ND	0.0020	mg/Kg wet							
1,3-Dichloropropane	ND	0.0010	mg/Kg wet							
2,2-Dichloropropane	ND	0.0020	mg/Kg wet							
1,1-Dichloropropene	ND	0.0020	mg/Kg wet							
cis-1,3-Dichloropropene	ND	0.0010	mg/Kg wet							
trans-1,3-Dichloropropene	ND	0.0010	mg/Kg wet							
Diethyl Ether	ND	0.010	mg/Kg wet							
Diisopropyl Ether (DIPE)	ND	0.0010	mg/Kg wet							
1,4-Dioxane	ND	0.10	mg/Kg wet							V-16
Ethylbenzene	ND	0.0020	mg/Kg wet							
Hexachlorobutadiene	ND	0.0020	mg/Kg wet							
2-Hexanone (MBK)	ND	0.020	mg/Kg wet							
Isopropylbenzene (Cumene)	ND	0.0020	mg/Kg wet							
p-Isopropyltoluene (p-Cymene)	ND	0.0020	mg/Kg wet							
Methyl tert-Butyl Ether (MTBE)	ND	0.0040	mg/Kg wet							
Methylene Chloride	ND	0.010	mg/Kg wet							
4-Methyl-2-pentanone (MIBK)	ND	0.020	mg/Kg wet							
Naphthalene	ND	0.0040	mg/Kg wet							V-05

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QUALITY CONTROL

Volatile Organic Compounds by GC/MS - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC		%REC Limits	RPD	RPD Limit	Notes	
Batch B263354 - SW-846 5035												
Blank (B263354-BLK1)				Prepared & Analyzed: 08/03/20								
n-Propylbenzene	ND	0.0020	mg/Kg wet									
Styrene	ND	0.0020	mg/Kg wet									
1,1,1,2-Tetrachloroethane	ND	0.0020	mg/Kg wet									
1,1,2,2-Tetrachloroethane	ND	0.0010	mg/Kg wet									
Tetrachloroethylene	ND	0.0020	mg/Kg wet									
Tetrahydrofuran	ND	0.010	mg/Kg wet								V-16	
Toluene	ND	0.0020	mg/Kg wet									
1,2,3-Trichlorobenzene	ND	0.0020	mg/Kg wet									
1,2,4-Trichlorobenzene	ND	0.0020	mg/Kg wet									
1,1,1-Trichloroethane	ND	0.0020	mg/Kg wet									
1,1,2-Trichloroethane	ND	0.0020	mg/Kg wet									
Trichloroethylene	ND	0.0020	mg/Kg wet									
Trichlorofluoromethane (Freon 11)	ND	0.010	mg/Kg wet									
1,2,3-Trichloropropane	ND	0.0020	mg/Kg wet									
1,2,4-Trimethylbenzene	ND	0.0020	mg/Kg wet									
1,3,5-Trimethylbenzene	ND	0.0020	mg/Kg wet									
Vinyl Chloride	ND	0.010	mg/Kg wet									
m+p Xylene	ND	0.0040	mg/Kg wet									
o-Xylene	ND	0.0020	mg/Kg wet									
Surrogate: 1,2-Dichloroethane-d4	*0.0507*		mg/Kg wet	0.0500		101		70-130				
Surrogate: Toluene-d8	*0.0511*		mg/Kg wet	0.0500		102		70-130				
Surrogate: 4-Bromofluorobenzene	*0.0512*		mg/Kg wet	0.0500		102		70-130				
LCS (B263354-BS1)				Prepared & Analyzed: 08/03/20								
Acetone	0.282	0.10	mg/Kg wet	0.200		141		40-160			L-14, V-20	†
tert-Amyl Methyl Ether (TAME)	0.0219	0.0010	mg/Kg wet	0.0200		109		70-130				
Benzene	0.0202	0.0020	mg/Kg wet	0.0200		101		70-130				
Bromobenzene	0.0196	0.0020	mg/Kg wet	0.0200		98.1		70-130				
Bromochloromethane	0.0266	0.0020	mg/Kg wet	0.0200		**133**	*	70-130			L-07	
Bromodichloromethane	0.0191	0.0020	mg/Kg wet	0.0200		95.3		70-130				
Bromoform	0.0201	0.0020	mg/Kg wet	0.0200		100		70-130				
Bromomethane	0.0196	0.010	mg/Kg wet	0.0200		97.8		40-160			V-34	†
2-Butanone (MEK)	0.280	0.040	mg/Kg wet	0.200		140		40-160			L-14, V-20	†
n-Butylbenzene	0.0172	0.0020	mg/Kg wet	0.0200		86.2		70-130				
sec-Butylbenzene	0.0201	0.0020	mg/Kg wet	0.0200		100		70-130				
tert-Butylbenzene	0.0189	0.0020	mg/Kg wet	0.0200		94.3		70-130				
tert-Butyl Ethyl Ether (TBEE)	0.0231	0.0010	mg/Kg wet	0.0200		115		70-130				
Carbon Disulfide	0.177	0.0060	mg/Kg wet	0.200		88.7		70-130				
Carbon Tetrachloride	0.0214	0.0020	mg/Kg wet	0.0200		107		70-130				
Chlorobenzene	0.0218	0.0020	mg/Kg wet	0.0200		109		70-130				
Chlorodibromomethane	0.0221	0.0010	mg/Kg wet	0.0200		110		70-130				
Chloroethane	0.0218	0.010	mg/Kg wet	0.0200		109		70-130				
Chloroform	0.0200	0.0040	mg/Kg wet	0.0200		99.9		70-130				
Chloromethane	0.0234	0.010	mg/Kg wet	0.0200		117		40-160				†
2-Chlorotoluene	0.0198	0.0020	mg/Kg wet	0.0200		99.1		70-130				
4-Chlorotoluene	0.0191	0.0020	mg/Kg wet	0.0200		95.3		70-130				
1,2-Dibromo-3-chloropropane (DBCP)	0.0193	0.0020	mg/Kg wet	0.0200		96.6		70-130				
1,2-Dibromoethane (EDB)	0.0217	0.0010	mg/Kg wet	0.0200		109		70-130				
Dibromomethane	0.0214	0.0020	mg/Kg wet	0.0200		107		70-130				
1,2-Dichlorobenzene	0.0198	0.0020	mg/Kg wet	0.0200		98.8		70-130				
1,3-Dichlorobenzene	0.0195	0.0020	mg/Kg wet	0.0200		97.3		70-130				
1,4-Dichlorobenzene	0.0197	0.0020	mg/Kg wet	0.0200		98.5		70-130				

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QUALITY CONTROL

Volatile Organic Compounds by GC/MS - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes	
Batch B263354 - SW-846 5035											
LCS (B263354-BS1)				Prepared & Analyzed: 08/03/20							
Dichlorodifluoromethane (Freon 12)	0.0195	0.010	mg/Kg wet	0.0200		97.7	40-160				†
1,1-Dichloroethane	0.0217	0.0020	mg/Kg wet	0.0200		108	70-130				
1,2-Dichloroethane	0.0221	0.0020	mg/Kg wet	0.0200		111	70-130				
1,1-Dichloroethylene	0.0189	0.0040	mg/Kg wet	0.0200		94.6	70-130				
cis-1,2-Dichloroethylene	0.0214	0.0020	mg/Kg wet	0.0200		107	70-130				
trans-1,2-Dichloroethylene	0.0216	0.0020	mg/Kg wet	0.0200		108	70-130				
1,2-Dichloropropane	0.0218	0.0020	mg/Kg wet	0.0200		109	70-130				
1,3-Dichloropropane	0.0220	0.0010	mg/Kg wet	0.0200		110	70-130				
2,2-Dichloropropane	0.0184	0.0020	mg/Kg wet	0.0200		91.9	70-130				
1,1-Dichloropropene	0.0205	0.0020	mg/Kg wet	0.0200		102	70-130				
cis-1,3-Dichloropropene	0.0210	0.0010	mg/Kg wet	0.0200		105	70-130				
trans-1,3-Dichloropropene	0.0204	0.0010	mg/Kg wet	0.0200		102	70-130				
Diethyl Ether	0.0205	0.010	mg/Kg wet	0.0200		103	70-130				
Diisopropyl Ether (DIPE)	0.0249	0.0010	mg/Kg wet	0.0200		125	70-130				
1,4-Dioxane	0.210	0.10	mg/Kg wet	0.200		105	40-160			V-16	†
Ethylbenzene	0.0199	0.0020	mg/Kg wet	0.0200		99.4	70-130				
Hexachlorobutadiene	0.0180	0.0020	mg/Kg wet	0.0200		90.2	70-130				
2-Hexanone (MBK)	0.247	0.020	mg/Kg wet	0.200		124	40-160			V-20	†
Isopropylbenzene (Cumene)	0.0210	0.0020	mg/Kg wet	0.0200		105	70-130				
p-Isopropyltoluene (p-Cymene)	0.0189	0.0020	mg/Kg wet	0.0200		94.6	70-130				
Methyl tert-Butyl Ether (MTBE)	0.0214	0.0040	mg/Kg wet	0.0200		107	70-130				
Methylene Chloride	0.0256	0.010	mg/Kg wet	0.0200		128	70-130			V-20	
4-Methyl-2-pentanone (MIBK)	0.245	0.020	mg/Kg wet	0.200		123	40-160			V-20	†
Naphthalene	0.0151	0.0040	mg/Kg wet	0.0200		75.7	70-130			V-05	
n-Propylbenzene	0.0185	0.0020	mg/Kg wet	0.0200		92.7	70-130				
Styrene	0.0203	0.0020	mg/Kg wet	0.0200		102	70-130				
1,1,1,2-Tetrachloroethane	0.0229	0.0020	mg/Kg wet	0.0200		114	70-130				
1,1,2,2-Tetrachloroethane	0.0205	0.0010	mg/Kg wet	0.0200		103	70-130				
Tetrachloroethylene	0.0203	0.0020	mg/Kg wet	0.0200		101	70-130				
Tetrahydrofuran	0.0213	0.010	mg/Kg wet	0.0200		106	70-130			V-16	
Toluene	0.0195	0.0020	mg/Kg wet	0.0200		97.4	70-130				
1,2,3-Trichlorobenzene	0.0168	0.0020	mg/Kg wet	0.0200		83.8	70-130				
1,2,4-Trichlorobenzene	0.0167	0.0020	mg/Kg wet	0.0200		83.4	70-130				
1,1,1-Trichloroethane	0.0188	0.0020	mg/Kg wet	0.0200		93.9	70-130				
1,1,2-Trichloroethane	0.0201	0.0020	mg/Kg wet	0.0200		100	70-130				
Trichloroethylene	0.0190	0.0020	mg/Kg wet	0.0200		95.2	70-130				
Trichlorofluoromethane (Freon 11)	0.0204	0.010	mg/Kg wet	0.0200		102	70-130				
1,2,3-Trichloropropane	0.0236	0.0020	mg/Kg wet	0.0200		118	70-130				
1,2,4-Trimethylbenzene	0.0178	0.0020	mg/Kg wet	0.0200		89.0	70-130				
1,3,5-Trimethylbenzene	0.0188	0.0020	mg/Kg wet	0.0200		94.2	70-130				
Vinyl Chloride	0.0208	0.010	mg/Kg wet	0.0200		104	70-130				
m+p Xylene	0.0449	0.0040	mg/Kg wet	0.0400		112	70-130				
o-Xylene	0.0204	0.0020	mg/Kg wet	0.0200		102	70-130				
Surrogate: 1,2-Dichloroethane-d4	*0.0493*		mg/Kg wet	0.0500		98.6	70-130				
Surrogate: Toluene-d8	*0.0518*		mg/Kg wet	0.0500		104	70-130				
Surrogate: 4-Bromofluorobenzene	*0.0515*		mg/Kg wet	0.0500		103	70-130				

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QUALITY CONTROL

Volatile Organic Compounds by GC/MS - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes	
Batch B263354 - SW-846 5035											
LCS Dup (B263354-BSD1)				Prepared & Analyzed: 08/03/20							
Acetone	0.267	0.10	mg/Kg wet	0.200		133	40-160	5.50	20	L-14, V-20	†
tert-Amyl Methyl Ether (TAME)	0.0228	0.0010	mg/Kg wet	0.0200		114	70-130	4.38	20		
Benzene	0.0200	0.0020	mg/Kg wet	0.0200		100	70-130	0.896	20		
Bromobenzene	0.0189	0.0020	mg/Kg wet	0.0200		94.3	70-130	3.95	20		
Bromochloromethane	0.0246	0.0020	mg/Kg wet	0.0200		123	70-130	7.81	20		
Bromodichloromethane	0.0195	0.0020	mg/Kg wet	0.0200		97.7	70-130	2.49	20		
Bromoform	0.0199	0.0020	mg/Kg wet	0.0200		99.3	70-130	1.20	20		
Bromomethane	0.0172	0.010	mg/Kg wet	0.0200		85.9	40-160	13.0	20	V-34	†
2-Butanone (MEK)	0.272	0.040	mg/Kg wet	0.200		136	40-160	2.62	20	L-14, V-20	†
n-Butylbenzene	0.0159	0.0020	mg/Kg wet	0.0200		79.3	70-130	8.34	20		
sec-Butylbenzene	0.0177	0.0020	mg/Kg wet	0.0200		88.7	70-130	12.5	20		
tert-Butylbenzene	0.0191	0.0020	mg/Kg wet	0.0200		95.4	70-130	1.16	20		
tert-Butyl Ethyl Ether (TBEE)	0.0228	0.0010	mg/Kg wet	0.0200		114	70-130	1.13	20		
Carbon Disulfide	0.169	0.0060	mg/Kg wet	0.200		84.5	70-130	4.79	20		
Carbon Tetrachloride	0.0201	0.0020	mg/Kg wet	0.0200		101	70-130	6.16	20		
Chlorobenzene	0.0210	0.0020	mg/Kg wet	0.0200		105	70-130	3.55	20		
Chlorodibromomethane	0.0217	0.0010	mg/Kg wet	0.0200		109	70-130	1.55	20		
Chloroethane	0.0209	0.010	mg/Kg wet	0.0200		105	70-130	4.03	20		
Chloroform	0.0200	0.0040	mg/Kg wet	0.0200		99.8	70-130	0.100	20		
Chloromethane	0.0215	0.010	mg/Kg wet	0.0200		107	40-160	8.65	20		†
2-Chlorotoluene	0.0188	0.0020	mg/Kg wet	0.0200		94.1	70-130	5.18	20		
4-Chlorotoluene	0.0179	0.0020	mg/Kg wet	0.0200		89.6	70-130	6.17	20		
1,2-Dibromo-3-chloropropane (DBCP)	0.0177	0.0020	mg/Kg wet	0.0200		88.3	70-130	8.98	20		
1,2-Dibromoethane (EDB)	0.0218	0.0010	mg/Kg wet	0.0200		109	70-130	0.276	20		
Dibromomethane	0.0222	0.0020	mg/Kg wet	0.0200		111	70-130	3.68	20		
1,2-Dichlorobenzene	0.0192	0.0020	mg/Kg wet	0.0200		96.0	70-130	2.87	20		
1,3-Dichlorobenzene	0.0190	0.0020	mg/Kg wet	0.0200		95.0	70-130	2.39	20		
1,4-Dichlorobenzene	0.0187	0.0020	mg/Kg wet	0.0200		93.6	70-130	5.10	20		
Dichlorodifluoromethane (Freon 12)	0.0191	0.010	mg/Kg wet	0.0200		95.4	40-160	2.38	20		†
1,1-Dichloroethane	0.0216	0.0020	mg/Kg wet	0.0200		108	70-130	0.647	20		
1,2-Dichloroethane	0.0228	0.0020	mg/Kg wet	0.0200		114	70-130	3.12	20		
1,1-Dichloroethylene	0.0182	0.0040	mg/Kg wet	0.0200		91.1	70-130	3.77	20		
cis-1,2-Dichloroethylene	0.0203	0.0020	mg/Kg wet	0.0200		101	70-130	5.37	20		
trans-1,2-Dichloroethylene	0.0202	0.0020	mg/Kg wet	0.0200		101	70-130	6.59	20		
1,2-Dichloropropane	0.0224	0.0020	mg/Kg wet	0.0200		112	70-130	2.62	20		
1,3-Dichloropropane	0.0212	0.0010	mg/Kg wet	0.0200		106	70-130	4.07	20		
2,2-Dichloropropane	0.0172	0.0020	mg/Kg wet	0.0200		86.0	70-130	6.63	20		
1,1-Dichloropropene	0.0189	0.0020	mg/Kg wet	0.0200		94.6	70-130	7.92	20		
cis-1,3-Dichloropropene	0.0204	0.0010	mg/Kg wet	0.0200		102	70-130	2.99	20		
trans-1,3-Dichloropropene	0.0211	0.0010	mg/Kg wet	0.0200		105	70-130	2.99	20		
Diethyl Ether	0.0193	0.010	mg/Kg wet	0.0200		96.3	70-130	6.43	20		
Diisopropyl Ether (DIPE)	0.0248	0.0010	mg/Kg wet	0.0200		124	70-130	0.402	20		
1,4-Dioxane	0.245	0.10	mg/Kg wet	0.200		123	40-160	15.6	20	V-16	†
Ethylbenzene	0.0187	0.0020	mg/Kg wet	0.0200		93.3	70-130	6.33	20		
Hexachlorobutadiene	0.0176	0.0020	mg/Kg wet	0.0200		88.1	70-130	2.36	20		
2-Hexanone (MBK)	0.238	0.020	mg/Kg wet	0.200		119	40-160	3.91	20	V-20	†
Isopropylbenzene (Cumene)	0.0192	0.0020	mg/Kg wet	0.0200		95.8	70-130	9.26	20		
p-Isopropyltoluene (p-Cymene)	0.0181	0.0020	mg/Kg wet	0.0200		90.5	70-130	4.43	20		
Methyl tert-Butyl Ether (MTBE)	0.0211	0.0040	mg/Kg wet	0.0200		106	70-130	1.22	20		
Methylene Chloride	0.0252	0.010	mg/Kg wet	0.0200		126	70-130	1.50	20	V-20	
4-Methyl-2-pentanone (MIBK)	0.244	0.020	mg/Kg wet	0.200		122	40-160	0.556	20	V-20	†
Naphthalene	0.0143	0.0040	mg/Kg wet	0.0200		71.5	70-130	5.71	20	V-05	

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39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

QUALITY CONTROL

Volatile Organic Compounds by GC/MS - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch B263354 - SW-846 5035										
LCS Dup (B263354-BSD1)				Prepared & Analyzed: 08/03/20						
n-Propylbenzene	0.0172	0.0020	mg/Kg wet	0.0200		86.2	70-130	7.27	20	
Styrene	0.0204	0.0020	mg/Kg wet	0.0200		102	70-130	0.490	20	
1,1,1,2-Tetrachloroethane	0.0195	0.0020	mg/Kg wet	0.0200		97.6	70-130	15.8	20	
1,1,2,2-Tetrachloroethane	0.0195	0.0010	mg/Kg wet	0.0200		97.7	70-130	4.89	20	
Tetrachloroethylene	0.0179	0.0020	mg/Kg wet	0.0200		89.7	70-130	12.1	20	
Tetrahydrofuran	0.0223	0.010	mg/Kg wet	0.0200		112	70-130	4.68	20	V-16
Toluene	0.0188	0.0020	mg/Kg wet	0.0200		94.1	70-130	3.45	20	
1,2,3-Trichlorobenzene	0.0156	0.0020	mg/Kg wet	0.0200		78.2	70-130	6.91	20	
1,2,4-Trichlorobenzene	0.0160	0.0020	mg/Kg wet	0.0200		80.0	70-130	4.16	20	
1,1,1-Trichloroethane	0.0179	0.0020	mg/Kg wet	0.0200		89.3	70-130	5.02	20	
1,1,2-Trichloroethane	0.0203	0.0020	mg/Kg wet	0.0200		101	70-130	0.991	20	
Trichloroethylene	0.0188	0.0020	mg/Kg wet	0.0200		94.1	70-130	1.16	20	
Trichlorofluoromethane (Freon 11)	0.0188	0.010	mg/Kg wet	0.0200		93.8	70-130	8.18	20	
1,2,3-Trichloropropane	0.0209	0.0020	mg/Kg wet	0.0200		104	70-130	12.3	20	
1,2,4-Trimethylbenzene	0.0168	0.0020	mg/Kg wet	0.0200		83.8	70-130	6.02	20	
1,3,5-Trimethylbenzene	0.0185	0.0020	mg/Kg wet	0.0200		92.4	70-130	1.93	20	
Vinyl Chloride	0.0194	0.010	mg/Kg wet	0.0200		96.9	70-130	7.07	20	
m+p Xylene	0.0423	0.0040	mg/Kg wet	0.0400		106	70-130	6.10	20	
o-Xylene	0.0203	0.0020	mg/Kg wet	0.0200		102	70-130	0.589	20	
Surrogate: 1,2-Dichloroethane-d4	*0.0495*		mg/Kg wet	0.0500		99.0	70-130			
Surrogate: Toluene-d8	*0.0511*		mg/Kg wet	0.0500		102	70-130			
Surrogate: 4-Bromofluorobenzene	*0.0510*		mg/Kg wet	0.0500		102	70-130			

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39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

QUALITY CONTROL

Semivolatile Organic Compounds by GC/MS - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch B263474 - SW-846 3546										
Blank (B263474-BLK1)				Prepared: 08/04/20 Analyzed: 08/06/20						
Acenaphthene	ND	0.17	mg/Kg wet							
Acenaphthylene	ND	0.17	mg/Kg wet							
Acetophenone	ND	0.34	mg/Kg wet							
Aniline	ND	0.34	mg/Kg wet							L-04, V-05
Anthracene	ND	0.17	mg/Kg wet							
Benzo(a)anthracene	ND	0.17	mg/Kg wet							
Benzo(a)pyrene	ND	0.17	mg/Kg wet							
Benzo(b)fluoranthene	ND	0.17	mg/Kg wet							
Benzo(g,h,i)perylene	ND	0.17	mg/Kg wet							
Benzo(k)fluoranthene	ND	0.17	mg/Kg wet							
Bis(2-chloroethoxy)methane	ND	0.34	mg/Kg wet							
Bis(2-chloroethyl)ether	ND	0.34	mg/Kg wet							
Bis(2-chloroisopropyl)ether	ND	0.34	mg/Kg wet							
Bis(2-Ethylhexyl)phthalate	ND	0.34	mg/Kg wet							
4-Bromophenylphenylether	ND	0.34	mg/Kg wet							
Butylbenzylphthalate	ND	0.34	mg/Kg wet							
4-Chloroaniline	ND	0.66	mg/Kg wet							
2-Chloronaphthalene	ND	0.34	mg/Kg wet							
2-Chlorophenol	ND	0.34	mg/Kg wet							
Chrysene	ND	0.17	mg/Kg wet							
Dibenz(a,h)anthracene	ND	0.17	mg/Kg wet							
Dibenzofuran	ND	0.34	mg/Kg wet							
Di-n-butylphthalate	ND	0.34	mg/Kg wet							
1,2-Dichlorobenzene	ND	0.34	mg/Kg wet							
1,3-Dichlorobenzene	ND	0.34	mg/Kg wet							
1,4-Dichlorobenzene	ND	0.34	mg/Kg wet							
3,3-Dichlorobenzidine	ND	0.17	mg/Kg wet							
2,4-Dichlorophenol	ND	0.34	mg/Kg wet							
Diethylphthalate	ND	0.34	mg/Kg wet							
2,4-Dimethylphenol	ND	0.34	mg/Kg wet							
Dimethylphthalate	ND	0.34	mg/Kg wet							
2,4-Dinitrophenol	ND	0.66	mg/Kg wet							
2,4-Dinitrotoluene	ND	0.34	mg/Kg wet							
2,6-Dinitrotoluene	ND	0.34	mg/Kg wet							
Di-n-octylphthalate	ND	0.34	mg/Kg wet							V-05
1,2-Diphenylhydrazine/Azobenzene	ND	0.34	mg/Kg wet							
Fluoranthene	ND	0.17	mg/Kg wet							
Fluorene	ND	0.17	mg/Kg wet							
Hexachlorobenzene	ND	0.34	mg/Kg wet							
Hexachlorobutadiene	ND	0.34	mg/Kg wet							
Hexachloroethane	ND	0.34	mg/Kg wet							
Indeno(1,2,3-cd)pyrene	ND	0.17	mg/Kg wet							
Isophorone	ND	0.34	mg/Kg wet							
2-Methylnaphthalene	ND	0.17	mg/Kg wet							
2-Methylphenol	ND	0.34	mg/Kg wet							
3/4-Methylphenol	ND	0.34	mg/Kg wet							
Naphthalene	ND	0.17	mg/Kg wet							
Nitrobenzene	ND	0.34	mg/Kg wet							
2-Nitrophenol	ND	0.34	mg/Kg wet							
4-Nitrophenol	ND	0.66	mg/Kg wet							
Pentachlorophenol	ND	0.34	mg/Kg wet							
Phenanthrene	ND	0.17	mg/Kg wet							

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39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

QUALITY CONTROL

Semivolatile Organic Compounds by GC/MS - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC		%REC Limits	RPD	RPD Limit	Notes
Batch B263474 - SW-846 3546											
Blank (B263474-BLK1)				Prepared: 08/04/20 Analyzed: 08/06/20							
Phenol	ND	0.34	mg/Kg wet								
Pyrene	ND	0.17	mg/Kg wet								
Pyridine	ND	0.34	mg/Kg wet								
1,2,4-Trichlorobenzene	ND	0.34	mg/Kg wet								
2,4,5-Trichlorophenol	ND	0.34	mg/Kg wet								
2,4,6-Trichlorophenol	ND	0.34	mg/Kg wet								
Surrogate: 2-Fluorophenol	*4.15*		mg/Kg wet	6.67		62.3		30-130			
Surrogate: Phenol-d6	*4.23*		mg/Kg wet	6.67		63.5		30-130			
Surrogate: Nitrobenzene-d5	*2.12*		mg/Kg wet	3.33		63.5		30-130			
Surrogate: 2-Fluorobiphenyl	*2.27*		mg/Kg wet	3.33		68.2		30-130			
Surrogate: 2,4,6-Tribromophenol	*4.14*		mg/Kg wet	6.67		62.2		30-130			
Surrogate: p-Terphenyl-d14	*2.74*		mg/Kg wet	3.33		82.4		30-130			
LCS (B263474-BS1)				Prepared: 08/04/20 Analyzed: 08/06/20							
Acenaphthene	0.989	0.17	mg/Kg wet	1.67		59.4		40-140			
Acenaphthylene	0.973	0.17	mg/Kg wet	1.67		58.4		40-140			
Acetophenone	0.953	0.34	mg/Kg wet	1.67		57.2		40-140			
Aniline	0.665	0.34	mg/Kg wet	1.67		**39.9**	*	40-140			L-04, V-05
Anthracene	1.12	0.17	mg/Kg wet	1.67		67.1		40-140			
Benzo(a)anthracene	1.08	0.17	mg/Kg wet	1.67		65.0		40-140			
Benzo(a)pyrene	1.06	0.17	mg/Kg wet	1.67		63.7		40-140			
Benzo(b)fluoranthene	1.10	0.17	mg/Kg wet	1.67		66.2		40-140			
Benzo(g,h,i)perylene	1.18	0.17	mg/Kg wet	1.67		70.7		40-140			
Benzo(k)fluoranthene	1.13	0.17	mg/Kg wet	1.67		67.6		40-140			
Bis(2-chloroethoxy)methane	1.01	0.34	mg/Kg wet	1.67		60.5		40-140			
Bis(2-chloroethyl)ether	0.895	0.34	mg/Kg wet	1.67		53.7		40-140			
Bis(2-chloroisopropyl)ether	1.04	0.34	mg/Kg wet	1.67		62.5		40-140			
Bis(2-Ethylhexyl)phthalate	1.12	0.34	mg/Kg wet	1.67		67.0		40-140			
4-Bromophenylphenylether	1.10	0.34	mg/Kg wet	1.67		65.7		40-140			
Butylbenzylphthalate	1.13	0.34	mg/Kg wet	1.67		67.6		40-140			
4-Chloroaniline	0.777	0.66	mg/Kg wet	1.67		46.6		15-140			†
2-Chloronaphthalene	0.870	0.34	mg/Kg wet	1.67		52.2		40-140			
2-Chlorophenol	0.941	0.34	mg/Kg wet	1.67		56.5		30-130			
Chrysene	1.09	0.17	mg/Kg wet	1.67		65.4		40-140			
Dibenz(a,h)anthracene	1.15	0.17	mg/Kg wet	1.67		69.2		40-140			
Dibenzofuran	1.07	0.34	mg/Kg wet	1.67		64.1		40-140			
Di-n-butylphthalate	1.10	0.34	mg/Kg wet	1.67		66.2		40-140			
1,2-Dichlorobenzene	0.784	0.34	mg/Kg wet	1.67		47.0		40-140			
1,3-Dichlorobenzene	0.756	0.34	mg/Kg wet	1.67		45.4		40-140			
1,4-Dichlorobenzene	0.769	0.34	mg/Kg wet	1.67		46.1		40-140			
3,3-Dichlorobenzidine	1.01	0.17	mg/Kg wet	1.67		60.3		40-140			
2,4-Dichlorophenol	0.987	0.34	mg/Kg wet	1.67		59.2		30-130			
Diethylphthalate	1.02	0.34	mg/Kg wet	1.67		61.2		40-140			
2,4-Dimethylphenol	0.871	0.34	mg/Kg wet	1.67		52.3		30-130			
Dimethylphthalate	1.06	0.34	mg/Kg wet	1.67		63.7		40-140			
2,4-Dinitrophenol	0.549	0.66	mg/Kg wet	1.67		32.9		15-140			†
2,4-Dinitrotoluene	1.00	0.34	mg/Kg wet	1.67		60.3		40-140			
2,6-Dinitrotoluene	1.08	0.34	mg/Kg wet	1.67		65.0		40-140			
Di-n-octylphthalate	1.34	0.34	mg/Kg wet	1.67		80.3		40-140			V-05
1,2-Diphenylhydrazine/Azobenzene	1.11	0.34	mg/Kg wet	1.67		66.7		40-140			
Fluoranthene	1.10	0.17	mg/Kg wet	1.67		66.2		40-140			
Fluorene	1.06	0.17	mg/Kg wet	1.67		63.8		40-140			

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39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

QUALITY CONTROL

Semivolatile Organic Compounds by GC/MS - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch B263474 - SW-846 3546										
LCS (B263474-BS1)				Prepared: 08/04/20 Analyzed: 08/06/20						
Hexachlorobenzene	1.07	0.34	mg/Kg wet	1.67		64.1	40-140			
Hexachlorobutadiene	0.781	0.34	mg/Kg wet	1.67		46.8	40-140			
Hexachloroethane	0.736	0.34	mg/Kg wet	1.67		44.2	40-140			
Indeno(1,2,3-cd)pyrene	1.25	0.17	mg/Kg wet	1.67		75.0	40-140			
Isophorone	0.972	0.34	mg/Kg wet	1.67		58.3	40-140			
2-Methylnaphthalene	1.05	0.17	mg/Kg wet	1.67		62.8	40-140			
2-Methylphenol	0.977	0.34	mg/Kg wet	1.67		58.6	30-130			
3/4-Methylphenol	1.00	0.34	mg/Kg wet	1.67		60.0	30-130			
Naphthalene	0.921	0.17	mg/Kg wet	1.67		55.3	40-140			
Nitrobenzene	0.909	0.34	mg/Kg wet	1.67		54.5	40-140			
2-Nitrophenol	0.975	0.34	mg/Kg wet	1.67		58.5	30-130			
4-Nitrophenol	0.967	0.66	mg/Kg wet	1.67		58.0	15-140			†
Pentachlorophenol	0.838	0.34	mg/Kg wet	1.67		50.3	30-130			
Phenanthrene	1.11	0.17	mg/Kg wet	1.67		66.6	40-140			
Phenol	0.961	0.34	mg/Kg wet	1.67		57.7	15-140			†
Pyrene	1.14	0.17	mg/Kg wet	1.67		68.6	40-140			
Pyridine	0.533	0.34	mg/Kg wet	1.67		32.0	30-140			†
1,2,4-Trichlorobenzene	0.845	0.34	mg/Kg wet	1.67		50.7	40-140			
2,4,5-Trichlorophenol	1.05	0.34	mg/Kg wet	1.67		62.9	30-130			
2,4,6-Trichlorophenol	1.05	0.34	mg/Kg wet	1.67		63.0	30-130			
Surrogate: 2-Fluorophenol	*3.97*		mg/Kg wet	6.67		59.5	30-130			
Surrogate: Phenol-d6	*4.19*		mg/Kg wet	6.67		62.8	30-130			
Surrogate: Nitrobenzene-d5	*2.00*		mg/Kg wet	3.33		59.9	30-130			
Surrogate: 2-Fluorobiphenyl	*2.28*		mg/Kg wet	3.33		68.4	30-130			
Surrogate: 2,4,6-Tribromophenol	*4.46*		mg/Kg wet	6.67		66.9	30-130			
Surrogate: p-Terphenyl-d14	*2.54*		mg/Kg wet	3.33		76.4	30-130			
LCS Dup (B263474-BSD1)				Prepared: 08/04/20 Analyzed: 08/06/20						
Acenaphthene	0.919	0.17	mg/Kg wet	1.67		55.1	40-140	7.41	30	
Acenaphthylene	0.909	0.17	mg/Kg wet	1.67		54.6	40-140	6.80	30	
Acetophenone	0.902	0.34	mg/Kg wet	1.67		54.1	40-140	5.50	30	
Aniline	0.521	0.34	mg/Kg wet	1.67		**31.3** *	40-140	24.3	30	L-04, V-05
Anthracene	1.10	0.17	mg/Kg wet	1.67		65.9	40-140	1.71	30	
Benzo(a)anthracene	1.16	0.17	mg/Kg wet	1.67		69.3	40-140	6.47	30	
Benzo(a)pyrene	1.13	0.17	mg/Kg wet	1.67		68.0	40-140	6.44	30	
Benzo(b)fluoranthene	1.20	0.17	mg/Kg wet	1.67		71.7	40-140	7.92	30	
Benzo(g,h,i)perylene	1.28	0.17	mg/Kg wet	1.67		77.0	40-140	8.58	30	
Benzo(k)fluoranthene	1.23	0.17	mg/Kg wet	1.67		73.5	40-140	8.39	30	
Bis(2-chloroethoxy)methane	0.932	0.34	mg/Kg wet	1.67		55.9	40-140	7.84	30	
Bis(2-chloroethyl)ether	0.882	0.34	mg/Kg wet	1.67		52.9	40-140	1.50	30	
Bis(2-chloroisopropyl)ether	0.996	0.34	mg/Kg wet	1.67		59.8	40-140	4.48	30	
Bis(2-Ethylhexyl)phthalate	1.08	0.34	mg/Kg wet	1.67		65.1	40-140	2.91	30	
4-Bromophenylphenylether	1.08	0.34	mg/Kg wet	1.67		64.6	40-140	1.63	30	
Butylbenzylphthalate	1.10	0.34	mg/Kg wet	1.67		66.1	40-140	2.30	30	
4-Chloroaniline	0.635	0.66	mg/Kg wet	1.67		38.1	15-140	20.1	30	†
2-Chloronaphthalene	0.833	0.34	mg/Kg wet	1.67		50.0	40-140	4.39	30	
2-Chlorophenol	0.874	0.34	mg/Kg wet	1.67		52.5	30-130	7.38	30	
Chrysene	1.15	0.17	mg/Kg wet	1.67		69.2	40-140	5.73	30	
Dibenz(a,h)anthracene	1.23	0.17	mg/Kg wet	1.67		73.8	40-140	6.32	30	
Dibenzofuran	1.00	0.34	mg/Kg wet	1.67		60.2	40-140	6.37	30	
Di-n-butylphthalate	1.18	0.34	mg/Kg wet	1.67		71.0	40-140	6.94	30	
1,2-Dichlorobenzene	0.837	0.34	mg/Kg wet	1.67		50.2	40-140	6.50	30	

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39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

QUALITY CONTROL

Semivolatile Organic Compounds by GC/MS - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC		%REC Limits	RPD	RPD Limit	Notes	
Batch B263474 - SW-846 3546												
LCS Dup (B263474-BSD1)				Prepared: 08/04/20 Analyzed: 08/06/20								
1,3-Dichlorobenzene	0.814	0.34	mg/Kg wet	1.67		48.8		40-140	7.30	30		
1,4-Dichlorobenzene	0.816	0.34	mg/Kg wet	1.67		49.0		40-140	5.97	30		
3,3-Dichlorobenzidine	1.04	0.17	mg/Kg wet	1.67		62.6		40-140	3.74	30		
2,4-Dichlorophenol	0.915	0.34	mg/Kg wet	1.67		54.9		30-130	7.50	30		
Diethylphthalate	1.02	0.34	mg/Kg wet	1.67		61.4		40-140	0.261	30		
2,4-Dimethylphenol	0.780	0.34	mg/Kg wet	1.67		46.8		30-130	11.0	30		
Dimethylphthalate	1.05	0.34	mg/Kg wet	1.67		62.8		40-140	1.52	30		
2,4-Dinitrophenol	0.477	0.66	mg/Kg wet	1.67		28.6		15-140	14.0	30		†
2,4-Dinitrotoluene	0.995	0.34	mg/Kg wet	1.67		59.7		40-140	0.967	30		
2,6-Dinitrotoluene	1.04	0.34	mg/Kg wet	1.67		62.6		40-140	3.79	30		
Di-n-octylphthalate	1.16	0.34	mg/Kg wet	1.67		69.4		40-140	14.5	30	V-05	
1,2-Diphenylhydrazine/Azobenzene	1.06	0.34	mg/Kg wet	1.67		63.5		40-140	4.85	30		
Fluoranthene	0.939	0.17	mg/Kg wet	1.67		56.4		40-140	16.0	30		
Fluorene	0.987	0.17	mg/Kg wet	1.67		59.2		40-140	7.47	30		
Hexachlorobenzene	1.05	0.34	mg/Kg wet	1.67		63.1		40-140	1.60	30		
Hexachlorobutadiene	0.798	0.34	mg/Kg wet	1.67		47.9		40-140	2.15	30		
Hexachloroethane	0.777	0.34	mg/Kg wet	1.67		46.6		40-140	5.46	30		
Indeno(1,2,3-cd)pyrene	1.36	0.17	mg/Kg wet	1.67		81.3		40-140	8.06	30		
Isophorone	0.896	0.34	mg/Kg wet	1.67		53.8		40-140	8.17	30		
2-Methylnaphthalene	0.983	0.17	mg/Kg wet	1.67		59.0		40-140	6.24	30		
2-Methylphenol	0.891	0.34	mg/Kg wet	1.67		53.5		30-130	9.20	30		
3/4-Methylphenol	0.897	0.34	mg/Kg wet	1.67		53.8		30-130	10.8	30		
Naphthalene	0.882	0.17	mg/Kg wet	1.67		52.9		40-140	4.40	30		
Nitrobenzene	0.852	0.34	mg/Kg wet	1.67		51.1		40-140	6.51	30		
2-Nitrophenol	0.931	0.34	mg/Kg wet	1.67		55.9		30-130	4.58	30		
4-Nitrophenol	0.953	0.66	mg/Kg wet	1.67		57.2		15-140	1.53	30		†
Pentachlorophenol	0.866	0.34	mg/Kg wet	1.67		52.0		30-130	3.36	30		
Phenanthrene	1.10	0.17	mg/Kg wet	1.67		66.2		40-140	0.602	30		
Phenol	0.857	0.34	mg/Kg wet	1.67		51.4		15-140	11.4	30		†
Pyrene	1.16	0.17	mg/Kg wet	1.67		69.6		40-140	1.45	30		
Pyridine	0.564	0.34	mg/Kg wet	1.67		33.9		30-140	5.77	30		†
1,2,4-Trichlorobenzene	0.843	0.34	mg/Kg wet	1.67		50.6		40-140	0.277	30		
2,4,5-Trichlorophenol	1.00	0.34	mg/Kg wet	1.67		60.0		30-130	4.82	30		
2,4,6-Trichlorophenol	0.997	0.34	mg/Kg wet	1.67		59.8		30-130	5.24	30		
Surrogate: 2-Fluorophenol	*3.63*		mg/Kg wet	6.67		54.4		30-130				
Surrogate: Phenol-d6	*3.67*		mg/Kg wet	6.67		55.0		30-130				
Surrogate: Nitrobenzene-d5	*1.81*		mg/Kg wet	3.33		54.4		30-130				
Surrogate: 2-Fluorobiphenyl	*2.10*		mg/Kg wet	3.33		63.1		30-130				
Surrogate: 2,4,6-Tribromophenol	*4.26*		mg/Kg wet	6.67		63.8		30-130				
Surrogate: p-Terphenyl-d14	*2.70*		mg/Kg wet	3.33		80.9		30-130				
Matrix Spike (B263474-MS1)		**Source: 20G1287-01**		Prepared: 08/04/20 Analyzed: 08/07/20								
Acenaphthene	1.09	0.18	mg/Kg dry	1.78	ND	61.2		40-140				
Acenaphthylene	1.16	0.18	mg/Kg dry	1.78	ND	65.2		40-140				
Acetophenone	1.14	0.36	mg/Kg dry	1.78	ND	64.0		40-140				
Aniline	0.637	0.36	mg/Kg dry	1.78	ND	**35.8**	*	40-140			L-04, M-09, V-05	
Anthracene	1.31	0.18	mg/Kg dry	1.78	ND	73.6		40-140				
Benzo(a)anthracene	1.87	0.18	mg/Kg dry	1.78	0.396	82.7		40-140				
Benzo(a)pyrene	1.78	0.18	mg/Kg dry	1.78	0.381	78.4		40-140				
Benzo(b)fluoranthene	1.86	0.18	mg/Kg dry	1.78	0.444	79.7		40-140				
Benzo(g,h,i)perylene	1.25	0.18	mg/Kg dry	1.78	0.164	61.0		40-140			R-06	
Benzo(k)fluoranthene	1.65	0.18	mg/Kg dry	1.78	0.165	83.4		40-140				

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QUALITY CONTROL

Semivolatile Organic Compounds by GC/MS - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC		%REC Limits	RPD	RPD Limit	Notes
Batch B263474 - SW-846 3546											
Matrix Spike (B263474-MS1)		**Source: 20G1287-01**		Prepared: 08/04/20 Analyzed: 08/07/20							
Bis(2-chloroethoxy)methane	1.14	0.36	mg/Kg dry	1.78	ND	64.1		40-140			
Bis(2-chloroethyl)ether	1.05	0.36	mg/Kg dry	1.78	ND	59.0		40-140			
Bis(2-chloroisopropyl)ether	1.22	0.36	mg/Kg dry	1.78	ND	68.4		40-140			
Bis(2-Ethylhexyl)phthalate	1.22	0.36	mg/Kg dry	1.78	0.210	56.9		40-140			
4-Bromophenylphenylether	1.23	0.36	mg/Kg dry	1.78	ND	68.9		40-140			
Butylbenzylphthalate	1.18	0.36	mg/Kg dry	1.78	ND	66.2		40-140			
4-Chloroaniline	0.838	0.70	mg/Kg dry	1.78	ND	47.1		40-140			
2-Chloronaphthalene	0.997	0.36	mg/Kg dry	1.78	ND	56.0		40-140			
2-Chlorophenol	1.11	0.36	mg/Kg dry	1.78	ND	62.1		30-130			
Chrysene	1.90	0.18	mg/Kg dry	1.78	0.404	84.1		40-140			
Dibenz(a,h)anthracene	0.827	0.18	mg/Kg dry	1.78	ND	46.4		40-140			
Dibenzofuran	1.19	0.36	mg/Kg dry	1.78	ND	67.1		40-140			
Di-n-butylphthalate	1.15	0.36	mg/Kg dry	1.78	ND	64.4		40-140			
1,2-Dichlorobenzene	0.995	0.36	mg/Kg dry	1.78	ND	55.9		40-140			
1,3-Dichlorobenzene	0.944	0.36	mg/Kg dry	1.78	ND	53.0		40-140			
1,4-Dichlorobenzene	0.963	0.36	mg/Kg dry	1.78	ND	54.1		40-140			
3,3-Dichlorobenzidine	0.957	0.18	mg/Kg dry	1.78	ND	53.8		40-140			
2,4-Dichlorophenol	1.13	0.36	mg/Kg dry	1.78	ND	63.5		30-130			
Diethylphthalate	1.10	0.36	mg/Kg dry	1.78	ND	61.6		40-140			
2,4-Dimethylphenol	0.973	0.36	mg/Kg dry	1.78	ND	54.7		30-130			
Dimethylphthalate	1.13	0.36	mg/Kg dry	1.78	ND	63.8		40-140			
2,4-Dinitrophenol	0.217	0.70	mg/Kg dry	1.78	ND	**12.2**	*	30-130			MS-09
2,4-Dinitrotoluene	1.02	0.36	mg/Kg dry	1.78	ND	57.2		40-140			
2,6-Dinitrotoluene	1.10	0.36	mg/Kg dry	1.78	ND	61.9		40-140			
Di-n-octylphthalate	1.25	0.36	mg/Kg dry	1.78	ND	70.4		40-140			
1,2-Diphenylhydrazine/Azobenzene	1.14	0.36	mg/Kg dry	1.78	ND	64.2		40-140			
Fluoranthene	2.07	0.18	mg/Kg dry	1.78	0.600	82.6		40-140			
Fluorene	1.22	0.18	mg/Kg dry	1.78	ND	68.4		40-140			
Hexachlorobenzene	1.17	0.36	mg/Kg dry	1.78	ND	65.5		40-140			
Hexachlorobutadiene	1.03	0.36	mg/Kg dry	1.78	ND	57.7		40-140			
Hexachloroethane	0.732	0.36	mg/Kg dry	1.78	ND	41.1		40-140			
Indeno(1,2,3-cd)pyrene	1.24	0.18	mg/Kg dry	1.78	0.191	58.9		40-140			
Isophorone	1.10	0.36	mg/Kg dry	1.78	ND	61.7		40-140			
2-Methylnaphthalene	1.28	0.18	mg/Kg dry	1.78	ND	71.7		40-140			
2-Methylphenol	1.13	0.36	mg/Kg dry	1.78	ND	63.4		30-130			
3/4-Methylphenol	1.12	0.36	mg/Kg dry	1.78	ND	63.0		30-130			
Naphthalene	1.14	0.18	mg/Kg dry	1.78	ND	63.9		40-140			
Nitrobenzene	1.05	0.36	mg/Kg dry	1.78	ND	58.9		40-140			
2-Nitrophenol	1.07	0.36	mg/Kg dry	1.78	ND	60.2		30-130			
4-Nitrophenol	0.937	0.70	mg/Kg dry	1.78	ND	52.6		30-130			
Pentachlorophenol	0.443	0.36	mg/Kg dry	1.78	ND	**24.9**	*	30-130			MS-09
Phenanthrene	1.80	0.18	mg/Kg dry	1.78	0.395	79.2		40-140			
Phenol	1.07	0.36	mg/Kg dry	1.78	ND	60.3		30-130			
Pyrene	2.68	0.18	mg/Kg dry	1.78	0.833	104		40-140			
1,2,4-Trichlorobenzene	1.07	0.36	mg/Kg dry	1.78	ND	59.8		40-140			
2,4,5-Trichlorophenol	1.10	0.36	mg/Kg dry	1.78	ND	61.8		30-130			
2,4,6-Trichlorophenol	1.12	0.36	mg/Kg dry	1.78	ND	63.0		30-130			
Surrogate: 2-Fluorophenol	*4.58*		mg/Kg dry	7.12		64.4		30-130			
Surrogate: Phenol-d6	*4.66*		mg/Kg dry	7.12		65.4		30-130			
Surrogate: Nitrobenzene-d5	*2.28*		mg/Kg dry	3.56		64.1		30-130			
Surrogate: 2-Fluorobiphenyl	*2.54*		mg/Kg dry	3.56		71.3		30-130			
Surrogate: 2,4,6-Tribromophenol	*4.76*		mg/Kg dry	7.12		66.9		30-130			

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QUALITY CONTROL

Semivolatile Organic Compounds by GC/MS - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC		%REC Limits	RPD		RPD Limit	Notes
Batch B263474 - SW-846 3546												
Matrix Spike (B263474-MS1)		**Source: 20G1287-01**		Prepared: 08/04/20 Analyzed: 08/07/20								
Surrogate: p-Terphenyl-d14	*2.79*		mg/Kg dry	3.56		78.4		30-130				
Matrix Spike Dup (B263474-MSD1)		**Source: 20G1287-01**		Prepared: 08/04/20 Analyzed: 08/07/20								
Acenaphthene	1.03	0.18	mg/Kg dry	1.79	ND	57.7		40-140	5.59		30	
Acenaphthylene	1.09	0.18	mg/Kg dry	1.79	ND	61.1		40-140	6.23		30	
Acetophenone	0.992	0.36	mg/Kg dry	1.79	ND	55.5		40-140	13.8		30	
Aniline	0.694	0.36	mg/Kg dry	1.79	ND	**38.8**	*	40-140	8.59		30	L-04, M-09, V-05
Anthracene	1.23	0.18	mg/Kg dry	1.79	ND	68.8		40-140	6.47		30	
Benzo(a)anthracene	1.55	0.18	mg/Kg dry	1.79	0.396	64.4		40-140	18.9		30	
Benzo(a)pyrene	1.45	0.18	mg/Kg dry	1.79	0.381	59.9		40-140	20.1		30	
Benzo(b)fluoranthene	1.52	0.18	mg/Kg dry	1.79	0.444	60.3		40-140	20.2		30	
Benzo(g,h,i)perylene	0.917	0.18	mg/Kg dry	1.79	0.164	42.2		40-140	**30.8**	*	30	R-06
Benzo(k)fluoranthene	1.35	0.18	mg/Kg dry	1.79	0.165	66.3		40-140	20.0		30	
Bis(2-chloroethoxy)methane	1.04	0.36	mg/Kg dry	1.79	ND	58.5		40-140	8.84		30	
Bis(2-chloroethyl)ether	0.923	0.36	mg/Kg dry	1.79	ND	51.7		40-140	13.0		30	
Bis(2-chloroisopropyl)ether	1.11	0.36	mg/Kg dry	1.79	ND	62.2		40-140	9.26		30	
Bis(2-Ethylhexyl)phthalate	1.19	0.36	mg/Kg dry	1.79	0.210	55.0		40-140	2.50		30	
4-Bromophenylphenylether	1.17	0.36	mg/Kg dry	1.79	ND	65.7		40-140	4.36		30	
Butylbenzylphthalate	1.17	0.36	mg/Kg dry	1.79	ND	65.7		40-140	0.306		30	
4-Chloroaniline	0.856	0.71	mg/Kg dry	1.79	ND	47.9		40-140	2.14		30	
2-Chloronaphthalene	0.955	0.36	mg/Kg dry	1.79	ND	53.5		40-140	4.38		30	
2-Chlorophenol	0.987	0.36	mg/Kg dry	1.79	ND	55.3		30-130	11.3		30	
Chrysene	1.57	0.18	mg/Kg dry	1.79	0.404	65.5		40-140	18.8		30	
Dibenz(a,h)anthracene	0.778	0.18	mg/Kg dry	1.79	ND	43.5		40-140	6.12		30	
Dibenzofuran	1.14	0.36	mg/Kg dry	1.79	ND	63.6		40-140	5.00		30	
Di-n-butylphthalate	1.12	0.36	mg/Kg dry	1.79	ND	62.8		40-140	2.09		30	
1,2-Dichlorobenzene	0.832	0.36	mg/Kg dry	1.79	ND	46.6		40-140	17.9		30	
1,3-Dichlorobenzene	0.775	0.36	mg/Kg dry	1.79	ND	43.4		40-140	19.6		30	
1,4-Dichlorobenzene	0.800	0.36	mg/Kg dry	1.79	ND	44.8		40-140	18.6		30	
3,3-Dichlorobenzidine	1.00	0.18	mg/Kg dry	1.79	ND	56.0		40-140	4.34		30	
2,4-Dichlorophenol	1.07	0.36	mg/Kg dry	1.79	ND	59.8		30-130	5.70		30	
Diethylphthalate	1.06	0.36	mg/Kg dry	1.79	ND	59.4		40-140	3.37		30	
2,4-Dimethylphenol	0.928	0.36	mg/Kg dry	1.79	ND	52.0		30-130	4.73		30	
Dimethylphthalate	1.09	0.36	mg/Kg dry	1.79	ND	61.2		40-140	3.73		30	
2,4-Dinitrophenol	0.209	0.71	mg/Kg dry	1.79	ND	**11.7**	*	30-130			30	MS-09
2,4-Dinitrotoluene	0.975	0.36	mg/Kg dry	1.79	ND	54.6		40-140	4.21		30	
2,6-Dinitrotoluene	1.07	0.36	mg/Kg dry	1.79	ND	59.8		40-140	3.02		30	
Di-n-octylphthalate	1.24	0.36	mg/Kg dry	1.79	ND	69.2		40-140	1.47		30	
1,2-Diphenylhydrazine/Azobenzene	1.17	0.36	mg/Kg dry	1.79	ND	65.5		40-140	2.46		30	
Fluoranthene	1.67	0.18	mg/Kg dry	1.79	0.600	59.9		40-140	21.5		30	
Fluorene	1.16	0.18	mg/Kg dry	1.79	ND	65.2		40-140	4.52		30	
Hexachlorobenzene	1.10	0.36	mg/Kg dry	1.79	ND	61.4		40-140	6.07		30	
Hexachlorobutadiene	0.870	0.36	mg/Kg dry	1.79	ND	48.7		40-140	16.5		30	
Hexachloroethane	0.631	0.36	mg/Kg dry	1.79	ND	**35.3**	*	40-140	14.8		30	MS-22
Indeno(1,2,3-cd)pyrene	0.960	0.18	mg/Kg dry	1.79	0.191	43.1		40-140	25.4		30	
Isophorone	1.03	0.36	mg/Kg dry	1.79	ND	57.5		40-140	6.75		30	
2-Methylnaphthalene	1.18	0.18	mg/Kg dry	1.79	ND	66.0		40-140	7.92		30	
2-Methylphenol	1.06	0.36	mg/Kg dry	1.79	ND	59.4		30-130	6.18		30	
3/4-Methylphenol	1.07	0.36	mg/Kg dry	1.79	ND	60.0		30-130	4.48		30	
Naphthalene	1.00	0.18	mg/Kg dry	1.79	ND	56.2		40-140	12.5		30	
Nitrobenzene	0.928	0.36	mg/Kg dry	1.79	ND	52.0		40-140	12.2		30	
2-Nitrophenol	0.930	0.36	mg/Kg dry	1.79	ND	52.1		30-130	14.2		30	

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QUALITY CONTROL

Semivolatile Organic Compounds by GC/MS - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC		%REC Limits	RPD	RPD Limit	Notes
Batch B263474 - SW-846 3546											
Matrix Spike Dup (B263474-MSD1)	**Source: 20G1287-01**			Prepared: 08/04/20 Analyzed: 08/07/20							
4-Nitrophenol	0.934	0.71	mg/Kg dry	1.79	ND	52.3		30-130	0.318	30	
Pentachlorophenol	0.418	0.36	mg/Kg dry	1.79	ND	**23.4**	*	30-130	5.72	30	MS-09
Phenanthrene	1.69	0.18	mg/Kg dry	1.79	0.395	72.5		40-140	6.52	30	
Phenol	1.02	0.36	mg/Kg dry	1.79	ND	56.9		30-130	5.44	30	
Pyrene	2.14	0.18	mg/Kg dry	1.79	0.833	73.2		40-140	22.3	30	
1,2,4-Trichlorobenzene	0.922	0.36	mg/Kg dry	1.79	ND	51.6		40-140	14.5	30	
2,4,5-Trichlorophenol	1.06	0.36	mg/Kg dry	1.79	ND	59.4		30-130	3.63	30	
2,4,6-Trichlorophenol	1.06	0.36	mg/Kg dry	1.79	ND	59.3		30-130	5.65	30	
Surrogate: 2-Fluorophenol	*4.06*		mg/Kg dry	7.14		56.8		30-130			
Surrogate: Phenol-d6	*4.36*		mg/Kg dry	7.14		61.1		30-130			
Surrogate: Nitrobenzene-d5	*2.00*		mg/Kg dry	3.57		56.0		30-130			
Surrogate: 2-Fluorobiphenyl	*2.36*		mg/Kg dry	3.57		66.1		30-130			
Surrogate: 2,4,6-Tribromophenol	*4.44*		mg/Kg dry	7.14		62.2		30-130			
Surrogate: p-Terphenyl-d14	*2.64*		mg/Kg dry	3.57		74.0		30-130			

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QUALITY CONTROL

Polychlorinated Biphenyls By GC/ECD - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch B263621 - SW-846 3546										
Blank (B263621-BLK1)				Prepared: 08/06/20 Analyzed: 08/08/20						
Aroclor-1016	ND	0.020	mg/Kg wet							
Aroclor-1016 [2C]	ND	0.020	mg/Kg wet							
Aroclor-1221	ND	0.020	mg/Kg wet							
Aroclor-1221 [2C]	ND	0.020	mg/Kg wet							
Aroclor-1232	ND	0.020	mg/Kg wet							
Aroclor-1232 [2C]	ND	0.020	mg/Kg wet							
Aroclor-1242	ND	0.020	mg/Kg wet							
Aroclor-1242 [2C]	ND	0.020	mg/Kg wet							
Aroclor-1248	ND	0.020	mg/Kg wet							
Aroclor-1248 [2C]	ND	0.020	mg/Kg wet							
Aroclor-1254	ND	0.020	mg/Kg wet							
Aroclor-1254 [2C]	ND	0.020	mg/Kg wet							
Aroclor-1260	ND	0.020	mg/Kg wet							
Aroclor-1260 [2C]	ND	0.020	mg/Kg wet							
Aroclor-1262	ND	0.020	mg/Kg wet							
Aroclor-1262 [2C]	ND	0.020	mg/Kg wet							
Aroclor-1268	ND	0.020	mg/Kg wet							
Aroclor-1268 [2C]	ND	0.020	mg/Kg wet							
Surrogate: Decachlorobiphenyl	*0.212*		mg/Kg wet	0.200		106	30-150			
Surrogate: Decachlorobiphenyl [2C]	*0.203*		mg/Kg wet	0.200		101	30-150			
Surrogate: Tetrachloro-m-xylene	*0.189*		mg/Kg wet	0.200		94.5	30-150			
Surrogate: Tetrachloro-m-xylene [2C]	*0.162*		mg/Kg wet	0.200		80.9	30-150			
LCS (B263621-BS1)				Prepared: 08/06/20 Analyzed: 08/08/20						
Aroclor-1016	0.18	0.020	mg/Kg wet	0.200		90.7	40-140			
Aroclor-1016 [2C]	0.15	0.020	mg/Kg wet	0.200		76.4	40-140			
Aroclor-1260	0.18	0.020	mg/Kg wet	0.200		90.0	40-140			
Aroclor-1260 [2C]	0.16	0.020	mg/Kg wet	0.200		82.2	40-140			
Surrogate: Decachlorobiphenyl	*0.216*		mg/Kg wet	0.200		108	30-150			
Surrogate: Decachlorobiphenyl [2C]	*0.205*		mg/Kg wet	0.200		102	30-150			
Surrogate: Tetrachloro-m-xylene	*0.195*		mg/Kg wet	0.200		97.5	30-150			
Surrogate: Tetrachloro-m-xylene [2C]	*0.168*		mg/Kg wet	0.200		83.9	30-150			
LCS Dup (B263621-BSD1)				Prepared: 08/06/20 Analyzed: 08/08/20						
Aroclor-1016	0.22	0.020	mg/Kg wet	0.200		109	40-140	18.0	30	
Aroclor-1016 [2C]	0.17	0.020	mg/Kg wet	0.200		83.9	40-140	9.43	30	
Aroclor-1260	0.18	0.020	mg/Kg wet	0.200		92.2	40-140	2.44	30	
Aroclor-1260 [2C]	0.17	0.020	mg/Kg wet	0.200		85.2	40-140	3.59	30	
Surrogate: Decachlorobiphenyl	*0.220*		mg/Kg wet	0.200		110	30-150			
Surrogate: Decachlorobiphenyl [2C]	*0.209*		mg/Kg wet	0.200		105	30-150			
Surrogate: Tetrachloro-m-xylene	*0.201*		mg/Kg wet	0.200		101	30-150			
Surrogate: Tetrachloro-m-xylene [2C]	*0.182*		mg/Kg wet	0.200		91.1	30-150			

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QUALITY CONTROL

Petroleum Hydrocarbons Analyses - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC		%REC Limits	RPD	RPD Limit	Notes
Batch B263472 - SW-846 3546											
Blank (B263472-BLK1)				Prepared: 08/04/20 Analyzed: 08/06/20							
TPH (C9-C36)	ND	8.3	mg/Kg wet								
Surrogate: 2-Fluorobiphenyl	*1.68*		mg/Kg wet	3.33		50.5		40-140			
LCS (B263472-BS1)				Prepared: 08/04/20 Analyzed: 08/06/20							
TPH (C9-C36)	26.6	8.3	mg/Kg wet	33.3		79.8		40-140			
Surrogate: 2-Fluorobiphenyl	*1.91*		mg/Kg wet	3.33		57.3		40-140			
LCS Dup (B263472-BSD1)				Prepared: 08/04/20 Analyzed: 08/06/20							
TPH (C9-C36)	26.3	8.3	mg/Kg wet	33.3		79.0		40-140	1.10	30	
Surrogate: 2-Fluorobiphenyl	*1.83*		mg/Kg wet	3.33		54.8		40-140			
Matrix Spike (B263472-MS1)	**Source: 20G1287-01**			Prepared: 08/04/20 Analyzed: 08/08/20							
TPH (C9-C36)	227	45	mg/Kg dry	35.8	161	**185**	*	40-140			MS-19
Surrogate: 2-Fluorobiphenyl	*2.24*		mg/Kg dry	3.58		62.6		40-140			
Matrix Spike Dup (B263472-MSD1)	**Source: 20G1287-01**			Prepared: 08/04/20 Analyzed: 08/08/20							
TPH (C9-C36)	307	45	mg/Kg dry	35.8	161	**408**	*	40-140	29.9	30	MS-19
Surrogate: 2-Fluorobiphenyl	*2.51*		mg/Kg dry	3.58		70.2		40-140			

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QUALITY CONTROL

Petroleum Hydrocarbons Analyses - EPH - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch B263280 - SW-846 3546										
Blank (B263280-BLK1)				Prepared: 08/03/20 Analyzed: 08/04/20						
C9-C18 Aliphatics	ND	10	mg/Kg wet							
C19-C36 Aliphatics	ND	10	mg/Kg wet							
Unadjusted C11-C22 Aromatics	ND	10	mg/Kg wet							
C11-C22 Aromatics	ND	10	mg/Kg wet							
Acenaphthene	ND	0.10	mg/Kg wet							
Acenaphthylene	ND	0.10	mg/Kg wet							
Anthracene	ND	0.10	mg/Kg wet							
Benzo(a)anthracene	ND	0.10	mg/Kg wet							
Benzo(a)pyrene	ND	0.10	mg/Kg wet							
Benzo(b)fluoranthene	ND	0.10	mg/Kg wet							
Benzo(g,h,i)perylene	ND	0.10	mg/Kg wet							
Benzo(k)fluoranthene	ND	0.10	mg/Kg wet							
Chrysene	ND	0.10	mg/Kg wet							
Dibenz(a,h)anthracene	ND	0.10	mg/Kg wet							
Fluoranthene	ND	0.10	mg/Kg wet							
Fluorene	ND	0.10	mg/Kg wet							
Indeno(1,2,3-cd)pyrene	ND	0.10	mg/Kg wet							
2-Methylnaphthalene	ND	0.10	mg/Kg wet							
Naphthalene	ND	0.10	mg/Kg wet							
Phenanthrene	ND	0.10	mg/Kg wet							
Pyrene	ND	0.10	mg/Kg wet							
Naphthalene-aliphatic fraction	ND	0.10	mg/Kg wet							
2-Methylnaphthalene-aliphatic fraction	ND	0.10	mg/Kg wet							
Surrogate: Chlorooctadecane (COD)	*4.50*		mg/Kg wet	5.00		90.0	40-140			
Surrogate: o-Terphenyl (OTP)	*4.36*		mg/Kg wet	5.00		87.2	40-140			
Surrogate: 2-Bromonaphthalene	*4.39*		mg/Kg wet	5.00		87.8	40-140			
Surrogate: 2-Fluorobiphenyl	*4.64*		mg/Kg wet	5.00		92.8	40-140			
LCS (B263280-BS1)				Prepared: 08/03/20 Analyzed: 08/04/20						
C9-C18 Aliphatics	27.9	10	mg/Kg wet	30.0		92.9	40-140			
C19-C36 Aliphatics	42.8	10	mg/Kg wet	40.0		107	40-140			
Unadjusted C11-C22 Aromatics	84.2	10	mg/Kg wet	85.0		99.1	40-140			
Acenaphthene	4.44	0.10	mg/Kg wet	5.00		88.7	40-140			
Acenaphthylene	4.10	0.10	mg/Kg wet	5.00		82.0	40-140			
Anthracene	4.88	0.10	mg/Kg wet	5.00		97.7	40-140			
Benzo(a)anthracene	5.06	0.10	mg/Kg wet	5.00		101	40-140			
Benzo(a)pyrene	4.89	0.10	mg/Kg wet	5.00		97.8	40-140			
Benzo(b)fluoranthene	4.96	0.10	mg/Kg wet	5.00		99.1	40-140			
Benzo(g,h,i)perylene	4.54	0.10	mg/Kg wet	5.00		90.8	40-140			
Benzo(k)fluoranthene	4.57	0.10	mg/Kg wet	5.00		91.4	40-140			
Chrysene	4.82	0.10	mg/Kg wet	5.00		96.4	40-140			
Dibenz(a,h)anthracene	4.97	0.10	mg/Kg wet	5.00		99.3	40-140			
Fluoranthene	4.82	0.10	mg/Kg wet	5.00		96.4	40-140			
Fluorene	4.70	0.10	mg/Kg wet	5.00		94.0	40-140			
Indeno(1,2,3-cd)pyrene	4.54	0.10	mg/Kg wet	5.00		90.9	40-140			
2-Methylnaphthalene	4.04	0.10	mg/Kg wet	5.00		80.9	40-140			
Naphthalene	3.83	0.10	mg/Kg wet	5.00		76.7	40-140			
Phenanthrene	4.81	0.10	mg/Kg wet	5.00		96.3	40-140			
Pyrene	4.90	0.10	mg/Kg wet	5.00		98.1	40-140			
Naphthalene-aliphatic fraction	ND	0.10	mg/Kg wet	5.00			0-5			
2-Methylnaphthalene-aliphatic fraction	ND	0.10	mg/Kg wet	5.00			0-5			
Surrogate: Chlorooctadecane (COD)	*4.88*		mg/Kg wet	5.00		97.6	40-140			

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39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

QUALITY CONTROL

Petroleum Hydrocarbons Analyses - EPH - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch B263280 - SW-846 3546										
LCS (B263280-BS1)				Prepared: 08/03/20 Analyzed: 08/04/20						
Surrogate: o-Terphenyl (OTP)	*4.51*		mg/Kg wet	5.00		90.3	40-140			
Surrogate: 2-Bromonaphthalene	*4.51*		mg/Kg wet	5.00		90.3	40-140			
Surrogate: 2-Fluorobiphenyl	*4.83*		mg/Kg wet	5.00		96.6	40-140			
LCS Dup (B263280-BSD1)				Prepared: 08/03/20 Analyzed: 08/04/20						
C9-C18 Aliphatics	27.4	10	mg/Kg wet	30.0		91.4	40-140	1.62	25	
C19-C36 Aliphatics	42.4	10	mg/Kg wet	40.0		106	40-140	0.852	25	
Unadjusted C11-C22 Aromatics	84.4	10	mg/Kg wet	85.0		99.3	40-140	0.203	25	
Acenaphthene	4.61	0.10	mg/Kg wet	5.00		92.1	40-140	3.73	25	
Acenaphthylene	4.22	0.10	mg/Kg wet	5.00		84.5	40-140	2.93	25	
Anthracene	4.87	0.10	mg/Kg wet	5.00		97.4	40-140	0.248	25	
Benzo(a)anthracene	5.05	0.10	mg/Kg wet	5.00		101	40-140	0.0277	25	
Benzo(a)pyrene	4.86	0.10	mg/Kg wet	5.00		97.2	40-140	0.568	25	
Benzo(b)fluoranthene	4.93	0.10	mg/Kg wet	5.00		98.5	40-140	0.597	25	
Benzo(g,h,i)perylene	4.50	0.10	mg/Kg wet	5.00		90.0	40-140	0.861	25	
Benzo(k)fluoranthene	4.53	0.10	mg/Kg wet	5.00		90.7	40-140	0.760	25	
Chrysene	4.82	0.10	mg/Kg wet	5.00		96.5	40-140	0.0581	25	
Dibenz(a,h)anthracene	4.95	0.10	mg/Kg wet	5.00		98.9	40-140	0.369	25	
Fluoranthene	4.84	0.10	mg/Kg wet	5.00		96.7	40-140	0.304	25	
Fluorene	4.79	0.10	mg/Kg wet	5.00		95.8	40-140	1.87	25	
Indeno(1,2,3-cd)pyrene	4.49	0.10	mg/Kg wet	5.00		89.8	40-140	1.19	25	
2-Methylnaphthalene	4.18	0.10	mg/Kg wet	5.00		83.6	40-140	3.33	25	
Naphthalene	3.91	0.10	mg/Kg wet	5.00		78.3	40-140	2.04	25	
Phenanthrene	4.84	0.10	mg/Kg wet	5.00		96.8	40-140	0.530	25	
Pyrene	4.93	0.10	mg/Kg wet	5.00		98.6	40-140	0.539	25	
Naphthalene-aliphatic fraction	ND	0.10	mg/Kg wet	5.00			0-5			
2-Methylnaphthalene-aliphatic fraction	ND	0.10	mg/Kg wet	5.00			0-5			
Surrogate: Chlorooctadecane (COD)	*4.63*		mg/Kg wet	5.00		92.5	40-140			
Surrogate: o-Terphenyl (OTP)	*4.55*		mg/Kg wet	5.00		91.1	40-140			
Surrogate: 2-Bromonaphthalene	*4.42*		mg/Kg wet	5.00		88.3	40-140			
Surrogate: 2-Fluorobiphenyl	*4.72*		mg/Kg wet	5.00		94.5	40-140			
Batch B263721 - SW-846 3510C										
Blank (B263721-BLK1)				Prepared: 08/07/20 Analyzed: 08/10/20						
C9-C18 Aliphatics	ND	100	µg/L							
C19-C36 Aliphatics	ND	100	µg/L							
Unadjusted C11-C22 Aromatics	ND	100	µg/L							
C11-C22 Aromatics	ND	100	µg/L							
Acenaphthene	ND	2.0	µg/L							
Acenaphthylene	ND	2.0	µg/L							
Anthracene	ND	2.0	µg/L							
Benzo(a)anthracene	ND	2.0	µg/L							
Benzo(a)pyrene	ND	2.0	µg/L							
Benzo(b)fluoranthene	ND	2.0	µg/L							
Benzo(g,h,i)perylene	ND	2.0	µg/L							
Benzo(k)fluoranthene	ND	2.0	µg/L							
Chrysene	ND	2.0	µg/L							
Dibenz(a,h)anthracene	ND	2.0	µg/L							
Fluoranthene	ND	2.0	µg/L							
Fluorene	ND	2.0	µg/L							
Indeno(1,2,3-cd)pyrene	ND	2.0	µg/L							
2-Methylnaphthalene	ND	2.0	µg/L							

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39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

QUALITY CONTROL

Petroleum Hydrocarbons Analyses - EPH - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch B263721 - SW-846 3510C										
Blank (B263721-BLK1)				Prepared: 08/07/20 Analyzed: 08/10/20						
Naphthalene	ND	2.0	µg/L							
Phenanthrene	ND	2.0	µg/L							
Pyrene	ND	2.0	µg/L							
Naphthalene-aliphatic fraction	ND	2.0	µg/L							
2-Methylnaphthalene-aliphatic fraction	ND	2.0	µg/L							
Surrogate: Chlorooctadecane (COD)	*78.4*		µg/L	100		78.4	40-140			
Surrogate: o-Terphenyl (OTP)	*88.5*		µg/L	100		88.5	40-140			
Surrogate: 2-Bromonaphthalene	*89.5*		µg/L	100		89.5	40-140			
Surrogate: 2-Fluorobiphenyl	*98.8*		µg/L	100		98.8	40-140			
LCS (B263721-BS1)				Prepared: 08/07/20 Analyzed: 08/10/20						
C9-C18 Aliphatics	424	100	µg/L	600		70.6	0-200			
C19-C36 Aliphatics	734	100	µg/L	800		91.8	0-200			
Unadjusted C11-C22 Aromatics	1410	100	µg/L	1700		83.0	0-200			
Acenaphthene	72.4	2.0	µg/L	100		72.4	40-140			
Acenaphthylene	67.8	2.0	µg/L	100		67.8	40-140			
Anthracene	80.0	2.0	µg/L	100		80.0	40-140			
Benzo(a)anthracene	89.6	2.0	µg/L	100		89.6	40-140			
Benzo(a)pyrene	87.1	2.0	µg/L	100		87.1	40-140			
Benzo(b)fluoranthene	95.8	2.0	µg/L	100		95.8	40-140			
Benzo(g,h,i)perylene	78.6	2.0	µg/L	100		78.6	40-140			
Benzo(k)fluoranthene	73.0	2.0	µg/L	100		73.0	40-140			
Chrysene	86.3	2.0	µg/L	100		86.3	40-140			
Dibenz(a,h)anthracene	85.0	2.0	µg/L	100		85.0	40-140			
Fluoranthene	83.9	2.0	µg/L	100		83.9	40-140			
Fluorene	75.5	2.0	µg/L	100		75.5	40-140			
Indeno(1,2,3-cd)pyrene	79.6	2.0	µg/L	100		79.6	40-140			
2-Methylnaphthalene	64.9	2.0	µg/L	100		64.9	40-140			
Naphthalene	58.9	2.0	µg/L	100		58.9	40-140			
Phenanthrene	80.8	2.0	µg/L	100		80.8	40-140			
Pyrene	85.1	2.0	µg/L	100		85.1	40-140			
Naphthalene-aliphatic fraction	ND	2.0	µg/L	100			0-5			
2-Methylnaphthalene-aliphatic fraction	ND	2.0	µg/L	100			0-5			
Surrogate: Chlorooctadecane (COD)	*80.3*		µg/L	100		80.3	40-140			
Surrogate: o-Terphenyl (OTP)	*79.7*		µg/L	100		79.7	40-140			
Surrogate: 2-Bromonaphthalene	*82.1*		µg/L	100		82.1	40-140			
Surrogate: 2-Fluorobiphenyl	*89.4*		µg/L	100		89.4	40-140			
LCS Dup (B263721-BSD1)				Prepared: 08/07/20 Analyzed: 08/10/20						
C9-C18 Aliphatics	440	100	µg/L	600		73.4	0-200	3.82		
C19-C36 Aliphatics	775	100	µg/L	800		96.9	0-200	5.38		
Unadjusted C11-C22 Aromatics	1710	100	µg/L	1700		101	0-200	19.3		
Acenaphthene	87.5	2.0	µg/L	100		87.5	40-140	18.9	25	
Acenaphthylene	81.8	2.0	µg/L	100		81.8	40-140	18.7	25	
Anthracene	97.0	2.0	µg/L	100		97.0	40-140	19.2	25	
Benzo(a)anthracene	109	2.0	µg/L	100		109	40-140	19.5	25	
Benzo(a)pyrene	107	2.0	µg/L	100		107	40-140	20.3	25	
Benzo(b)fluoranthene	118	2.0	µg/L	100		118	40-140	20.5	25	
Benzo(g,h,i)perylene	95.0	2.0	µg/L	100		95.0	40-140	19.0	25	
Benzo(k)fluoranthene	89.1	2.0	µg/L	100		89.1	40-140	19.8	25	
Chrysene	104	2.0	µg/L	100		104	40-140	18.9	25	
Dibenz(a,h)anthracene	103	2.0	µg/L	100		103	40-140	19.0	25	

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39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

QUALITY CONTROL

Petroleum Hydrocarbons Analyses - EPH - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch B263721 - SW-846 3510C										
LCS Dup (B263721-BSD1)				Prepared: 08/07/20 Analyzed: 08/10/20						
Fluoranthene	102	2.0	µg/L	100		102	40-140	19.6	25	
Fluorene	90.4	2.0	µg/L	100		90.4	40-140	18.1	25	
Indeno(1,2,3-cd)pyrene	98.5	2.0	µg/L	100		98.5	40-140	21.2	25	
2-Methylnaphthalene	78.8	2.0	µg/L	100		78.8	40-140	19.4	25	
Naphthalene	72.8	2.0	µg/L	100		72.8	40-140	21.1	25	
Phenanthrene	97.9	2.0	µg/L	100		97.9	40-140	19.2	25	
Pyrene	104	2.0	µg/L	100		104	40-140	19.6	25	
Naphthalene-aliphatic fraction	ND	2.0	µg/L	100			0-5			
2-Methylnaphthalene-aliphatic fraction	ND	2.0	µg/L	100			0-5			
Surrogate: Chlorooctadecane (COD)	*83.0*		µg/L	100		83.0	40-140			
Surrogate: o-Terphenyl (OTP)	*97.9*		µg/L	100		97.9	40-140			
Surrogate: 2-Bromonaphthalene	*93.6*		µg/L	100		93.6	40-140			
Surrogate: 2-Fluorobiphenyl	*102*		µg/L	100		102	40-140			

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39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

QUALITY CONTROL

Metals Analyses (Total) - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch B263332 - SW-846 3050B										
Blank (B263332-BLK1)				Prepared: 08/03/20 Analyzed: 08/05/20						
Arsenic	ND	3.3	mg/Kg wet							
Barium	ND	1.7	mg/Kg wet							
Cadmium	ND	0.33	mg/Kg wet							
Chromium	ND	0.67	mg/Kg wet							
Lead	ND	0.50	mg/Kg wet							
Selenium	ND	3.3	mg/Kg wet							
Silver	ND	0.33	mg/Kg wet							
LCS (B263332-BS1)				Prepared: 08/03/20 Analyzed: 08/04/20						
Arsenic	88.9	10	mg/Kg wet	97.6		91.1	82.8-116.8			
Barium	317	5.0	mg/Kg wet	320		99.0	82.5-117.5			
Cadmium	103	1.0	mg/Kg wet	114		90.1	82.8-117.5			
Chromium	137	2.0	mg/Kg wet	147		93.1	81.6-117.7			
Lead	106	1.5	mg/Kg wet	105		101	82.6-117.1			
Selenium	92.2	10	mg/Kg wet	93.1		99.0	78.9-121.4			
Silver	31.0	1.0	mg/Kg wet	32.0		96.8	79.7-120			
LCS Dup (B263332-BSD1)				Prepared: 08/03/20 Analyzed: 08/04/20						
Arsenic	88.7	9.9	mg/Kg wet	97.6		90.9	82.8-116.8	0.249	30	
Barium	310	5.0	mg/Kg wet	320		97.0	82.5-117.5	2.10	20	
Cadmium	102	0.99	mg/Kg wet	114		89.6	82.8-117.5	0.571	20	
Chromium	135	2.0	mg/Kg wet	147		91.7	81.6-117.7	1.50	30	
Lead	105	1.5	mg/Kg wet	105		99.8	82.6-117.1	0.774	30	
Selenium	88.7	9.9	mg/Kg wet	93.1		95.3	78.9-121.4	3.79	30	
Silver	32.1	0.99	mg/Kg wet	32.0		100	79.7-120	3.44	30	
Reference (B263332-SRM1) MRL Check				Prepared: 08/03/20 Analyzed: 08/05/20						
Lead	0.573	0.52	mg/Kg wet	0.523		110	80-120			
Batch B263357 - SW-846 7471										
Blank (B263357-BLK1)				Prepared: 08/03/20 Analyzed: 08/05/20						
Mercury	ND	0.025	mg/Kg wet							
LCS (B263357-BS1)				Prepared: 08/03/20 Analyzed: 08/05/20						
Mercury	5.82	0.38	mg/Kg wet	5.99		97.1	74.1-126			
LCS Dup (B263357-BSD1)				Prepared: 08/03/20 Analyzed: 08/05/20						
Mercury	5.50	0.37	mg/Kg wet	5.99		91.8	74.1-126	5.65	20	
Duplicate (B263357-DUP1)		**Source: 20G1287-01**		Prepared: 08/03/20 Analyzed: 08/05/20						
Mercury	0.0592	0.027	mg/Kg dry		0.0587			0.852	20	

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QUALITY CONTROL

Metals Analyses (Total) - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch B263357 - SW-846 7471										
Matrix Spike (B263357-MS1)	**Source: 20G1287-01**			Prepared: 08/03/20 Analyzed: 08/05/20						
Mercury	0.425	0.027	mg/Kg dry	0.362	0.0587	101	80-120			

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QUALITY CONTROL

Conventional Chemistry Parameters by EPA/APHA/SW-846 Methods (Total) - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch B262894 - SW-846 9045C										
LCS (B262894-BS1)				Prepared & Analyzed: 07/28/20						
pH	5.96		pH Units	6.00		99.3	90-110			
LCS (B262894-BS2)				Prepared & Analyzed: 07/28/20						
pH	5.98		pH Units	6.00		99.7	90-110			
Batch B263425 - SM21-22 2510B Modified										
Blank (B263425-BLK1)				Prepared & Analyzed: 08/04/20						
Specific conductance	ND	2.0	µmhos/cm							
LCS (B263425-BS1)				Prepared & Analyzed: 08/04/20						
Specific conductance	140		µmhos/cm	137		105	90-110			
Duplicate (B263425-DUP1)	**Source: 20G1287-01**			Prepared & Analyzed: 08/04/20						
Specific conductance	25	2.0	µmhos/cm		23			6.34	26.4	
Batch B263427 - SW-846 9014										
Blank (B263427-BLK1)				Prepared: 08/04/20 Analyzed: 08/05/20						
Reactive Cyanide	ND	0.40	mg/Kg							
LCS (B263427-BS1)				Prepared: 08/04/20 Analyzed: 08/05/20						
Reactive Cyanide	9.8	0.40	mg/Kg	10.0		98.4	83.2-115			
Batch B263430 - SW-846 9030A										
Blank (B263430-BLK1)				Prepared: 08/04/20 Analyzed: 08/05/20						
Reactive Sulfide	ND	2.0	mg/Kg							
LCS (B263430-BS1)				Prepared: 08/04/20 Analyzed: 08/05/20						
Reactive Sulfide	14	2.0	mg/Kg	14.8		94.6	71.6-120			
Batch B263557 - % Solids										
Duplicate (B263557-DUP4)	**Source: 20G1287-01**			Prepared: 08/05/20 Analyzed: 08/06/20						
% Solids	92.3		% Wt		92.7			0.431	10	

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IDENTIFICATION SUMMARY FOR SINGLE COMPONENT ANALYTES

SW-846 8082A

LCS

Lab Sample ID: B263621-BS1 Date(s) Analyzed 08/08/2020 08/08/2020

Instrument ID (1): ECD 9 Instrument ID (2): ECD 9

GC Column (1): ID: (mm) GC Column (2): ID: (mm)

ANALYTE	COL	RT	RT WINDOW		CONCENTRATION	%RPD
			FROM	TO		
Aroclor-1016	1	0.000	0.000	0.000	0.18	
	2	0.000	0.000	0.000	0.15	18.2
Aroclor-1260	1	0.000	0.000	0.000	0.18	
	2	0.000	0.000	0.000	0.16	11.8

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IDENTIFICATION SUMMARY FOR SINGLE COMPONENT ANALYTES

SW-846 8082A

LCS Dup

Lab Sample ID: B263621-BSD1 Date(s) Analyzed 08/08/2020 08/08/2020

Instrument ID (1): ECD 9 Instrument ID (2): ECD 9

GC Column (1): ID: (mm) GC Column (2): ID: (mm)

ANALYTE	COL	RT	RT WINDOW		CONCENTRATION	%RPD
			FROM	TO		
Aroclor-1016	1	0.000	0.000	0.000	0.22	
	2	0.000	0.000	0.000	0.17	25.6
Aroclor-1260	1	0.000	0.000	0.000	0.18	
	2	0.000	0.000	0.000	0.17	5.7

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FLAG/QUALIFIER SUMMARY

*	QC result is outside of established limits.
†	Wide recovery limits established for difficult compound.
‡	Wide RPD limits established for difficult compound.
#	Data exceeded client recommended or regulatory level
ND	Not Detected
RL	Reporting Limit is at the level of quantitation (LOQ)
DL	Detection Limit is the lower limit of detection determined by the MDL study
MCL	Maximum Contaminant Level
	Percent recoveries and relative percent differences (RPDs) are determined by the software using values in the calculation which have not been rounded.
	No results have been blank subtracted unless specified in the case narrative section.

L-04	Laboratory fortified blank/laboratory control sample recovery and duplicate recovery are outside of control limits. Reported value for this compound is likely to be biased on the low side.
L-07	Either laboratory fortified blank/laboratory control sample or duplicate recovery is outside of control limits, but the other is within limits. RPD between the two LFB/LCS results is within method specified criteria.
L-14	Compound classified by MA CAM as difficult with acceptable recoveries of 40-160%. Recovery does not meet 70-130% criteria but does meet difficult compound criteria.
M-09	The interference check sample was outside of control limits. Possibility of interference that may lead to a high bias for reported result.
MS-09	Matrix spike recovery and/or matrix spike duplicate recovery outside of control limits. Possibility of sample matrix effects that lead to a low bias for reported result or non-homogeneous sample aliquots cannot be eliminated.
MS-19	Sample to spike ratio is greater than or equal to 4:1. Spiked amount is not representative of the native amount in the sample. Appropriate or meaningful recoveries cannot be calculated.
MS-22	Either matrix spike or MS duplicate is outside of control limits, but the other is within limits. RPD between the two MS/MSD results is within method specified criteria.
O-32	A dilution was performed as part of the standard analytical procedure.
R-06	Matrix spike duplicate RPD is outside of control limits. Reduced precision is anticipated for reported result for this compound in this sample.
V-05	Continuing calibration verification (CCV) did not meet method specifications and was biased on the low side for this compound.
V-16	Response factor is less than method specified minimum acceptable value. Reduced precision and accuracy may be associated with reported result.
V-20	Continuing calibration verification (CCV) did not meet method specifications and was biased on the high side. Data validation is not affected since sample result was "not detected" for this compound.
V-34	Initial calibration verification (ICV) did not meet method specifications and was biased on the low side for this compound. Reported result is estimated.

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CERTIFICATIONS

Certified Analyses included in this Report

Analyte	Certifications
MADEP EPH rev 2.1 in Soil	
C9-C18 Aliphatics	CT,NC,ME,NH-P
C9-C18 Aliphatics	CT,NC,ME,NH-P
C19-C36 Aliphatics	CT,NC,ME,NH-P
C19-C36 Aliphatics	CT,NC,ME,NH-P
Unadjusted C11-C22 Aromatics	CT,NC,ME,NH-P
Unadjusted C11-C22 Aromatics	CT,NC,ME,NH-P
C11-C22 Aromatics	CT,NC,ME,NH-P
C11-C22 Aromatics	CT,NC,ME,NH-P
Acenaphthene	CT,NC,ME,NH-P
Acenaphthene	CT,NC,ME,NH-P
Acenaphthylene	CT,NC,ME,NH-P
Acenaphthylene	CT,NC,ME,NH-P
Anthracene	CT,NC,ME,NH-P
Anthracene	CT,NC,ME,NH-P
Benzo(a)anthracene	CT,NC,ME,NH-P
Benzo(a)anthracene	CT,NC,ME,NH-P
Benzo(a)pyrene	CT,NC,ME,NH-P
Benzo(a)pyrene	CT,NC,ME,NH-P
Benzo(b)fluoranthene	CT,NC,ME,NH-P
Benzo(b)fluoranthene	CT,NC,ME,NH-P
Benzo(g,h,i)perylene	CT,NC,ME,NH-P
Benzo(g,h,i)perylene	CT,NC,ME,NH-P
Benzo(k)fluoranthene	CT,NC,ME,NH-P
Benzo(k)fluoranthene	CT,NC,ME,NH-P
Chrysene	CT,NC,ME,NH-P
Chrysene	CT,NC,ME,NH-P
Dibenz(a,h)anthracene	CT,NC,ME,NH-P
Dibenz(a,h)anthracene	CT,NC,ME,NH-P
Fluoranthene	CT,NC,ME,NH-P
Fluoranthene	CT,NC,ME,NH-P
Fluorene	CT,NC,ME
Fluorene	CT,NC,ME
Indeno(1,2,3-cd)pyrene	CT,NC,ME,NH-P
Indeno(1,2,3-cd)pyrene	CT,NC,ME,NH-P
2-Methylnaphthalene	CT,NC,ME
2-Methylnaphthalene	CT,NC
Naphthalene	CT,NC,ME,NH-P
Naphthalene	CT,NC,ME,NH-P
Phenanthrene	CT,NC,ME,NH-P
Phenanthrene	CT,NC,ME,NH-P
Pyrene	CT,NC,ME,NH-P
Pyrene	CT,NC,ME,NH-P
MADEP EPH rev 2.1 in Water	
C9-C18 Aliphatics	CT,NC,ME,NH-P
C9-C18 Aliphatics	CT,NC,ME,NH-P
C19-C36 Aliphatics	CT,NC,ME,NH-P

39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

CERTIFICATIONS

Certified Analyses included in this Report

Analyte	Certifications
MADEP EPH rev 2.1 in Water	
C19-C36 Aliphatics	CT,NC,ME,NH-P
Unadjusted C11-C22 Aromatics	CT,NC,ME,NH-P
Unadjusted C11-C22 Aromatics	CT,NC,ME,NH-P
C11-C22 Aromatics	CT,NC,ME,NH-P
C11-C22 Aromatics	CT,NC,ME,NH-P
Acenaphthene	CT,NC,ME,NH-P
Acenaphthene	CT,NC,ME,NH-P
Acenaphthylene	CT,NC,ME,NH-P
Acenaphthylene	CT,NC,ME,NH-P
Anthracene	CT,NC,ME,NH-P
Anthracene	CT,NC,ME,NH-P
Benzo(a)anthracene	CT,NC,ME,NH-P
Benzo(a)anthracene	CT,NC,ME,NH-P
Benzo(a)pyrene	CT,NC,ME,NH-P
Benzo(a)pyrene	CT,NC,ME,NH-P
Benzo(b)fluoranthene	CT,NC,ME,NH-P
Benzo(b)fluoranthene	CT,NC,ME,NH-P
Benzo(g,h,i)perylene	CT,NC,ME,NH-P
Benzo(g,h,i)perylene	CT,NC,ME,NH-P
Benzo(k)fluoranthene	CT,NC,ME,NH-P
Benzo(k)fluoranthene	CT,NC,ME,NH-P
Chrysene	CT,NC,ME,NH-P
Chrysene	CT,NC,ME,NH-P
Dibenz(a,h)anthracene	CT,NC,ME,NH-P
Dibenz(a,h)anthracene	CT,NC,ME,NH-P
Fluoranthene	CT,NC,ME,NH-P
Fluoranthene	CT,NC,ME,NH-P
Fluorene	CT,NC,ME
Fluorene	CT,NC,ME
Indeno(1,2,3-cd)pyrene	CT,NC,ME,NH-P
Indeno(1,2,3-cd)pyrene	CT,NC,ME,NH-P
2-Methylnaphthalene	CT,NC,ME
2-Methylnaphthalene	CT,NC
Naphthalene	CT,NC,ME,NH-P
Naphthalene	CT,NC,ME,NH-P
Phenanthrene	CT,NC,ME,NH-P
Phenanthrene	CT,NC,ME,NH-P
Pyrene	CT,NC,ME,NH-P
Pyrene	CT,NC,ME,NH-P
SW-846 1030 in Soil	
Ignitability	NY,NH,CT,NC,ME,VA
SW-846 6010D in Soil	
Arsenic	CT,NH,NY,ME,VA,NC
Barium	CT,NH,NY,ME,VA,NC
Cadmium	CT,NH,NY,ME,VA,NC
Chromium	CT,NH,NY,ME,VA,NC

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CERTIFICATIONS

Certified Analyses included in this Report

Analyte	Certifications
SW-846 6010D in Soil	
Lead	CT,NH,NY,AIHA,ME,VA,NC
Selenium	CT,NH,NY,ME,VA,NC
Silver	CT,NH,NY,ME,VA,NC
SW-846 7471B in Soil	
Mercury	CT,NH,NY,NC,ME,VA
SW-846 8082A in Soil	
Aroclor-1016	CT,NH,NY,NC,ME,VA,PA
Aroclor-1016 [2C]	CT,NH,NY,NC,ME,VA,PA
Aroclor-1221	CT,NH,NY,NC,ME,VA,PA
Aroclor-1221 [2C]	CT,NH,NY,NC,ME,VA,PA
Aroclor-1232	CT,NH,NY,NC,ME,VA,PA
Aroclor-1232 [2C]	CT,NH,NY,NC,ME,VA,PA
Aroclor-1242	CT,NH,NY,NC,ME,VA,PA
Aroclor-1242 [2C]	CT,NH,NY,NC,ME,VA,PA
Aroclor-1248	CT,NH,NY,NC,ME,VA,PA
Aroclor-1248 [2C]	CT,NH,NY,NC,ME,VA,PA
Aroclor-1254	CT,NH,NY,NC,ME,VA,PA
Aroclor-1254 [2C]	CT,NH,NY,NC,ME,VA,PA
Aroclor-1260	CT,NH,NY,NC,ME,VA,PA
Aroclor-1260 [2C]	CT,NH,NY,NC,ME,VA,PA
Aroclor-1262	NH,NY,NC,ME,VA,PA
Aroclor-1262 [2C]	NH,NY,NC,ME,VA,PA
Aroclor-1268	NH,NY,NC,ME,VA,PA
Aroclor-1268 [2C]	NH,NY,NC,ME,VA,PA
SW-846 8082A in Water	
Aroclor-1016	CT,NH,NY,NC,ME,VA,PA
Aroclor-1016 [2C]	CT,NH,NY,NC,ME,VA,PA
Aroclor-1221	CT,NH,NY,NC,ME,VA,PA
Aroclor-1221 [2C]	CT,NH,NY,NC,ME,VA,PA
Aroclor-1232	CT,NH,NY,NC,ME,VA,PA
Aroclor-1232 [2C]	CT,NH,NY,NC,ME,VA,PA
Aroclor-1242	CT,NH,NY,NC,ME,VA,PA
Aroclor-1242 [2C]	CT,NH,NY,NC,ME,VA,PA
Aroclor-1248	CT,NH,NY,NC,ME,VA,PA
Aroclor-1248 [2C]	CT,NH,NY,NC,ME,VA,PA
Aroclor-1254	CT,NH,NY,NC,ME,VA,PA
Aroclor-1254 [2C]	CT,NH,NY,NC,ME,VA,PA
Aroclor-1260	CT,NH,NY,NC,ME,VA,PA
Aroclor-1260 [2C]	CT,NH,NY,NC,ME,VA,PA
Aroclor-1262	NH,NY,NC,ME,VA,PA
Aroclor-1262 [2C]	NH,NY,NC,ME,VA,PA
Aroclor-1268	NH,NY,NC,ME,VA,PA
Aroclor-1268 [2C]	NH,NY,NC,ME,VA,PA
SW-846 8260C-D in Soil	
Acetone	CT,NH,NY,ME

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CERTIFICATIONS

Certified Analyses included in this Report

Analyte	Certifications
SW-846 8260C-D in Soil	
Benzene	CT,NH,NY,ME
Bromobenzene	NH,NY,ME
Bromochloromethane	NH,NY,ME
Bromodichloromethane	CT,NH,NY,ME
Bromoform	CT,NH,NY,ME
Bromomethane	CT,NH,NY,ME
2-Butanone (MEK)	CT,NH,NY,ME
n-Butylbenzene	CT,NH,NY,ME
sec-Butylbenzene	CT,NH,NY,ME
tert-Butylbenzene	CT,NH,NY,ME
Carbon Disulfide	CT,NH,NY,ME
Carbon Tetrachloride	CT,NH,NY,ME
Chlorobenzene	CT,NH,NY,ME
Chlorodibromomethane	CT,NH,NY,ME
Chloroethane	CT,NH,NY,ME
Chloroform	CT,NH,NY,ME
Chloromethane	CT,NH,NY,ME
2-Chlorotoluene	CT,NH,NY,ME
4-Chlorotoluene	CT,NH,NY,ME
1,2-Dibromo-3-chloropropane (DBCP)	NY
1,2-Dibromoethane (EDB)	NY
Dibromomethane	NH,NY,ME
1,2-Dichlorobenzene	CT,NH,NY,ME
1,3-Dichlorobenzene	CT,NH,NY,ME
1,4-Dichlorobenzene	CT,NH,NY,ME
Dichlorodifluoromethane (Freon 12)	NY,ME
1,1-Dichloroethane	CT,NH,NY,ME
1,2-Dichloroethane	CT,NH,NY,ME
1,1-Dichloroethylene	CT,NH,NY,ME
cis-1,2-Dichloroethylene	CT,NH,NY,ME
trans-1,2-Dichloroethylene	CT,NH,NY,ME
1,2-Dichloropropane	CT,NH,NY,ME
1,3-Dichloropropane	NH,NY,ME
2,2-Dichloropropane	NH,NY,ME
1,1-Dichloropropene	NH,NY,ME
cis-1,3-Dichloropropene	CT,NH,NY,ME
trans-1,3-Dichloropropene	CT,NH,NY,ME
1,4-Dioxane	NY
Ethylbenzene	CT,NH,NY,ME
Hexachlorobutadiene	NH,NY,ME
2-Hexanone (MBK)	CT,NH,NY,ME
Isopropylbenzene (Cumene)	CT,NH,NY,ME
p-Isopropyltoluene (p-Cymene)	NH,NY
Methyl tert-Butyl Ether (MTBE)	NH,NY
Methylene Chloride	CT,NH,NY,ME
4-Methyl-2-pentanone (MIBK)	CT,NH,NY
Naphthalene	NH,NY,ME

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CERTIFICATIONS

Certified Analyses included in this Report

Analyte	Certifications
SW-846 8260C-D in Soil	
n-Propylbenzene	NH,NY
Styrene	CT,NH,NY,ME
1,1,1,2-Tetrachloroethane	CT,NH,NY,ME
1,1,2,2-Tetrachloroethane	CT,NH,NY,ME
Tetrachloroethylene	CT,NH,NY,ME
Toluene	CT,NH,NY,ME
1,2,3-Trichlorobenzene	NY
1,2,4-Trichlorobenzene	NH,NY,ME
1,1,1-Trichloroethane	CT,NH,NY,ME
1,1,2-Trichloroethane	CT,NH,NY,ME
Trichloroethylene	CT,NH,NY,ME
Trichlorofluoromethane (Freon 11)	CT,NH,NY,ME
1,2,3-Trichloropropane	NH,NY,ME
1,2,4-Trimethylbenzene	CT,NH,NY,ME
1,3,5-Trimethylbenzene	CT,NH,NY,ME
Vinyl Chloride	CT,NH,NY,ME
m+p Xylene	CT,NH,NY,ME
o-Xylene	CT,NH,NY,ME
SW-846 8270D-E in Soil	
Acenaphthene	CT,NY,NH
Acenaphthylene	CT,NY,NH
Acetophenone	NY,NH
Aniline	NY,NH
Anthracene	CT,NY,NH
Benzo(a)anthracene	CT,NY,NH
Benzo(a)pyrene	CT,NY,NH
Benzo(b)fluoranthene	CT,NY,NH
Benzo(g,h,i)perylene	CT,NY,NH
Benzo(k)fluoranthene	CT,NY,NH
Bis(2-chloroethoxy)methane	CT,NY,NH
Bis(2-chloroethyl)ether	CT,NY,NH
Bis(2-chloroisopropyl)ether	CT,NY,NH
Bis(2-Ethylhexyl)phthalate	CT,NY,NH
4-Bromophenylphenylether	CT,NY,NH
Butylbenzylphthalate	CT,NY,NH
4-Chloroaniline	CT,NY,NH
2-Chloronaphthalene	CT,NY,NH
2-Chlorophenol	CT,NY,NH
Chrysene	CT,NY,NH
Dibenz(a,h)anthracene	CT,NY,NH
Dibenzofuran	CT,NY,NH
Di-n-butylphthalate	CT,NY,NH
1,2-Dichlorobenzene	NY,NH
1,3-Dichlorobenzene	NY,NH
1,4-Dichlorobenzene	NY,NH
3,3-Dichlorobenzidine	CT,NY,NH

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CERTIFICATIONS

Certified Analyses included in this Report

Analyte	Certifications
SW-846 8270D-E in Soil	
2,4-Dichlorophenol	CT,NY,NH
Diethylphthalate	CT,NY,NH
2,4-Dimethylphenol	CT,NY,NH
Dimethylphthalate	CT,NY,NH
2,4-Dinitrophenol	CT,NY,NH
2,4-Dinitrotoluene	CT,NY,NH
2,6-Dinitrotoluene	CT,NY,NH
Di-n-octylphthalate	CT,NY,NH
1,2-Diphenylhydrazine/Azobenzene	NY,NH
Fluoranthene	CT,NY,NH
Fluorene	NY,NH
Hexachlorobenzene	CT,NY,NH
Hexachlorobutadiene	CT,NY,NH
Hexachloroethane	CT,NY,NH
Indeno(1,2,3-cd)pyrene	CT,NY,NH
Isophorone	CT,NY,NH
2-Methylnaphthalene	CT,NY,NH
2-Methylphenol	CT,NY,NH
3/4-Methylphenol	CT,NY,NH
Naphthalene	CT,NY,NH
Nitrobenzene	CT,NY,NH
2-Nitrophenol	CT,NY,NH
4-Nitrophenol	CT,NY,NH
Pentachlorophenol	CT,NY,NH
Phenanthrene	CT,NY,NH
Phenol	CT,NY,NH
Pyrene	CT,NY,NH
1,2,4-Trichlorobenzene	CT,NY,NH
2,4,5-Trichlorophenol	CT,NY,NH
2,4,6-Trichlorophenol	CT,NY,NH
SW-846 8270D-E in Water	
Acenaphthene	CT,NY,NH
Acenaphthylene	CT,NY,NH
Acetophenone	NY
Aniline	CT,NY
Anthracene	CT,NY,NH
Benzo(a)anthracene	CT,NY,NH
Benzo(a)pyrene	CT,NY,NH
Benzo(b)fluoranthene	CT,NY,NH
Benzo(g,h,i)perylene	CT,NY,NH
Benzo(k)fluoranthene	CT,NY,NH
Bis(2-chloroethoxy)methane	CT,NY,NH
Bis(2-chloroethyl)ether	CT,NY,NH
Bis(2-chloroisopropyl)ether	CT,NY,NH
Bis(2-Ethylhexyl)phthalate	CT,NY,NH
4-Bromophenylphenylether	CT,NY,NH

con-test® ANALYTICAL LABORATORY
39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

CERTIFICATIONS

Certified Analyses included in this Report

Analyte	Certifications
SW-846 8270D-E in Water	
Butylbenzylphthalate	CT,NY,NH
4-Chloroaniline	CT,NY,NH
2-Chloronaphthalene	CT,NY,NH
2-Chlorophenol	CT,NY,NH
Chrysene	CT,NY,NH
Dibenz(a,h)anthracene	CT,NY,NH
Dibenzofuran	CT,NY,NH
Di-n-butylphthalate	CT,NY,NH
1,2-Dichlorobenzene	CT,NY,NH
1,3-Dichlorobenzene	CT,NY,NH
1,4-Dichlorobenzene	CT,NY,NH
3,3-Dichlorobenzidine	CT,NY,NH
2,4-Dichlorophenol	CT,NY,NH
Diethylphthalate	CT,NY,NH
2,4-Dimethylphenol	CT,NY,NH
Dimethylphthalate	CT,NY,NH
2,4-Dinitrophenol	CT,NY,NH
2,4-Dinitrotoluene	CT,NY,NH
2,6-Dinitrotoluene	CT,NY,NH
Di-n-octylphthalate	CT,NY,NH
1,2-Diphenylhydrazine/Azobenzene	NY
Fluoranthene	CT,NY,NH
Fluorene	NY,NH
Hexachlorobenzene	CT,NY,NH
Hexachlorobutadiene	CT,NY,NH
Hexachloroethane	CT,NY,NH
Indeno(1,2,3-cd)pyrene	CT,NY,NH
Isophorone	CT,NY,NH
2-Methylnaphthalene	CT,NY,NH
2-Methylphenol	CT,NY,NH
3/4-Methylphenol	CT,NY,NH
Naphthalene	CT,NY,NH
Nitrobenzene	CT,NY,NH
2-Nitrophenol	CT,NY,NH
4-Nitrophenol	CT,NY,NH
Pentachlorophenol	CT,NY,NH
Phenanthrene	CT,NY,NH
Phenol	CT,NY,NH
Pyrene	CT,NY,NH
1,2,4-Trichlorobenzene	CT,NY,NH
2,4,5-Trichlorophenol	CT,NY,NH
2,4,6-Trichlorophenol	CT,NY,NH

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The CON-TEST Environmental Laboratory operates under the following certifications and accreditations:

Code	Description	Number	Expires
AIHA	AIHA-LAP, LLC - ISO17025:2017	100033	03/1/2022
MA	Massachusetts DEP	M-MA100	06/30/2021
CT	Connecticut Department of Publilc Health	PH-0567	09/30/2021
NY	New York State Department of Health	10899 NELAP	04/1/2021
NH-S	New Hampshire Environmental Lab	2516 NELAP	02/5/2021
RI	Rhode Island Department of Health	LAO00112	12/30/2020
NC	North Carolina Div. of Water Quality	652	12/31/2020
NJ	New Jersey DEP	MA007 NELAP	06/30/2021
FL	Florida Department of Health	E871027 NELAP	06/30/2021
VT	Vermont Department of Health Lead Laboratory	LL015036	07/30/2021
ME	State of Maine	2011028	06/9/2021
VA	Commonwealth of Virginia	460217	12/14/2020
NH-P	New Hampshire Environmental Lab	2557 NELAP	09/6/2020
VT-DW	Vermont Department of Health Drinking Water	VT-255716	06/12/2021
NC-DW	North Carolina Department of Health	25703	07/31/2021
PA	Commonwealth of Pennsylvania DEP	68-05812	06/30/2021

Table 2
Residences at Centre and Main
Phase 2 - Lot 4
Brockton, Massachusetts
Job #5159

Summary of Analytical Test Results - Groundwater

LOCATION	Method 1 GW-2 (2014)	Method 1 GW-3 (2014)	RCGW-2 (2014)	OW-F	OW-G	OW-H	OW-I	B-105 (OW)	B-105 (OW)	B-106 (OW)
SAMPLING DATE				6/22/2011	6/22/2011	6/22/2011	6/22/2011	6/22/2011	10/11/2013	6/22/2011
LAB SAMPLE ID				L1109147-04	L1109147-03	L1109147-07	L1109147-09	L1109147-08	L1320849-01	L1109147-05
MCP Dissolved Metals (ug/l)										
Dissolved Arsenic		900	900			ND(2.5)	ND(2.5)			
Dissolved Barium		50000	50000			352	99			
Dissolved Cadmium		4	4			ND(2)	ND(2)			
Dissolved Chromium		300	300			ND(5)	60			
Dissolved Mercury		20	20			ND(0.1)	ND(0.1)			
Dissolved Lead		10	10			ND(5)	ND(5)			
Dissolved Selenium		100	100			ND(5)	ND(5)			
Dissolved Silver		7	7			ND(3.5)	ND(3.5)			
MCP Volatile Organics (ug/L)										
Chloroform			50		ND			2.1	ND	3.9
Acetone			50,000		ND			ND	ND	5
sec-Butylbenzene					ND			ND	ND	3.9
n-Propylbenzene			10,000		ND			ND	ND	2.4
Tertiary-Amyl Methyl Ether					ND			ND	ND	7.9
1,4-Dioxane			6,000		ND			ND	ND	ND(125)
1,1,2-Trichloroethane	900	50000	900		1.2			ND	ND	ND
Benzene	1000	10000	1000		1.2			ND	ND	ND
Ethylbenzene	1000	10000	1000		2.3			ND	ND	ND
Methyl tert butyl ether	50000	50000	5000		29			60	ND	ND
sec-Butylbenzene					3.9			ND	ND	ND
Isopropylbenzene			100000		6.5			ND	ND	ND
n-Propylbenzene			10000		2.9			ND	ND	ND
Tertiary-Amyl Methyl Ether					25			35	ND	ND
Naphthalene	700	20,000	700		ND			2.7	ND	ND
MCP Semivolatile Organics (ug/L)									All ND	
Extractable Petroleum Hydrocarbons (ug/L)										
C9-C18 Aliphatics			5,000		ND					ND(50)
C19-C36 Aliphatics			50,000		ND					ND(50)
C11-C22 Aromatics			5,000		ND					298
Volatile Petroleum Hydrocarbons (ug/L)										
C5-C8 Aliphatics				60.1						
C9-C12 Aliphatics				95.8						
C9-C10 Aromatics	4000	50000	4000	53.2						
C5-C8 Aliphatics, Adjusted	3000	50000	3000	60.1						
C9-C12 Aliphatics, Adjusted	5000	50000	5000	ND						

ND - Not Detected Above Laboratory Method Detection Limit
() - Detection Limit Shown

ANALYTICAL REPORT

Lab Number:	L1109147
Client:	McPhail Associates 2269 Massachusetts Avenue Cambridge, MA 02140
ATTN:	Ambrose Donovan
Phone:	(617) 868-1420
Project Name:	RESIDENCE @ CENTRE + MAIN
Project Number:	5159
Report Date:	06/29/11

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.

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

Project Name: RESIDENCE @ CENTRE + MAIN
Project Number: 5159

Lab Number: L1109147
Report Date: 06/29/11

Alpha Sample ID	Client ID	Sample Location	Collection Date/Time
L1109147-01	OW-A	BROCKTON, MA	06/22/11 09:00
L1109147-02	B-109 (OW)	BROCKTON, MA	06/22/11 10:00
L1109147-03	OW-G	BROCKTON, MA	06/22/11 10:30
L1109147-04	OW-F	BROCKTON, MA	06/22/11 11:00
L1109147-05	B-106 (OW)	BROCKTON, MA	06/22/11 11:30
L1109147-06	OW-E	BROCKTON, MA	06/22/11 12:00
L1109147-07	OW-H	BROCKTON, MA	06/22/11 12:30
L1109147-08	B-105 (OW)	BROCKTON, MA	06/22/11 13:00
L1109147-09	OW-1	BROCKTON, MA	06/22/11 13:30

Project Name: RESIDENCE @ CENTRE + MAIN **Lab Number:** L1109147

Project Number: 5159 **Report Date:** 06/29/11

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.

An affirmative response to questions A through F is required for "Presumptive Certainty" status		
A	Were all samples received in a condition consistent with those described on the Chain-of-Custody, properly preserved (including temperature) in the field or laboratory, and prepared/analyzed within method holding times?	YES
B	Were the analytical method(s) and all associated QC requirements specified in the selected CAM protocol(s) followed?	YES
C	Were all required corrective actions and analytical response actions specified in the selected CAM protocol(s) implemented for all identified performance standard non-conformances?	YES
D	Does the laboratory report comply with all the reporting requirements specified in CAM VII A, "Quality Assurance and Quality Control Guidelines for the Acquisition and Reporting of Analytical Data?"	YES
E a.	VPH, EPH, and APH Methods only: Was each method conducted without significant modification(s)? (Refer to the individual method(s) for a list of significant modifications).	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

A response to questions G, H and I is required for "Presumptive Certainty" status		
G	Were the reporting limits at or below all CAM reporting limits specified in the selected CAM protocol(s)?	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

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

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

Project Name: RESIDENCE @ CENTRE + MAIN **Lab Number:** L1109147
Project Number: 5159 **Report Date:** 06/29/11

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.

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 WG475777-1/-2 LCS/LCSD recoveries, associated with L1109147-01, -02, -03, -05 and -08, are below the acceptance criteria for Chloromethane (LCSD at 69%), Bromomethane (58%/64%) and Dichlorodifluoromethane (40%/40%); 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 WG475777-2 LCSD recovery, associated with L1109147-01, -02, -03, -05 and -08, are above the

Project Name:	RESIDENCE @ CENTRE + MAIN	**Lab Number:**	L1109147
Project Number:	5159	**Report Date:**	06/29/11

Case Narrative (continued)

individual acceptance criteria for Ethyl ether (137%), but within the overall method allowances. The results of the associated samples are reported; however, all positive detects are considered to have a potentially high bias for this compound.

The WG475777-1/-2 LCS/LCSD RPD, associated with L1109147-01, -02, -03, -05 and -08, are above the acceptance criteria for 4-Methyl-2-pentanone (22%); however, the individual LCS/LCSD recoveries are within method limits.

The initial calibration, associated with L1109147-01, -02, -03, -05 and -08, did not meet the method required minimum response factors on the lowest calibration standard for 1,4-Dioxane (0.00342), as well as the average response factor for 1,4-Dioxane.

The continuing calibration standard, associated with L1109147-01, -02, -03, -05 and -08, 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.

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:

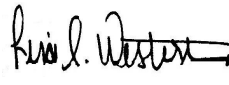
All samples were analyzed for a subset of MCP compounds per the Chain of Custody.

Metals

In reference to question I:

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

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

Authorized Signature:  Lisa Westerlind

Title: Technical Director/Representative Date: 06/29/11

ORGANICS

VOLATILES

Project Name: RESIDENCE @ CENTRE + MAIN **Lab Number:** L1109147

Project Number: 5159 **Report Date:** 06/29/11

SAMPLE RESULTS

Lab ID:	L1109147-03	Date Collected:	06/22/11 10:30
Client ID:	OW-G	Date Received:	06/22/11
Sample Location:	BROCKTON, MA	Field Prep:	Not Specified
Matrix:	Water		
Analytical Method:	97,8260B		
Analytical Date:	06/28/11 14:06		
Analyst:	MM		

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	1.2		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	1.2		ug/l	0.50	--	1
Toluene	ND		ug/l	1.0	--	1
Ethylbenzene	2.3		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: RESIDENCE @ CENTRE + MAIN **Lab Number:** L1109147

Project Number: 5159 **Report Date:** 06/29/11

SAMPLE RESULTS

Lab ID: L1109147-03 Date Collected: 06/22/11 10:30

Client ID: OW-G Date Received: 06/22/11

Sample Location: BROCKTON, MA Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
MCP Volatile Organics - Westborough Lab						
Methyl tert butyl ether	29		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	3.9		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	6.5		ug/l	2.0	--	1
p-Isopropyltoluene	ND		ug/l	2.0	--	1
Naphthalene	ND		ug/l	2.0	--	1
n-Propylbenzene	2.9		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	25		ug/l	2.0	--	1

Project Name: RESIDENCE @ CENTRE + MAIN **Lab Number:** L1109147

Project Number: 5159 **Report Date:** 06/29/11

SAMPLE RESULTS

Lab ID: L1109147-03 Date Collected: 06/22/11 10:30

Client ID: OW-G Date Received: 06/22/11

Sample Location: BROCKTON, MA 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	102		70-130
Toluene-d8	101		70-130
4-Bromofluorobenzene	101		70-130
Dibromofluoromethane	97		70-130

Project Name: RESIDENCE @ CENTRE + MAIN **Lab Number:** L1109147

Project Number: 5159 **Report Date:** 06/29/11

SAMPLE RESULTS

Lab ID:	L1109147-05	Date Collected:	06/22/11 11:30
Client ID:	B-106 (OW)	Date Received:	06/22/11
Sample Location:	BROCKTON, MA	Field Prep:	Not Specified
Matrix:	Water		
Analytical Method:	97,8260B		
Analytical Date:	06/28/11 14:39		
Analyst:	MM		

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	3.9		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: RESIDENCE @ CENTRE + MAIN **Lab Number:** L1109147

Project Number: 5159 **Report Date:** 06/29/11

SAMPLE RESULTS

Lab ID: L1109147-05 Date Collected: 06/22/11 11:30

Client ID: B-106 (OW) Date Received: 06/22/11

Sample Location: BROCKTON, MA 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	5.0		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	3.9		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	2.4		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	7.9		ug/l	2.0	--	1

Project Name: RESIDENCE @ CENTRE + MAIN **Lab Number:** L1109147

Project Number: 5159 **Report Date:** 06/29/11

SAMPLE RESULTS

Lab ID: L1109147-05 Date Collected: 06/22/11 11:30

Client ID: B-106 (OW) Date Received: 06/22/11

Sample Location: BROCKTON, MA 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	104		70-130
Dibromofluoromethane	97		70-130

Project Name: RESIDENCE @ CENTRE + MAIN **Lab Number:** L1109147

Project Number: 5159 **Report Date:** 06/29/11

SAMPLE RESULTS

Lab ID:	L1109147-08	Date Collected:	06/22/11 13:00
Client ID:	B-105 (OW)	Date Received:	06/22/11
Sample Location:	BROCKTON, MA	Field Prep:	Not Specified
Matrix:	Water		
Analytical Method:	97,8260B		
Analytical Date:	06/28/11 15:11		
Analyst:	MM		

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	2.1		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: RESIDENCE @ CENTRE + MAIN **Lab Number:** L1109147

Project Number: 5159 **Report Date:** 06/29/11

SAMPLE RESULTS

Lab ID: L1109147-08 Date Collected: 06/22/11 13:00

Client ID: B-105 (OW) Date Received: 06/22/11

Sample Location: BROCKTON, MA Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
MCP Volatile Organics - Westborough Lab						
Methyl tert butyl ether	60		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	2.7		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	35		ug/l	2.0	--	1

Project Name: RESIDENCE @ CENTRE + MAIN **Lab Number:** L1109147

Project Number: 5159 **Report Date:** 06/29/11

SAMPLE RESULTS

Lab ID: L1109147-08 Date Collected: 06/22/11 13:00

Client ID: B-105 (OW) Date Received: 06/22/11

Sample Location: BROCKTON, MA 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	102		70-130
Toluene-d8	103		70-130
4-Bromofluorobenzene	100		70-130
Dibromofluoromethane	96		70-130

Project Name: RESIDENCE @ CENTRE + MAIN **Lab Number:** L1109147

Project Number: 5159 **Report Date:** 06/29/11

Method Blank Analysis
Batch Quality Control

Analytical Method: 97,8260B
Analytical Date: 06/28/11 08:41
Analyst: MM

Parameter	Result	Qualifier	Units	RL	MDL
MCP Volatile Organics - Westborough Lab for sample(s): 01-03,05,08 Batch: WG475777-3					
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: RESIDENCE @ CENTRE + MAIN **Lab Number:** L1109147

Project Number: 5159 **Report Date:** 06/29/11

Method Blank Analysis
Batch Quality Control

Analytical Method: 97,8260B
Analytical Date: 06/28/11 08:41
Analyst: MM

Parameter	Result	Qualifier	Units	RL	MDL
MCP Volatile Organics - Westborough Lab for sample(s): 01-03,05,08 Batch: WG475777-3					
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: RESIDENCE @ CENTRE + MAIN **Lab Number:** L1109147

Project Number: 5159 **Report Date:** 06/29/11

Method Blank Analysis
Batch Quality Control

Analytical Method: 97,8260B
Analytical Date: 06/28/11 08:41
Analyst: MM

Parameter	Result	Qualifier	Units	RL	MDL
MCP Volatile Organics - Westborough Lab for sample(s): 01-03,05,08 Batch: WG475777-3					
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	95		70-130
Toluene-d8	97		70-130
4-Bromofluorobenzene	99		70-130
Dibromofluoromethane	97		70-130

Lab Control Sample Analysis

Batch Quality Control

Project Name: RESIDENCE @ CENTRE + MAIN

Project Number: 5159

Lab Number: L1109147

Report Date: 06/29/11

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
MCP Volatile Organics - Westborough Lab Associated sample(s): 01-03,05,08 Batch: WG475777-1 WG475777-2								
Methylene chloride	110		111		70-130	1		20
1,1-Dichloroethane	110		111		70-130	1		20
Chloroform	105		107		70-130	2		20
Carbon tetrachloride	105		105		70-130	0		20
1,2-Dichloropropane	110		111		70-130	1		20
Dibromochloromethane	106		104		70-130	2		20
1,1,2-Trichloroethane	105		107		70-130	2		20
Tetrachloroethene	107		101		70-130	6		20
Chlorobenzene	102		98		70-130	4		20
Trichlorofluoromethane	102		103		70-130	1		20
1,2-Dichloroethane	104		111		70-130	7		20
1,1,1-Trichloroethane	105		106		70-130	1		20
Bromodichloromethane	117		119		70-130	2		20
trans-1,3-Dichloropropene	105		107		70-130	2		20
cis-1,3-Dichloropropene	106		109		70-130	3		20
1,1-Dichloropropene	107		110		70-130	3		20
Bromoform	88		99		70-130	12		20
1,1,2,2-Tetrachloroethane	98		106		70-130	8		20
Benzene	111		112		70-130	1		20
Toluene	107		101		70-130	6		20
Ethylbenzene	108		105		70-130	3		20

Lab Control Sample Analysis

Batch Quality Control

Project Name: RESIDENCE @ CENTRE + MAIN

Project Number: 5159

Lab Number: L1109147

Report Date: 06/29/11

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
MCP Volatile Organics - Westborough Lab Associated sample(s): 01-03,05,08 Batch: WG475777-1 WG475777-2								
Chloromethane	71		**69**	Q	70-130	3		20
Bromomethane	**58**	Q	**64**	Q	70-130	10		20
Vinyl chloride	85		88		70-130	3		20
Chloroethane	124		120		70-130	3		20
1,1-Dichloroethene	107		112		70-130	5		20
trans-1,2-Dichloroethene	106		106		70-130	0		20
Trichloroethene	111		113		70-130	2		20
1,2-Dichlorobenzene	97		97		70-130	0		20
1,3-Dichlorobenzene	99		99		70-130	0		20
1,4-Dichlorobenzene	97		99		70-130	2		20
Methyl tert butyl ether	94		107		70-130	13		20
p/m-Xylene	108		106		70-130	2		20
o-Xylene	108		105		70-130	3		20
cis-1,2-Dichloroethene	109		110		70-130	1		20
Dibromomethane	108		115		70-130	6		20
1,2,3-Trichloropropane	97		104		70-130	7		20
Styrene	106		102		70-130	4		20
Dichlorodifluoromethane	**40**	Q	**40**	Q	70-130	0		20
Acetone	95		97		70-130	2		20
Carbon disulfide	102		101		70-130	1		20
2-Butanone	102		121		70-130	17		20

Lab Control Sample Analysis

Batch Quality Control

Project Name: RESIDENCE @ CENTRE + MAIN

Project Number: 5159

Lab Number: L1109147

Report Date: 06/29/11

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
MCP Volatile Organics - Westborough Lab Associated sample(s): 01-03,05,08 Batch: WG475777-1 WG475777-2								
4-Methyl-2-pentanone	96		120		70-130	**22**	Q	20
2-Hexanone	91		106		70-130	15		20
Bromochloromethane	109		114		70-130	4		20
Tetrahydrofuran	109		124		70-130	13		20
2,2-Dichloropropane	113		111		70-130	2		20
1,2-Dibromoethane	102		108		70-130	6		20
1,3-Dichloropropane	106		109		70-130	3		20
1,1,1,2-Tetrachloroethane	108		99		70-130	9		20
Bromobenzene	100		100		70-130	0		20
n-Butylbenzene	94		95		70-130	1		20
sec-Butylbenzene	97		95		70-130	2		20
tert-Butylbenzene	96		94		70-130	2		20
o-Chlorotoluene	104		103		70-130	1		20
p-Chlorotoluene	100		99		70-130	1		20
1,2-Dibromo-3-chloropropane	115		114		70-130	1		20
Hexachlorobutadiene	90		90		70-130	0		20
Isopropylbenzene	105		102		70-130	3		20
p-Isopropyltoluene	98		94		70-130	4		20
Naphthalene	79		93		70-130	16		20
n-Propylbenzene	103		101		70-130	2		20
1,2,3-Trichlorobenzene	86		96		70-130	11		20

Lab Control Sample Analysis

Batch Quality Control

Project Name: RESIDENCE @ CENTRE + MAIN

Project Number: 5159

Lab Number: L1109147

Report Date: 06/29/11

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
MCP Volatile Organics - Westborough Lab Associated sample(s): 01-03,05,08 Batch: WG475777-1 WG475777-2								
1,2,4-Trichlorobenzene	89		94		70-130	5		20
1,3,5-Trimethylbenzene	97		95		70-130	2		20
1,2,4-Trimethylbenzene	101		100		70-130	1		20
Ethyl ether	119		**137**	Q	70-130	14		20
Isopropyl Ether	108		113		70-130	5		20
Ethyl-Tert-Butyl-Ether	100		108		70-130	8		20
Tertiary-Amyl Methyl Ether	102		112		70-130	9		20
1,4-Dioxane	104		109		70-130	5		20

Surrogate	LCS %Recovery	Qual	LCSD %Recovery	Qual	Acceptance Criteria
1,2-Dichloroethane-d4	98		99		70-130
Toluene-d8	100		95		70-130
4-Bromofluorobenzene	102		94		70-130
Dibromofluoromethane	96		101		70-130

PETROLEUM HYDROCARBONS

Project Name: RESIDENCE @ CENTRE + MAIN **Lab Number:** L1109147

Project Number: 5159 **Report Date:** 06/29/11

SAMPLE RESULTS

Lab ID:	L1109147-03	Date Collected:	06/22/11 10:30
Client ID:	OW-G	Date Received:	06/22/11
Sample Location:	BROCKTON, MA	Field Prep:	Not Specified
Matrix:	Water	Extraction Method:	EPA 3510C
Analytical Method:	98,EPH-04-1.1	Extraction Date:	06/28/11 13:33
Analytical Date:	06/29/11 13:23	Cleanup Method1:	EPH-04-1
Analyst:	MW	Cleanup Date1:	06/29/11

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
Extractable Petroleum Hydrocarbons - Westborough Lab						
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	91		40-140
o-Terphenyl	84		40-140
2-Fluorobiphenyl	70		40-140
2-Bromonaphthalene	67		40-140

Project Name: RESIDENCE @ CENTRE + MAIN **Lab Number:** L1109147

Project Number: 5159 **Report Date:** 06/29/11

SAMPLE RESULTS

Lab ID:	L1109147-04	Date Collected:	06/22/11 11:00
Client ID:	OW-F	Date Received:	06/22/11
Sample Location:	BROCKTON, MA	Field Prep:	Not Specified
Matrix:	Water		
Analytical Method:	100,VPH-04-1.1		
Analytical Date:	06/24/11 01:14		
Analyst:	TT		

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
Volatile Petroleum Hydrocarbons - Westborough Lab						
C5-C8 Aliphatics	60.1		ug/l	50.0	--	1
C9-C12 Aliphatics	95.8		ug/l	50.0	--	1
C9-C10 Aromatics	53.2		ug/l	50.0	--	1
C5-C8 Aliphatics, Adjusted	60.1		ug/l	50.0	--	1
C9-C12 Aliphatics, Adjusted	ND		ug/l	50.0	--	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
2,5-Dibromotoluene-PID	90		70-130
2,5-Dibromotoluene-FID	99		70-130

Project Name: RESIDENCE @ CENTRE + MAIN **Lab Number:** L1109147

Project Number: 5159 **Report Date:** 06/29/11

SAMPLE RESULTS

Lab ID:	L1109147-05	Date Collected:	06/22/11 11:30
Client ID:	B-106 (OW)	Date Received:	06/22/11
Sample Location:	BROCKTON, MA	Field Prep:	Not Specified
Matrix:	Water	Extraction Method:	EPA 3510C
Analytical Method:	98,EPH-04-1.1	Extraction Date:	06/28/11 13:33
Analytical Date:	06/29/11 13:54	Cleanup Method1:	EPH-04-1
Analyst:	MW	Cleanup Date1:	06/29/11

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
Extractable Petroleum Hydrocarbons - Westborough Lab						
C9-C18 Aliphatics	ND		ug/l	100	--	1
C19-C36 Aliphatics	ND		ug/l	100	--	1
C11-C22 Aromatics	298		ug/l	100	--	1
C11-C22 Aromatics, Adjusted	298		ug/l	100	--	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
Chloro-Octadecane	100		40-140
o-Terphenyl	94		40-140
2-Fluorobiphenyl	82		40-140
2-Bromonaphthalene	80		40-140

Project Name: RESIDENCE @ CENTRE + MAIN **Lab Number:** L1109147

Project Number: 5159 **Report Date:** 06/29/11

Method Blank Analysis
Batch Quality Control

Analytical Method: 100,VPH-04-1.1
Analytical Date: 06/23/11 12:42
Analyst: TT

Parameter	Result	Qualifier	Units	RL	MDL
Volatile Petroleum Hydrocarbons - Westborough Lab for sample(s): 01,04 Batch: WG474852-3					
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	90		70-130
2,5-Dibromotoluene-FID	97		70-130

Project Name: RESIDENCE @ CENTRE + MAIN **Lab Number:** L1109147

Project Number: 5159 **Report Date:** 06/29/11

Method Blank Analysis
Batch Quality Control

Analytical Method: 100,VPH-04-1.1
Analytical Date: 06/26/11 08:40
Analyst: TT

Parameter	Result	Qualifier	Units	RL	MDL
Volatile Petroleum Hydrocarbons - Westborough Lab for sample(s): 06 Batch: WG475404-3					
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	91		70-130
2,5-Dibromotoluene-FID	97		70-130

Project Name: RESIDENCE @ CENTRE + MAIN
Project Number: 5159
Lab Number: L1109147
Report Date: 06/29/11

Method Blank Analysis
Batch Quality Control

Analytical Method: 98,EPH-04-1.1
Analytical Date: 06/29/11 09:03
Analyst: MW

Extraction Method: EPA 3510C
Extraction Date: 06/28/11 13:33
Cleanup Method1: EPH-04-1
Cleanup Date1: 06/29/11

Parameter	Result	Qualifier	Units	RL	MDL
Extractable Petroleum Hydrocarbons - Westborough Lab for sample(s): 02-03,05-06 Batch: WG475788-1					
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	71		40-140
o-Terphenyl	97		40-140
2-Fluorobiphenyl	77		40-140
2-Bromonaphthalene	80		40-140

Lab Control Sample Analysis

Batch Quality Control

Project Name: RESIDENCE @ CENTRE + MAIN

Project Number: 5159

Lab Number: L1109147

Report Date: 06/29/11

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Volatile Petroleum Hydrocarbons - Westborough Lab Associated sample(s): 01,04 Batch: WG474852-1 WG474852-2								
C5-C8 Aliphatics	109		100		70-130	9		25
C9-C12 Aliphatics	90		87		70-130	3		25
C9-C10 Aromatics	101		97		70-130	4		25
Benzene	96		90		70-130	7		25
Toluene	98		93		70-130	5		25
Ethylbenzene	98		94		70-130	4		25
p/m-Xylene	100		96		70-130	4		25
o-Xylene	99		97		70-130	2		25
Methyl tert butyl ether	93		88		70-130	6		25
Naphthalene	93		92		70-130	2		25
1,2,4-Trimethylbenzene	99		95		70-130	4		25
Pentane	112		97		70-130	14		25
2-Methylpentane	111		104		70-130	7		25
2,2,4-Trimethylpentane	107		102		70-130	5		25
n-Nonane	95		90		30-130	5		25
n-Decane	89		87		70-130	2		25
n-Butylcyclohexane	100		97		70-130	4		25

Lab Control Sample Analysis

Batch Quality Control

Project Name: RESIDENCE @ CENTRE + MAIN

Project Number: 5159

Lab Number: L1109147

Report Date: 06/29/11

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Volatile Petroleum Hydrocarbons - Westborough Lab Associated sample(s): 01,04 Batch: WG474852-1 WG474852-2								

Surrogate	LCS %Recovery	Qual	LCSD %Recovery	Qual	Acceptance Criteria
2,5-Dibromotoluene-PID	93		90		70-130
2,5-Dibromotoluene-FID	97		97		70-130

Volatile Petroleum Hydrocarbons - Westborough Lab Associated sample(s): 06 Batch: WG475404-1 WG475404-2								
C5-C8 Aliphatics	118		110		70-130	7		25
C9-C12 Aliphatics	92		89		70-130	4		25
C9-C10 Aromatics	102		98		70-130	4		25
Benzene	98		93		70-130	4		25
Toluene	100		96		70-130	4		25
Ethylbenzene	100		96		70-130	4		25
p/m-Xylene	102		98		70-130	5		25
o-Xylene	102		98		70-130	4		25
Methyl tert butyl ether	95		92		70-130	4		25

Lab Control Sample Analysis

Batch Quality Control

Project Name: RESIDENCE @ CENTRE + MAIN

Project Number: 5159

Lab Number: L1109147

Report Date: 06/29/11

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Volatile Petroleum Hydrocarbons - Westborough Lab Associated sample(s): 06 Batch: WG475404-1 WG475404-2								
Naphthalene	93		92		70-130	1		25
1,2,4-Trimethylbenzene	100		96		70-130	4		25
Pentane	121		111		70-130	9		25
2-Methylpentane	119		114		70-130	4		25
2,2,4-Trimethylpentane	113		108		70-130	5		25
n-Nonane	97		92		30-130	5		25
n-Decane	90		88		70-130	2		25
n-Butylcyclohexane	103		99		70-130	4		25

Surrogate	LCS %Recovery	Qual	LCSD %Recovery	Qual	Acceptance Criteria
2,5-Dibromotoluene-PID	98		93		70-130
2,5-Dibromotoluene-FID	103		99		70-130

Lab Control Sample Analysis

Batch Quality Control

Project Name: RESIDENCE @ CENTRE + MAIN

Project Number: 5159

Lab Number: L1109147

Report Date: 06/29/11

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Extractable Petroleum Hydrocarbons - Westborough Lab Associated sample(s): 02-03,05-06 Batch: WG475788-2 WG475788-3								
C9-C18 Aliphatics	62		68		40-140	9		25
C19-C36 Aliphatics	85		93		40-140	9		25
C11-C22 Aromatics	79		92		40-140	15		25
Naphthalene	68		78		40-140	14		25
2-Methylnaphthalene	74		85		40-140	14		25
Acenaphthylene	75		84		40-140	11		25
Acenaphthene	76		86		40-140	12		25
Fluorene	77		89		40-140	14		25
Phenanthrene	81		94		40-140	15		25
Anthracene	81		92		40-140	13		25
Fluoranthene	83		97		40-140	16		25
Pyrene	86		99		40-140	14		25
Benzo(a)anthracene	83		97		40-140	16		25
Chrysene	85		99		40-140	15		25
Benzo(b)fluoranthene	88		102		40-140	15		25
Benzo(k)fluoranthene	82		96		40-140	16		25
Benzo(a)pyrene	84		96		40-140	13		25
Indeno(1,2,3-cd)Pyrene	83		96		40-140	15		25
Dibenzo(a,h)anthracene	80		92		40-140	14		25
Benzo(ghi)perylene	81		93		40-140	14		25
Nonane (C9)	52		59		30-140	13		25

Lab Control Sample Analysis

Batch Quality Control

Project Name: RESIDENCE @ CENTRE + MAIN

Project Number: 5159

Lab Number: L1109147

Report Date: 06/29/11

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Extractable Petroleum Hydrocarbons - Westborough Lab Associated sample(s): 02-03,05-06 Batch: WG475788-2 WG475788-3								
Decane (C10)	60		68		40-140	13		25
Dodecane (C12)	66		73		40-140	10		25
Tetradecane (C14)	72		77		40-140	7		25
Hexadecane (C16)	78		83		40-140	6		25
Octadecane (C18)	82		89		40-140	8		25
Nonadecane (C19)	84		92		40-140	9		25
Eicosane (C20)	84		92		40-140	9		25
Docosane (C22)	85		93		40-140	9		25
Tetracosane (C24)	87		96		40-140	10		25
Hexacosane (C26)	88		96		40-140	9		25
Octacosane (C28)	86		94		40-140	9		25
Triacontane (C30)	88		97		40-140	10		25
Hexatriacontane (C36)	86		94		40-140	9		25

Surrogate	LCS %Recovery	Qual	LCSD %Recovery	Qual	Acceptance Criteria
Chloro-Octadecane	86		72		40-140
o-Terphenyl	83		89		40-140
2-Fluorobiphenyl	74		80		40-140
2-Bromonaphthalene	75		79		40-140
% Naphthalene Breakthrough	0		0		
% 2-Methylnaphthalene Breakthrough	0		0		

METALS

Project Name: RESIDENCE @ CENTRE + MAIN
Lab Number: L1109147
Project Number: 5159
Report Date: 06/29/11

SAMPLE RESULTS

Lab ID: L1109147-07
Client ID: OW-H
Sample Location: BROCKTON, MA
Matrix: Water

Date Collected: 06/22/11 12:30
Date Received: 06/22/11
Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Prep Method	Analytical Method	Analyst
MCP Dissolved Metals - Westborough Lab											
Arsenic, Dissolved	ND		mg/l	0.005	--	1	06/25/11 14:30	06/28/11 19:52	EPA 3005A	97,6010B	AI
Barium, Dissolved	0.352		mg/l	0.010	--	1	06/25/11 14:30	06/28/11 19:52	EPA 3005A	97,6010B	AI
Cadmium, Dissolved	ND		mg/l	0.004	--	1	06/25/11 14:30	06/28/11 19:52	EPA 3005A	97,6010B	AI
Chromium, Dissolved	ND		mg/l	0.01	--	1	06/25/11 14:30	06/28/11 19:52	EPA 3005A	97,6010B	AI
Lead, Dissolved	ND		mg/l	0.010	--	1	06/25/11 14:30	06/28/11 19:52	EPA 3005A	97,6010B	AI
Mercury, Dissolved	ND		mg/l	0.0002	--	1	06/24/11 12:30	06/27/11 10:15	EPA 7470A	97,7470A	DM
Selenium, Dissolved	ND		mg/l	0.010	--	1	06/25/11 14:30	06/28/11 19:52	EPA 3005A	97,6010B	AI
Silver, Dissolved	ND		mg/l	0.007	--	1	06/25/11 14:30	06/28/11 19:52	EPA 3005A	97,6010B	AI

Project Name: RESIDENCE @ CENTRE + MAIN
Lab Number: L1109147
Project Number: 5159
Report Date: 06/29/11

SAMPLE RESULTS

Lab ID: L1109147-09
Client ID: OW-1
Sample Location: BROCKTON, MA
Matrix: Water

Date Collected: 06/22/11 13:30
Date Received: 06/22/11
Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Prep Method	Analytical Method	Analyst
MCP Dissolved Metals - Westborough Lab											
Arsenic, Dissolved	ND		mg/l	0.005	--	1	06/25/11 14:30	06/28/11 19:55	EPA 3005A	97,6010B	AI
Barium, Dissolved	0.099		mg/l	0.010	--	1	06/25/11 14:30	06/28/11 19:55	EPA 3005A	97,6010B	AI
Cadmium, Dissolved	ND		mg/l	0.004	--	1	06/25/11 14:30	06/28/11 19:55	EPA 3005A	97,6010B	AI
Chromium, Dissolved	0.06		mg/l	0.01	--	1	06/25/11 14:30	06/28/11 19:55	EPA 3005A	97,6010B	AI
Lead, Dissolved	ND		mg/l	0.010	--	1	06/25/11 14:30	06/28/11 19:55	EPA 3005A	97,6010B	AI
Mercury, Dissolved	ND		mg/l	0.0002	--	1	06/24/11 12:30	06/27/11 10:17	EPA 7470A	97,7470A	DM
Selenium, Dissolved	ND		mg/l	0.010	--	1	06/25/11 14:30	06/28/11 19:55	EPA 3005A	97,6010B	AI
Silver, Dissolved	ND		mg/l	0.007	--	1	06/25/11 14:30	06/28/11 19:55	EPA 3005A	97,6010B	AI

Project Name: RESIDENCE @ CENTRE + MAIN **Lab Number:** L1109147

Project Number: 5159 **Report Date:** 06/29/11

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): 01,06-07,09 Batch: WG475381-1										
Arsenic, Dissolved	ND		mg/l	0.005	--	1	06/25/11 14:30	06/28/11 19:21	97,6010B	AI
Barium, Dissolved	ND		mg/l	0.010	--	1	06/25/11 14:30	06/28/11 19:21	97,6010B	AI
Cadmium, Dissolved	ND		mg/l	0.004	--	1	06/25/11 14:30	06/28/11 19:21	97,6010B	AI
Chromium, Dissolved	ND		mg/l	0.01	--	1	06/25/11 14:30	06/28/11 19:21	97,6010B	AI
Lead, Dissolved	ND		mg/l	0.010	--	1	06/25/11 14:30	06/28/11 19:21	97,6010B	AI
Selenium, Dissolved	ND		mg/l	0.010	--	1	06/25/11 14:30	06/28/11 19:21	97,6010B	AI
Silver, Dissolved	ND		mg/l	0.007	--	1	06/25/11 14:30	06/28/11 19:21	97,6010B	AI

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): 01,06-07,09 Batch: WG475448-1										
Mercury, Dissolved	ND		mg/l	0.0002	--	1	06/24/11 12:30	06/27/11 10:04	97,7470A	DM

Prep Information

Digestion Method: EPA 7470A

Lab Control Sample Analysis

Batch Quality Control

Project Name: RESIDENCE @ CENTRE + MAIN

Project Number: 5159

Lab Number: L1109147

Report Date: 06/29/11

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
MCP Dissolved Metals - Westborough Lab Associated sample(s): 01,06-07,09 Batch: WG475381-2 WG475381-3								
Arsenic, Dissolved	109		113		80-120	4		20
Barium, Dissolved	100		102		80-120	2		20
Cadmium, Dissolved	107		109		80-120	2		20
Chromium, Dissolved	100		100		80-120	0		20
Lead, Dissolved	107		109		80-120	2		20
Selenium, Dissolved	109		110		80-120	1		20
Silver, Dissolved	104		103		80-120	1		20
MCP Dissolved Metals - Westborough Lab Associated sample(s): 01,06-07,09 Batch: WG475448-2 WG475448-3								
Mercury, Dissolved	108		105		80-120	3		20

Matrix Spike Analysis
Batch Quality Control

Project Name: RESIDENCE @ CENTRE + MAIN
Project Number: 5159
Lab Number: L1109147
Report Date: 06/29/11

Parameter	Native Sample	MS Added	MS Found	MS %Recovery	Qual	MSD Found	MSD %Recovery	Qual	Recovery Limits	RPD	Qual	RPD Limits
MCP Dissolved Metals - Westborough Lab Associated sample(s): 01,06-07,09 QC Batch ID: WG475381-4 QC Sample: L1109147-06 Client ID: OW-E												
Arsenic, Dissolved	ND	0.12	0.140	117		-	-		75-125	-		20
Barium, Dissolved	0.147	2	2.16	101		-	-		75-125	-		20
Cadmium, Dissolved	ND	0.051	0.054	105		-	-		75-125	-		20
Chromium, Dissolved	ND	0.2	0.20	100		-	-		75-125	-		20
Lead, Dissolved	ND	0.51	0.519	102		-	-		75-125	-		20
Selenium, Dissolved	ND	0.12	0.131	109		-	-		75-125	-		20
Silver, Dissolved	ND	0.05	0.054	107		-	-		75-125	-		20
MCP Dissolved Metals - Westborough Lab Associated sample(s): 01,06-07,09 QC Batch ID: WG475448-4 QC Sample: L1109147-06 Client ID: OW-E												
Mercury, Dissolved	ND	0.001	0.0011	114		-	-		75-125	-		20

Project Name: RESIDENCE @ CENTRE + MAIN
Project Number: 5159

Lab Number: L1109147
Report Date: 06/29/11

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(*)
L1109147-01A	Vial HCl preserved	A	N/A	3	Y	Absent	MCP-8260-10(14)
L1109147-01B	Vial HCl preserved	A	N/A	3	Y	Absent	MCP-8260-10(14)
L1109147-01C	Vial HCl preserved	A	N/A	3	Y	Absent	VPH-10(14)
L1109147-01D	Vial HCl preserved	A	N/A	3	Y	Absent	VPH-10(14)
L1109147-01E	Plastic 1000ml unpreserved	A	7	3	Y	Absent	-
L1109147-01X	Plastic 1000ml HNO3 preserved sp	A	<2	3	Y	Absent	MCP-CD-6010S-10(180),MCP-7470S-10(28),MCP-AG-6010S-10(180),MCP-AS-6010S-10(180),MCP-CR-6010S-10(180),MCP-BA-6010S-10(180),MCP-PB-6010S-10(180),MCP-SE-6010S-10(180)
L1109147-02A	Vial HCl preserved	A	N/A	3	Y	Absent	MCP-8260-10(14)
L1109147-02B	Vial HCl preserved	A	N/A	3	Y	Absent	MCP-8260-10(14)
L1109147-02C	Amber 1000ml HCl preserved	A	<2	3	Y	Absent	EPH-10(14)
L1109147-02D	Amber 1000ml HCl preserved	A	<2	3	Y	Absent	EPH-10(14)
L1109147-03A	Vial HCl preserved	A	N/A	3	Y	Absent	MCP-8260-10(14)
L1109147-03B	Vial HCl preserved	A	N/A	3	Y	Absent	MCP-8260-10(14)
L1109147-03C	Amber 1000ml HCl preserved	A	<2	3	Y	Absent	EPH-10(14)
L1109147-03D	Amber 1000ml HCl preserved	A	<2	3	Y	Absent	EPH-10(14)
L1109147-04A	Vial HCl preserved	A	N/A	3	Y	Absent	VPH-10(14)
L1109147-04B	Vial HCl preserved	A	N/A	3	Y	Absent	VPH-10(14)
L1109147-05A	Vial HCl preserved	A	N/A	3	Y	Absent	MCP-8260-10(14)
L1109147-05C	Amber 1000ml HCl preserved	A	<2	3	Y	Absent	EPH-10(14)
L1109147-05D	Amber 1000ml HCl preserved	A	<2	3	Y	Absent	EPH-10(14)
L1109147-06A	Vial HCl preserved	A	N/A	3	Y	Absent	VPH-10(14)
L1109147-06B	Vial HCl preserved	A	N/A	3	Y	Absent	VPH-10(14)
L1109147-06C	Amber 1000ml HCl preserved	A	<2	3	Y	Absent	EPH-10(14)
L1109147-06D	Amber 1000ml HCl preserved	A	<2	3	Y	Absent	EPH-10(14)

*Values in parentheses indicate holding time in days

Project Name: RESIDENCE @ CENTRE + MAIN
Project Number: 5159

Lab Number: L1109147
Report Date: 06/29/11

Container Information

Container ID	Container Type	Cooler	pH	Temp deg C	Pres	Seal	Analysis(*)
L1109147-06E	Plastic 1000ml unpreserved	A	7	3	Y	Absent	-
L1109147-06X	Plastic 1000ml HNO3 preserved sp	A	<2	3	Y	Absent	MCP-CD-6010S-10(180),MCP-7470S-10(28),MCP-AG-6010S-10(180),MCP-AS-6010S-10(180),MCP-CR-6010S-10(180),MCP-BA-6010S-10(180),MCP-PB-6010S-10(180),MCP-SE-6010S-10(180)
L1109147-07A	Plastic 1000ml unpreserved	A	7	3	Y	Absent	-
L1109147-07X	Plastic 1000ml HNO3 preserved sp	A	<2	3	Y	Absent	MCP-CD-6010S-10(180),MCP-7470S-10(28),MCP-AG-6010S-10(180),MCP-AS-6010S-10(180),MCP-CR-6010S-10(180),MCP-BA-6010S-10(180),MCP-PB-6010S-10(180),MCP-SE-6010S-10(180)
L1109147-08A	Vial HCl preserved	A	N/A	3	Y	Absent	MCP-8260-10(14)
L1109147-08B	Vial HCl preserved	A	N/A	3	Y	Absent	MCP-8260-10(14)
L1109147-09A	Plastic 1000ml unpreserved	A	7	3	Y	Absent	-
L1109147-09X	Plastic 1000ml HNO3 preserved sp	A	<2	3	Y	Absent	MCP-CD-6010S-10(180),MCP-7470S-10(28),MCP-AG-6010S-10(180),MCP-AS-6010S-10(180),MCP-CR-6010S-10(180),MCP-BA-6010S-10(180),MCP-PB-6010S-10(180),MCP-SE-6010S-10(180)

*Values in parentheses indicate holding time in days

Project Name:	RESIDENCE @ CENTRE + MAIN	**Lab Number:**	L1109147
Project Number:	5159	**Report Date:**	06/29/11

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:	RESIDENCE @ CENTRE + MAIN	**Lab Number:**	L1109147
Project Number:	5159	**Report Date:**	06/29/11

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.

Report Format: Data Usability Report

Project Name: RESIDENCE @ CENTRE + MAIN **Lab Number:** L1109147

Project Number: 5159 **Report Date:** 06/29/11

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.

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.

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, 4500Cl-D, 4500CN-C, 4500CN-E, 4500F-C, 4500H+B, 4500NO3-F, EPA 200.7, EPA 200.8, 245.1, EPA 300.0. Organic Parameters: 504.1, 524.2.)

Wastewater/Non-Potable Water (Inorganic Parameters: EPA 120.1, 1664A, 350.1, 351.1, 353.2, 410.4, 420.1, SM2320B, 2510B, 2540C, 2540D, 426C, 4500Cl-D, 4500Cl-E, 4500CN-C, 4500CN-E, 4500F-B, 4500F-C, 4500H+B, 4500Norg-B, 4500Norg-C, 4500NH3-B, 4500NH3-G, 4500NH3-H, 4500NO3-F, 4500P-B, 4500P-E, 5210B, 5220D, 5310C, 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, SM4500Cl-D, 2320B, SM2540C, SM4500H-B. Organic Parameters: (EPA 524.2 for: Trihalomethanes, Volatile Organics); (504.1 for: 1,2-Dibromoethane, 1,2-Dibromo-3-Chloropropane), EPA 332. Microbiology Parameters: SM9215B; ENZ. SUB. SM9223; ColilertQT SM9223B; MF-SM9222D.)

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

Organic Parameters: (EPA 624 for Volatile Halocarbons, Volatile Aromatics),(608 for: Chlordane, 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, 4500Cl-E, EPA 300.0, SM2120B, SM4500F-BC, EPA 200.7, 351.1, LACHAT 10-107-06-2-D, EPA 353.2, SM4500NO3-F, 4500NO2-B, EPA 1664A, SM5310B, C or D, 4500-PE, EPA 420.1, SM510ABC, SM4500P-B5+E, 2540B, 2540C, 2540D, EPA 120.1, SM2510B, SM15 426C, 9222D, 9221B, 9221C, 9221E, 9222B, 9215B, 2310B, 2320B, 4500NH3-H, 4500-S D, EPA 350.1, 350.2, SW-846 1312, 6020, 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 Commisson on Environmental Quality Certificate/Lab ID: T104704476-09-1. ***NELAP Accredited.***
Non-Potable Water (Inorganic Parameters: EPA 120.1, 1664, 200.7, 200.8, 245.1, 245.2, 300.0, 350.1, 351.1, 353.2, 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 $S2^{-}$D, 510C, 5210B, 5220D, 5310C, 5540C. Organic Parameters: EPA 608, 624, 625, 8081, 8082, 8151, 8260, 8270, 8330.)

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

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

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

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

The following analytes are not included in our current NELAP/TNI Scope of Accreditation:
EPA 8260B: Freon-113, 1,2,4,5-Tetramethylbenzene, 4-Ethyltoluene. **EPA 8330A:** PETN, Picric Acid, Nitroglycerine, 2,6-DANT, 2,4-DANT. **EPA 8270C:** Methyl naphthalene, Dimethyl naphthalene, Total Methylnapthalenes, Total Dimethylnaphthalenes, 1,4-Diphenylhydrazine (Azobenzene). **EPA 625:** 4-Chloroaniline, 4-Methylphenol. Total Phosphorus in a soil matrix, Chloride in a soil matrix, TKN in a soil matrix, NO2 in a soil matrix, NO3 in a soil matrix, SO4 in a soil matrix.

CHAIN OF CUSTODY

PAGE 1 OF 1

ALPHA ANALYTICAL

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

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

Date Rec'd in Lab: 6/22/11

ALPHA Job #: L1109147

Client Information

Client: McPhail Assoc Inc

Address: 2269 Mass Ave Cambridge MA

Phone: 617-868-1420

Fax: 617-868-1423

Email: PDechaves@mcphailgeo.com

☐ These samples have been previously analyzed by Alpha

Project Information

Project Name: Residence @ Centre Main

Project Location: Brockton, MA

Project #: 5159

Project Manager: PJD

ALPHA Quote #:

Turn-Around Time

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

Date Due: Time:

Report Information - Data Deliverables

☐ FAX ☐ EMAIL

☑ ADEx ☐ Add'l Deliverables

Billing Information

☑ Same as Client info PO #:

Regulatory Requirements/Report Limits

State /Fed Program: MCP Criteria: RCGW-2

MA MCP PRESUMPTIVE CERTAINTY --- CT REASONABLE CONFIDENCE PROTO

☑ Yes ☐ No Are MCP Analytical Methods Required?

☑ Yes ☐ No Is Matrix Spike (MS) Required on this SDG? (If yes see note in Comments)

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

Other Project Specific Requirements/Comments/Detection Limits:

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

SAMPLE FROM OW-E AS MATRIX SPIKE

SAMPLE HANDLING

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

ALPHA Lab ID (Lab Use Only)	Sample ID	Collection Date	Collection Time	Sample Matrix	Sampler's Initials	VOC	UPH STD	Dissolved RCRA 8	EPH STD	Sample Specific Comments	TOTAL # BOTTLES
09147.1	OW-A	6/22/11	900	H20	TWC	X	X	X			5
2	B-109(ow)		1000			X			X		4
3	OW-G		1030			X			X		4
4	OW-F		1100				X				2
5	B-106(ow		1130			X			X		4
6	OW-E		1200				X	X	X	MS for Metals only	5
7	OW-H		1230					X		per P. Dechaves 6/24/11-LC	1
8	B-105(ow)		1300			X					2
9	OW-1		1330					X			1
	Container Type					V	V	P	A		
	Preservative					B	P	A	B		

PLEASE ANSWER QUESTIONS ABOVE!

IS YOUR PROJECT MA MCP *or* CT RCP?

Relinquished By:	Date/Time	Received By	Date/Time
	6/24/11 545		6/22/11 1635
	6/22/11 1805		6/22/11 1805

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

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

7A
VOLATILE CONTINUING CALIBRATION CHECK

Lab Name: Alpha Analytical Labs

SDG No.: L1109147

Instrument ID: Jack.i Calibration Date: 28-JUN-2011 Time: 07:03

Lab File ID: 0628A01 Init. Calib. Date(s): 24-MAY-2 24-MAY-2

Sample No: 8260 ccal Init. Calib. Times : 06:28 10:15

Compound	RRF	RRF	MIN RRF	%D	MAX %D	
dichlorodifluoromethane	.49825	.19707	.1	60	20	F
chloromethane	.68092	.48428	.1	29	20	F
vinyl chloride	.58327	.49758	.1	15	20	
bromomethane	.28431	.16482	.1	42	20	F
chloroethane	.26296	.32582	.1	-24	20	F
trichlorofluoromethane	.68745	.69993	.1	-2	20	
ethyl ether	.20741	.24601	.05	-19	20	
1,1,-dichloroethene	.45137	.48433	.1	-7	20	
carbon disulfide	1.2411	1.2602	.1	-2	20	
freon-113	.4577	.45165	.1	1	20	
methylene chloride	.60344	.66511	.1	-10	20	
acetone	.11995	.11377	.1	5	20	
trans-1,2-dichloroethene	.61905	.6539	.1	-6	20	
methyl tert butyl ether	1.3735	1.2903	.1	6	20	
Ethyl-Tert-Butyl-Ether	1.6806	1.6893	.05	-1	20	
Diisopropyl Ether	1.7700	1.9108	.01	-8	20	
1,1-dichloroethane	1.0785	1.1848	.2	-10	20	
cis-1,2-dichloroethene	.68741	.74765	.1	-9	20	
2,2-dichloropropane	.85946	.97177	.05	-13	20	
2-butanone	.19005	.19392	.1	-2	20	
bromochloromethane	.30541	.33426	.05	-9	20	
chloroform	1.0957	1.1470	.2	-5	20	
carbontetrachloride	.77839	.81692	.1	-5	20	
tetrahydrofuran	.1224	.13295	.05	-9	20	
1,1,1-trichloroethane	.90436	.94746	.1	-5	20	
1,1-dichloropropene	.86851	.93252	.05	-7	20	
Tertiary-Amyl Methyl Ether	1.4505	1.4745	.05	-2	20	
benzene	2.6495	2.9414	.5	-11	20	
1,2-dichloroethane	.67179	.69733	.1	-4	20	
trichloroethene	.66202	.73371	.2	-11	20	
dibromomethane	.31544	.34234	.05	-9	20	
1,2-dichloropropane	.64258	.7056	.1	-10	20	
bromodichloromethane	.78836	.92148	.2	-17	20	
1,4-dioxane	.00362	.00375	.05	-4	20	F
cis-1,3-dichloropropene	.95626	1.0097	.2	-6	20	
toluene	2.1638	2.3144	.4	-7	20	
tetrachloroethene	1.0152	1.0902	.2	-7	20	
4-methyl-2-pentanone	.16405	.15802	.1	4	20	

FORM VII MCP-8260-10

7A
CONTINUING CALIBRATION CHECK

Lab Name: Alpha Analytical Labs

SDG No.: L1109147

Instrument ID: Jack.i Calibration Date: 28-JUN-2011 Time: 07:03

Lab File ID: 0628A01 Init. Calib. Date(s): 24-MAY-2 24-MAY-2

Sample No: 8260 ccal Init. Calib. Times : 06:28 10:15

Compound	RRF	RRF	MIN RRF	%D	MAX %D	
trans-1,3-dichloropropene	.98531	1.0331	.1	-5	20	
1,1,2-trichloroethane	.5201	.5475	.1	-5	20	
chlorodibromomethane	.65418	.69168	.1	-6	20	
1,3-dichloropropane	1.0490	1.1115	.05	-6	20	
1,2-dibromoethane	.6046	.61758	.1	-2	20	
2-hexanone	.35356	.32206	.1	9	20	
chlorobenzene	2.3833	2.4399	.5	-2	20	
ethyl benzene	4.0540	4.3966	.1	-8	20	
1,1,1,2-tetrachloroethane	.78636	.8475	.05	-8	20	
p/m xylene	1.597	1.7292	.1	-8	20	
o xylene	1.5270	1.6567	.3	-8	20	
styrene	2.5392	2.6990	.3	-6	20	
bromoform	.75274	.6613	.1	12	20	
isopropylbenzene	4.0030	4.1949	.1	-5	20	
bromobenzene	1.8111	1.8065	.05	0	20	
n-propylbenzene	7.8886	8.1136	.05	-3	20	
1,1,2,2,-tetrachloroethane	1.2799	1.2518	.3	2	20	
2-chlorotoluene	5.1841	5.4213	.05	-5	20	
1,2,3-trichloropropane	.98998	.96228	.05	3	20	
1,3,5-trimethybenzene	5.5047	5.3227	.05	3	20	
4-chorotoluene	4.8209	4.8406	.05	0	20	
tert-butylbenzene	4.7451	4.5468	.05	4	20	
1,2,4-trimethylbenzene	5.4571	5.5363	.05	-1	20	
sec-butylbenzene	6.703	6.5175	.01	3	20	
p-isopropyltoluene	5.4630	5.3670	.05	2	20	
1,3-dichlorobenzene	3.2444	3.2028	.6	1	20	
1,4-dichlorobenzene	3.2672	3.1685	.5	3	20	
n-butylbenzene	4.4564	4.1802	.05	6	20	
1,2-dichlorobenzene	2.9862	2.9071	.4	3	20	
1,2-dibromo-3-chloropropane	.16877	.19473	.05	-15	20	
hexachlorobutadiene	.66278	.5986	.05	10	20	
1,2,4-trichlorobenzene	1.5726	1.3968	.2	11	20	
naphthalene	3.2096	2.5428	.05	21	20	F
1,2,3-trichlorobenzene	1.2982	1.1145	.05	14	20	
dibromofluoromethane	.23836	.22976	.05	4	20	
1,2-dichloroethane-d4	.23907	.23456	.05	2	20	
toluene-d8	1.2656	1.2635	.01	0	20	

FORM VII MCP-8260-10

7A
CONTINUING CALIBRATION CHECK

Lab Name: Alpha Analytical Labs

SDG No.: L1109147

Instrument ID: Jack.i Calibration Date: 28-JUN-2011 Time: 07:03

Lab File ID: 0628A01 Init. Calib. Date(s): 24-MAY-2 24-MAY-2

Sample No: 8260 ccal Init. Calib. Times : 06:28 10:15

Compound	RRF	RRF	MIN RRF	%D	MAX %D
4-bromofluorobenzene	.8427	.86313	.05	-2	20

FORM VII MCP-8260-10

ANALYTICAL REPORT

Lab Number:	L1320849
Client:	McPhail Associates 2269 Massachusetts Avenue Cambridge, MA 02140
ATTN:	Ambrose Donovan
Phone:	(617) 868-1420
Project Name:	RESIDENCES @ CENTRE & MAIN
Project Number:	5159.9.2E
Report Date:	10/30/13

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

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

Project Name: RESIDENCES @ CENTRE & MAIN
Project Number: 5159.9.2E

Lab Number: L1320849
Report Date: 10/30/13

Alpha Sample ID	Client ID	Sample Location	Collection Date/Time
L1320849-01	B-105 (OW)	BROCKTON, MA	10/11/13 09:00

Project Name:	RESIDENCES @ CENTRE & MAIN	**Lab Number:**	L1320849
Project Number:	5159.9.2E	**Report Date:**	10/30/13

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.

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

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

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

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

Project Name: RESIDENCES @ CENTRE & MAIN **Lab Number:** L1320849
Project Number: 5159.9.2E **Report Date:** 10/30/13

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 (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:	RESIDENCES @ CENTRE & MAIN	**Lab Number:**	L1320849
Project Number:	5159.9.2E	**Report Date:**	10/30/13

Case Narrative (continued)

Report Submission

This report replaces the report issued on October 21, 2013. The project name and number have been amended.

MCP Related Narratives

Volatile Organics

In reference to question H:

The initial calibration, associated with L1320849-01, 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 L1320849-01, is outside the acceptance criteria for several compounds; however, it is within overall method allowances. A copy of the continuing calibration standard is included as an addendum to this report.

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: 10/30/13

ORGANICS

VOLATILES

Project Name: RESIDENCES @ CENTRE & MAIN **Lab Number:** L1320849

Project Number: 5159.9.2E **Report Date:** 10/30/13

SAMPLE RESULTS

Lab ID:	L1320849-01	Date Collected:	10/11/13 09:00
Client ID:	B-105 (OW)	Date Received:	10/11/13
Sample Location:	BROCKTON, MA	Field Prep:	Not Specified
Matrix:	Water		
Analytical Method:	97,8260C		
Analytical Date:	10/17/13 10:45		
Analyst:	MM		

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: RESIDENCES @ CENTRE & MAIN **Lab Number:** L1320849

Project Number: 5159.9.2E **Report Date:** 10/30/13

SAMPLE RESULTS

Lab ID: L1320849-01 Date Collected: 10/11/13 09:00

Client ID: B-105 (OW) Date Received: 10/11/13

Sample Location: BROCKTON, MA 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	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: RESIDENCES @ CENTRE & MAIN **Lab Number:** L1320849

Project Number: 5159.9.2E **Report Date:** 10/30/13

SAMPLE RESULTS

Lab ID: L1320849-01 Date Collected: 10/11/13 09:00

Client ID: B-105 (OW) Date Received: 10/11/13

Sample Location: BROCKTON, MA 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	126		70-130
Toluene-d8	97		70-130
4-Bromofluorobenzene	92		70-130
Dibromofluoromethane	113		70-130

Project Name: RESIDENCES @ CENTRE & MAIN **Lab Number:** L1320849

Project Number: 5159.9.2E **Report Date:** 10/30/13

Method Blank Analysis
Batch Quality Control

Analytical Method: 97,8260C
Analytical Date: 10/17/13 08:07
Analyst: MM

Parameter	Result	Qualifier	Units	RL	MDL
MCP Volatile Organics - Westborough Lab for sample(s): 01 Batch: WG644346-6					
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: RESIDENCES @ CENTRE & MAIN **Lab Number:** L1320849

Project Number: 5159.9.2E **Report Date:** 10/30/13

Method Blank Analysis
Batch Quality Control

Analytical Method: 97,8260C
Analytical Date: 10/17/13 08:07
Analyst: MM

Parameter	Result	Qualifier	Units	RL	MDL
MCP Volatile Organics - Westborough Lab for sample(s): 01 Batch: WG644346-6					
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: RESIDENCES @ CENTRE & MAIN **Lab Number:** L1320849

Project Number: 5159.9.2E **Report Date:** 10/30/13

Method Blank Analysis
Batch Quality Control

Analytical Method: 97,8260C
Analytical Date: 10/17/13 08:07
Analyst: MM

Parameter	Result	Qualifier	Units	RL	MDL
MCP Volatile Organics - Westborough Lab for sample(s): 01 Batch: WG644346-6					
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	118		70-130
Toluene-d8	96		70-130
4-Bromofluorobenzene	94		70-130
Dibromofluoromethane	109		70-130

Lab Control Sample Analysis

Batch Quality Control

Project Name: RESIDENCES @ CENTRE & MAIN

Project Number: 5159.9.2E

Lab Number: L1320849

Report Date: 10/30/13

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
MCP Volatile Organics - Westborough Lab Associated sample(s): 01 Batch: WG644346-4 WG644346-5								
Methylene chloride	76		78		70-130	3		20
1,1-Dichloroethane	85		86		70-130	1		20
Chloroform	89		91		70-130	2		20
Carbon tetrachloride	108		112		70-130	4		20
1,2-Dichloropropane	78		79		70-130	1		20
Dibromochloromethane	91		94		70-130	3		20
1,1,2-Trichloroethane	81		83		70-130	2		20
Tetrachloroethene	94		96		70-130	2		20
Chlorobenzene	84		86		70-130	2		20
Trichlorofluoromethane	102		110		70-130	8		20
1,2-Dichloroethane	94		96		70-130	2		20
1,1,1-Trichloroethane	96		99		70-130	3		20
Bromodichloromethane	90		91		70-130	1		20
trans-1,3-Dichloropropene	83		84		70-130	1		20
cis-1,3-Dichloropropene	82		83		70-130	1		20
1,1-Dichloropropene	89		91		70-130	2		20
Bromoform	82		84		70-130	2		20
1,1,2,2-Tetrachloroethane	76		78		70-130	3		20
Benzene	82		83		70-130	1		20
Toluene	78		80		70-130	3		20
Ethylbenzene	88		90		70-130	2		20

Lab Control Sample Analysis

Batch Quality Control

Project Name: RESIDENCES @ CENTRE & MAIN

Project Number: 5159.9.2E

Lab Number: L1320849

Report Date: 10/30/13

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
MCP Volatile Organics - Westborough Lab Associated sample(s): 01 Batch: WG644346-4 WG644346-5								
Chloromethane	84		87		70-130	4		20
Bromomethane	99		99		70-130	0		20
Vinyl chloride	99		102		70-130	3		20
Chloroethane	91		92		70-130	1		20
1,1-Dichloroethene	87		90		70-130	3		20
trans-1,2-Dichloroethene	86		89		70-130	3		20
Trichloroethene	88		90		70-130	2		20
1,2-Dichlorobenzene	81		84		70-130	4		20
1,3-Dichlorobenzene	81		84		70-130	4		20
1,4-Dichlorobenzene	81		84		70-130	4		20
Methyl tert butyl ether	79		80		70-130	1		20
p/m-Xylene	87		88		70-130	1		20
o-Xylene	86		88		70-130	2		20
cis-1,2-Dichloroethene	84		84		70-130	0		20
Dibromomethane	88		90		70-130	2		20
1,2,3-Trichloropropane	77		79		70-130	3		20
Styrene	85		87		70-130	2		20
Dichlorodifluoromethane	108		119		70-130	10		20
Acetone	102		**131**	Q	70-130	**25**	Q	20
Carbon disulfide	90		92		70-130	2		20
2-Butanone	93		124		70-130	**29**	Q	20

Lab Control Sample Analysis

Batch Quality Control

Project Name: RESIDENCES @ CENTRE & MAIN

Project Number: 5159.9.2E

Lab Number: L1320849

Report Date: 10/30/13

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
MCP Volatile Organics - Westborough Lab Associated sample(s): 01 Batch: WG644346-4 WG644346-5								
4-Methyl-2-pentanone	76		79		70-130	4		20
2-Hexanone	84		103		70-130	20		20
Bromochloromethane	90		91		70-130	1		20
Tetrahydrofuran	74		76		70-130	3		20
2,2-Dichloropropane	85		87		70-130	2		20
1,2-Dibromoethane	86		90		70-130	5		20
1,3-Dichloropropane	80		83		70-130	4		20
1,1,1,2-Tetrachloroethane	87		90		70-130	3		20
Bromobenzene	81		83		70-130	2		20
n-Butylbenzene	96		96		70-130	0		20
sec-Butylbenzene	93		95		70-130	2		20
tert-Butylbenzene	90		92		70-130	2		20
o-Chlorotoluene	81		83		70-130	2		20
p-Chlorotoluene	80		82		70-130	2		20
1,2-Dibromo-3-chloropropane	83		90		70-130	8		20
Hexachlorobutadiene	108		106		70-130	2		20
Isopropylbenzene	94		96		70-130	2		20
p-Isopropyltoluene	93		95		70-130	2		20
Naphthalene	85		88		70-130	3		20
n-Propylbenzene	85		88		70-130	3		20
1,2,3-Trichlorobenzene	88		93		70-130	6		20

Lab Control Sample Analysis

Batch Quality Control

Project Name: RESIDENCES @ CENTRE & MAIN

Project Number: 5159.9.2E

Lab Number: L1320849

Report Date: 10/30/13

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
MCP Volatile Organics - Westborough Lab Associated sample(s): 01 Batch: WG644346-4 WG644346-5								
1,2,4-Trichlorobenzene	89		91		70-130	2		20
1,3,5-Trimethylbenzene	86		88		70-130	2		20
1,2,4-Trimethylbenzene	84		86		70-130	2		20
Ethyl ether	81		81		70-130	0		20
Isopropyl Ether	81		81		70-130	0		20
Ethyl-Tert-Butyl-Ether	79		80		70-130	1		20
Tertiary-Amyl Methyl Ether	74		75		70-130	1		20
1,4-Dioxane	90		95		70-130	5		20

Surrogate	LCS %Recovery	Qual	LCSD %Recovery	Qual	Acceptance Criteria
1,2-Dichloroethane-d4	117		113		70-130
Toluene-d8	96		97		70-130
4-Bromofluorobenzene	91		92		70-130
Dibromofluoromethane	108		108		70-130

SEMIVOLATILES

Project Name: RESIDENCES @ CENTRE & MAIN **Lab Number:** L1320849

Project Number: 5159.9.2E **Report Date:** 10/30/13

SAMPLE RESULTS

Lab ID:	L1320849-01	Date Collected:	10/11/13 09:00
Client ID:	B-105 (OW)	Date Received:	10/11/13
Sample Location:	BROCKTON, MA	Field Prep:	Not Specified
Matrix:	Water	Extraction Method:	EPA 3510C
Analytical Method:	97,8270D	Extraction Date:	10/14/13 17:47
Analytical Date:	10/17/13 20:12		
Analyst:	PS		

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
MCP Semivolatile Organics - Westborough Lab						
Acenaphthene	ND		ug/l	2.0	--	1
1,2,4-Trichlorobenzene	ND		ug/l	5.0	--	1
Hexachlorobenzene	ND		ug/l	2.0	--	1
Bis(2-chloroethyl)ether	ND		ug/l	2.0	--	1
2-Chloronaphthalene	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
Fluoranthene	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
Hexachlorobutadiene	ND		ug/l	2.0	--	1
Hexachloroethane	ND		ug/l	2.0	--	1
Isophorone	ND		ug/l	5.0	--	1
Naphthalene	ND		ug/l	2.0	--	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
Benzo(a)anthracene	ND		ug/l	2.0	--	1
Benzo(a)pyrene	ND		ug/l	2.0	--	1
Benzo(b)fluoranthene	ND		ug/l	2.0	--	1
Benzo(k)fluoranthene	ND		ug/l	2.0	--	1

Project Name: RESIDENCES @ CENTRE & MAIN **Lab Number:** L1320849

Project Number: 5159.9.2E **Report Date:** 10/30/13

SAMPLE RESULTS

Lab ID: L1320849-01 Date Collected: 10/11/13 09:00

Client ID: B-105 (OW) Date Received: 10/11/13

Sample Location: BROCKTON, MA Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
MCP Semivolatile Organics - Westborough Lab						
Chrysene	ND		ug/l	2.0	--	1
Acenaphthylene	ND		ug/l	2.0	--	1
Anthracene	ND		ug/l	2.0	--	1
Benzo(ghi)perylene	ND		ug/l	2.0	--	1
Fluorene	ND		ug/l	2.0	--	1
Phenanthrene	ND		ug/l	2.0	--	1
Dibenzo(a,h)anthracene	ND		ug/l	2.0	--	1
Indeno(1,2,3-cd)Pyrene	ND		ug/l	2.0	--	1
Pyrene	ND		ug/l	2.0	--	1
Aniline	ND		ug/l	2.0	--	1
4-Chloroaniline	ND		ug/l	5.0	--	1
Dibenzofuran	ND		ug/l	2.0	--	1
2-Methylnaphthalene	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
Pentachlorophenol	ND		ug/l	10	--	1
Phenol	ND		ug/l	5.0	--	1
2-Methylphenol	ND		ug/l	5.0	--	1
3-Methylphenol/4-Methylphenol	ND		ug/l	5.0	--	1
2,4,5-Trichlorophenol	ND		ug/l	5.0	--	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
2-Fluorophenol	54		15-110
Phenol-d6	34		15-110
Nitrobenzene-d5	77		30-130
2-Fluorobiphenyl	75		30-130
2,4,6-Tribromophenol	82		15-110
4-Terphenyl-d14	90		30-130

Project Name: RESIDENCES @ CENTRE & MAIN
Project Number: 5159.9.2E
Lab Number: L1320849
Report Date: 10/30/13

Method Blank Analysis
Batch Quality Control

Analytical Method: 97,8270D
Analytical Date: 10/17/13 17:22
Analyst: PS

Extraction Method: EPA 3510C
Extraction Date: 10/14/13 17:47

Parameter	Result	Qualifier	Units	RL	MDL
MCP Semivolatile Organics - Westborough Lab for sample(s): 01 Batch: WG643801-1					
Acenaphthene	ND		ug/l	2.0	--
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-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	--
Hexachloroethane	ND		ug/l	2.0	--
Isophorone	ND		ug/l	5.0	--
Naphthalene	ND		ug/l	2.0	--
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	--
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	--

Project Name: RESIDENCES @ CENTRE & MAIN
Project Number: 5159.9.2E

Lab Number: L1320849
Report Date: 10/30/13

Method Blank Analysis
Batch Quality Control

Analytical Method: 97,8270D
Analytical Date: 10/17/13 17:22
Analyst: PS

Extraction Method: EPA 3510C
Extraction Date: 10/14/13 17:47

Parameter	Result	Qualifier	Units	RL	MDL
MCP Semivolatile Organics - Westborough Lab for sample(s): 01 Batch: WG643801-1					
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	--
Aniline	ND		ug/l	2.0	--
4-Chloroaniline	ND		ug/l	5.0	--
Dibenzofuran	ND		ug/l	2.0	--
2-Methylnaphthalene	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	--
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	--

Project Name: RESIDENCES @ CENTRE & MAIN
Project Number: 5159.9.2E

Lab Number: L1320849
Report Date: 10/30/13

Method Blank Analysis
Batch Quality Control

Analytical Method: 97,8270D
Analytical Date: 10/17/13 17:22
Analyst: PS

Extraction Method: EPA 3510C
Extraction Date: 10/14/13 17:47

Parameter	Result	Qualifier	Units	RL	MDL
MCP Semivolatile Organics - Westborough Lab for sample(s): 01 Batch: WG643801-1					

Surrogate	%Recovery	Qualifier	Acceptance Criteria
2-Fluorophenol	51		15-110
Phenol-d6	31		15-110
Nitrobenzene-d5	74		30-130
2-Fluorobiphenyl	62		30-130
2,4,6-Tribromophenol	71		15-110
4-Terphenyl-d14	92		30-130

Lab Control Sample Analysis

Batch Quality Control

Project Name: RESIDENCES @ CENTRE & MAIN

Project Number: 5159.9.2E

Lab Number: L1320849

Report Date: 10/30/13

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
MCP Semivolatile Organics - Westborough Lab Associated sample(s): 01 Batch: WG643801-2 WG643801-3								
Acenaphthene	64		75		40-140	16		20
1,2,4-Trichlorobenzene	51		56		40-140	9		20
Hexachlorobenzene	86		100		40-140	15		20
Bis(2-chloroethyl)ether	77		77		40-140	0		20
2-Chloronaphthalene	68		71		40-140	4		20
1,2-Dichlorobenzene	55		56		40-140	2		20
1,3-Dichlorobenzene	53		56		40-140	6		20
1,4-Dichlorobenzene	54		56		40-140	4		20
3,3'-Dichlorobenzidine	47		56		40-140	17		20
2,4-Dinitrotoluene	97		112		40-140	14		20
2,6-Dinitrotoluene	105		114		40-140	8		20
Azobenzene	88		101		40-140	14		20
Fluoranthene	90		108		40-140	18		20
4-Bromophenyl phenyl ether	85		98		40-140	14		20
Bis(2-chloroisopropyl)ether	74		73		40-140	1		20
Bis(2-chloroethoxy)methane	90		84		40-140	7		20
Hexachlorobutadiene	48		52		40-140	8		20
Hexachloroethane	48		50		40-140	4		20
Isophorone	95		88		40-140	8		20
Naphthalene	60		64		40-140	6		20
Nitrobenzene	79		83		40-140	5		20

Lab Control Sample Analysis

Batch Quality Control

Project Name: RESIDENCES @ CENTRE & MAIN

Project Number: 5159.9.2E

Lab Number: L1320849

Report Date: 10/30/13

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
MCP Semivolatile Organics - Westborough Lab Associated sample(s): 01 Batch: WG643801-2 WG643801-3								
Bis(2-Ethylhexyl)phthalate	93		112		40-140	19		20
Butyl benzyl phthalate	95		117		40-140	**21**	Q	20
Di-n-butylphthalate	91		108		40-140	17		20
Di-n-octylphthalate	98		119		40-140	19		20
Diethyl phthalate	94		108		40-140	14		20
Dimethyl phthalate	89		102		40-140	14		20
Benzo(a)anthracene	82		99		40-140	19		20
Benzo(a)pyrene	84		101		40-140	18		20
Benzo(b)fluoranthene	82		101		40-140	**21**	Q	20
Benzo(k)fluoranthene	85		100		40-140	16		20
Chrysene	84		100		40-140	17		20
Acenaphthylene	78		83		40-140	6		20
Anthracene	84		100		40-140	17		20
Benzo(ghi)perylene	85		98		40-140	14		20
Fluorene	78		91		40-140	15		20
Phenanthrene	81		96		40-140	17		20
Dibenzo(a,h)anthracene	86		101		40-140	16		20
Indeno(1,2,3-cd)Pyrene	85		100		40-140	16		20
Pyrene	88		107		40-140	19		20
Aniline	**34**	Q	44		40-140	**26**	Q	20
4-Chloroaniline	48		67		40-140	**33**	Q	20

Lab Control Sample Analysis

Batch Quality Control

Project Name: RESIDENCES @ CENTRE & MAIN

Project Number: 5159.9.2E

Lab Number: L1320849

Report Date: 10/30/13

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
MCP Semivolatile Organics - Westborough Lab Associated sample(s): 01 Batch: WG643801-2 WG643801-3								
Dibenzofuran	71		83		40-140	16		20
2-Methylnaphthalene	61		64		40-140	5		20
Acetophenone	88		85		40-140	3		20
2,4,6-Trichlorophenol	93		96		30-130	3		20
2-Chlorophenol	83		80		30-130	4		20
2,4-Dichlorophenol	89		91		30-130	2		20
2,4-Dimethylphenol	92		86		30-130	7		20
2-Nitrophenol	102		96		30-130	6		20
4-Nitrophenol	48		58		30-130	19		20
2,4-Dinitrophenol	82		103		30-130	**23**	Q	20
Pentachlorophenol	76		96		30-130	**23**	Q	20
Phenol	43		42		30-130	2		20
2-Methylphenol	80		74		30-130	8		20
3-Methylphenol/4-Methylphenol	81		73		30-130	10		20
2,4,5-Trichlorophenol	94		101		30-130	7		20

Lab Control Sample Analysis

Batch Quality Control

Project Name: RESIDENCES @ CENTRE & MAIN

Project Number: 5159.9.2E

Lab Number: L1320849

Report Date: 10/30/13

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
MCP Semivolatile Organics - Westborough Lab Associated sample(s): 01 Batch: WG643801-2 WG643801-3								

Surrogate	LCS %Recovery	Qual	LCSD %Recovery	Qual	Acceptance Criteria
2-Fluorophenol	59		57		15-110
Phenol-d6	43		39		15-110
Nitrobenzene-d5	89		84		30-130
2-Fluorobiphenyl	84		83		30-130
2,4,6-Tribromophenol	87		100		15-110
4-Terphenyl-d14	89		105		30-130

Project Name: RESIDENCES @ CENTRE & MAIN
Project Number: 5159.9.2E

Lab Number: L1320849
Report Date: 10/30/13

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(*)
L1320849-01A	Vial HCl preserved	A	N/A	3.8	Y	Absent	MCP-8260-10(14)
L1320849-01B	Vial HCl preserved	A	N/A	3.8	Y	Absent	MCP-8260-10(14)
L1320849-01C	Amber 1000ml HCl preserved	A	<2	3.8	Y	Absent	MCP-8270-10(7)
L1320849-01D	Amber 1000ml HCl preserved	A	<2	3.8	Y	Absent	MCP-8270-10(7)

*Values in parentheses indicate holding time in days

Project Name:	RESIDENCES @ CENTRE & MAIN	**Lab Number:**	L1320849
Project Number:	5159.9.2E	**Report Date:**	10/30/13

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:	RESIDENCES @ CENTRE & MAIN	**Lab Number:**	L1320849
Project Number:	5159.9.2E	**Report Date:**	10/30/13

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.

Report Format: Data Usability Report

Project Name:	RESIDENCES @ CENTRE & MAIN	**Lab Number:**	L1320849
Project Number:	5159.9.2E	**Report Date:**	10/30/13

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 October 1, 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, 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).)

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, 4500Cl-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, 4500Cl-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, SM4500Cl-D, 2320B, SM2540C, SM4500H-B. Organic Parameters: (EPA 524.2 for: Trihalomethanes, Volatile Organics); (504.1 for: 1,2-Dibromoethane, 1,2-Dibromo-3-Chloropropane), EPA 332. Microbiology Parameters: SM9215B; ENZ. SUB. SM9223; ColilertQT SM9223B; MF-SM9222D.)

*Non-Potable Water (*Inorganic Parameters:, (EPA 200.8 for: Al,Sb,As,Be,Cd,Cr,Cu,Pb,Mn,Ni,Se,Ag,Tl,Zn); (EPA 200.7 for: Al,Sb,As,Be,Cd,Ca,Cr,Co,Cu,Fe,Pb,Mg,Mn,Mo,Ni,K,Se,Ag,Na,Sr,Ti,Tl,V,Zn); 245.1, SM4500H,B, EPA 120.1, SM2510B, 2540C, 2340B, 2320B, 4500CL-E, 4500F-BC, 426C, SM4500NH3-BH, (EPA 350.1 for: Ammonia-N), LACHAT 10-107-06-1-B for Ammonia-N, SM4500NO3-F, 353.2 for Nitrate-N, SM4500NH3-BC-NES, EPA 351.1, SM4500P-E, 4500P-B,E, 5220D, EPA 410.4, SM 5210B, 5310C, 4500CL-D, EPA 1664, SM14 510AC, EPA 420.1, SM4500-CN-CE, SM2540D.
Organic Parameters: (EPA 624 for Volatile Halocarbons, Volatile Aromatics),(608 for: Chlordane, Toxaphene, Aldrin, alpha-BHC, beta-BHC, gamma-BHC, delta-BHC, Dieldrin, DDD, DDE, DDT,Endosulfan I, Endosulfan II, Endosulfan sulfate, Endrin, Endrin Aldehyde, Heptachlor, Heptachlor Epoxide, PCBs-Water), (EPA 625 for SVOC Acid Extractables and SVOC Base/Neutral Extractables), 600/4-81-045-PCB-Oil. Microbiology Parameters: (ColilertQT SM9223B; Enterolert-QT: SM9222D-MF.)

New Hampshire Department of Environmental Services Certificate/Lab ID: 200307. ***NELAP Accredited.***
Drinking Water (Inorganic Parameters: SM 9222B, 9223B, 9215B, EPA 200.7, 200.8, 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, 4500Cl-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, SM5310C, 4500-PE, EPA 420.1, SM4500P-B5+E, 2540B, 2540C, 2540D, EPA 120.1, SM2510B, 9222D, 9221B, 9221C, 9221E, 9222B, 9215B, 2310B, 2320B, 4500NH3-H, 4500-S D, 4500SO4-E, 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, 5030C, 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, 5030C, 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, 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, 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, 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, 9010C, 9030B. Organic Parameters: EPA 624, 8260C, 8270D, 8270D-SIM, 625, 608, 8081B, 8151A, 8330A, 8082A, EPA 3510C, 5030B, 5030C, 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, 8330A, 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, 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, 4500Cl-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 Commisson 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 $S2^{-}$D, 510C, 5210B, 5220D, 5310C, 5540C. Organic Parameters: EPA 608, 624, 625, 8081, 8082, 8151, 8260, 8270, 8330.)

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

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, 4500NO3-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,

4500NH3-H, 4500NO2-B, 4500NO3-F, 4500 SO3-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 Methylnapthalenes, 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.

Serial No:10301314(6)

CHAIN OF CUSTODY

PAGE 1 OF 1

Date Rec'd in Lab: 10/11/13

ALPHA Job #: L1320420

10/17/13 KB

8 Walkup Drive
Westboro, MA 01581
Tel: 508-898-9220

320 Forbes Blvd
Mansfield, MA 02048
Tel: 508-822-9300

Project Information

Project Name: Enterprise

Project Location: Brockton, MA

Project #: 5159-9-T2

Project Manager: Allison

ALPHA Quote #:

Report Information - Data Deliverables

☐ ADEx ☐ EMAIL

Billing Information

☐ Same as Client info PO #:

Client Information

Client: McPhail Associates

Address: 2269 Massachusetts Ave
Cambridge, MA

Phone: 1-617-868-1420

Email:

Turn-Around Time

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

Date Due: 10-18-13
10/17/13

Regulatory Requirements & Project Information Requirements

☒ Yes ☐ No MA MCP Analytical Methods ☐ Yes ☒ No CT RCP Analytical Methods

☐ Yes ☒ No Matrix Spike Required on this SDG? (Required for MCP Inorganics)

☐ Yes ☒ No GW1 Standards (Info Required for Metals & EPH with Targets)

☐ Yes ☒ No NPDES RGP

☐ Other State /Fed Program _____ Criteria _____

Additional Project Information:

20849

ALPHA Lab ID (Lab Use Only)	Sample ID	Collection Date	Collection Time	Sample Matrix	Sampler Initials	VOC: ☒ 8260 ☐ 624 ☐ 524.2	SVOC: ☐ ABN ☐ PAH	METALS: ☐ MCP 13 ☐ MCP 14 ☐ RCP 15	METALS: ☐ RCRA5 ☐ RCRA8 ☐ PP13	EPH: ☐ Ranges & Targets ☐ Ranges Only	VPH: ☐ Ranges & Targets ☐ Ranges Only	☐ PCB ☐ PEST	TPH: ☐ Quant Only ☐ Fingerprint	SVOC					Sample Comments	TOTAL # BOTTLES
01	B-105 (ow)	10/11/13	9:00	GW	BAC	X								X						4
	B-311 (17-18') Bottom	10/11/13	3:00	S	BAC									X						2
	B-312 (10'-12') North	10/11/13	3:00	S	BAC									X						2
	B-313 (10'-11') East	10/11/13	3:00	S	BAC									X						2
	B-315 (10-12') West	10/11/13	3:00	S	BAC									X						1

Container Type	✓													A	A					
Preservative	B													B	A					

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

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

Relinquished By:	Date/Time	Received By:	Date/Time
	10-11-13 3:00		10-11 13 3:00
	10/11/13 17:26		10/11/13 17:26

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

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

7A
CONTINUING CALIBRATION CHECK

Lab Name: Alpha Analytical Labs

SDG No.: L1320849

Instrument ID: Quimby.i Calibration Date: 17-OCT-2013 Time: 06:33

Lab File ID: 1017A03 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	.36771	.1	-8	20	
chloromethane	.51412	.43241	.1	16	20	
vinyl chloride	.38808	.38524	.1	1	20	
bromomethane	.20169	.20005	.1	1	20	
chloroethane	.30006	.27182	.1	9	20	
trichlorofluoromethane	.60073	.61205	.1	-2	20	
ethyl ether	.23428	.18971	.05	19	20	
acetone	.1319	.13509	.1	-2	20	
1,1,-dichloroethene	.40031	.34916	.1	13	20	
methylene chloride	.52777	.40381	.1	23	20	F
carbon disulfide	1.1364	1.0258	.1	10	20	
methyl tert butyl ether	1.0167	.80748	.1	21	20	F
trans-1,2-dichloroethene	.45409	.38849	.1	14	20	
Diisopropyl Ether	1.9960	1.6095	.05	19	20	
1,1-dichloroethane	.91737	.78128	.2	15	20	
Ethyl-Tert-Butyl-Ether	1.4842	1.1751	.05	21	20	F
2-butanone	.17468	.16198	.1	7	20	
2,2-dichloropropane	.64341	.54656	.05	15	20	
cis-1,2-dichloroethene	.50996	.42652	.1	16	20	
chloroform	.82175	.73024	.2	11	20	
bromochloromethane	.21693	.19586	.05	10	20	
tetrahydrofuran	.11631	.08644	.05	26	20	F
1,1,1-trichloroethane	.68647	.66171	.1	4	20	
1,1-dichloropropene	.65708	.58374	.05	11	20	
carbontetrachloride	.49561	.53482	.1	-8	20	
Tertiary-Amyl Methyl Ether	1.1173	.82305	.05	26	20	F
1,2-dichloroethane	.59802	.56033	.1	6	20	
benzene	2.0154	1.6442	.5	18	20	
trichloroethene	.46786	.41086	.2	12	20	
1,2-dichloropropane	.54882	.42679	.1	22	20	F
bromodichloromethane	.60005	.53763	.2	10	20	
1,4-dioxane	.00232	.00209	.05	10	20	F
dibromomethane	.22877	.20065	.05	12	20	
4-methyl-2-pentanone	.13094	.10019	.1	23	20	F
cis-1,3-dichloropropene	.73248	.59876	.2	18	20	
toluene	1.5944	1.2513	.4	22	20	F
trans-1,3-dichloropropene	.70425	.58195	.1	17	20	
1,1,2-trichloroethane	.33963	.27456	.1	19	20	

FORM VII MCP-8260-10

7A
CONTINUING CALIBRATION CHECK

Lab Name: Alpha Analytical Labs

SDG No.: L1320849

Instrument ID: Quimby.i Calibration Date: 17-OCT-2013 Time: 06:33

Lab File ID: 1017A03 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	
2-hexanone	.29445	.24636	.1	16	20	
1,3-dichloropropane	.76381	.61323	.05	20	20	
tetrachloroethene	.63231	.59151	.2	6	20	
chlorodibromomethane	.46362	.422	.1	9	20	
1,2-dibromoethane	.3969	.34331	.1	14	20	
chlorobenzene	1.7170	1.4465	.5	16	20	
1,1,1,2-tetrachloroethane	.54591	.47548	.05	13	20	
ethyl benzene	2.9011	2.5501	.1	12	20	
p/m xylene	1.1862	1.0354	.1	13	20	
o xylene	1.1535	.98591	.3	15	20	
styrene	1.8659	1.5833	.31	15	20	
isopropylbenzene	2.9478	2.7673	.1	6	20	
bromoform	.48814	.40049	.1	18	20	
1,1,2,2,-tetrachloroethane	.88708	.67479	.3	24	20	F
1,2,3-trichloropropane	.7027	.53899	.05	23	20	F
n-propylbenzene	5.799	4.9526	.05	15	20	
bromobenzene	1.3295	1.0725	.05	19	20	
1,3,5-trimethybenzene	4.4752	3.8373	.05	14	20	
2-chlorotoluene	4.2232	3.4133	.05	19	20	
4-chorotoluene	3.9938	3.1990	.05	20	20	
tert-butylbenzene	3.7761	3.3948	.05	10	20	
1,2,4-trimethylbenzene	4.3017	3.6285	.05	16	20	
sec-butylbenzene	5.3237	4.9416	.05	7	20	
p-isopropyltoluene	4.3830	4.0829	.05	7	20	
1,3-dichlorobenzene	2.6338	2.1421	.6	19	20	
1,4-dichlorobenzene	2.6015	2.1173	.5	19	20	
n-butylbenzene	4.1122	3.9293	.05	4	20	
1,2-dichlorobenzene	2.3667	1.9179	.4	19	20	
1,2-dibromo-3-chloropropane	.1325	.10955	.05	17	20	
1,2,4-trichlorobenzene	1.1982	1.0646	.2	11	20	
hexachlorobutadiene	.45527	.49128	.05	-8	20	
naphthalene	2.1204	1.7937	.05	15	20	
1,2,3-trichlorobenzene	.9887	.87476	.05	12	20	
dibromofluoromethane	.23641	.25647	.05	-8	20	
1,2-dichloroethane-d4	.25589	.30009	.05	-17	20	
toluene-d8	1.2040	1.1587	.05	4	20	
4-bromofluorobenzene	.93821	.85136	.05	9	20	

FORM VII MCP-8260-10

APPENDIX F:

BEST MANAGEMENT PRACTICE PLAN

BEST MANAGEMENT PRACTICES PLAN

A Notice of Intent for a Remediation General Permit (RGP) under the National Pollutant Discharge Elimination System (NPDES) has been submitted to the US Environmental Protection Agency (EPA) in anticipation of temporary construction dewatering that will occur during redevelopment of the Residences at Centre & Main Phase 2 – Lot 4 property in Brockton, 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

During construction of the proposed building foundation, dewatering effluent is anticipated to be pumped from localized sumps and trenches within the excavation directly into a settling tank. Dewatering effluent treatment will consist of a settling tank, bag filters to remove suspended soil particulates, and, if required, ion resin media vessels and/or granular activated carbon filters prior to off-site discharge. pH adjustment will be conducted, if necessary, through the addition of hydrochloric acid, caustic soda and carbon dioxide. The effluent will then flow through the necessary treatment systems and discharge through hoses or piping connected into the storm water drains located beneath Petronelli Way. Based upon a review of the Brockton Department of Public Works stormwater drainage plan, the above referenced stormwater drain system ultimately discharges into the Trout Brook at outfall ID 658 and Facility Identifier 8547.

Discharge Monitoring and Compliance

Regular sampling and testing will be conducted at the influent to the system and the treated effluent as required by the RGP. During the first week of discharge, the operator must sample the untreated influent and treated effluent two times: one (1) sample of untreated influent and one (1) sample of treated effluent be collected on the first day of discharge, and one (1) sample of untreated influent and one (1) sample of treated effluent must be collected on one additional non-consecutive day within the first week of discharge. Samples must be analyzed in accordance with 40 CFR §136 unless otherwise specified by the RGP, with a maximum 5-day turnaround time and results must be reviewed no more than 48 hours from receipt of the results of each sampling event. After the first week, samples may be analyzed with up to a ten (10)-day turnaround time and results must be reviewed no more than 72 hours from receipt of the results. If the treatment system is operating as designed and achieving the effluent limitations outlined in the RGP, on-going sampling shall be conducted weekly for three (3) additional weeks beginning no earlier than 24 hours following initial sampling, and monthly as described below. Any adjustments/reductions in monitoring frequency must be approved by EPA in writing.

In accordance with Part 4.1 of the RGP, the operator must perform routine monthly monitoring for both influent and effluent beginning no more than 30 days following the completion of the sampling requirements for new discharges or discharges that have been

interrupted. The routine monthly monitoring is to be conducted through the end of the scheduled discharge. The routine monthly monitoring must continue for five (5) consecutive months prior to submission of any request for modification of monitoring frequency.

Dewatering activity for the Site is classified as Category III-G: Sites with Known Contamination. Monitoring shall include analysis of influent and effluent samples for the presence of: pH and inorganics as listed in the RGP including: ammonia, chloride, total residual chlorine, total suspended solids, antimony, arsenic, cadmium, chromium III, chromium VI, copper, lead, mercury, nickel, selenium, silver, zinc and cyanide.

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.

System Maintenance

A number of methods will be used to minimize the potential for violations during the term of this permit discharge. Scheduled regular maintenance and periodic cleaning of the treatment system will be conducted to verify proper operation and shall be conducted in accordance with Section 1.14 of the project earthwork specifications. Regular maintenance will include checking the condition of the treatment system equipment such as the settling tanks, bag filters, hoses, pumps, and flow meters. Equipment will be monitored daily for potential matters and unscheduled maintenance requirements.

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

Miscellaneous Items

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

No adverse effects on designated uses of surrounding surface water bodies is anticipated. The nearest surface water body is Trout Brook which is located approximately 1,100 feet to the west of the subject site. Dewatering effluent will be pumped into a settling tank. Water within the settling tank will pumped through bag filters, GAC filters and, as necessary, ion exchange chambers prior to discharge into the storm drains.

Management of Treatment System Materials

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

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