GeoEngineers USA
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November 29, 2021

U.S. Environmental Protection Agency
Office of Ecosystem Protection
EPA/OEP RGP Applications Coordinator
5 Post Office Square, Suite 100 (OEP06-01)
Boston, Massachusetts 02109-3912

Subject: Notice of Intent for the Remediation General Permit for Temporary Construction Dewatering
Boston Landing Block C.2 – Guest Street
Brighton (Boston), Massachusetts

Dear Sir/Madam,

On behalf of Lendlease Development Inc. (Lendlease; Owner) and Consigli Construction Co., Inc. (Consigli; General Contractor), GeoEngineers USA PC (GeoEngineers) is submitting this Notice of Intent (NOI) to the U.S. Environmental Protection Agency (U.S. EPA) for coverage under the National Pollutant Discharge Elimination System (NPDES) Remediation General Permit (RGP) MAG910000 for the 60 Guest Street (Boston Landing Block C.2) property, designated as the "Site."

This NOI RGP cover letter and supporting documentation were prepared in accordance with the U.S. EPA guidance for construction dewatering under the RGP program. Consigli is the General Contractor for the project and will have direct responsibility of the subcontractors performing the dewatering activities at the Site. Subcontractors working for Consigli on the project will be required to meet the requirements of this NOI and the RGP. The location of the Site and the proposed outfall discharge location on the Charles River from the existing Boston Water Sewer Commission (BWSC) storm drain is shown in Figure 1, Site and Outfall Locus Map. A Site Plan, with proposed temporary discharge locations to BWSC's storm water system, is also provided as Figure 2, Site Plan & Proposed Temporary Discharge Location Map and a schematic of the groundwater treatment system is shown in Figure 3, Conceptual Dewatering and Treatment Schematic.

The Site is located at 60 Guest Street in the Brighton neighborhood of Boston, Massachusetts, south of the Charles River and adjacent to the Massachusetts Turnpike and the Massachusetts Bay Transportation Authority (MBTA) commuter railroad as shown in Figure 1. The site is also known as Block C.2 of the Boston Landing Redevelopment project. The proposed development activities at the Site will include excavation of urban fill and natural soils to support the construction of a 10-story laboratory building with two levels of below-grade parking, and the installation of new utility systems. The Site and its vicinity are associated with Massachusetts Contingency Plan (MCP) disposal sites identified by Massachusetts Department of Environmental Protection (MassDEP) Release Tracking Numbers (RTNs) 3-31716, 3-31717 and 3-13355

and associated RTN 3-00158. The proposed temporary construction dewatering system will treat recovered groundwater prior to discharging to the existing BWSC storm drain system, which ultimately discharges to the Charles River.

The proposed redevelopment plans include excavation to a depth of approximately 25 to 30 feet below ground surface (bgs). The proposed building has a footprint of approximately 47,000 square feet (sf). Groundwater is anticipated to be encountered between approximately 7 and 10 feet bgs. Temporary dewatering will be required for below-grade construction given that the proposed excavation will extend below the groundwater table. Steel sheet piles will be installed along the perimeter of the Site as support of the temporary excavation. The steel sheeting will remain in place permanently. The sheeting will be driven into the Boston Blue Clay along the perimeter of the proposed excavation (north, south, and west sides). The sheeting will connect on the east side with the existing sheeting that was installed as part of construction of 80 Guest Street. The steel sheeting will reduce the volume of groundwater flow into the proposed excavation. However, design flow rates and system sizing consider initial dewatering of the saturated soils within the excavation as well as surface water from precipitation. Construction dewatering will be performed using temporary recovery wells and/or sumps, and the water will be treated on Site prior to discharge to one to three BWSC stormwater catch basins (designated as CB No. 1 through CB No. 3) in Figure 2. The on-site treatment will be monitored to ensure that the discharged effluent meets the Site RGP Effluent Limitations established by NPDES Part 2.1 and Appendix V of the RGP Application. The completed NOI RGP form for this Site is included as Appendix A, Notice of Intent Form.

Freshwater wetlands and the Charles River are located approximately 0.5 miles north of the Site. Protected Open Spaces are located within approximately 0.5 miles to the north and west of the Site. A copy of the MassDEP BWSC GIS Site Assessment Map is included as Appendix B. The receiving waterbody for the proposed on-Site treatment system and the associated BWSC stormwater system is the Charles River, which is classified as Category 5. Information regarding the receiving water was collected from the Massachusetts Year 2016 (and draft Year 2018/2020) Integrated List of Waters which are included in Appendix C, Massachusetts Water Category Documentation.

Dilution calculation information including correspondence with MassDEP and the Water Quality Base Effluent Limits (WQBELs) calculation are included in Appendix D, Charles River 7Q10, Dilution Factor and WQBEL Calculation Documentation. Analytical laboratory groundwater data for the three on-Site monitoring wells and the receiving surface water at the proposed outfall location (OF) are summarized in Table 1, Summary of Groundwater and Outfall Surface Water Quality Data, and analytical data reports are included in Appendix E, Copies of Laboratory Analytical Data Reports.

Municipal correspondence(s) in the form of a Dewatering Discharge Permit application is provided in **Appendix F**, Dewatering Discharge Permit Application, which is being submitted to the BWSC concurrently with the submittal of this NOI. The Dewatering Discharge Permit indicates a notification of discharge into the Charles River, via a municipal storm sewer system, has been provided to the Owner of the discharge system.

According to the Information for Planning and Conservation (IPaC), the proposed excavation and associated dewatering will not impact Areas of Critical Environmental Concern (ACEC) or Habitats of Rare Wetland Wildlife. A review of the information on the U.S. Fish and Wildlife Service website led to the conclusion that the discharge will not impact federally-listed threatened or endangered species. Similarly, a review of the National Oceanic and Atmospheric Administration (NOAA) Section 7 area online mapper did not indicate

that construction dewatering and/or discharge would have the potential to adversely affect any federally listed species in the Charles River. Documentation related to endangered species are included in Appendix G. Endangered Species and Wildlife Documentation.

A review of the National Register of Historical Places within Brighton, Massachusetts did not identify any historic places at or abutting the Site. As such, proposed activities do not have the potential to affect historical properties, due to the temporary nature of the de-watering/treatment system and the fact that the proposed project will be controlled and monitored. A list of the historic properties reviewed is provided in Appendix H, Historic Places – Brighton, Massachusetts Documentation. Additional supplemental information required by the RGP, such as suspected source of contaminants, expected influent concentrations and associated Site RGP effluent limitations are included in the completed NOI (Appendix A).

Thank you for your consideration during the review of this RGP NOI application. Please feel free to contact us if you have any questions regarding the information contained in this RGP NOI application.

Sincerely,

Patrick R. Malone. PE
Associate Environmental Engineer

Stan S. Sadkowski
Principal Geotechnical Engineer

PRM:SSS:kab

Attachments:
Table 1. Summary of Groundwater and Outfall Surface Water Quality Data
Figure 1. Site and Outfall Locus Map
Figure 2. Site Plan & Proposed Temporary Discharge Location Map
Figure 3. Conceptual Dewatering and Treatment Schematic
Appendix A. Notice of Intent Form
Appendix B. MassDEP – Bureau of Waste Site Cleanup Phase I Site Assessment Map
Appendix C. Massachusetts Water Category Documentation
Appendix D. Charles River 7Q10, Dilution Factor and WQBEL Calculation Documentation
Appendix E. Copies of Laboratory Analytical Data Reports
Appendix F. Dewatering Discharge Permit Application
Appendix G. Endangered Species and Wildlife Documentation
Appendix H. Historic Places – Brighton, Massachusetts Documentation

One copy submitted electronically

TABLE 1
Summary of Groundwater and Outfall Surface Water Quality Data

Table 1

Summary of Groundwater and Outfall Surface Water Quality Data

60 Guest Street

Brighton, Massachusetts

LOCATION			OF_06232021	SH-GP-2020-01W_06212021	SH-GP-2020-02W_06222021	SH-GP-2020-03W_06222021
SAMPLING DATE			6/23/2021	6/21/2021	6/22/2021	6/22/2021
LAB SAMPLE ID			L2133852-05	L2133566-01	L2133852-02	L2133852-03/-04
	NPDES RGP Effluent Criteria	Units	Results	Results	Results	Results
Anions by Ion Chromatography						
Chloride	Monitor Only	mg/L	-	**1,310**	**52.6**	**370**
General Chemistry						
Solids, Total Suspended	30	mg/L	-	**22**	5 U	**77**
Cyanide, Total	178	mg/L	-	0.005 U	0.005 U	0.005 U
Chlorine, Total Residual	0.2	mg/L	-	0.02 U	0.02 U	0.02 U
Nitrogen, Ammonia	Monitor Only	mg/L	**1.45**	**1.83**	**0.11**	**1.22**
TPH, SGT-HEM	5	mg/L	-	4 U	4 U	4.8 U
Phenolics, Total	1.08	mg/L	-	0.03 U	0.03 U	0.03 U
Chromium, Hexavalent	0.323	mg/L	0.01 U	0.01 U	0.01 U	0.01 U
Microextractables by GC						
1,2-Dibromoethane	0.00005	mg/L	-	0.00001 U	0.00001 U	0.00001 U
1,2-Dibromo-3-chloropropane	NS	mg/L	-	0.00001 U	0.00001 U	0.00001 U
1,2,3-Trichloropropane	NS	mg/L	-	0.00003 U	0.00003 U	0.00003 U
Polychlorinated Biphenyls by GC						
Aroclor 1016	NS	mg/L	-	0.00025 U	0.00025 U	0.00025 U
Aroclor 1221	NS	mg/L	-	0.00025 U	0.00025 U	0.00025 U
Aroclor 1232	NS	mg/L	-	0.00025 U	0.00025 U	0.00025 U
Aroclor 1242	NS	mg/L	-	0.00025 U	0.00025 U	0.00025 U
Aroclor 1248	NS	mg/L	-	0.00025 U	0.00025 U	0.00025 U
Aroclor 1254	NS	mg/L	-	0.00025 U	0.00025 U	0.00025 U
Aroclor 1260	NS	mg/L	-	0.0002 U	0.0002 U	0.0002 U
Total PCBs	0.000064	mg/L	-	BDL (0.00025)	BDL (0.00025)	BDL (0.00025)
Semivolatile Organics by GC/MS						
Bis(2-ethylhexyl)phthalate	0.101	mg/L	-	0.0022 U	0.0022 U	0.0022 U
Butyl benzyl phthalate	NS	mg/L	-	0.005 U	0.005 U	0.005 U
Di-n-butylphthalate	NS	mg/L	-	0.005 U	0.005 U	0.005 U
Di-n-octylphthalate	NS	mg/L	-	0.005 U	0.005 U	0.005 U
Diethyl phthalate	NS	mg/L	-	0.005 U	0.005 U	0.005 U
Dimethyl phthalate	NS	mg/L	-	0.005 U	0.005 U	0.005 U
Total Phthalates	0.19	mg/L	-	BDL (0.005)	BDL (0.005)	BDL (0.005)
Semivolatile Organics by GC/MS-SIM						
Acenaphthene	See Total Group 2 PAHs	mg/L	-	0.0001 U	0.0001 U	0.0001 U
Fluoranthene	See Total Group 2 PAHs	mg/L	-	0.0001 U	0.0001 U	0.0001 U
Naphthalene	0.02	mg/L	-	0.0001 U	0.0001 U	0.0001 U
Benzo(a)anthracene	See Total Group 1 PAHs	mg/L	-	0.0001 U	0.0001 U	0.0001 U
Benzo(a)pyrene	See Total Group 1 PAHs	mg/L	-	0.0001 U	0.0001 U	0.0001 U
Benzo(b)fluoranthene	See Total Group 1 PAHs	mg/L	-	0.0001 U	0.0001 U	0.0001 U
Benzo(k)fluoranthene	See Total Group 1 PAHs	mg/L	-	0.0001 U	0.0001 U	0.0001 U
Chrysene	See Total Group 1 PAHs	mg/L	-	0.0001 U	0.0001 U	0.0001 U
Acenaphthylene	See Total Group 2 PAHs	mg/L	-	0.0001 U	0.0001 U	0.0001 U
Anthracene	See Total Group 2 PAHs	mg/L	-	0.0001 U	0.0001 U	0.0001 U
Benzo(ghi)perylene	See Total Group 2 PAHs	mg/L	-	0.0001 U	0.0001 U	0.0001 U
Fluorene	See Total Group 2 PAHs	mg/L	-	0.0001 U	0.0001 U	0.0001 U
Phenanthrene	See Total Group 2 PAHs	mg/L	-	0.0001 U	0.0001 U	0.0001 U
Dibenzo(a,h)anthracene	See Total Group 1 PAHs	mg/L	-	0.0001 U	0.0001 U	0.0001 U
Indeno(1,2,3-cd)pyrene	See Total Group 1 PAHs	mg/L	-	0.0001 U	0.0001 U	0.0001 U

LOCATION			OF_06232021	SH-GP-2020-01W_06212021	SH-GP-2020-02W_06222021	SH-GP-2020-03W_06222021
SAMPLING DATE			6/23/2021	6/21/2021	6/22/2021	6/22/2021
LAB SAMPLE ID			L2133852-05	L2133566-01	L2133852-02	L2133852-03/-04
	NPDES RGP Effluent Criteria	Units	Results	Results	Results	Results
Pyrene	See Total Group 2 PAHs	mg/L	-	0.0001 U	0.0001 U	0.0001 U
Pentachlorophenol	0.001	mg/L	-	0.001 U	0.001 U	0.001 U
Total Group 1 PAHs	0.001	mg/L	-	BDL (0.0001)	BDL (0.0001)	BDL (0.0001)
Total Group 2 PAHs	0.1	mg/L	-	BDL (0.0001)	BDL (0.0001)	BDL (0.0001)
Total Hardness						
Hardness	NS	mg/L	**73.6**	**577**	**92.2**	**249**
Total Metals						
Iron	*1**	mg/L	**1.02**	**8.96**	**0.129**	**32.9**
Antimony	0.206	mg/L	**0.00026**	0.000250 U	**0.000402**	0.000500 U
Arsenic	*0.01**	mg/L	**0.0261**	**0.0218**	**0.0209**	**0.0317**
Cadmium	0.0102	mg/L	0.000250 U	0.000250 U	0.000250 U	0.000500 U
Chromium, Total	0.323	mg/L	**0.00226**	**0.00172**	**0.00295**	**0.0111**
Copper	0.242	mg/L	**0.00298**	**0.00512**	**0.00944**	0.00500 U
Lead	0.16	mg/L	**0.0027**	0.000500 U	0.000500 U	0.00100 U
Nickel	1.45	mg/L	**0.00217**	**0.00982**	**0.0165**	**0.0123**
Silver	0.0351	mg/L	0.000250 U	0.000250 U	0.000250 U	0.000500 U
Zinc	0.42	mg/L	**0.0154**	**0.025**	**0.0142**	**0.0235**
Mercury	0.000739	mg/L	0.000200 U	0.000200 U	0.000200 U	0.000200 U
Chromium, Trivalent (calc)	0.323	mg/L	**0.00226**	**0.00172**	**0.00295**	**0.0111**
Non-Purgeable Volatile Organics						
Ethanol		mg/L	-	20 U	20 U	20 U
Volatile Organics by GC/MS						
Methylene chloride	0.0046	mg/L	-	0.001 U	0.001 U	0.001 U
1,1-Dichloroethane	0.07	mg/L	-	**0.0016**	**0.003**	**0.016**
Carbon tetrachloride	0.0044	mg/L	-	0.001 U	0.001 U	0.001 U
1,1,2-Trichloroethane	0.005	mg/L	-	0.0015 U	0.0015 U	0.0015 U
Tetrachloroethene	0.005	mg/L	-	0.001 U	0.001 U	0.001 U
1,2-Dichloroethane	0.005	mg/L	-	0.0015 U	0.0015 U	0.0015 U
1,1,1-Trichloroethane	0.2	mg/L	-	0.002 U	0.002 U	0.002 U

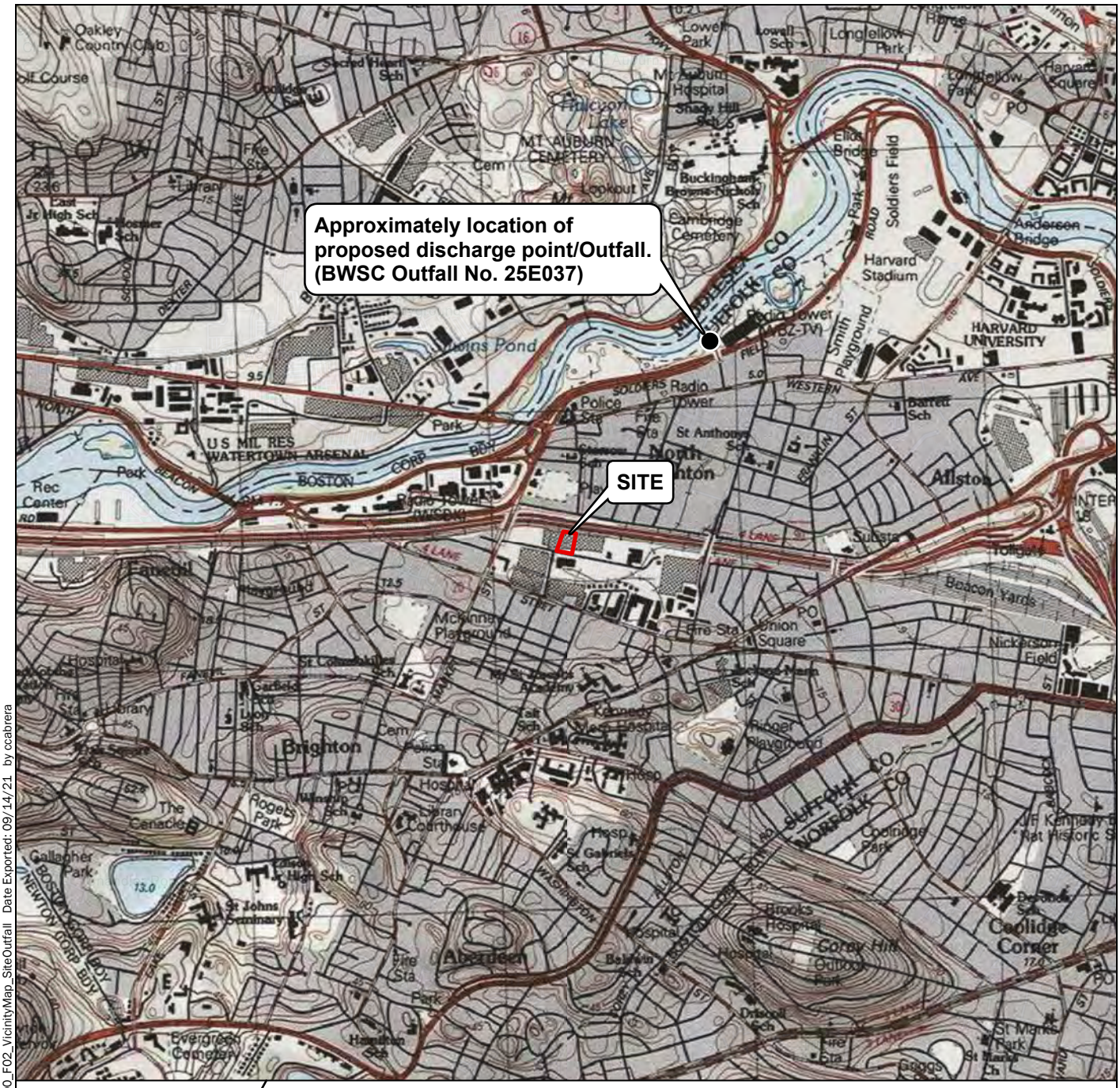
LOCATION			OF_06232021	SH-GP-2020-01W_06212021	SH-GP-2020-02W_06222021	SH-GP-2020-03W_06222021
SAMPLING DATE			6/23/2021	6/21/2021	6/22/2021	6/22/2021
LAB SAMPLE ID			L2133852-05	L2133566-01	L2133852-02	L2133852-03/-04
	NPDES RGP Effluent Criteria	Units	Results	Results	Results	Results
Benzene	0.005	mg/L	-	0.001 U	0.001 U	0.001 U
Toluene	See Total BTEX	mg/L	-	0.001 U	0.001 U	0.001 U
Ethylbenzene	See Total BTEX	mg/L	-	0.001 U	0.001 U	0.001 U
Vinyl chloride	0.002	mg/L	-	0.001 U	0.001 U	0.001 U
1,1-Dichloroethene	0.0032	mg/L	-	0.001 U	0.001 U	0.001 U
cis-1,2-Dichloroethene	0.07	mg/L	-	0.001 U	0.001 U	0.001 U
Trichloroethene	0.005	mg/L	-	0.001 U	0.001 U	0.001 U
1,2-Dichlorobenzene	0.6	mg/L	-	0.005 U	0.005 U	0.005 U
1,3-Dichlorobenzene	0.32	mg/L	-	0.005 U	0.005 U	0.005 U
1,4-Dichlorobenzene	0.005	mg/L	-	0.005 U	0.005 U	0.005 U
p/m-Xylene	See Total BTEX	mg/L	-	0.002 U	0.002 U	0.002 U
o-xylene	See Total BTEX	mg/L	-	0.001 U	0.001 U	0.001 U
Xylenes, Total	See Total BTEX	mg/L	-	0.001 U	0.001 U	0.001 U
Acetone	7.97	mg/L	-	0.01 U	0.01 U	0.01 U
Methyl tert butyl ether	0.07	mg/L	-	0.01 U	0.01 U	0.01 U
Tert-Butyl Alcohol	0.12	mg/L	-	0.1 U	0.1 U	0.1 U
Tertiary-Amyl Methyl Ether	0.09	mg/L	-	0.02 U	0.02 U	0.02 U
Total BTEX	0.1	mg/L		BDL (0.001)	BDL (0.001)	BDL (0.001)
Volatile Organics by GC/MS-SIM						
1,4-Dioxane	0.2	mg/L	-	0.005 U	0.005 U	**0.024**

Notes:

1. Samples were collected by GeoEngineers, Inc. (GeoEngineers) on the indicated dates and were analyzed by Alpha Analytical Laboratories, Inc. of Westborough, MA.
2. Bolded values indicate detections above the laboratory reporting limits.
3. Shaded and bolded values indicate detections above the NPDES RGP Effluent Criteria
4. Italicized standards with "*" indicate the effluent values is a calculated Water Quality Based Effluent Limit (WQBEL)
4. Abbreviations:

NPDES = National Pollutant Discharge Elimination System
RGP = Remediation General Permit
MCP = Massachusetts Continentcy Plan
RCGW-2 = MCP Reportable Concentration for Groundwater Category GW-2.
mg/L = milligrams per liter
"U" indicates the analyte was not detected above the laboratory reporting limit shown
"-" indicates that the sample was not analyzed for that parameter
BDL = below detection limit
NS = No Standard

FIGURES



Notes:

1. The locations of all features shown are approximate.
2. This drawing is for information purposes. It is intended to assist in showing features discussed in an attached document. GeoEngineers, Inc. cannot guarantee the accuracy and content of electronic files. The master file is stored by GeoEngineers, Inc. and will serve as the official record of this communication.

Data Source: ESRI and USGS Quadrangle Map, Newton Massachusetts, dated 1980.

Projection: NAD 1983 StatePlane Massachusetts Mainland FIPS 2001 Feet

Site and Outfall Locus Map

60 Guest Street
Brighton, Massachusetts

GeoEngineers USA

Figure 1

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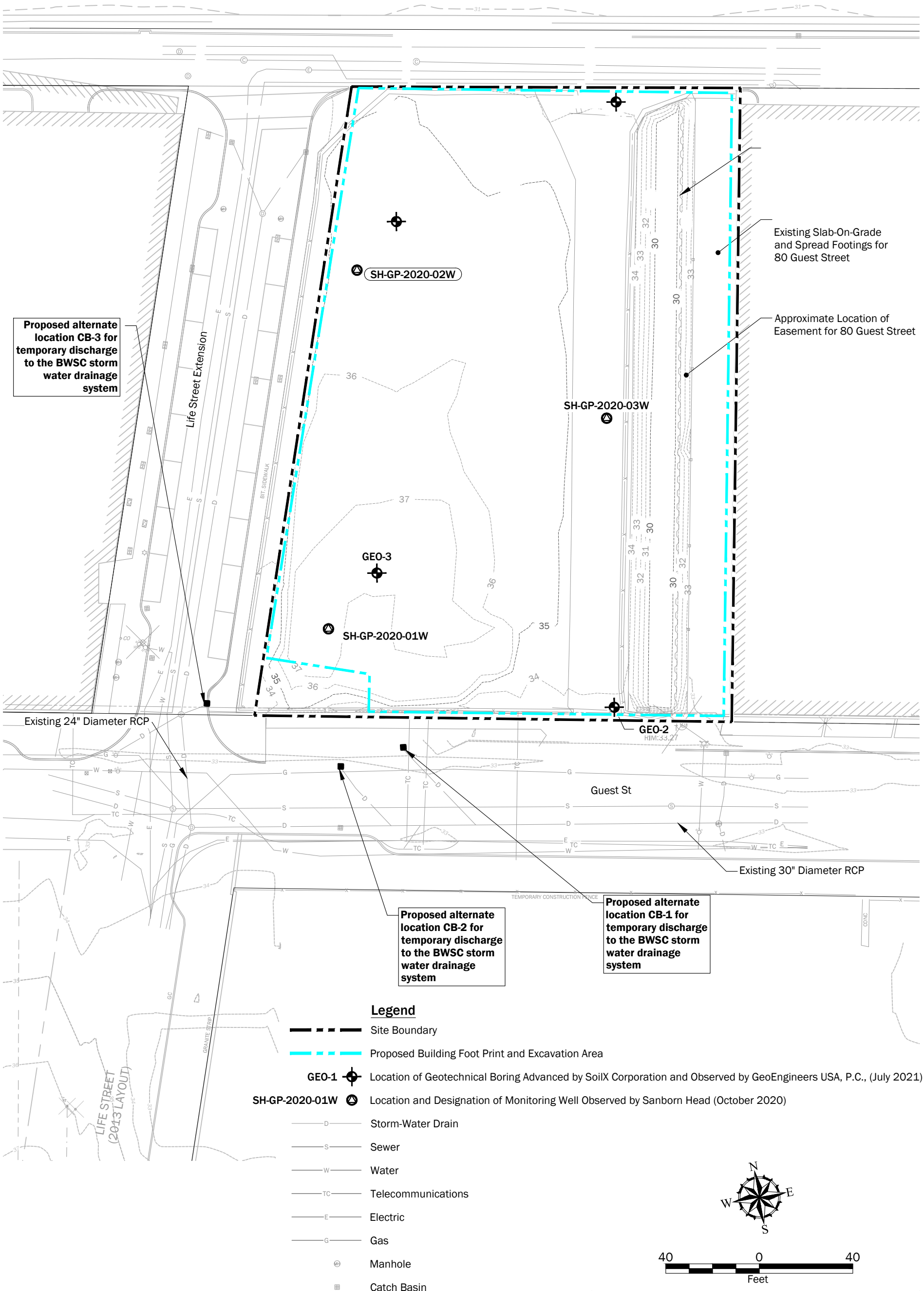


Legend

- Site Boundary
- Proposed Building Foot Print and Excavation Area
- **GEO-1** Location of Geotechnical Boring Advanced by SoilX Corporation and Observed by GeoEngineers USA, P.C., (July 2021)
- **SH-GP-2020-01W** Location and Designation of Monitoring Well Observed by Sanborn Head (October 2020)
- Storm-Water Drain
- Sewer
- Water
- Telecommunications
- Electric
- Gas
- Manhole
- Catch Basin
- Fire Hydrant

N E S W

40 0 40
Feet

Notes:

1. The locations of all features shown are approximate.
2. This drawing is for information purposes. It is intended to assist in showing features discussed in an attached document. GeoEngineers USA, P.C. cannot guarantee the accuracy and content of electronic files. The master file is stored by GeoEngineers USA, P.C. and will serve as the official record of this communication.
3. Environmental pre-characterization borings are not shown for clarity and have been submitted under separate cover.

Data Source: Background Utility from CHA dated 06/14/2021. Existing Condition Plan from SGA dated August 26, 2021.

Projection: Massachusetts State Plane, Mainland Zone, NAD83, US Foot

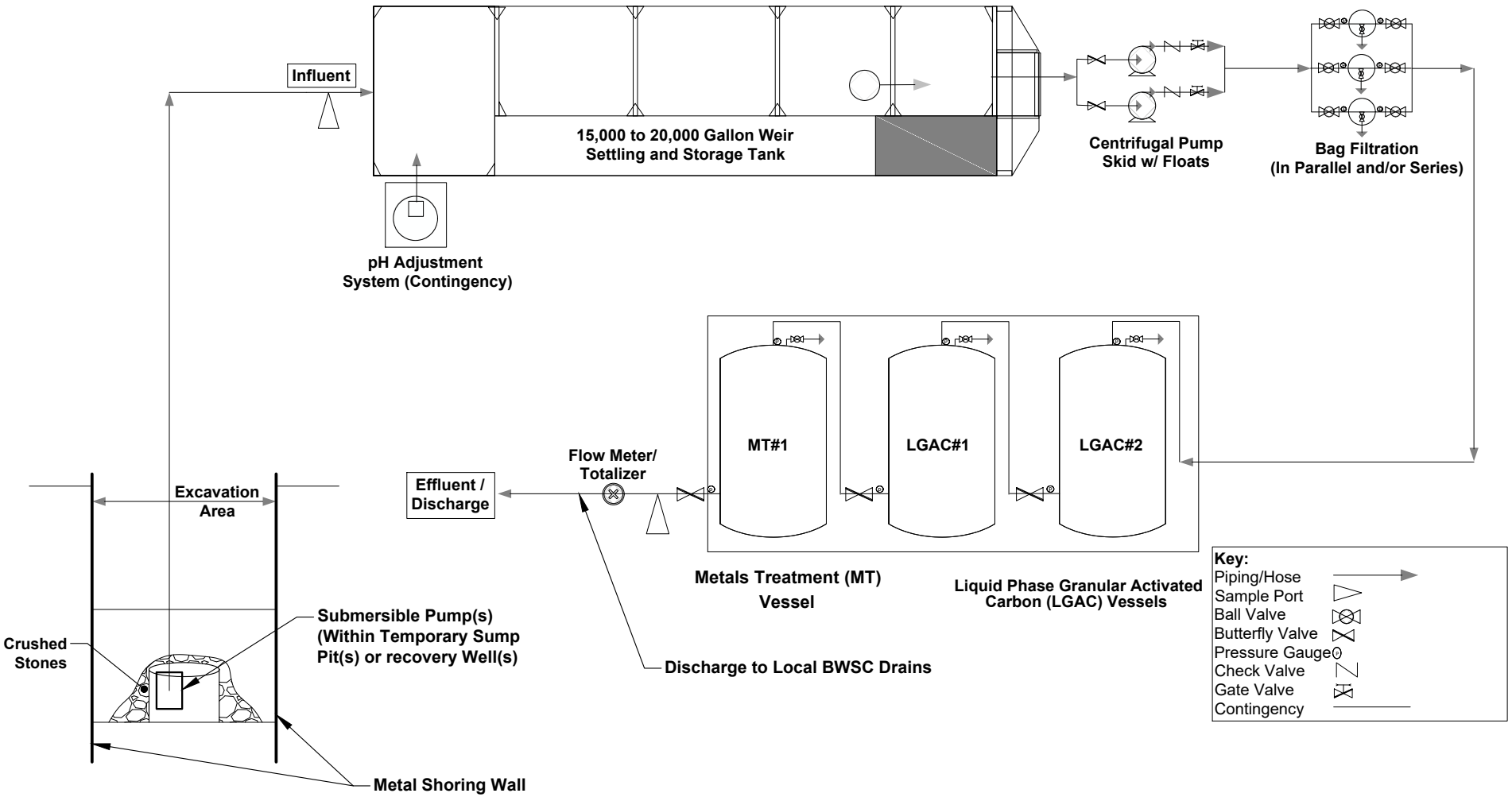
Site Plan & Proposed Temporary Discharge Location Map

60 Guest Street
Brighton, Massachusetts

GeoEngineers USA

Figure 2

P:\25\25223001\CAD\00\Ram-NOI Reports\NOI\2522300100_F03_Site Plan & Proposed Temporary Discharge Location Map.dwg TAB:F03 Date Exported: 09/22/21 - 13:41 by gregister



Notes:

1. System rated for maximum 150 GPM.
2. This drawing is for information purposes. It is intended to assist in showing features discussed in an attached document. GeoEngineers USA, P.C. cannot guarantee the accuracy and content of electronic files. The master file is stored by GeoEngineers USA, P.C. and will serve as the official record of this communication.

Data Source: Lockwood Remediation Technologies, LLC

Scale: Not to Scale

Conceptual Dewatering and Treatment Schematic

60 Guest Street
Brighton, Massachusetts

GeoEngineers USA

Figure 3

APPENDIX A
Notice of Intent 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:
60 Guest Street- Boston Landing Block C.2</td><td colspan="3">Site address: 60 Guest Street
Street:</td></tr>
<tr><td>City: Brighton</td><td>State: MA</td><td>Zip: 02135</td></tr>
<tr><td rowspan="4">2. Site owner
Lendlease Development Inc.

Owner is (check one): ☐ Federal ☐ State/Tribal ■ Private
☐ Other; if so, specify:</td><td colspan="3">Contact Person: Mr. Bruce Anderson</td></tr>
<tr><td colspan="2">Telephone: 970-699-9066</td><td>Email: bruce.anderson@lendlease.com</td></tr>
<tr><td colspan="3">Mailing address: 20 City Square, 2nd Floor
Street:</td></tr>
<tr><td>City: Boston</td><td>State: MA</td><td>Zip: 02129</td></tr>
<tr><td rowspan="4">3. Site operator, if different than owner
Consigli Construction Co., Inc.</td><td colspan="3">Contact Person: Mr. Jeff Costa</td></tr>
<tr><td colspan="2">Telephone: 774-573-2953</td><td>Email: JCosta@consigli.com</td></tr>
<tr><td colspan="3">Mailing address:
Street: 266 Summer Street</td></tr>
<tr><td>City: Boston</td><td>State: MA</td><td>Zip: 02210</td></tr>
<tr><td>4. NPDES permit number assigned by EPA:
Not Applicable

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):
RTNs3-31717, 3-31716, 3-13335, 3-00158
☐ 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):
Charles River	MA 72-36	Class B (CSO)

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 (See MassDEP BWSC Site Assessment map in Appendix B)

If yes, specify: Freshwater Wetlands/Charles River are located ~0.5 miles north of the Site. Protected Open Space are located within 0.5 miles north & west of the Site.

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. Category 5 Surface Water per the Massachusetts Year 2016 (and Draft 2018/2020) Integrated List of Waters (See Appendix C)

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.	15.64 MGD (see Appendix D)
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.	73.4 (see Appendix D)

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: Dilution factor calculations were sent to MassDEP, but a response has not been received to date.

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 (See NOI cover letter,Table 1and Appendix E for copy of analytical report and sampling log for the Outfall (OF) surface water sample data)

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 (See Table 1 and Appendix E for Groundwater data)	☐ 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: Cl, TSS, NH3, Fe, Antimony, Sb, Cr (total,tri), Cu, Pb, Ni, Zn,1,1 DCA (per June 2021 Groundwater data)	
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): BWSC Stormwater Outfall in Charles River BWSC #25E037	Outfall location(s): (Latitude, Longitude) Outfall: Lat: 42.365548° Long: -71.137436°

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

Effluent will enter existing BWSC catch basins on Guest Street. This BWSC stormdrain system discharges into the Charles at BWSC Outfall # 25E037

☐ 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 See Appendix F

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: A Dewatering Discharge Permit is being submitted to BWSC concurrently. The draft application is included in Appendix F.

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): March 2022 to October 2023

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 (See Figures 1 through 3)

<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		✔	3	4500NH3	75	1830	1053	Report mg/L	---
Chloride		✔	3	300.0	25000	1,310,000	577,530	Report µg/l	---
Total Residual Chlorine	✔		3	4500CL	20	BRL/ND	BRL/ND	0.2 mg/L	
Total Suspended Solids		✔	3	2540D	5000	77,000	49,500	30 mg/L	---
Antimony		✔	3	200.8	0.25	0.402	0.402	206 µg/L	
Arsenic		✔	3	200.8	0.5	31.7	24.8	104 µg/L	10
Cadmium	✔		3	200.8	0.025	BRL/ND	BRL/ND	10.2 µg/L	
Chromium III		✔	3	200.8	10	11.1	5.26	323 µg/L	
Chromium VI	✔		3	7196A	10	BRL/ND	BRL/ND	323 µg/L	
Copper		✔	3	200.8	2.5	9.44	7.28	242 µg/L	
Iron		✔	3	200.7	100	32,900	13,996	5,000 µg/L	1000
Lead	✔		3	200.8	0.5	BRL/ND	BRL/ND	160 µg/L	
Mercury	✔		3	245.1	0.2	BRL/ND	BRL/ND	0.739 µg/L	
Nickel		✔	3	200.8	1	16.5	12.87	1,450 µg/L	
Selenium	✔		3	200.8	1	BRL/ND	BRL/ND	235.8 µg/L	
Silver	✔		3	200.8	0.25	BRL/ND	BRL/ND	35.1 µg/L	
Zinc		✔	3	200.8	5	25	20.90	420 µg/L	
Cyanide	✔		3	4500CN	5	BRL/ND	BRL/ND	178 mg/L	
B. Non-Halogenated VOCs									
Total BTEX	✔		3	624.1	1	BRL/ND	BRL/ND	100 µg/L	---
Benzene	✔		3	624.1	1	BRL/ND	BRL/ND	5.0 µg/L	---
1,4 Dioxane		✔	3	624.1	5	24	24	200 µg/L	---
Acetone	✔		3	624.1	10	BRL/ND	BRL/ND	7.97 mg/L	---
Phenol	✔		3	4500CN	30	BRL/ND	BRL/ND	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	✔		3	624.1	1	BRL/ND	BRL/ND	4.4 µg/L	
1,2 Dichlorobenzene	✔		3	624.1	5	BRL/ND	BRL/ND	600 µg/L	---
1,3 Dichlorobenzene	✔		3	624.1	5	BRL/ND	BRL/ND	320 µg/L	---
1,4 Dichlorobenzene	✔		3	624.1	5	BRL/ND	BRL/ND	5.0 µg/L	---
Total dichlorobenzene	✔		3	624.1	5	BRL/ND	BRL/ND	763 µg/L in NH	---
1,1 Dichloroethane		✔	3	624.1	1.5	16.0	6.87	70 µg/L	---
1,2 Dichloroethane	✔		3	624.1	1.5	BRL/ND	BRL/ND	5.0 µg/L	---
1,1 Dichloroethylene	✔		3	624.1	1	BRL/ND	BRL/ND	3.2 µg/L	---
Ethylene Dibromide	✔		3	504.1	0.01	BRL/ND	BRL/ND	0.05 µg/L	---
Methylene Chloride	✔		3	624.1	1	BRL/ND	BRL/ND	4.6 µg/L	---
1,1,1 Trichloroethane	✔		3	624.1	2	BRL/ND	BRL/ND	200 µg/L	---
1,1,2 Trichloroethane	✔		3	624.1	1.5	BRL/ND	BRL/ND	5.0 µg/L	---
Trichloroethylene	✔		3	624.1	1	BRL/ND	BRL/ND	5.0 µg/L	---
Tetrachloroethylene	✔		3	624.1	1	BRL/ND	BRL/ND	5.0 µg/L	
cis-1,2 Dichloroethylene	✔		3	624.1	1	BRL/ND	BRL/ND	70 µg/L	---
Vinyl Chloride	✔		3	624.1	1	BRL/ND	BRL/ND	2.0 µg/L	---
D. Non-Halogenated SVOCs									
Total Phthalates	✔		3	624.1	5	BRL/ND	BRL/ND	190 µg/L	
Diethylhexyl phthalate	✔		3	624.1	2.2	BRL/ND	BRL/ND	101 µg/L	
Total Group I PAHs	✔		3	624.1	0.1	BRL/ND	BRL/ND	1.0 µg/L	---
Benzo(a)anthracene	✔		3	625.1	0.1	BRL/ND	BRL/ND	As Total PAHs	
Benzo(a)pyrene	✔		3	625.1	0.1	BRL/ND	BRL/ND		
Benzo(b)fluoranthene	✔		3	625.1	0.1	BRL/ND	BRL/ND		
Benzo(k)fluoranthene	✔		3	625.1	0.1	BRL/ND	BRL/ND		
Chrysene	✔		3	625.1	0.1	BRL/ND	BRL/ND		
Dibenzo(a,h)anthracene	✔		3	625.1	0.1	BRL/ND	BRL/ND		
Indeno(1,2,3-cd)pyrene	✔		3	625.1	0.1	BRL/ND	BRL/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	✔		3	624.1	0.1	BRL/ND	BRL/ND	100 µg/L	---
Naphthalene	✔		3	624.1	0.1	BRL/ND	BRL/ND	20 µg/L	---
E. Halogenated SVOCs									
Total PCBs	✔		3	608.3	0.25	BRL/ND	BRL/ND	0.000064 µg/L	---
Pentachlorophenol	✔		3	635.1	1	BRL/ND	BRL/ND	1.0 µg/L	---
F. Fuels Parameters									
Total Petroleum Hydrocarbons	✔		3	1664A	4,800	BRL/ND	BRL/ND	5.0 mg/L	---
Ethanol	✔		3	600-1671A	20,000	BRL/ND	BRL/ND	Report mg/L	---
Methyl-tert-Butyl Ether	✔		3	624.1	10	BRL/ND	BRL/ND	70 µg/L	
tert-Butyl Alcohol	✔		3	624.1	100	BRL/ND	BRL/ND	120 µg/L in MA 40 µg/L in NH	---
tert-Amyl Methyl Ether	✔		3	624.1	20	BRL/ND	BRL/ND	90 µg/L in MA 140 µg/L in NH	---
Other (i.e., pH, temperature, hardness, salinity, LC_{50}, additional pollutants present); if so, specify:									
pH- Influent-Groundwater		✔	3	YSI meter	NA	6.9 S.U	6.6 S.U.		
Temperature-Influen		✔	3	YSI meter	NA	16 degree C	14.5 degree C		
Hardness - Influent		✔	3		NA	577,000	306,067		
pH- Receiving Water		✔	1			6.49	6.49		
Temperature- Receiving Water		✔	1			16.3	16.3		
Hardness - Receiving Water		✔	1			73,600	73,600		

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:

Primary treatment will include settling and filtration. Carbon, ion exchange, and pH adjustments may be added if needed as a contingency.

2. Provide a written description of all treatment system(s) or processes that will be applied to the effluent prior to discharge.

Groundwater encountered during construction de-watering activities will be pumped into a treatment system prior to discharge into existing stormwater catch basin(s). The first stage of the treatment system will be with a Weir Settling & Storage Tank(s), where solids will settle out. Then the tank effluent will then pass through the following second stage treatment, as deemed necessary: bag/particulates filter(s), granular activated carbon vessel(s), and/or ion exchange resin vessel(s). ph adjustment system(s) and/or an equalizer tank and associated transfer pump(s) may be used to adjust the flows and/or adjust the pH. The effluent will be discharged to the existing storm drain system.

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: Carbon vessel(s), resin vessel(s), and pH adjustment, if needed

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: Weir settling & storage tank(s) Is use of a flow meter feasible? (check one): ■ Yes ☐ No, if so, provide justification:	150
Provide the proposed maximum effluent flow in gpm.	150
Provide the average effluent flow in gpm.	25-50
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 (See Figure 4)

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:
None anticipated. Adjustments to the pH will be made in the settling tank, if necessary.

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". (See Appendix G for US Department of the Interior Fish & Wildlife Service Information)

☐ **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. (See Appendix H for Historical Places list)

☐ **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.

Appendix B-MassDEP BWSC GIS Phase I Site Assessment Map, Appendix C-Massachusetts Water Category Documentations
Appendix D-Charles River 7Q10 and Dilution Factor Documentations, Appendix E- Copies of Analytical Data Reports and Sampling Logs June 2021
Appendix F- Municipal Correspondences, Appendix G- Endangered Species & wildlife Documentations
Appendix H- Historic Places - Brighton, MA Documentations

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

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

J. Certification requirement

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

BMPP certification statement: A BMPP meeting the requirements of this general permit will be developed and implemented upon initiation of discharge	
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 ☐ Pending BWSC approval
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: November 29, 2021
Print Name and Title: Mr. Jeff Costa, Senior Superintendent	

APPENDIX B
MassDEP – Bureau of Waste Site Cleanup Phase I Site Assessment Map

MassDEP - Bureau of Waste Site Cleanup

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

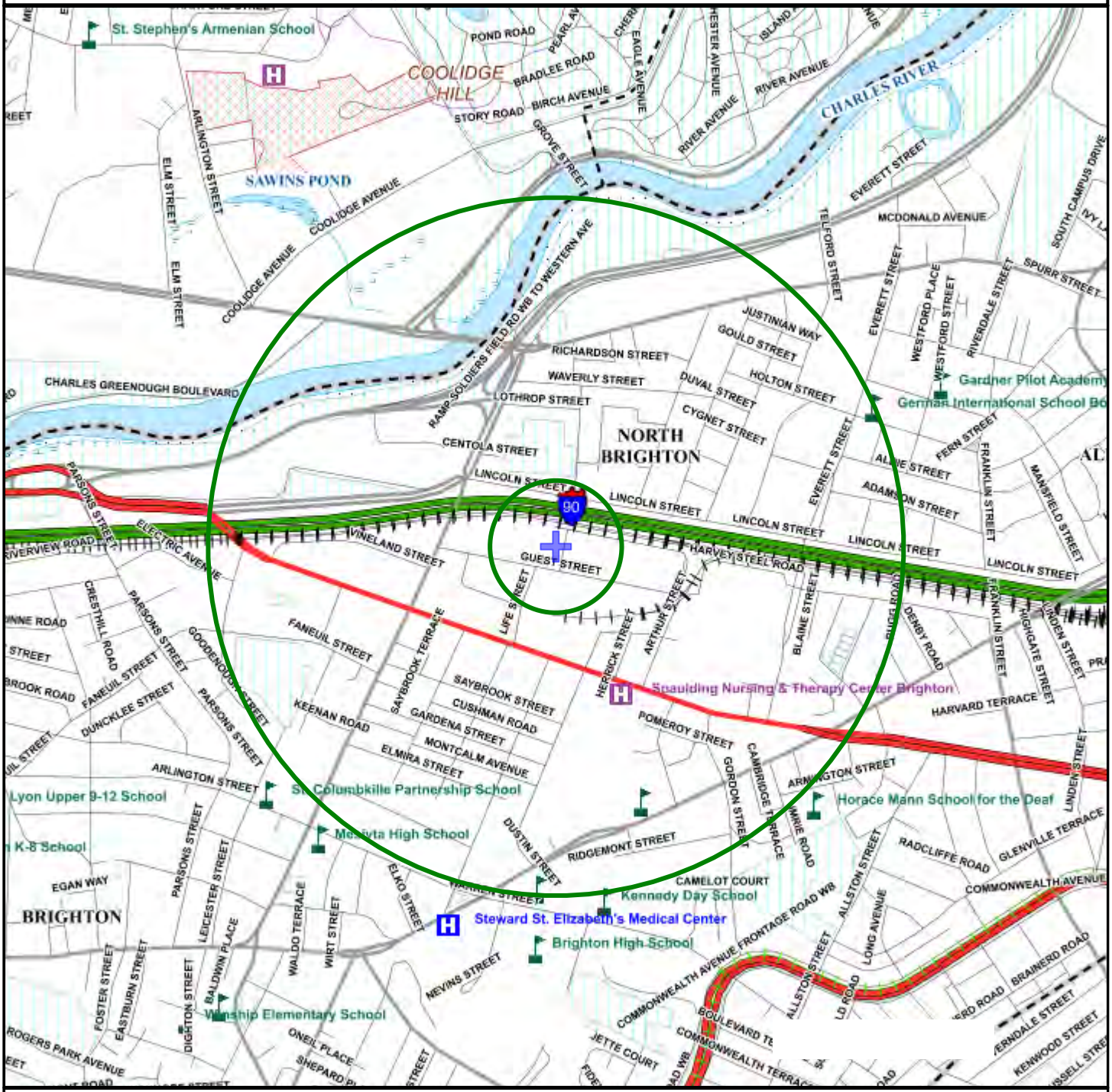
Site Information:

60 GUEST STREET BOSTON, MA

NAD83 UTM Meters:
4691692mN , 323351mE (Zone: 19)
August 12, 2021

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



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

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

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

Aquifers: Medium Yield, High Yield, EPA Sole Source

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

PWS Protection Areas: Zone II, IWPA, Zone A

Hydrography: Open Water, PWS Reservoir, Tidal Flat

Wetlands: Freshwater, Saltwater, Cranberry Bog

FEMA 100yr Floodplain; Protected Open Space; ACEC

Est. Rare Wetland Wildlife Hab; Vernal Pool: Cert., Potential

Solid Waste Landfill; PWS: Com.GW,SW, Emerg., Non-Com.

APPENDIX C
Massachusetts Water Category Documentation

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

Water Body	Segment ID	Description	Size	Units	Category
Charles River	MA72-05	From outlet Populatic Pond, Norfolk/Medway to South Natick Dam (NATID: MA00341), Natick.	18.10	Miles	5
Charles River	MA72-06	From South Natick Dam (NATID: MA00341), Natick to Chestnut Street, Needham/Dover.	8.20	Miles	5
Charles River	MA72-07	From Chestnut Street, Needham/Dover to Watertown Dam (NATID: MA00456), Watertown.	24.00	Miles	5
Charles River	MA72-33	From outlet Cedar Swamp Pond, Milford to the Milford WWTF discharge (NPDES: MA0100579), Hopedale (formerly part of segment MA72-02) (two culverted portions totaling approximately 1100 feet (0.21mile)).	2.00	Miles	4a
Charles River	MA72-36	From Watertown Dam (NATID: MA00456), Watertown to the Boston University Bridge, Boston/Cambridge (formerly part of segment MA72-08).	6.10	Miles	5
Charles River	MA72-38	From Boston University Bridge, Boston/Cambridge to mouth at the New Charles River Dam (NATID: MA01092), Boston (formerly part of segment MA72-08).	3.10	Miles	5
Cheese Cake Brook	MA72-29	Emerges south of Route 16, Newton to mouth at confluence with the Charles River, Newton.	1.40	Miles	4a
Chestnut Hill Reservoir	MA72023	Boston.	82.00	Acres	3
Chicken Brook	MA72-34	Source, outlet Waseeka Sanctuary Pond, Holliston to mouth at confluence with the Charles River, Medway.	7.40	Miles	5
Crystal Lake	MA72030	Newton.	27.00	Acres	5
Dopping Brook	MA72-40	Headwater oulet small unnamed pond on Holliston/Sherborn border to mouth at confluence with Bogastow Brook, Holliston/Sherborn.	2.60	Miles	2
Dug Pond	MA72034	Natick.	50.00	Acres	4c
Echo Lake	MA72035	Milford/Hopkinton.	72.00	Acres	4a
Factory Pond	MA72037	Holliston.	10.00	Acres	4a
Farm Pond	MA72039	Sherborn.	125.00	Acres	3
Franklin Reservoir Northeast	MA72095	Franklin.	21.00	Acres	4a
Franklin Reservoir Southwest	MA72032	Franklin.	13.00	Acres	4a
Fuller Brook	MA72-18	Headwater south of Route 135, Needham to mouth at confluence with Waban Brook, Wellesley (one culverted portion approximately 360 feet (0.07mile)).	4.30	Miles	5
Halls Pond	MA72043	Brookline.	0.60	Acres	3
Hammond Pond	MA72044	Newton.	22.00	Acres	2
Hardys Pond	MA72045	Waltham.	43.00	Acres	4a
Hobbs Brook	MA72-45	Headwaters west of Bedford Road, Lincoln to inlet Cambridge Reservoir, Upper Basin, Lincoln	2.40	Miles	5
Hobbs Brook	MA72-46	From outlet Cambridge Reservoir, Waltham to mouth at confluence with Stony Brook, Weston.	1.80	Miles	5
Hopping Brook	MA72-35	Source in Cedar Swamp, Holliston to mouth at confluence with the Charles River, Bellingham/Medway.	4.90	Miles	5
Houghton Pond	MA72050	Holliston.	17.00	Acres	4a
Jamaica Pond	MA72052	Boston.	67.00	Acres	5
Jennings Pond	MA72053	Natick.	7.00	Acres	3
Kendrick Street Pond	MA72055	Needham.	39.00	Acres	5
Kingsbury Pond	MA72056	Norfolk.	15.00	Acres	4c

Appendix 2. Assessment units and integrated list categories presented alphabetically by major watershed

Waterbody	AU_ID	Description	Size	Units	AU Category
Charles					
Alder Brook	MA72-22	Headwaters, perennial portion northwest of the Route 135 and South Street intersection, Needham to mouth at confluence with the Charles River, Needham.	0.30	Miles	5
Beaver Brook	MA72-12	Headwaters, outlet Beaver Pond, Bellingham to mouth at confluence with the Charles River, Bellingham.	1.40	Miles	5
Beaver Brook	MA72-28	Headwaters, perennial portion north of Route 2, Lexington to mouth at confluence with the Charles River, Waltham (one culverted portion approximately 2900 feet (0.55mile)).	5.50	Miles	5
Beaver Pond	MA72004	Bellingham/Milford.	87.00	Acres	4a
Beaver Pond	MA72006	Franklin.	32.00	Acres	4c
Bogastow Brook	MA72-16	Headwaters, outlet Factory Pond, Holliston to mouth at inlet South End Pond, Millis.	9.40	Miles	4a
Brookline Reservoir	MA72010	Brookline.	21.00	Acres	3
Bulloughs Pond	MA72011	Newton.	7.00	Acres	5
Cambridge Reservoir	MA72014	Waltham/Lincoln/Lexington.	531.00	Acres	5
Cambridge Reservoir, Upper Basin	MA72156	Lincoln/Lexington.	44.00	Acres	5
Cedar Swamp Pond	MA72016	locally known as "Milford Pond", Milford.	99.00	Acres	4a
Chandler Pond	MA72017	Boston.	11.00	Acres	5
Charles River	MA72-01	Headwaters, outlet Echo Lake, Hopkinton to Dilla Street (just upstream of Cedar Swamp Pond), Milford.	2.50	Miles	4a
Charles River	MA72-03	From Milford WWTF discharge (NPDES: MA0100579), Hopedale to outlet Box Pond, Bellingham (through former 2006 segment: Box Pond MA72008).	3.40	Miles	5
Charles River	MA72-04	From outlet Box Pond, Bellingham to inlet Populatic Pond, Norfolk/Medway (one culverted portion approximately 350 feet (0.07mile)).	11.50	Miles	5
Charles River	MA72-05	From outlet Populatic Pond, Norfolk/Medway to South Natick Dam (NATID: MA00341), Natick.	18.10	Miles	5
Charles River	MA72-06	From South Natick Dam (NATID: MA00341), Natick to Chestnut Street, Needham/Dover.	8.20	Miles	5
Charles River	MA72-07	From Chestnut Street, Needham/Dover to Watertown Dam (NATID: MA00456), Watertown.	24.00	Miles	5
Charles River	MA72-33	From outlet Cedar Swamp Pond, Milford to the Milford WWTF discharge (NPDES: MA0100579), Hopedale (formerly part of 2006 segment: Charles River MA72-02) (two culverted portions totaling approximately 1100 feet (0.21mile) (as of 2008 excluding theapproximately 0.8 mile through segment: Cedar Swamp Pond MA72016).	2.00	Miles	4a
Charles River	MA72-36	From Watertown Dam (NATID: MA00456), Watertown to the Boston University Bridge, Boston/Cambridge (formerly part of 2006 segment: Charles River MA72-08).	6.10	Miles	5
Charles River	MA72-38	From Boston University Bridge, Boston/Cambridge to mouth at the New Charles River Dam (NATID: MA01092), Boston (formerly part of 2006 segment: Charles River MA72-08).	3.10	Miles	5
Cheese Cake Brook	MA72-29	Emerges south of Route 16, Newton to mouth at confluence with the Charles River, Newton.	1.40	Miles	5
Chestnut Hill Reservoir	MA72023	Boston.	82.00	Acres	3

APPENDIX D
Charles River 7Q10, Dilution Factor and WQBEL Calculation Documentation

Enter number values in green boxes below

Notes:

Enter values in the units specified

↓

15.64	Q_R = Enter upstream flow in **MGD**	Freshwater: Q_R equal to the 7Q10; enter alternate Q_R if approved by the State; enter 0 if no dilution factor approved Saltwater (estuarine and marine): enter Q_R if approved by the State; enter 0 if no entry
0.216	Q_P = Enter discharge flow in **MGD**	Discharge flow is equal to the design flow or 1 MGD, whichever is less
0	Downstream 7Q10	Downstream 7Q10 an optional entry for Q_R; leave 0 if no entry

Enter a dilution factor, if other than zero

↓

73.4		Saltwater (estuarine and marine): only if approved by the State Leave 0 if no entry

Enter values in the units specified

↓

306.07	C_d = Enter influent hardness in **mg/L** $CaCO_3$	
73.6	C_s = Enter receiving water hardness in **mg/L** $CaCO_3$	

Enter **receiving water** concentrations in the units specified

↓

6.49	pH in **Standard Units**	pH, temperature, and ammonia required for all discharges Hardness required for freshwater Salinity required for saltwater (estuarine and marine) Metals required for all discharges if present and if dilution factor is > 1 Enter 0 if non-detect or testing not required
16.3	Temperature in **°C**	
0	Ammonia in **mg/L**	
73.6	Hardness in **mg/L** $CaCO_3$	
0	Salinity in **ppt**	
0	Antimony in **µg/L**	
26.1	Arsenic in **µg/L**	
0	Cadmium in **µg/L**	
2.26	Chromium III in **µg/L**	
0	Chromium VI in **µg/L**	
2.98	Copper in **µg/L**	
1020	Iron in **µg/L**	
2.7	Lead in **µg/L**	
0	Mercury in **µg/L**	
2.17	Nickel in **µg/L**	
0	Selenium in **µg/L**	
0	Silver in **µg/L**	
15.4	Zinc in **µg/L**	

Enter **influent** concentrations in the units specified

↓

0	TRC in **µg/L**	if >1 sample, enter maximum if >10 samples, may enter 95th percentile Enter 0 if non-detect or testing not required
1.83	Ammonia in **mg/L**	
0.402	Antimony in **µg/L**	
31.7	Arsenic in **µg/L**	
0.5	Cadmium in **µg/L**	
11.1	Chromium III in **µg/L**	
0	Chromium VI in **µg/L**	
9.44	Copper in **µg/L**	
32900	Iron in **µg/L**	
1	Lead in **µg/L**	
0	Mercury in **µg/L**	
16.5	Nickel in **µg/L**	
0	Selenium in **µg/L**	
0	Silver in **µg/L**	
25	Zinc in **µg/L**	
0	Cyanide in **µg/L**	
0	Phenol in **µg/L**	
0	Carbon Tetrachloride in **µg/L**	
0	Tetrachloroethylene in **µg/L**	
0	Total Phthalates in **µg/L**	
0	Diethylhexylphthalate in **µg/L**	
0	Benzo(a)anthracene in **µg/L**	
0	Benzo(a)pyrene in **µg/L**	
0	Benzo(b)fluoranthene in **µg/L**	
0	Benzo(k)fluoranthene in **µg/L**	
0	Chrysene in **µg/L**	
0	Dibenzo(a,h)anthracene in **µg/L**	
0	Indeno(1,2,3-cd)pyrene in **µg/L**	
0	Methyl-tert butyl ether in **µg/L**	

Dilution Factor	73.4					
A. Inorganics	TBEL applies if bolded		WQBEL applies if bolded		Compliance Level applies if shown	
Ammonia	**Report**	mg/L	---			
Chloride	**Report**	µg/L	---			
Total Residual Chlorine	**0.2**	mg/L	807	µg/L	---	µg/L
Total Suspended Solids	**30**	mg/L	---			
Antimony	**206**	µg/L	46981	µg/L		
Arsenic	104	µg/L	**10**	µg/L		
Cadmium	**10.2**	µg/L	0.2225	µg/L		
Chromium III	**323**	µg/L	4930.9	µg/L		
Chromium VI	**323**	µg/L	839.4	µg/L		
Copper	**242**	µg/L	330.6	µg/L		
Iron	5000	µg/L	**1000**	µg/L		
Lead	**160**	µg/L	2.27	µg/L		
Mercury	**0.739**	µg/L	66.50	µg/L		
Nickel	**1450**	µg/L	2904.6	µg/L		
Selenium	**235.8**	µg/L	367.0	µg/L		
Silver	**35.1**	µg/L	176.3	µg/L		
Zinc	**420**	µg/L	5915.1	µg/L		
Cyanide	**178**	mg/L	381.7	µg/L	---	µg/L
B. Non-Halogenated VOCs						
Total BTEX	**100**	µg/L	---			
Benzene	**5.0**	µg/L	---			
1,4 Dioxane	**200**	µg/L	---			
Acetone	**7970**	µg/L	---			
Phenol	**1,080**	µg/L	22022	µg/L		
C. Halogenated VOCs						
Carbon Tetrachloride	**4.4**	µg/L	117.5	µg/L		
1,2 Dichlorobenzene	**600**	µg/L	---			
1,3 Dichlorobenzene	**320**	µg/L	---			
1,4 Dichlorobenzene	**5.0**	µg/L	---			
Total dichlorobenzene	**---**	µg/L	---			
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	242.2	µg/L		
cis-1,2 Dichloroethylene	**70**	µg/L	---			
Vinyl Chloride	**2.0**	µg/L	---			
D. Non-Halogenated SVOCs						
Total Phthalates	**190**	µg/L	---	µg/L		
Diethylhexyl phthalate	**101**	µg/L	161.5	µg/L		
Total Group I Polycyclic Aromatic Hydrocarbons	**1.0**	µg/L	---			
Benzo(a)anthracene	**1.0**	µg/L	0.2789	µg/L	---	µg/L
Benzo(a)pyrene	**1.0**	µg/L	0.2789	µg/L	---	µg/L
Benzo(b)fluoranthene	**1.0**	µg/L	0.2789	µg/L	---	µg/L
Benzo(k)fluoranthene	**1.0**	µg/L	0.2789	µg/L	---	µg/L
Chrysene	**1.0**	µg/L	0.2789	µg/L	---	µg/L
Dibenzo(a,h)anthracene	**1.0**	µg/L	0.2789	µg/L	---	µg/L
Indeno(1,2,3-cd)pyrene	**1.0**	µg/L	0.2789	µg/L	---	µg/L
Total Group II Polycyclic Aromatic Hydrocarbons	**100**	µg/L	---			
Naphthalene	**20**	µg/L	---			
E. Halogenated SVOCs						
Total Polychlorinated Biphenyls	**0.000064**	µg/L	---		0.5	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	1468	µg/L		
tert-Butyl Alcohol	**120**	µg/L	---			
tert-Amyl Methyl Ether	**90**	µg/L	---			

I. Dilution Factor Calculation Method

A. 7Q10

Refer to Appendix V for determining critical low flow; must be approved by State before use in calculations.

B. Dilution Factor

Calculated as follows:

$$Df = \frac{Q_R + Q_P}{Q_P}$$

Q_R = 7Q10 in MGD

Q_P = Discharge flow, in MGD

II. Effluent Limitation Calculation Method

A. Calculate Water Quality Criterion:

Step 1. Downstream hardness, calculated as follows:

$$C_r = \frac{Q_dC_d + Q_sC_s}{Q_r}$$

C_r = Downstream hardness in mg/L

Q_d = Discharge flow in MGD

C_d = Discharge hardness in mg/L

Q_s = Upstream flow (7Q10) in MGD

C_s = Upstream (receiving water) hardness in mg/L

Q_r = Downstream receiving water flow in MGD

Step 2. Total recoverable water quality criteria for hardness-dependent metals, calculated as follows:

Total Recoverable Criteria = $\exp\{m_c [\ln(h)] + b_c\}$

m_c = Pollutant-specific coefficient (m_a for silver)

b_c = Pollutant-specific coefficient (b_a for silver)

ln = Natural logarithm

h = Hardness calculated in Step 1

Step 3. Total recoverable water quality criteria for non-hardness-dependent metals, calculated as follows:

$$\text{WQC in } \mu g/L = \frac{\text{dissolved WQC in } \mu g/L}{\text{dissolved to total recoverable factor}}$$

B. Calculate WQBEL:

Step 1. WQBEL calculated as follows for parameter sampled in and detected in the receiving water:

$$C_d = \frac{Q_r C_r - Q_s C_s}{Q_d}$$

C_r = Water quality criterion in µg/L

Q_d = Discharge flow in MGD

C_d = WQBEL in µg/L

Q_s = Upstream flow (7Q10) in MGD

C_s = Ustream (receiving water) concentration in µg/L

Q_r = Downstream receiving water flow in MGD

Step 2. WQBEL calculated as follows for parameter not sampled in or not detected in receiving water:

$$C_d = (Q_r/Q_d) \times C_r$$

C_r = Water quality criterion in µg/L

Q_d = Discharge flow in MGD

Q_r = Downstream receiving water flow in MGD

C. Determine if a WQBEL applies:

Step 1. For parameter sampled in and detected in receiving water, downstream concentrations calculated as fc

$$C_r = \frac{Q_d C_d + Q_s C_s}{Q_r}$$

C_r = Downstream concentration in µg/L

Q_d = Discharge flow in MGD

C_d = Influent concentration in µg/L

Q_s = Upstream flow (7Q10) in MGD

C_s = Upstream (receiving water) concentration in µg/L

Q_r = Downstream receiving water flow in MGD

The WQBEL applies if:

1) the projected downstream concentration calculated in accordance with St
and the discharge concentration of a parameter are greater than the WQC ca
that parameter in accordance with II.A, above

AND

2) the WQBEL determined for that parameter in accordance with II.B, abov
the TBEL in Part 2.1.1 of the RGP for that parameter. Otherwise, the TBEL

of the RGP for that parameter applies.

Step 2. For a parameter not sampled in or not detected in receiving water, the WQBEL applies if:

1) the discharge concentration of a parameter is greater than the WQBEL de
that parameter in accordance with II.A or II.B, above;

AND

2) the WQBEL determined for that parameter in accordance with II.A or II.
less than the TBEL in Part 2.1.1 of the RGP for that parameter. Otherwise,

Part 2.1.1 of the RGP for that parameter applies.

Dilution Factor	73.4					
A. Inorganics	TBEL applies if bolded		WQBEL applies if bolded		Compliance Level applies if shown	
Ammonia	**Report**	mg/L	---			
Chloride	**Report**	µg/L	---			
Total Residual Chlorine	**0.2**	mg/L	807	µg/L	---	µg/L
Total Suspended Solids	**30**	mg/L	---			
Antimony	**206**	µg/L	46981	µg/L		
Arsenic	104	µg/L	**10**	µg/L		
Cadmium	**10.2**	µg/L	0.2225	µg/L		
Chromium III	**323**	µg/L	4930.9	µg/L		
Chromium VI	**323**	µg/L	839.4	µg/L		
Copper	**242**	µg/L	330.6	µg/L		
Iron	5000	µg/L	**1000**	µg/L		
Lead	**160**	µg/L	2.27	µg/L		
Mercury	**0.739**	µg/L	66.50	µg/L		
Nickel	**1450**	µg/L	2904.6	µg/L		
Selenium	**235.8**	µg/L	367.0	µg/L		
Silver	**35.1**	µg/L	176.3	µg/L		
Zinc	**420**	µg/L	5915.1	µg/L		
Cyanide	**178**	mg/L	381.7	µg/L	---	µg/L
B. Non-Halogenated VOCs						
Total BTEX	**100**	µg/L	---			
Benzene	**5.0**	µg/L	---			
1,4 Dioxane	**200**	µg/L	---			
Acetone	**7970**	µg/L	---			
Phenol	**1,080**	µg/L	22022	µg/L		
C. Halogenated VOCs						
Carbon Tetrachloride	**4.4**	µg/L	117.5	µg/L		
1,2 Dichlorobenzene	**600**	µg/L	---			
1,3 Dichlorobenzene	**320**	µg/L	---			
1,4 Dichlorobenzene	**5.0**	µg/L	---			
Total dichlorobenzene	**---**	µg/L	---			
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	242.2	µg/L		
cis-1,2 Dichloroethylene	**70**	µg/L	---			
Vinyl Chloride	**2.0**	µg/L	---			
D. Non-Halogenated SVOCs						
Total Phthalates	**190**	µg/L	---	µg/L		
Diethylhexyl phthalate	**101**	µg/L	161.5	µg/L		
Total Group I Polycyclic Aromatic Hydrocarbons	**1.0**	µg/L	---			
Benzo(a)anthracene	**1.0**	µg/L	0.2789	µg/L	---	µg/L
Benzo(a)pyrene	**1.0**	µg/L	0.2789	µg/L	---	µg/L
Benzo(b)fluoranthene	**1.0**	µg/L	0.2789	µg/L	---	µg/L
Benzo(k)fluoranthene	**1.0**	µg/L	0.2789	µg/L	---	µg/L
Chrysene	**1.0**	µg/L	0.2789	µg/L	---	µg/L
Dibenzo(a,h)anthracene	**1.0**	µg/L	0.2789	µg/L	---	µg/L
Indeno(1,2,3-cd)pyrene	**1.0**	µg/L	0.2789	µg/L	---	µg/L
Total Group II Polycyclic Aromatic Hydrocarbons	**100**	µg/L	---			
Naphthalene	**20**	µg/L	---			
E. Halogenated SVOCs						
Total Polychlorinated Biphenyls	**0.000064**	µg/L	---		0.5	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	1468	µg/L		
tert-Butyl Alcohol	**120**	µg/L	---			
tert-Amyl Methyl Ether	**90**	µg/L	---			

Christophe M. Henry

From: Ruan, Xiaodan (DEP) <xiaodan.ruan@state.ma.us>
Sent: Tuesday, November 16, 2021 1:18 PM
To: Christophe M. Henry; Vakalopoulos, Catherine (DEP)
Cc: Patrick Malone; Patrick Hoar
Subject: RE: 60 Guest St.- Brighton- NOI RGP- 7Q10 & DL confirmation request- looking for your support _Thank you

Follow Up Flag: Follow up
Flag Status: Flagged

[EXTERNAL]

Hi Christophe,

Cathy has been really busy with many different projects and the RGPs. Thank you very much for your patience and sorry for the delay. Yes, I can help with checking the 7Q10 and dilution factor.

I ran the StreamStats and checked the calculation based on the information you provided. I can confirm that the 7Q10 of 24.2 cfs and a dilution factor of 73.4 are correct for the project at 60 Guest Street, Brighton, MA, with a design flow of 150 gpm.

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

> Waterbody and ID: Charles River (MA72-36) within Charles River Watershed
> Classification: B (CSO)
> 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 "MA72-36" to see the causes of impairments.
> TMDLs: There are two TMDLs (pathogens and nutrients) for this segment

Also, 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) through 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 ePLACE application webpage.

Please let me know if you have any questions.

Sincerely,
Xiaodan

Xiaodan Ruan
Environmental Engineer
Massachusetts Department of Environmental Protection
One Winter Street, Boston, MA 02108
(857)-256-4172
xiaodan.ruan@mass.gov

From: Christophe M. Henry <cmhenry@geoengineers.com>
Sent: Tuesday, November 16, 2021 12:21 PM
To: Ruan, Xiaodan (DEP) <xiaodan.ruan@mass.gov>; Vakalopoulos, Catherine (DEP) <catherine.vakalopoulos@mass.gov>
Cc: Patrick Malone <pmalone@geoengineers.com>; Patrick Hoar <phoar@geoengineers.com>
Subject: FW: 60 Guest St.- Brighton- NOI RGP- 7Q10 & DL confirmation request- looking for your support _Thank you

Good afternoon M. Xiaodan Ruan.

I am taking the liberty to contact you to see if you can help us, as we are getting pressure from the construction building team to file the RGP NOI for this project.

We need your department support to review and approve our 7Q10 and DL earlier request for the 60 Guest Street project located in Brighton, MA.

Please can you check with Ms. Vakalopoulos for her availability and/or if she is not available, can you work with your MassDEP team to have someone process our request.

Please feel free to contact Patrick Malone or myself, if you have any questions regarding this email or this project.

Thank you for your support.

We are looking forward to hearing from your department.

Sincerely,

Christophe M. Henry, PE, LSP
Senior Environmental Consultant | GeoEngineers, Inc.
Direct: +1 617.749.9231
Mobile: +1 978.413.5664
Email: cmhenry@geoengineers.com

Boston, MA
www.geoengineers.com

From: Christophe M. Henry
Sent: Tuesday, November 9, 2021 10:08 AM
To: Catherine.Vakalopoulos@state.ma.us; Catherine.Vakalopoulos@mass.gov
Cc: Patrick Malone <pmalone@geoengineers.com>; Patrick Hoar <phoar@geoengineers.com>
Subject: RE: 60 Guest St.- Brighton- NOI RGP- 7Q10 & DL confirmation request- action By Nov 12, 2021

Good morning Ms. Vakalopoulos,

I hope you are doing well.

We are in the process of filing the NOI for the above reference project.

I am taking the liberty to send to you this reminder email, in case you did not receive the original September email shown below.

Please let me know if you have question regarding this email or require any further information.

Please can you get back to us and confirm the 7Q10 and DF for this project by end of this week November 12, 2021.

Thank you for your cooperation.

Have a safe and nice week

Sincerely,

Christophe M. Henry, PE, LSP
Senior Environmental Consultant | GeoEngineers, Inc.
Direct: +1 617.749.9231
Mobile: +1 978.413.5664
Email: cmhenry@geoengineers.com

Boston, MA
www.geoengineers.com

From: Christophe M. Henry <cmhenry@geoengineers.com>
Sent: Tuesday, September 14, 2021 4:07 PM
To: Catherine.Vakalopoulos@state.ma.us
Cc: Patrick Malone <pmalone@geoengineers.com>; Patrick Malone <pmalone@geoengineers.com>
Subject: 60 Guest St.- Brighton- NOI RGP- 7Q10 & DL confirmation request- input by Sep. 20, 2021

Good afternoon Ms. Vakalopoulos,

I am sending this email regarding our client's (Lendlease) future construction and de-watering project at 60 Guess Steet in Brighton (Boston), Massachusetts.

As part of the Notice of Intent (NOI) for the future Remediation General Permit (RGP), we would like you to confirm the following 7Q10 and Dilution Factor (DF) values for the above reference RGP project located in Brighton, MA. Using the U.S. Geological Survey (USGS) StreamStats program.

We selected the nearest point to the drain outlet/Outfall within the Charles River near Christian A. Herter Park. The USGS StreamStats output Report Basin Characteristics & Low Flow Stat. for this project is attached to this email.

Site Address: 60 Guest Street, Brighton, Boston, MA

Type of Discharge: Via existing stormwater drainage catch basins located on the north side of Guest Steet and/or southeast side of Life Steet Extension, which are operated by the Boston Water and Sewer commission (BWSC). The BWSC stormwater drainage system ultimately drains and discharges to an outlet (BWSC Outfall # 25E037) located on the Charles River as shown on the attached Site and Outfall Locus Map (Figure 2) and the 2020 BWSC Figure 1-1 (locations of Outfalls and Sub-Catchment Areas) . This BWCSC outlet is located with the approximate latitude and longitude indicated below.

Approximate Discharge Lat/Long:

Lat: 42.365548° Long: -71.137436°

Approximate Basin Delineation Point Selected:

Latitude: 42.36352° Longitude: -71.14562°

Design Discharge Flow: We anticipate initial discharge of up to 150 gallons per minute (gpm) during initial de-watering. However, once the proposed excavation has been dewatered to the proposed subgrade elevation, it is anticipated that the rate of construction dewatering will decrease to 25 to 75 gpm, with occasional peak flows (maximum design flow) of about 150 gpm during significant precipitation events. So, the Maximum flow used for this RGP NOI is 150 gpm = 0.216 million gallons per day (MGD)

Upstream StreamStats Generated, 7Q10: 24.2 cubic feet per second (cfs) = 15.64 MGD

Dilution Factor**:** DF = 73.4 (15.64+0.216)/0.216)

Please let me know if you have question regarding this email or require any further information.

If, possible, please can you get back to us and confirm the 7Q10 and DF for this project by September 20, 2021.

Thank you for your cooperation.

Have a safe and nice rest of the week.

Sincerely,

Christophe M. Henry, PE, LSP
Senior Consultant | GeoEngineers, Inc.
Mobile: 978.413.5664
Email: cmhenry@geoengineers.com

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BOSTON
QUINCY
MILTON
NEEDHAM
DEDHAM
WESTWOOD
CANTON
BRAINTREE

OutFall
Site 60 Guest St

LEGEND

- BWSC INTERCONNECTIONS
- CSO
- STORM DRAIN
- STONYBROOK BASINS
- SUB-CATCHMENT AREAS

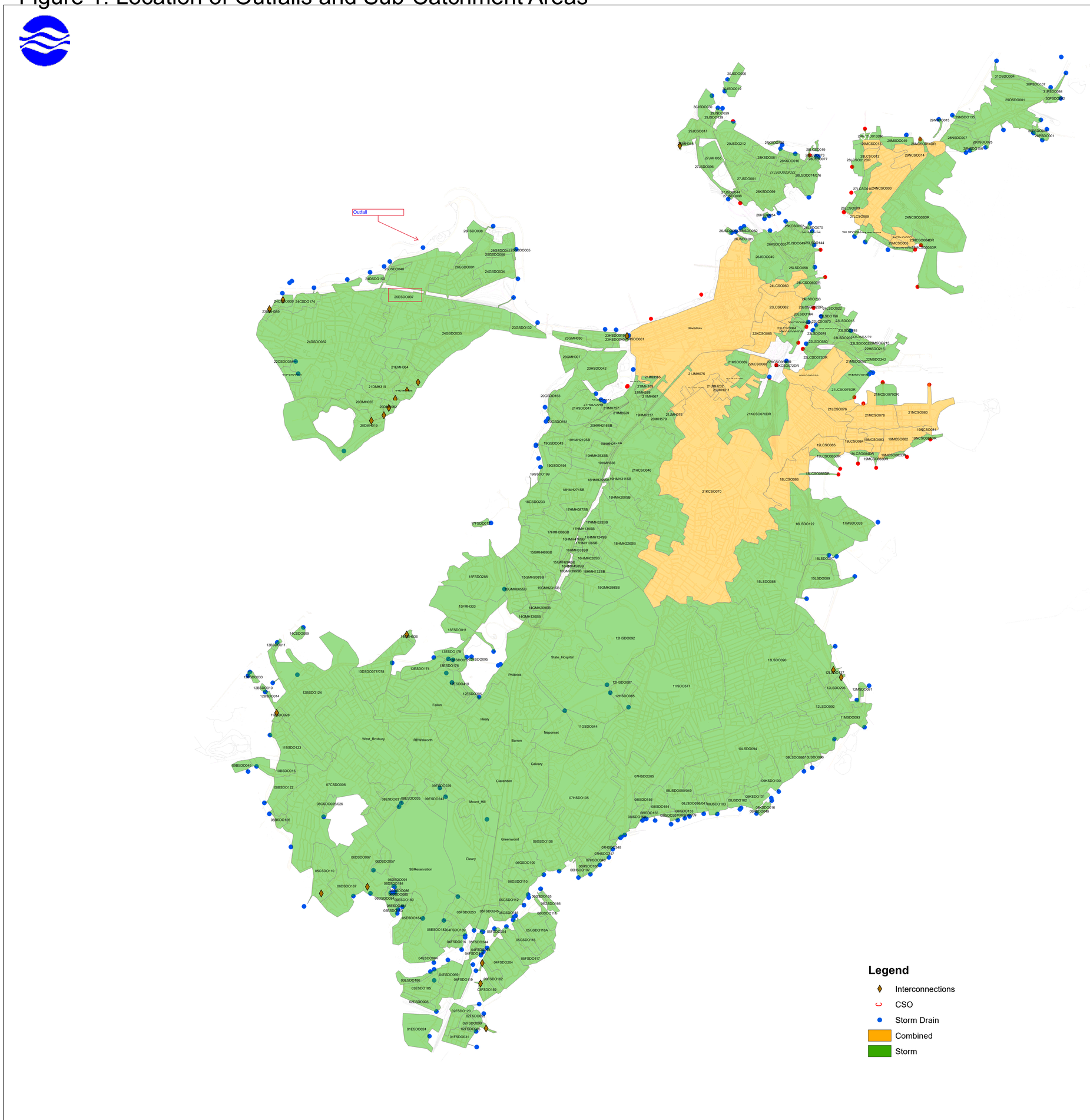
Figure 1-1

LOCATIONS OF OUTFALLS AND SUB-CATCHMENT AREAS

December 2017

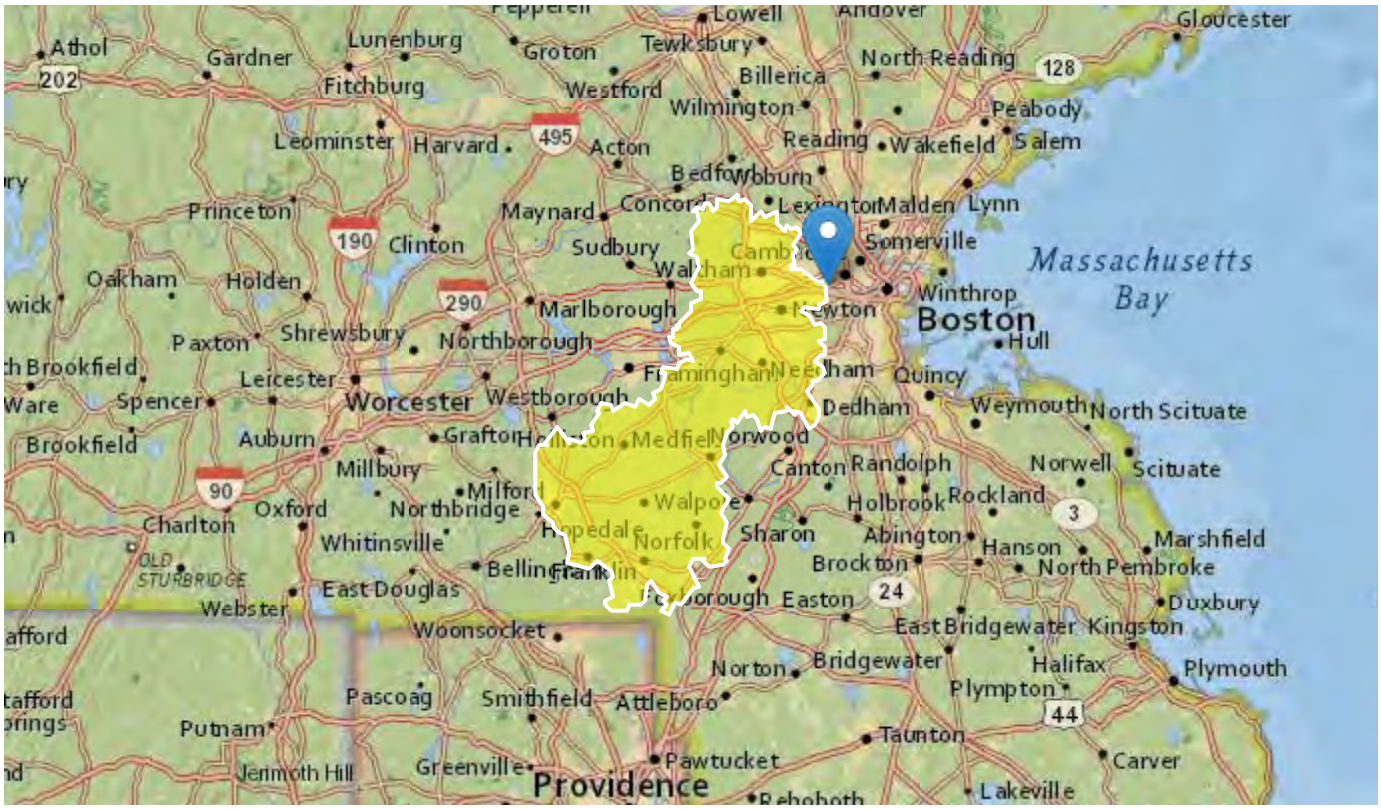
Boston Water & Sewer Commission

Figure 1: Location of Outfalls and Sub-Catchment Areas



USGS Strea tat S e rt Ba in Characteri tic & L w Fl w Stat. f r 60 Gue t St - B t n Dewaterin g r ject.

Region ID: MA
Workspace ID: MA20210830220521712000
Clicked Point (Latitude, Longitude): 42.36352, -71.14562gg
Time: 2021-08-30 18:05:42 -0400



asin hara teristi s

Parameter Code g	Parameter Description g	Value	Unit
DRNAREA g	Area that drains to a point on a streamg	278 g	square miles
BSLDEM250 g	Mean basin slope computed from 1:250K DEMg	2.343	percent
BSLDEM10Mg	Mean basin slope computed from 10 m DEMg	5.553	percent g

Parameter Co e o	Parameter e ription o	Value	Unit
DRFTPERSTR o	Area f stratified drift per unit f stream length	0.23	square mile per mile
MAREGION	Regi n f Massachusetts 0 f r Eastern 1 f r Western o	0	dimensi nless o

L w-F w Stati tic Paramet r Stat wid L w F w WRIR 4135]

Parameter Co e o	Parameter Name o	Value	Unit o	Min Limit	Max Limit
DRNAREA o	Drainage Area o	278 o			
DRFTPERSTR	Stratified Drift per Stream Length o	0.23	square mile per mile	0	1.29
MAREGION	Massachusetts Regi n	0	dimensi nless o	0	1

L w-Fl w Statistics Disclaimers [Statewide L w Fl w WRIR00 4135]

One or more of the parameters is outside the suggested range. Estimates were extrapolated with unknown errors

L w-Fl w Statistics Fl w Rep rt [Statewide L w Fl w WRIR00 4135]

Stati ti	alue o	Unit
7 Day 2 Year L w Fl w	48.7	ft^3/s
7 Day 10 Year L w Fl w o	24.2 o	ft^3/s o

Low-Flow Statistics Citations

Rie , K.G., III,2000, Metho for e timating low-flow tati ti for Ma a hu ett treams: U.S. Geologi al Survey Water Re our e Inve tigation Report 00-4135, 81 p. (http://pub .u g .gov/wri/wri004135/) o

expressed or edp s de re rd n the d sp y or ut ty of the d t for other purposes, nor on co utepsyste , s nor sh the ct of d str but on const tute ny such w rr nty.

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Application Version: 4.6.2
StreamStats Services Version: 1.2.22
NSS Services Version: 2.1.2 (

APPENDIX E
Copies of Laboratory Analytical Data Reports

ANALYTICAL REPORT

Lab Number:	L2133566
Client:	GeoEngineers USA, PC /GeoEngineers,inc. 4 California Avenue, Suite 204 Framingham, MA 01701
ATTN:	Patrick Malone
Phone:	(425) 861-6000
Project Name:	600 GUEST STREET
Project Number:	25223-001-00
Report Date:	09/20/21

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: 600 GUEST STREET
Project Number: 25223-001-00

Lab Number: L2133566
Report Date: 09/20/21

Alpha Sample ID	Client ID	Matrix	Sample Location	Collection Date/Time	Receive Date
L2133566-01	SH-GP-2020-01W_06212021	WATER	BRIGHTON, MA	06/21/21 13:10	06/21/21
L2133566-02	SH-GP-2020-01W_06212021	WATER	BRIGHTON, MA	06/21/21 13:10	06/22/21

Project Name:	600 GUEST STREET	**Lab Number:**	L2133566
Project Number:	25223-001-00	**Report Date:**	09/20/21

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.

Project Name:	600 GUEST STREET	**Lab Number:**	L2133566
Project Number:	25223-001-00	**Report Date:**	09/20/21

Case Narrative (continued)

Report Revision

September 20, 2021: The Subcontracted Analyses - Summary Report has been amended to include selenium on L2133566-01.

Report Submission

August 09, 2021: This final report includes the results of all requested analyses.

July 26, 2021: This is a preliminary report.

The Metals and Ethanol analyses were subcontracted. Copies of the laboratory reports are included as an addendum. Please note: This data is only available in PDF format and is not available on Data Merger.

Sample Receipt

L2133566-01: The sample collection time was obtained from the container labels.

The analysis of Dissolved Metals was cancelled at the client's request.

Microextractables

The WG1518191-2 LCS recovery for 1,2,3-trichloropropane (123%), associated with L2133566-01, is outside Alpha's acceptance criteria, but within the acceptance criteria specified in the method.

Chlorine, Total Residual

The WG1515143-4 MS recovery, performed on L2133566-01, is outside the acceptance criteria for chlorine, total residual (64%); however, the associated LCS recovery is within criteria. No further action was taken.

WG1515143: A Laboratory Duplicate could not be performed due to insufficient sample volume available for analysis.

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

Authorized Signature: Caitlin Walukevich

Caitlin Walukevich

Title: Technical Director/Representative

Date: 09/20/21

ORGANICS

VOLATILES

Project Name: 600 GUEST STREET **Lab Number:** L2133566

Project Number: 25223-001-00 **Report Date:** 09/20/21

SAMPLE RESULTS

Lab ID: L2133566-01
Client ID: SH-GP-2020-01W_06212021
Sample Location: BRIGHTON, MA

Date Collected: 06/21/21 13:10
Date Received: 06/21/21
Field Prep: Not Specified

Sample Depth:
Matrix: Water
Analytical Method: 128,624.1
Analytical Date: 06/23/21 12:52
Analyst: NLK

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
Methylene chloride	ND		ug/l	1.0	--	1
1,1-Dichloroethane	1.6		ug/l	1.5	--	1
Carbon tetrachloride	ND		ug/l	1.0	--	1
1,1,2-Trichloroethane	ND		ug/l	1.5	--	1
Tetrachloroethene	ND		ug/l	1.0	--	1
1,2-Dichloroethane	ND		ug/l	1.5	--	1
1,1,1-Trichloroethane	ND		ug/l	2.0	--	1
Benzene	ND		ug/l	1.0	--	1
Toluene	ND		ug/l	1.0	--	1
Ethylbenzene	ND		ug/l	1.0	--	1
Vinyl chloride	ND		ug/l	1.0	--	1
1,1-Dichloroethene	ND		ug/l	1.0	--	1
cis-1,2-Dichloroethene	ND		ug/l	1.0	--	1
Trichloroethene	ND		ug/l	1.0	--	1
1,2-Dichlorobenzene	ND		ug/l	5.0	--	1
1,3-Dichlorobenzene	ND		ug/l	5.0	--	1
1,4-Dichlorobenzene	ND		ug/l	5.0	--	1
p/m-Xylene	ND		ug/l	2.0	--	1
o-xylene	ND		ug/l	1.0	--	1
Xylenes, Total	ND		ug/l	1.0	--	1
Acetone	ND		ug/l	10	--	1
Methyl tert butyl ether	ND		ug/l	10	--	1
Tert-Butyl Alcohol	ND		ug/l	100	--	1
Tertiary-Amyl Methyl Ether	ND		ug/l	20	--	1

Project Name: 600 GUEST STREET **Lab Number:** L2133566

Project Number: 25223-001-00 **Report Date:** 09/20/21

SAMPLE RESULTS

Lab ID: L2133566-01 Date Collected: 06/21/21 13:10

Client ID: SH-GP-2020-01W_06212021 Date Received: 06/21/21

Sample Location: BRIGHTON, MA Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						

Surrogate	% Recovery	Qualifier	Acceptance Criteria
Pentafluorobenzene	110		60-140
Fluorobenzene	93		60-140
4-Bromofluorobenzene	102		60-140

Project Name: 600 GUEST STREET
Project Number: 25223-001-00
Lab Number: L2133566
Report Date: 09/20/21

SAMPLE RESULTS

Lab ID: L2133566-01
Client ID: SH-GP-2020-01W_06212021
Sample Location: BRIGHTON, MA

Date Collected: 06/21/21 13:10
Date Received: 06/21/21
Field Prep: Not Specified

Sample Depth:
Matrix: Water
Analytical Method: 128,624.1-SIM
Analytical Date: 06/23/21 12:52
Analyst: NLK

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS-SIM - Westborough Lab						
1,4-Dioxane	ND		ug/l	5.0	--	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
Fluorobenzene	103		60-140
4-Bromofluorobenzene	107		60-140

Project Name: 600 GUEST STREET
Project Number: 25223-001-00
Lab Number: L2133566
Report Date: 09/20/21

SAMPLE RESULTS

Lab ID: L2133566-01
Client ID: SH-GP-2020-01W_06212021
Sample Location: BRIGHTON, MA

Date Collected: 06/21/21 13:10
Date Received: 06/21/21
Field Prep: Not Specified

Sample Depth:
Matrix: Water
Analytical Method: 14,504.1
Analytical Date: 06/29/21 13:27
Analyst: AMM

Extraction Method: EPA 504.1
Extraction Date: 06/29/21 11:27

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Column
Microextractables by GC - Westborough Lab							
1,2-Dibromoethane	ND		ug/l	0.010	--	1	A
1,2-Dibromo-3-chloropropane	ND		ug/l	0.010	--	1	A
1,2,3-Trichloropropane	ND		ug/l	0.030	--	1	A

Project Name: 600 GUEST STREET
Project Number: 25223-001-00
Lab Number: L2133566
Report Date: 09/20/21

Method Blank Analysis
Batch Quality Control

Analytical Method: 128,624.1-SIM
Analytical Date: 06/23/21 12:11
Analyst: NLK

Parameter	Result	Qualifier	Units	RL	MDL
Volatile Organics by GC/MS-SIM - Westborough Lab for sample(s): 01 Batch: WG1516201-8					
1,4-Dioxane	ND		ug/l	5.0	--

Surrogate	%Recovery	Qualifier	Acceptance Criteria
Fluorobenzene	103		60-140
4-Bromofluorobenzene	109		60-140

Project Name: 600 GUEST STREET
Project Number: 25223-001-00
Lab Number: L2133566
Report Date: 09/20/21

Method Blank Analysis
Batch Quality Control

Analytical Method: 128,624.1
Analytical Date: 06/23/21 12:11
Analyst: NLK

Parameter	Result	Qualifier	Units	RL	MDL
Volatile Organics by GC/MS - Westborough Lab for sample(s): 01 Batch: WG1516514-4					
Methylene chloride	ND		ug/l	1.0	--
1,1-Dichloroethane	ND		ug/l	1.5	--
Carbon tetrachloride	ND		ug/l	1.0	--
1,1,2-Trichloroethane	ND		ug/l	1.5	--
Tetrachloroethene	ND		ug/l	1.0	--
1,2-Dichloroethane	ND		ug/l	1.5	--
1,1,1-Trichloroethane	ND		ug/l	2.0	--
Benzene	ND		ug/l	1.0	--
Toluene	ND		ug/l	1.0	--
Ethylbenzene	ND		ug/l	1.0	--
Vinyl chloride	ND		ug/l	1.0	--
1,1-Dichloroethene	ND		ug/l	1.0	--
cis-1,2-Dichloroethene	ND		ug/l	1.0	--
Trichloroethene	ND		ug/l	1.0	--
1,2-Dichlorobenzene	ND		ug/l	5.0	--
1,3-Dichlorobenzene	ND		ug/l	5.0	--
1,4-Dichlorobenzene	ND		ug/l	5.0	--
p/m-Xylene	ND		ug/l	2.0	--
o-xylene	ND		ug/l	1.0	--
Xylenes, Total	ND		ug/l	1.0	--
Acetone	ND		ug/l	10	--
Methyl tert butyl ether	ND		ug/l	10	--
Tert-Butyl Alcohol	ND		ug/l	100	--
Tertiary-Amyl Methyl Ether	ND		ug/l	20	--

Project Name: 600 GUEST STREET
Project Number: 25223-001-00
Lab Number: L2133566
Report Date: 09/20/21

Method Blank Analysis
Batch Quality Control

Analytical Method: 128,624.1
Analytical Date: 06/23/21 12:11
Analyst: NLK

Parameter	Result	Qualifier	Units	RL	MDL
Volatile Organics by GC/MS - Westborough Lab for sample(s): 01 Batch: WG1516514-4					

Surrogate	%Recovery	Qualifier	Acceptance Criteria
Pentafluorobenzene	113		60-140
Fluorobenzene	94		60-140
4-Bromofluorobenzene	104		60-140

Project Name: 600 GUEST STREET
Project Number: 25223-001-00

Lab Number: L2133566
Report Date: 09/20/21

Method Blank Analysis
Batch Quality Control

Analytical Method: 14,504.1
Analytical Date: 06/29/21 12:43
Analyst: AMM

Extraction Method: EPA 504.1
Extraction Date: 06/29/21 11:27

Parameter	Result	Qualifier	Units	RL	MDL	
Microextractables by GC - Westborough Lab for sample(s): 01 Batch: WG1518191-1						
1,2-Dibromoethane	ND		ug/l	0.010	--	A
1,2-Dibromo-3-chloropropane	ND		ug/l	0.010	--	A
1,2,3-Trichloropropane	ND		ug/l	0.030	--	A

Lab Control Sample Analysis
Batch Quality Control

Project Name: 600 GUEST STREET
Project Number: 25223-001-00

Lab Number: L2133566
Report Date: 09/20/21

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Volatile Organics by GC/MS-SIM - Westborough Lab Associated sample(s): 01 Batch: WG1516201-7								
1,4-Dioxane	78		-		60-140	-		20

Surrogate	LCS %Recovery	Qual	LCSD %Recovery	Qual	Acceptance Criteria
Fluorobenzene	104				60-140
4-Bromofluorobenzene	107				60-140

Lab Control Sample Analysis
Batch Quality Control

Project Name: 600 GUEST STREET
Project Number: 25223-001-00

Lab Number: L2133566
Report Date: 09/20/21

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Volatile Organics by GC/MS - Westborough Lab Associated sample(s): 01 Batch: WG1516514-3								
Methylene chloride	100		-		60-140	-		28
1,1-Dichloroethane	100		-		50-150	-		49
Carbon tetrachloride	110		-		70-130	-		41
1,1,2-Trichloroethane	95		-		70-130	-		45
Tetrachloroethene	110		-		70-130	-		39
1,2-Dichloroethane	100		-		70-130	-		49
1,1,1-Trichloroethane	110		-		70-130	-		36
Benzene	110		-		65-135	-		61
Toluene	115		-		70-130	-		41
Ethylbenzene	120		-		60-140	-		63
Vinyl chloride	90		-		5-195	-		66
1,1-Dichloroethene	105		-		50-150	-		32
cis-1,2-Dichloroethene	110		-		60-140	-		30
Trichloroethene	95		-		65-135	-		48
1,2-Dichlorobenzene	100		-		65-135	-		57
1,3-Dichlorobenzene	100		-		70-130	-		43
1,4-Dichlorobenzene	100		-		65-135	-		57
p/m-Xylene	112		-		60-140	-		30
o-xylene	110		-		60-140	-		30
Acetone	84		-		40-160	-		30
Methyl tert butyl ether	90		-		60-140	-		30
Tert-Butyl Alcohol	85		-		60-140	-		30
Tertiary-Amyl Methyl Ether	90		-		60-140	-		30

Lab Control Sample Analysis
Batch Quality Control

Project Name: 600 GUEST STREET
Project Number: 25223-001-00

Lab Number: L2133566
Report Date: 09/20/21

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Volatile Organics by GC/MS - Westborough Lab Associated sample(s): 01 Batch: WG1516514-3								

Surrogate	LCS %Recovery	Qual	LCSD %Recovery	Qual	Acceptance Criteria
Pentafluorobenzene	110				60-140
Fluorobenzene	94				60-140
4-Bromofluorobenzene	101				60-140

Lab Control Sample Analysis

Batch Quality Control

Project Name: 600 GUEST STREET

Project Number: 25223-001-00

Lab Number: L2133566

Report Date: 09/20/21

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits	Column
Microextractables by GC - Westborough Lab Associated sample(s): 01 Batch: WG1518191-2									
1,2-Dibromoethane	108		-		80-120	-			A
1,2-Dibromo-3-chloropropane	90		-		80-120	-			A
1,2,3-Trichloropropane	**123**	Q	-		80-120	-			A

Matrix Spike Analysis

Batch Quality Control

Project Name: 600 GUEST STREET

Project Number: 25223-001-00

Lab Number: L2133566

Report Date: 09/20/21

Parameter	*Native Sample*	*MS Added*	*MS Found*	*MS %Recovery*	*Qual*	*MSD Found*	*MSD %Recovery*	*Qual*	*Recovery Limits*	*RPD*	*Qual*	*RPD Limits*	*Column*
Microextractables by GC - Westborough Lab Associated sample(s): 01 QC Batch ID: WG1518191-3 QC Sample: L2134107-02 Client ID: MS Sample													
1,2-Dibromoethane	ND	0.248	0.253	102		-	-		80-120	-		20	A
1,2-Dibromo-3-chloropropane	ND	0.248	0.221	89		-	-		80-120	-		20	A
1,2,3-Trichloropropane	ND	0.248	0.306	**123**	Q	-	-		80-120	-		20	A

SEMIVOLATILES

Project Name: 600 GUEST STREET
Project Number: 25223-001-00
Lab Number: L2133566
Report Date: 09/20/21

SAMPLE RESULTS

Lab ID: L2133566-01
Client ID: SH-GP-2020-01W_06212021
Sample Location: BRIGHTON, MA

Date Collected: 06/21/21 13:10
Date Received: 06/21/21
Field Prep: Not Specified

Sample Depth:
Matrix: Water
Analytical Method: 129,625.1
Analytical Date: 07/04/21 18:00
Analyst: SZ

Extraction Method: EPA 625.1
Extraction Date: 06/26/21 19:58

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Semivolatile Organics by GC/MS - Westborough Lab						
Bis(2-ethylhexyl)phthalate	ND		ug/l	2.20	--	1
Butyl benzyl phthalate	ND		ug/l	5.00	--	1
Di-n-butylphthalate	ND		ug/l	5.00	--	1
Di-n-octylphthalate	ND		ug/l	5.00	--	1
Diethyl phthalate	ND		ug/l	5.00	--	1
Dimethyl phthalate	ND		ug/l	5.00	--	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
Nitrobenzene-d5	59		42-122
2-Fluorobiphenyl	61		46-121
4-Terphenyl-d14	74		47-138

Project Name: 600 GUEST STREET
Project Number: 25223-001-00
Lab Number: L2133566
Report Date: 09/20/21

SAMPLE RESULTS

Lab ID: L2133566-01
Client ID: SH-GP-2020-01W_06212021
Sample Location: BRIGHTON, MA

Date Collected: 06/21/21 13:10
Date Received: 06/21/21
Field Prep: Not Specified

Sample Depth:
Matrix: Water
Analytical Method: 129,625.1-SIM
Analytical Date: 07/03/21 18:56
Analyst: RP

Extraction Method: EPA 625.1
Extraction Date: 06/26/21 20:00

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
Pentachlorophenol	ND		ug/l	1.00	--	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
2-Fluorophenol	62		25-87
Phenol-d6	49		16-65
Nitrobenzene-d5	115		42-122
2-Fluorobiphenyl	71		46-121
2,4,6-Tribromophenol	86		45-128
4-Terphenyl-d14	83		47-138

Project Name: 600 GUEST STREET
Project Number: 25223-001-00
Lab Number: L2133566
Report Date: 09/20/21

Method Blank Analysis
Batch Quality Control

Analytical Method: 129,625.1
Analytical Date: 06/27/21 23:42
Analyst: SZ

Extraction Method: EPA 625.1
Extraction Date: 06/26/21 00:34

Parameter	Result	Qualifier	Units	RL	MDL
Semivolatile Organics by GC/MS - Westborough Lab for sample(s): 01 Batch: WG1517220-1					
Bis(2-ethylhexyl)phthalate	ND		ug/l	2.20	--
Butyl benzyl phthalate	ND		ug/l	5.00	--
Di-n-butylphthalate	ND		ug/l	5.00	--
Di-n-octylphthalate	ND		ug/l	5.00	--
Diethyl phthalate	ND		ug/l	5.00	--
Dimethyl phthalate	ND		ug/l	5.00	--

Surrogate	%Recovery	Qualifier	Acceptance Criteria
Nitrobenzene-d5	79		42-122
2-Fluorobiphenyl	75		46-121
4-Terphenyl-d14	82		47-138

Project Name: 600 GUEST STREET
Project Number: 25223-001-00
Lab Number: L2133566
Report Date: 09/20/21

Method Blank Analysis
Batch Quality Control

Analytical Method: 129,625.1-SIM
Analytical Date: 06/27/21 10:44
Analyst: JJW

Extraction Method: EPA 625.1
Extraction Date: 06/26/21 00:49

Parameter	Result	Qualifier	Units	RL	MDL
Semivolatile Organics by GC/MS-SIM - Westborough Lab for sample(s): 01 Batch: WG1517222-1					
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	--
Pentachlorophenol	ND		ug/l	1.00	--

Surrogate	%Recovery	Qualifier	Acceptance Criteria
2-Fluorophenol	60		25-87
Phenol-d6	41		16-65
Nitrobenzene-d5	84		42-122
2-Fluorobiphenyl	71		46-121
2,4,6-Tribromophenol	73		45-128
4-Terphenyl-d14	80		47-138

Lab Control Sample Analysis
Batch Quality Control

Project Name: 600 GUEST STREET
Project Number: 25223-001-00

Lab Number: L2133566
Report Date: 09/20/21

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Semivolatile Organics by GC/MS - Westborough Lab Associated sample(s): 01 Batch: WG1517220-3								
Bis(2-ethylhexyl)phthalate	83		-		29-137	-		82
Butyl benzyl phthalate	88		-		1-140	-		60
Di-n-butylphthalate	88		-		8-120	-		47
Di-n-octylphthalate	85		-		19-132	-		69
Diethyl phthalate	86		-		1-120	-		100
Dimethyl phthalate	83		-		1-120	-		183

Surrogate	LCS %Recovery	Qual	LCSD %Recovery	Qual	Acceptance Criteria
Nitrobenzene-d5	77				42-122
2-Fluorobiphenyl	76				46-121
4-Terphenyl-d14	82				47-138

Lab Control Sample Analysis
Batch Quality Control

Project Name: 600 GUEST STREET
Project Number: 25223-001-00

Lab Number: L2133566
Report Date: 09/20/21

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: WG1517222-2								
Acenaphthene	77		-		60-132	-		30
Fluoranthene	86		-		43-121	-		30
Naphthalene	70		-		36-120	-		30
Benzo(a)anthracene	85		-		42-133	-		30
Benzo(a)pyrene	90		-		32-148	-		30
Benzo(b)fluoranthene	94		-		42-140	-		30
Benzo(k)fluoranthene	86		-		25-146	-		30
Chrysene	80		-		44-140	-		30
Acenaphthylene	78		-		54-126	-		30
Anthracene	86		-		43-120	-		30
Benzo(ghi)perylene	87		-		1-195	-		30
Fluorene	80		-		70-120	-		30
Phenanthrene	81		-		65-120	-		30
Dibenzo(a,h)anthracene	90		-		1-200	-		30
Indeno(1,2,3-cd)pyrene	93		-		1-151	-		30
Pyrene	86		-		70-120	-		30
Pentachlorophenol	79		-		38-152	-		30

Lab Control Sample Analysis
Batch Quality Control

Project Name: 600 GUEST STREET
Project Number: 25223-001-00

Lab Number: L2133566
Report Date: 09/20/21

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: WG1517222-2								

Surrogate	LCS %Recovery	Qual	LCSD %Recovery	Qual	Acceptance Criteria
2-Fluorophenol	59				25-87
Phenol-d6	40				16-65
Nitrobenzene-d5	80				42-122
2-Fluorobiphenyl	68				46-121
2,4,6-Tribromophenol	74				45-128
4-Terphenyl-d14	75				47-138

PCBS

Project Name: 600 GUEST STREET
Project Number: 25223-001-00
Lab Number: L2133566
Report Date: 09/20/21

SAMPLE RESULTS

Lab ID: L2133566-01
Client ID: SH-GP-2020-01W_06212021
Sample Location: BRIGHTON, MA

Date Collected: 06/21/21 13:10
Date Received: 06/21/21
Field Prep: Not Specified

Sample Depth:
Matrix: Water
Analytical Method: 127,608.3
Analytical Date: 07/07/21 12:30
Analyst: CW

Extraction Method: EPA 608.3
Extraction Date: 07/06/21 09:01
Cleanup Method: EPA 3665A
Cleanup Date: 07/06/21
Cleanup Method: EPA 3660B
Cleanup Date: 07/06/21

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

Surrogate	% Recovery	Qualifier	Acceptance Criteria	Column
2,4,5,6-Tetrachloro-m-xylene	68		37-123	B
Decachlorobiphenyl	61		38-114	B
2,4,5,6-Tetrachloro-m-xylene	63		37-123	A
Decachlorobiphenyl	62		38-114	A

Project Name: 600 GUEST STREET
Project Number: 25223-001-00
Lab Number: L2133566
Report Date: 09/20/21

Method Blank Analysis
Batch Quality Control

Analytical Method: 127,608.3
Analytical Date: 07/07/21 10:48
Analyst: CW

Extraction Method: EPA 608.3
Extraction Date: 07/06/21 09:01
Cleanup Method: EPA 3665A
Cleanup Date: 07/06/21
Cleanup Method: EPA 3660B
Cleanup Date: 07/06/21

Parameter	Result	Qualifier	Units	RL	MDL	Column
Polychlorinated Biphenyls by GC - Westborough Lab for sample(s): 01 Batch: WG1520635-1						
Aroclor 1016	ND		ug/l	0.250	--	A
Aroclor 1221	ND		ug/l	0.250	--	A
Aroclor 1232	ND		ug/l	0.250	--	A
Aroclor 1242	ND		ug/l	0.250	--	A
Aroclor 1248	ND		ug/l	0.250	--	A
Aroclor 1254	ND		ug/l	0.250	--	A
Aroclor 1260	ND		ug/l	0.200	--	A

Surrogate	%Recovery	Qualifier	Acceptance Criteria	Column
2,4,5,6-Tetrachloro-m-xylene	45		37-123	B
Decachlorobiphenyl	56		38-114	B
2,4,5,6-Tetrachloro-m-xylene	41		37-123	A
Decachlorobiphenyl	54		38-114	A

Lab Control Sample Analysis
Batch Quality Control

Project Name: 600 GUEST STREET
Project Number: 25223-001-00

Lab Number: L2133566
Report Date: 09/20/21

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits	Column
Polychlorinated Biphenyls by GC - Westborough Lab Associated sample(s): 01 Batch: WG1520635-2									
Aroclor 1016	73		-		50-140	-		36	A
Aroclor 1260	69		-		8-140	-		38	A

Surrogate	LCS %Recovery	Qual	LCSD %Recovery	Qual	Acceptance Criteria	Column
2,4,5,6-Tetrachloro-m-xylene	74				37-123	B
Decachlorobiphenyl	65				38-114	B
2,4,5,6-Tetrachloro-m-xylene	68				37-123	A
Decachlorobiphenyl	61				38-114	A

METALS

Project Name: 600 GUEST STREET
Lab Number: L2133566
Project Number: 25223-001-00
Report Date: 09/20/21

SAMPLE RESULTS

Lab ID: L2133566-01
Client ID: SH-GP-2020-01W_06212021
Sample Location: BRIGHTON, MA
Date Collected: 06/21/21 13:10
Date Received: 06/21/21
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
General Chemistry - Mansfield Lab											
Chromium, Trivalent	ND		mg/l	0.010	--	1		08/09/21 16:14	NA	107,-	

INORGANICS
&
MISCELLANEOUS

Project Name: 600 GUEST STREET
Project Number: 25223-001-00

Lab Number: L2133566
Report Date: 09/20/21

SAMPLE RESULTS

Lab ID: L2133566-01
Client ID: SH-GP-2020-01W_06212021
Sample Location: BRIGHTON, MA

Date Collected: 06/21/21 13:10
Date Received: 06/21/21
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										
Solids, Total Suspended	22.		mg/l	5.0	NA	1	-	06/25/21 09:20	121,2540D	DW
Cyanide, Total	ND		mg/l	0.005	--	1	06/30/21 23:20	07/01/21 14:37	121,4500CN-CE	CR
Chlorine, Total Residual	ND		mg/l	0.02	--	1	-	06/22/21 03:07	121,4500CL-D	AW
Nitrogen, Ammonia	1.83		mg/l	0.075	--	1	07/09/21 18:00	07/09/21 22:40	121,4500NH3-BH	AT
TPH, SGT-HEM	ND		mg/l	4.00	--	1	07/07/21 19:30	07/07/21 20:30	74,1664A	IR
Phenolics, Total	ND		mg/l	0.030	--	1	07/06/21 07:06	07/06/21 10:22	4,420.1	KP
Chromium, Hexavalent	ND		mg/l	0.010	--	1	06/22/21 02:10	06/22/21 02:38	1,7196A	AW
Anions by Ion Chromatography - Westborough Lab										
Chloride	1310		mg/l	25.0	--	50	-	07/05/21 21:41	44,300.0	SH

Project Name: 600 GUEST STREET
Project Number: 25223-001-00
Lab Number: L2133566
Report Date: 09/20/21

Method Blank Analysis
Batch Quality Control

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Westborough Lab for sample(s): 01 Batch: WG1515132-1										
Chromium, Hexavalent	ND		mg/l	0.010	--	1	06/22/21 02:10	06/22/21 02:37	1,7196A	AW
General Chemistry - Westborough Lab for sample(s): 01 Batch: WG1515143-1										
Chlorine, Total Residual	ND		mg/l	0.02	--	1	-	06/22/21 03:07	121,4500CL-D	AW
General Chemistry - Westborough Lab for sample(s): 01 Batch: WG1516886-1										
Solids, Total Suspended	ND		mg/l	5.0	NA	1	-	06/25/21 09:20	121,2540D	DW
General Chemistry - Westborough Lab for sample(s): 01 Batch: WG1519095-1										
Cyanide, Total	ND		mg/l	0.005	--	1	06/30/21 23:20	07/01/21 14:31	121,4500CN-CE	CR
Anions by Ion Chromatography - Westborough Lab for sample(s): 01 Batch: WG1520543-1										
Chloride	ND		mg/l	0.500	--	1	-	07/05/21 16:56	44,300.0	SH
General Chemistry - Westborough Lab for sample(s): 01 Batch: WG1520588-1										
Phenolics, Total	ND		mg/l	0.030	--	1	07/06/21 07:06	07/06/21 10:20	4,420.1	KP
General Chemistry - Westborough Lab for sample(s): 01 Batch: WG1521305-1										
TPH, SGT-HEM	ND		mg/l	4.00	--	1	07/07/21 19:30	07/07/21 20:30	74,1664A	IR
General Chemistry - Westborough Lab for sample(s): 01 Batch: WG1522361-1										
Nitrogen, Ammonia	ND		mg/l	0.075	--	1	07/09/21 18:00	07/09/21 22:28	121,4500NH3-BH	AT

Lab Control Sample Analysis

Batch Quality Control

Project Name: 600 GUEST STREET
Project Number: 25223-001-00

Lab Number: L2133566
Report Date: 09/20/21

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
General Chemistry - Westborough Lab Associated sample(s): 01 Batch: WG1515132-2								
Chromium, Hexavalent	99		-		85-115	-		20
General Chemistry - Westborough Lab Associated sample(s): 01 Batch: WG1515143-2								
Chlorine, Total Residual	92		-		90-110	-		
General Chemistry - Westborough Lab Associated sample(s): 01 Batch: WG1516886-3								
Solids, Total Suspended	93		-		80-120	-		
General Chemistry - Westborough Lab Associated sample(s): 01 Batch: WG1519095-2								
Cyanide, Total	92		-		90-110	-		
Anions by Ion Chromatography - Westborough Lab Associated sample(s): 01 Batch: WG1520543-2								
Chloride	100		-		90-110	-		
General Chemistry - Westborough Lab Associated sample(s): 01 Batch: WG1520588-2								
Phenolics, Total	112		-		70-130	-		
General Chemistry - Westborough Lab Associated sample(s): 01 Batch: WG1521305-2								
TPH	78		-		64-132	-		34

Lab Control Sample Analysis

Batch Quality Control

Project Name: 600 GUEST STREET

Project Number: 25223-001-00

Lab Number: L2133566

Report Date: 09/20/21

Parameter	LCS %Recovery	LCSD %Recovery	%Recovery Limits	RPD	RPD Limits
General Chemistry - Westborough Lab Associated sample(s): 01 Batch: WG1522361-2					
Nitrogen, Ammonia	103	-	80-120	-	20

Matrix Spike Analysis
Batch Quality Control

Project Name: 600 GUEST STREET
Project Number: 25223-001-00

Lab Number: L2133566
Report Date: 09/20/21

Parameter	Native Sample	MS Added	MS Found	MS %Recovery	Qual	MSD Found	MSD %Recovery	Qual	Recovery Limits	RPD	Qual	RPD Limits
General Chemistry - Westborough Lab Associated sample(s): 01 QC Batch ID: WG1515132-4 QC Sample: L2133566-01 Client ID: SH-GP-2020-01W_06212021												
Chromium, Hexavalent	ND	0.1	0.095	95		-	-		85-115	-		20
General Chemistry - Westborough Lab Associated sample(s): 01 QC Batch ID: WG1515143-4 QC Sample: L2133566-01 Client ID: SH-GP-2020-01W_06212021												
Chlorine, Total Residual	ND	0.25	0.16	**64**	Q	-	-		80-120	-		20
General Chemistry - Westborough Lab Associated sample(s): 01 QC Batch ID: WG1519095-4 QC Sample: L2133740-01 Client ID: MS Sample												
Cyanide, Total	ND	0.2	0.177	**88**	Q	-	-		90-110	-		30
Anions by Ion Chromatography - Westborough Lab Associated sample(s): 01 QC Batch ID: WG1520543-3 QC Sample: L2133484-03 Client ID: MS Sample												
Chloride	2.71	4	6.43	93		-	-		90-110	-		18
General Chemistry - Westborough Lab Associated sample(s): 01 QC Batch ID: WG1520588-4 QC Sample: L2135036-02 Client ID: MS Sample												
Phenolics, Total	ND	0.4	0.38	94		-	-		70-130	-		20
General Chemistry - Westborough Lab Associated sample(s): 01 QC Batch ID: WG1521305-4 QC Sample: L2133852-02 Client ID: MS Sample												
TPH	ND	19.8	15.4	78		-	-		64-132	-		34
General Chemistry - Westborough Lab Associated sample(s): 01 QC Batch ID: WG1522361-4 QC Sample: L2133488-01 Client ID: MS Sample												
Nitrogen, Ammonia	0.168	4	3.49	83		-	-		80-120	-		20

Lab Duplicate Analysis
Batch Quality Control

Project Name: 600 GUEST STREET
Project Number: 25223-001-00

Lab Number: L2133566
Report Date: 09/20/21

Parameter	Native Sample	Duplicate Sample	Units	RPD	Qual	RPD Limits
General Chemistry - Westborough Lab Associated sample(s): 01 QC Batch ID: WG1515132-3 QC Sample: L2133566-01 Client ID: SH-GP-2020-01W_06212021						
Chromium, Hexavalent	ND	ND	mg/l	NC		20
General Chemistry - Westborough Lab Associated sample(s): 01 QC Batch ID: WG1516886-2 QC Sample: L2133481-05 Client ID: DUP Sample						
Solids, Total Suspended	88	99	mg/l	12		29
General Chemistry - Westborough Lab Associated sample(s): 01 QC Batch ID: WG1519095-3 QC Sample: L2133740-01 Client ID: DUP Sample						
Cyanide, Total	ND	ND	mg/l	NC		30
Anions by Ion Chromatography - Westborough Lab Associated sample(s): 01 QC Batch ID: WG1520543-4 QC Sample: L2133484-03 Client ID: DUP Sample						
Chloride	2.71	2.74	mg/l	1		18
General Chemistry - Westborough Lab Associated sample(s): 01 QC Batch ID: WG1520588-3 QC Sample: L2135036-02 Client ID: DUP Sample						
Phenolics, Total	ND	ND	mg/l	NC		20
General Chemistry - Westborough Lab Associated sample(s): 01 QC Batch ID: WG1521305-3 QC Sample: L2133771-01 Client ID: DUP Sample						
TPH	ND	ND	mg/l	NC		34
General Chemistry - Westborough Lab Associated sample(s): 01 QC Batch ID: WG1522361-3 QC Sample: L2133488-01 Client ID: DUP Sample						
Nitrogen, Ammonia	0.168	0.185	mg/l	10		20

Project Name: 600 GUEST STREET
Project Number: 25223-001-00

Lab Number: L2133566
Report Date: 09/20/21

Sample Receipt and Container Information

Were project specific reporting limits specified? YES

Cooler Information

Cooler	Custody Seal
A	Absent
B	Absent

Container Information

Container ID	Container Type	Cooler	Initial pH	Final pH	Temp deg C	Pres	Seal	Frozen Date/Time	Analysis(*)
L2133566-01A	Vial Na2S2O3 preserved	A	NA		4.3	Y	Absent		624.1-SIM-RGP(7),624.1-RGP(7)
L2133566-01A1	Vial Na2S2O3 preserved	A	NA		4.3	Y	Absent		624.1-SIM-RGP(7),624.1-RGP(7)
L2133566-01B	Vial Na2S2O3 preserved	A	NA		4.3	Y	Absent		624.1-SIM-RGP(7),624.1-RGP(7)
L2133566-01B1	Vial Na2S2O3 preserved	A	NA		4.3	Y	Absent		624.1-SIM-RGP(7),624.1-RGP(7)
L2133566-01C	Vial Na2S2O3 preserved	A	NA		4.3	Y	Absent		624.1-SIM-RGP(7),624.1-RGP(7)
L2133566-01C1	Vial Na2S2O3 preserved	A	NA		4.3	Y	Absent		624.1-SIM-RGP(7),624.1-RGP(7)
L2133566-01D	Vial Na2S2O3 preserved	A	NA		4.3	Y	Absent		504(14)
L2133566-01E	Vial Na2S2O3 preserved	A	NA		4.3	Y	Absent		504(14)
L2133566-01F	Vial unpreserved	A	NA		4.3	Y	Absent		SUB-ETHANOL(14)
L2133566-01G	Vial unpreserved	A	NA		4.3	Y	Absent		SUB-ETHANOL(14)
L2133566-01H	Vial unpreserved	A	NA		4.3	Y	Absent		SUB-ETHANOL(14)
L2133566-01I	Plastic 250ml unpreserved	A	7	7	4.3	Y	Absent		HOLD-METAL-DISSOLVED(180)
L2133566-01J	Plastic 250ml HNO3 preserved	A	<2	<2	4.3	Y	Absent		SUB-METALS 200.8(180)
L2133566-01K	Plastic 250ml NaOH preserved	A	>12	>12	4.3	Y	Absent		TCN-4500(14)
L2133566-01L	Plastic 500ml H2SO4 preserved	A	<2	<2	4.3	Y	Absent		NH3-4500(28)
L2133566-01M	Plastic 950ml unpreserved	A	7	7	4.3	Y	Absent		CL-300(28),HEXCR-7196(1),TRC-4500(1)
L2133566-01N	Plastic 950ml unpreserved	A	7	7	4.3	Y	Absent		TSS-2540(7)
L2133566-01O	Amber 950ml H2SO4 preserved	A	<2	<2	4.3	Y	Absent		TPHENOL-420(28)
L2133566-01P	Amber 1000ml Na2S2O3	A	7	7	4.3	Y	Absent		PCB-608.3(365)
L2133566-01Q	Amber 1000ml Na2S2O3	A	7	7	4.3	Y	Absent		625.1-RGP(7)
L2133566-01R	Amber 1000ml Na2S2O3	A	7	7	4.3	Y	Absent		625.1-SIM-RGP(7)
L2133566-01S	Amber 1000ml HCl preserved	A	NA		4.3	Y	Absent		TPH-1664(28)

*Values in parentheses indicate holding time in days

Project Name: 600 GUEST STREET
Project Number: 25223-001-00

Lab Number: L2133566
Report Date: 09/20/21

Container Information

Container ID	*Container Type*	*Cooler*	*Initial pH*	*Final pH*	*Temp deg C*	*Pres*	*Seal*	*Frozen Date/Time*	*Analysis(*)*
L2133566-01X	Plastic 120ml HNO3 preserved Filtrates	A	NA		4.3	Y	Absent		HOLD-METAL-DISSOLVED(180)
L2133566-02A	Amber 1000ml Na2S2O3	B	7	7	4.7	Y	Absent		HOLD-608(7)
L2133566-02B	Amber 1000ml Na2S2O3	B	7	7	4.7	Y	Absent		HOLD-625(7)
L2133566-02C	Amber 1000ml HCl preserved	B	<2	<2	4.7	Y	Absent		HOLD-WETCHEM()

*Values in parentheses indicate holding time in days

Project Name:	600 GUEST STREET	**Lab Number:**	L2133566
Project Number:	25223-001-00	**Report Date:**	09/20/21

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:	600 GUEST STREET	**Lab Number:**	L2133566
Project Number:	25223-001-00	**Report Date:**	09/20/21

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 for: PFHpA, PFHxS, PFOA, PFNA, PFDA and PFOS. For MassDEP DW compliance analysis only, the 'PFAS, Total (6)' result is defined as the summation of results at or above the RL. Note: 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:	600 GUEST STREET	**Lab Number:**	L2133566
Project Number:	25223-001-00	**Report Date:**	09/20/21

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.

V - The surrogate associated with this target analyte has a recovery outside the QC acceptance limits. (Applicable to MassDEP DW Compliance samples only.)

Z - The batch matrix spike and/or duplicate associated with this target analyte has a recovery/RPD outside the QC acceptance limits. (Applicable to MassDEP DW Compliance samples only.)

Report Format: Data Usability Report

Project Name:	600 GUEST STREET	**Lab Number:**	L2133566
Project Number:	25223-001-00	**Report Date:**	09/20/21

REFERENCES

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

4 Methods for Chemical Analysis of Water and Wastes. EPA 600/4-79-020. Revised March 1983.

14 Methods for the Determination of Organic Compounds in Finished Drinking Water and Raw Source Water. EPA/600/4-88/039, Revised July 1991.

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.

127 Method 608.3: Organochlorine Pesticides and PCBs by GC/HSD, EPA 821-R-16-009, December 2016.

128 Method 624.1: Purgeables by GC/MS, EPA 821-R-16-008, December 2016.

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 625/625.1: alpha-Terpineol
EPA 8260C/8260D: NPW: 1,2,4,5-Tetramethylbenzene; 4-Ethyltoluene, Azobenzene; SCM: Iodomethane (methyl iodide), 1,2,4,5-Tetramethylbenzene; 4-Ethyltoluene.
EPA 8270D/8270E: NPW: Dimethylnaphthalene,1,4-Diphenylhydrazine, alpha-Terpineol; 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.
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, SM9222D.**

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, EPA 537.1.

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.

CHAIN OF CUSTODY

PAGE 1 OF 1

Date Rec'd in Lab: 6/21/21

ALPHA Job #: L2133566

8 Walkup Drive
Westboro, MA 01581
Tel: 508-898-9220

320 Forbes Blvd
Mansfield, MA 02048
Tel: 508-822-9300

Client Information

Client: GeoEngineers Inc.
Address: 239 Causeway St. Suite 105
Boston MA 02114
Phone: 617.749.9220
Email: PMALONE@GEOENGINEERS.COM

Project Information

Project Name: 60 Guest Street
Project Location: Brighton MA
Project #: 25223-001-00
Project Manager: Patrick Malone
ALPHA Quote #: N/A

Turn-Around Time

☑ Standard ☐ RUSH (only confirmed if pre-approved)
Date Due:

Additional Project Information:

Report Information - Data Deliverables

☑ ADEx ☑ EMAIL

Billing Information

☑ Same as Client info PO #:

Regulatory Requirements & Project Information Requirements

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

ALPHA Lab ID (Lab Use Only)	Sample ID	Collection Date	Collection Time	Sample Matrix	Sampler Initials	ANALYSIS: 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	NPDES RGP	DISSOLVED METALS	SAMPLE INFO: Filtration ☐ Field ☐ Lab to do / Preservation ☐ Lab to do	TOTAL # BOTTLES
33566-01	SH-GP-2020-01W_06212021	06.21.21		WATER	NRS									X	X	LAB FILTER METAL	22

Container Type										P	P						
Preservative																	

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
Nathan Solomon GEI	06.21.21 16:31	[signature] ARL	6/21 16:31
[signature] ARL	6/21 17:30	[signature]	6/21/21 1730

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

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

ALPHA ANALYTICAL
World Class Chemistry

Subcontract Chain of Custody

Tek Lab, Inc.
5445 Horsehoe Lake Road
Collinsville, IL 62234-7425

Alpha Job Number
L2133566

Client Information

Client: Alpha Analytical Labs
Address: Eight Walkup Drive
Westborough, MA 01581-1019

Phone: 508.439.5170
Email: nlewis@alphalab.com

Project Information

Project Location: MA
Project Manager: Nathalie Lewis

Turnaround & Deliverables Information

Due Date:
Deliverables:

Regulatory Requirements/Report Limits

State/Federal Program:
Regulatory Criteria:

Project Specific Requirements and/or Report Requirements

Reference following Alpha Job Number on final report/deliverables: L2133566

Report to include Method Blank, LCS/LCSD:

Additional Comments: Send all results/reports to subreports@alphalab.com

Lab ID	Client ID	Collection Date/Time	Sample Matrix	Analysis	Batch QC
	SH-GP-2020-01W_06212021	06-21-21 13:10	WATER	Ethanol by EPA 1671 Revision A	

	Relinquished By:	Date/Time:	Received By:	Date/Time:
		6/22/21		
Form No: AL_subcoc				

L2133526

CHAIN OF CUSTODY

PAGE 1 OF 1

Date Rec'd in Lab: 6/22/21

ALPHA Job #: ~~L2133852~~ 6/23/24

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

Client Information

Client: GEO ENGINEERS
Address: 239 CAUSEWAY ST. SUITE 105
BOSTON MA. 02114
Phone: 617. 749 9220
Email: PMALONE@GEOENGINEERS

Additional Project Information:

Project Information

Project Name: 60 GUEST STREET
Project Location: BRIGHTON MA
Project #: 25223-001-00
Project Manager: PATRICK MALONE
ALPHA Quote #: N/A

Turn-Around Time

☑ Standard ☐ RUSH (only confirmed if pre-approved)
Date Due:

Report Information - Data Deliverables

☑ ADEx ☑ EMAIL

Billing Information

☑ Same as Client Info PO #:

Regulatory Requirements & Project Information Requirements

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

ALPHA Lab ID (Lab Use Only)	Sample ID	Collection Date	Collection Time	Sample Matrix	Sampler Initials	ANALYSIS: 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	NPDES RGP	DISSOLVED METALS	SAMPLE INFO: Filtration ☐ Field ☐ Lab to do; Preservation ☐ Lab to do	Sample Comments	TOTAL # BOTTLES
~~33852-01~~	SH-GP-2020-01W_06212021	6.21.21	1340	WATER	NRS									X				5
33566 -02	SH-GP-2020-02W_06222021	6.22.22	0845	↓	↓									X	X		* LAB FILTER	
-03	SH-GP-2020-03W_06222021	6.22.22	1345	↓	↓									X	X		* LAB FILTER	

Container Type												P	P					
Preservative												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
NATHAN SOLOMON GEI	06.22.21 1650	[signature] AAL	6/22 16:47
[signature] AAL	6/22 18:40	[signature]	06/22/21 1840

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

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

Teklab, Inc.
Environmental Laboratory
http://www.teklabinc.com/

June 30, 2021

Nichole Hunt
Alpha Analytical
145 Flanders Road
Westborough, MA 01581
TEL: (508) 898-9220
FAX:

Illinois	100226
Kansas	E-10374
Louisiana	05002
Louisiana	05003
Oklahoma	9978

RE: L2133566 **WorkOrder:** 21061454

Dear Nichole Hunt:

TEKLAB, INC received 1 sample on 6/23/2021 10:45:00 AM for the analysis presented in the following report.

Samples are analyzed on an as received basis unless otherwise requested and documented. The sample results contained in this report relate only to the requested analytes of interest as directed on the chain of custody. NELAP accredited fields of testing are indicated by the letters NELAP under the Certification column. Unless otherwise documented within this report, Teklab Inc. analyzes samples utilizing the most current methods in compliance with 40CFR. All tests are performed in the Collinsville, IL laboratory unless otherwise noted in the Case Narrative.

All quality control criteria applicable to the test methods employed for this project have been satisfactorily met and are in accordance with NELAP except where noted. The following report shall not be reproduced, except in full, without the written approval of Teklab, Inc.

If you have any questions regarding these tests results, please feel free to call.

Sincerely,

Marvin L. Darling II

Marvin L. Darling
Project Manager
(618)344-1004 ex 41
mdarling@teklabinc.com

Teklab, Inc.
Environmental Laboratory

Report Contents

http://www.teklabinc.com/

Client: Alpha Analytical
Client Project: L2133566

Work Order: 21061454
Report Date: 30-Jun-21

This reporting package includes the following:

Definitions

Client: Alpha Analytical **Work Order:** 21061454

Client Project: L2133566 **Report Date:** 30-Jun-21

Abbr	Definition
*	Analytes on report marked with an asterisk are not NELAP accredited
CCV	Continuing calibration verification is a check of a standard to determine the state of calibration of an instrument between recalibration.
CRQL	A Client Requested Quantitation Limit is a reporting limit that varies according to customer request. The CRQL may not be less than the MDL.
DF	Dilution factor is the dilution performed during analysis only and does not take into account any dilutions made during sample preparation. The reported result is final and includes all dilution factors.
DNI	Did not ignite
DUP	Laboratory duplicate is a replicate aliquot prepared under the same laboratory conditions and independently analyzed to obtain a measure of precision.
ICV	Initial calibration verification is a check of a standard to determine the state of calibration of an instrument before sample analysis is initiated.
IDPH	IL Dept. of Public Health
LCS	Laboratory control sample is a sample matrix, free from the analytes of interest,spiked with verified known amounts of analytes and analyzed exactly like a sample to establish intra-laboratory or analyst specific precision and bias or to assess the performance of all or a portion of the measurement system.
LCSD	Laboratory control sample duplicate is a replicate laboratory control sample that is prepared and analyzed in order to determine the precision of the approved test method. The acceptable recovery range is listed in the QC Package (provided upon request).
MBLK	Method blank is a sample of a matrix similar to the batch of associated sample (when available) that is free from the analytes of interest and is processed simultaneously with and under the same conditions as samples through all steps of the analytical procedures, and in which no target analytes or interferences should present at concentrations that impact the analytical results for sample analyses.
MDL	"The method detection limit is defined as the minimum measured concentration of a substance that can be reported with 99% confidence that the measured concentration is distinguishable from method blank results."
MS	Matrix spike is an aliquot of matrix fortified (spiked) with known quantities of specific analytes that is subjected to the entire analytical procedures in order to determine the effect of the matrix on an approved test method's recovery system. The acceptable recovery range is listed in the QC Package (provided upon request).
MSD	Matrix spike duplicate means a replicate matrix spike that is prepared and analyzed in order to determine the precision of the approved test method. The acceptable recovery range is listed in the QC Package (provided upon request).
MW	Molecular weight
NC	Data is not acceptable for compliance purposes
ND	Not Detected at the Reporting Limit
NELAP	NELAP Accredited
PQL	Practical quantitation limit means the lowest level that can be reliably achieved within specified limits of precision and accuracy during routine laboratory operation conditions.
RL	The reporting limit the lowest level that the data is displayed in the final report. The reporting limit may vary according to customer request or sample dilution. The reporting limit may not be less than the MDL.
RPD	Relative percent difference is a calculated difference between two recoveries (ie. MS/MSD). The acceptable recovery limit is listed in the QC Package (provided upon request).
SPK	The spike is a known mass of target analyte added to a blank sample or sub-sample; used to determine recovery deficiency or for other quality control purposes.
Surr	Surrogates are compounds which are similar to the analytes of interest in chemical composition and behavior in the analytical process, but which are not normally found in environmental samples.
TIC	Tentatively identified compound: Analytes tentatively identified in the sample by using a library search. Only results not in the calibration standard will be reported as tentatively identified compounds. Results for tentatively identified compounds that are not present in the calibration standard, but are assigned a specific chemical name based upon the library search, are calculated using total peak areas from reconstructed ion chromatograms and a response factor of one. The nearest Internal Standard is used for the calculation. The results of any TICs must be considered estimated, and are flagged with a "T". If the estimated result is above the calibration range it is flagged "ET"
TNTC	Too numerous to count (> 200 CFU)

Teklab, Inc.
Environmental Laboratory

Definitions

http://www.teklabinc.com/

Client: Alpha Analytical

Work Order: 21061454

Client Project: L2133566

Report Date: 30-Jun-21

Qualifiers

# -	Unknown hydrocarbon	B -	Analyte detected in associated Method Blank
C -	RL shown is a Client Requested Quantitation Limit	E -	Value above quantitation range
H -	Holding times exceeded	I -	Associated internal standard was outside method criteria
J -	Analyte detected below quantitation limits	M -	Manual Integration used to determine area response
ND -	Not Detected at the Reporting Limit	R -	RPD outside accepted recovery limits
S -	Spike Recovery outside recovery limits	T -	TIC(Tentatively identified compound)
X -	Value exceeds Maximum Contaminant Level		

Teklab, Inc.
Environmental Laboratory

Case Narrative

http://www.teklabinc.com/

Client: Alpha Analytical
Client Project: L2133566

Work Order: 21061454
Report Date: 30-Jun-21

Cooler Receipt Temp: 7.0 °C

Locations

Collinsville

Address 5445 Horseshoe Lake Road
Collinsville, IL 62234-7425
Phone (618) 344-1004
Fax (618) 344-1005
Email jhriley@teklabinc.com

Springfield

Address 3920 Pintail Dr
Springfield, IL 62711-9415
Phone (217) 698-1004
Fax (217) 698-1005
Email KKlostermann@teklabinc.com

Kansas City

Address 8421 Nieman Road
Lenexa, KS 66214
Phone (913) 541-1998
Fax (913) 541-1998
Email jhriley@teklabinc.com

Collinsville Air

Address 5445 Horseshoe Lake Road
Collinsville, IL 62234-7425
Phone (618) 344-1004
Fax (618) 344-1005
Email EHurley@teklabinc.com

Chicago

Address 1319 Butterfield Rd.
Downers Grove, IL 60515
Phone (630) 324-6855
Fax
Email arenner@teklabinc.com

Teklab, Inc. Environmental Laboratory

Accreditations

http://www.teklabinc.com/

Client: Alpha Analytical

Client Project: L2133566

Work Order: 21061454

Report Date: 30-Jun-21

State	Dept	Cert #	NELAP	Exp Date	Lab
Illinois	IEPA	100226	NELAP	1/31/2022	Collinsville
Kansas	KDHE	E-10374	NELAP	4/30/2022	Collinsville
Louisiana	LDEQ	05002	NELAP	6/30/2022	Collinsville
Louisiana	LDEQ	05003	NELAP	6/30/2022	Collinsville
Oklahoma	ODEQ	9978	NELAP	8/31/2021	Collinsville
Arkansas	ADEQ	88-0966		3/14/2022	Collinsville
Illinois	IDPH	17584		5/31/2021	Collinsville
Kentucky	UST	0073		1/31/2022	Collinsville
Missouri	MDNR	00930		5/31/2021	Collinsville
Missouri	MDNR	930		1/31/2022	Collinsville

Teklab, Inc.
Environmental Laboratory

Laboratory Results

http://www.teklabinc.com/

Client: Alpha Analytical
Work Order: 21061454
Client Project: L2133566
Report Date: 30-Jun-21
Lab ID: 21061454-001
Client Sample ID: SH-GP-2020-01W_06212021
Matrix: AQUEOUS
Collection Date: 06/21/2021 13:10

Analyses	Certification	RL	Qual	Result	Units	DF	Date Analyzed	Batch
EPA 600 1671A, PHARMACEUTICAL MANUFACTURING INDUSTRY NON-PURGEABLE VOLATILE ORGANICS								
Ethanol	*	20		**ND**	mg/L	1	06/28/2021 11:30	R293753

Teklab, Inc. Environmental Laboratory

Quality Control Results

http://www.teklabinc.com/

Client: Alpha Analytical

Client Project: L2133566

Work Order: 21061454

Report Date: 30-Jun-21

EPA 600 1671A, PHARMACEUTICAL MANUFACTURING INDUSTRY NON-PURGEABLE VOLATILE OR

Batch R293753 **SampType:** MBLK Units **mg/L**
SampID: MBLK-062821

Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	Low Limit	High Limit	Date Analyzed
Ethanol	*	20		**ND**						06/28/2021

Batch R293753 **SampType:** LCS Units **mg/L**
SampID: LCS-062821

Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	Low Limit	High Limit	Date Analyzed
Ethanol	*	20		**250**	250.0	0	98.3	70	132	06/28/2021

Batch R293753 **SampType:** MS Units **mg/L**
SampID: 21061628-001AMS

Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	Low Limit	High Limit	Date Analyzed
Ethanol	*	20		**230**	250.0	0	91.5	70	132	06/28/2021

Batch R293753 **SampType:** MSD Units **mg/L** RPD Limit **30**
SampID: 21061628-001AMSD

Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	RPD Ref Val	%RPD	Date Analyzed
Ethanol	*	20		**240**	250.0	0	97.3	228.8	6.13	06/28/2021

Teklab, Inc.
Environmental Laboratory

Receiving Check List

http://www.teklabinc.com/

Client: Alpha Analytical
Client Project: L2133566

Work Order: 21061454
Report Date: 30-Jun-21

Carrier: UPS

Received By: ERH

Completed by: Mary E. Kemp
On: 23-Jun-21
Mary E. Kemp

Reviewed by: Marvin L. Darling II
On: 23-Jun-21
Marvin L. Darling

Pages to follow: Chain of custody [1] Extra pages included [0]

Shipping container/cooler in good condition?	Yes ☑	No ☐	Not Present ☐	Temp °C **7.0**
Type of thermal preservation?	None ☐	Ice ☑	Blue Ice ☐	Dry Ice ☐
Chain of custody present?	Yes ☑	No ☐		
Chain of custody signed when relinquished and received?	Yes ☑	No ☐		
Chain of custody agrees with sample labels?	Yes ☑	No ☐		
Samples in proper container/bottle?	Yes ☑	No ☐		
Sample containers intact?	Yes ☑	No ☐		
Sufficient sample volume for indicated test?	Yes ☑	No ☐		
All samples received within holding time?	Yes ☑	No ☐		
Reported field parameters measured:	Field ☐	Lab ☐	NA ☑	
Container/Temp Blank temperature in compliance?	Yes ☑	No ☐		

When thermal preservation is required, samples are compliant with a temperature between 0.1°C - 6.0°C, or when samples are received on ice the same day as collected.

Water – at least one vial per sample has zero headspace?	Yes ☑	No ☐	No VOA vials ☐
Water - TOX containers have zero headspace?	Yes ☐	No ☐	No TOX containers ☑
Water - pH acceptable upon receipt?	Yes ☑	No ☐	NA ☐
NPDES/CWA TCN interferences checked/treated in the field?	Yes ☐	No ☐	NA ☑

Any No responses must be detailed below or on the COC.

21061454

ALPHA ANALYTICAL
World Class Chemistry

Subcontract Chain of Custody

Tek Lab, Inc.
5445 Horsehoe Lake Road
Collinsville, IL 62234-7425

Alpha Job Number
L2133566

Client Information

Client: Alpha Analytical Labs
Address: Eight Walkup Drive
Westborough, MA 01581-1019

Phone: 508.439.5170
Email: nlewis@alphalab.com

Project Information

Project Location: MA
Project Manager: Nathalie Lewis

Turnaround & Deliverables Information

Due Date:
Deliverables:

Regulatory Requirements/Report Limits

State/Federal Program:
Regulatory Criteria:

Project Specific Requirements and/or Report Requirements

Reference following Alpha Job Number on final report/deliverables: L2133566

Report to include Method Blank, LCS/LCSD:

Additional Comments: Send all results/reports to subreports@alphalab.com

OHS. PNT 6/23/21 7.0°C LTG

Lab ID	Client ID	Collection Date/Time	Sample Matrix	Analysis	Batch QC
21061454-001	SH-GP-2020-01W_06212021	06-21-21 13:10	WATER	Ethanol by EPA 1671 Revision A	

	Relinquished By:	Date/Time:	Received By:	Date/Time:
		6/22/21	(UPS)	6/23/21 10:45
Form No: AL_subcoc				

PNT 6/23/21

eurofins | Environment Testing America

ANALYTICAL REPORT

Eurofins Environment Testing New England
646 Camp Ave
North Kingstown, RI 02852
Tel: (413)789-9018

Laboratory Job ID: 620-410-1
Client Project/Site: Alpha NPDES/RGP
Revision: 1

For:
Alpha Analytical Inc
8 Walkup Drive
Westboro, Massachusetts 01581

Attn: Reports Dept.

Authorized for release by:
9/20/2021 4:03:59 PM

Agnes Huntley, Project Manager
(401)372-3482
agnes.huntley@eurofinset.com

This report has been electronically signed and authorized by the signatory. Electronic signature is intended to be the legally binding equivalent of a traditionally handwritten signature.

Results relate only to the items tested and the sample(s) as received by the laboratory.

Client: Alpha Analytical Inc
Project/Site: Alpha NPDES/RGP

Laboratory Job ID: 620-410-1

Table of Contents

Definitions/Glossary

Client: Alpha Analytical Inc
Job ID: 620-410-1
Project/Site: Alpha NPDES/RGP

Qualifiers

Metals

Qualifier	Qualifier Description
*+	LCS and/or LCSD is outside acceptance limits, high biased.
^1+	Initial Calibration Verification (ICV) is outside acceptance limits, high biased.

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
¤	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CFU	Colony Forming Unit
CNF	Contains No Free Liquid
DER	Duplicate Error Ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL	Detection Limit (DoD/DOE)
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision Level Concentration (Radiochemistry)
EDL	Estimated Detection Limit (Dioxin)
LOD	Limit of Detection (DoD/DOE)
LOQ	Limit of Quantitation (DoD/DOE)
MCL	EPA recommended "Maximum Contaminant Level"
MDA	Minimum Detectable Activity (Radiochemistry)
MDC	Minimum Detectable Concentration (Radiochemistry)
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
MPN	Most Probable Number
MQL	Method Quantitation Limit
NC	Not Calculated
ND	Not Detected at the reporting limit (or MDL or EDL if shown)
NEG	Negative / Absent
POS	Positive / Present
PQL	Practical Quantitation Limit
PRES	Presumptive
QC	Quality Control
RER	Relative Error Ratio (Radiochemistry)
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)
TNTC	Too Numerous To Count

Case Narrative

Client: Alpha Analytical Inc
Project/Site: Alpha NPDES/RGP

Job ID: 620-410-1

Job ID: 620-410-1

Laboratory: Eurofins Environment Testing New England

Narrative

Job Narrative
620-410-1

Comments
No additional comments.

Receipt
The sample was received on 7/12/2021 10:35 AM. Unless otherwise noted below, the sample arrived in good condition, and where required, properly preserved and on ice. The temperature of the cooler at receipt was 5.4º C.

Receipt Exceptions
The Chain-of-Custody (COC) was incomplete as received and/or improperly completed. The field sampler's name is not listed on the chain of custody. The preservative code for metals is not listed on the chain of custody.

Metals
Method 200.7 Rev 4.4: The initial ICB reported above the acceptable limit for Calcium and Magnesium. However, this was determined to be due to a contaminated standard and not due to the instrument. Since Calcium and Magnesium passed the CCB using a new standard, the data was determined to be acceptable.

SH-GP-2020-01W_06212021 (620-410-1)

Method 200.8: The laboratory control sample (LCS) for preparation batch 620-2140 and analytical batch 620-2162 recovered outside control limits for the following analytes: silver. These analytes were biased high in the LCS and were not detected in the associated samples; therefore, the data have been reported.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

Report Revision September 20, 2021
Report revised to include data for Selenium per request of the client.

Detection Summary

Client: Alpha Analytical Inc
Project/Site: Alpha NPDES/RGP

Job ID: 620-410-1

Client Sample ID: SH-GP-2020-01W_06212021 — Lab Sample ID: 620-410-1

Analyte	Result	Qualifier	RL		Unit	Dil Fac	D	Method	Prep Type
Iron	8.96		0.100		mg/L	1		200.7 Rev 4.4	Total/NA
Arsenic	0.0218		0.000500		mg/L	1		200.8	Total/NA
Chromium	0.00172		0.00100		mg/L	1		200.8	Total/NA
Copper	0.00512		0.00250		mg/L	1		200.8	Total/NA
Nickel	0.00982		0.00100		mg/L	1		200.8	Total/NA
Zinc	0.0250		0.00500		mg/L	1		200.8	Total/NA
Hardness as calcium carbonate	577		1.45		mg/L	1		SM 2340B	Total/NA

This Detection Summary does not include radiochemical test results.

Client Sample Results

Client: Alpha Analytical Inc
Project/Site: Alpha NPDES/RGP

Job ID: 620-410-1

Client Sample ID: SH-GP-2020-01W_06212021

Date Collected: 06/21/21 13:10
Date Received: 07/12/21 10:35

Lab Sample ID: 620-410-1

Matrix: Water

Method: 200.7 Rev 4.4 - Metals (ICP)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Iron	**8.96**		0.100		mg/L		07/12/21 15:12	07/15/21 12:08	1

Method: 200.8 - Metals (ICP/MS)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Antimony	ND		0.000250		mg/L		07/12/21 15:18	07/13/21 11:31	1
Arsenic	**0.0218**		0.000500		mg/L		07/12/21 15:18	07/13/21 11:31	1
Cadmium	ND		0.000250		mg/L		07/12/21 15:18	07/13/21 11:31	1
Chromium	**0.00172**		0.00100		mg/L		07/12/21 15:18	07/13/21 11:31	1
Copper	**0.00512**		0.00250		mg/L		07/12/21 15:18	07/13/21 11:31	1
Lead	ND		0.000500		mg/L		07/12/21 15:18	07/13/21 11:31	1
Nickel	**0.00982**		0.00100		mg/L		07/12/21 15:18	07/13/21 11:31	1
Silver	ND	^1+ *+	0.000250		mg/L		07/12/21 15:18	07/13/21 11:31	1
Zinc	**0.0250**		0.00500		mg/L		07/12/21 15:18	07/14/21 14:02	1
Selenium	ND		0.00100		mg/L		07/12/21 15:18	07/13/21 11:31	1

Method: 245.1 - Mercury (CVAA)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.000200		mg/L		07/13/21 12:38	07/13/21 16:21	1

Method: SM 2340B - Total Hardness (as CaCO3) by calculation

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Hardness as calcium carbonate	**577**		1.45		mg/L			07/15/21 16:30	1

QC Sample Results

Client: Alpha Analytical Inc
Project/Site: Alpha NPDES/RGP

Job ID: 620-410-1

Method: 200.7 Rev 4.4 - Metals (ICP)

Lab Sample ID: MB 620-2134/1-A
Matrix: Water
Analysis Batch: 2212

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 2134

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Iron	ND		0.100		mg/L		07/12/21 15:10	07/15/21 10:45	1

Lab Sample ID: LCS 620-2134/2-A
Matrix: Water
Analysis Batch: 2212

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 2134

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
Iron			2.50	2.507		mg/L		100	85 - 115		

Method: 200.8 - Metals (ICP/MS)

Lab Sample ID: MB 620-2140/1-A
Matrix: Water
Analysis Batch: 2162

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 2140

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Antimony	ND		0.000250		mg/L		07/12/21 15:18	07/13/21 11:01	1
Cadmium	ND		0.000250		mg/L		07/12/21 15:18	07/13/21 11:01	1
Chromium	ND		0.00100		mg/L		07/12/21 15:18	07/13/21 11:01	1
Copper	ND		0.00250		mg/L		07/12/21 15:18	07/13/21 11:01	1
Lead	ND		0.000500		mg/L		07/12/21 15:18	07/13/21 11:01	1
Nickel	ND		0.00100		mg/L		07/12/21 15:18	07/13/21 11:01	1
Silver	ND	^1+	0.000250		mg/L		07/12/21 15:18	07/13/21 11:01	1
Selenium	ND		0.00100		mg/L		07/12/21 15:18	07/13/21 11:01	1

Lab Sample ID: MB 620-2140/1-A
Matrix: Water
Analysis Batch: 2162

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 2140

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	ND		0.000500		mg/L		07/12/21 15:18	07/13/21 11:33	1

Lab Sample ID: MB 620-2140/1-A
Matrix: Water
Analysis Batch: 2198

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 2140

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Zinc	ND		0.00500		mg/L		07/12/21 15:18	07/14/21 13:34	1

Lab Sample ID: LCS 620-2140/2-A
Matrix: Water
Analysis Batch: 2162

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 2140

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
Antimony			0.0500	0.04692		mg/L		94	85 - 115		
Cadmium			0.0500	0.04635		mg/L		93	85 - 115		
Chromium			0.0500	0.04804		mg/L		96	85 - 115		
Copper			0.0500	0.04751		mg/L		95	85 - 115		
Lead			0.0500	0.04644		mg/L		93	85 - 115		
Nickel			0.0500	0.04603		mg/L		92	85 - 115		

QC Sample Results

Client: Alpha Analytical Inc
Project/Site: Alpha NPDES/RGP

Job ID: 620-410-1

Method: 200.8 - Metals (ICP/MS) (Continued)

Lab Sample ID: LCS 620-2140/2-A
Matrix: Water
Analysis Batch: 2162

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 2140

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Silver	0.0500	0.07368	^1+ *+	mg/L		147	85 - 115
Selenium	0.250	0.2264		mg/L		91	85 - 115

Lab Sample ID: LCS 620-2140/2-A ^5
Matrix: Water
Analysis Batch: 2164

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 2140

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Arsenic	0.0500	0.05717		mg/L		114	85 - 115

Lab Sample ID: LCS 620-2140/2-A ^5
Matrix: Water
Analysis Batch: 2198

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 2140

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Zinc	0.0500	0.04384		mg/L		88	85 - 115

Method: 245.1 - Mercury (CVAA)

Lab Sample ID: MB 620-2165/1-A
Matrix: Water
Analysis Batch: 2173

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 2165

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.000200		mg/L		07/13/21 12:38	07/13/21 15:44	1

Lab Sample ID: LCS 620-2165/2-A
Matrix: Water
Analysis Batch: 2173

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 2165

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Mercury	0.00500	0.004646		mg/L		93	85 - 115

QC Association Summary

Client: Alpha Analytical Inc
Project/Site: Alpha NPDES/RGP

Job ID: 620-410-1

Metals

Prep Batch: 2134

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
620-410-1	SH-GP-2020-01W_06212021	Total/NA	Water	200.7	
MB 620-2134/1-A	Method Blank	Total/NA	Water	200.7	
LCS 620-2134/2-A	Lab Control Sample	Total/NA	Water	200.7	

Prep Batch: 2140

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
620-410-1	SH-GP-2020-01W_06212021	Total/NA	Water	200.8	
MB 620-2140/1-A	Method Blank	Total/NA	Water	200.8	
LCS 620-2140/2-A	Lab Control Sample	Total/NA	Water	200.8	
LCS 620-2140/2-A ^5	Lab Control Sample	Total/NA	Water	200.8	

Analysis Batch: 2162

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
620-410-1	SH-GP-2020-01W_06212021	Total/NA	Water	200.8	2140
MB 620-2140/1-A	Method Blank	Total/NA	Water	200.8	2140
MB 620-2140/1-A	Method Blank	Total/NA	Water	200.8	2140
LCS 620-2140/2-A	Lab Control Sample	Total/NA	Water	200.8	2140

Analysis Batch: 2164

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
LCS 620-2140/2-A ^5	Lab Control Sample	Total/NA	Water	200.8	2140

Prep Batch: 2165

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
620-410-1	SH-GP-2020-01W_06212021	Total/NA	Water	245.1	
MB 620-2165/1-A	Method Blank	Total/NA	Water	245.1	
LCS 620-2165/2-A	Lab Control Sample	Total/NA	Water	245.1	

Analysis Batch: 2173

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
620-410-1	SH-GP-2020-01W_06212021	Total/NA	Water	245.1	2165
MB 620-2165/1-A	Method Blank	Total/NA	Water	245.1	2165
LCS 620-2165/2-A	Lab Control Sample	Total/NA	Water	245.1	2165

Analysis Batch: 2198

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
620-410-1	SH-GP-2020-01W_06212021	Total/NA	Water	200.8	2140
MB 620-2140/1-A	Method Blank	Total/NA	Water	200.8	2140
LCS 620-2140/2-A ^5	Lab Control Sample	Total/NA	Water	200.8	2140

Analysis Batch: 2212

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
620-410-1	SH-GP-2020-01W_06212021	Total/NA	Water	200.7 Rev 4.4	2134
MB 620-2134/1-A	Method Blank	Total/NA	Water	200.7 Rev 4.4	2134
LCS 620-2134/2-A	Lab Control Sample	Total/NA	Water	200.7 Rev 4.4	2134

Analysis Batch: 2236

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
620-410-1	SH-GP-2020-01W_06212021	Total/NA	Water	SM 2340B	

Lab Chronicle

Client: Alpha Analytical Inc
Project/Site: Alpha NPDES/RGP

Job ID: 620-410-1

Client Sample ID: SH-GP-2020-01W_06212021

Lab Sample ID: 620-410-1

Date Collected: 06/21/21 13:10

Matrix: Water

Date Received: 07/12/21 10:35

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	200.7			2134	07/12/21 15:12	PMH	ENE
Total/NA	Analysis	200.7 Rev 4.4		1	2212	07/15/21 12:08	PMH	ENE
Total/NA	Prep	200.8			2140	07/12/21 15:18	PMH	ENE
Total/NA	Analysis	200.8		1	2162	07/13/21 11:31	EDT	ENE
Total/NA	Prep	200.8			2140	07/12/21 15:18	PMH	ENE
Total/NA	Analysis	200.8		1	2198	07/14/21 14:02	EDT	ENE
Total/NA	Prep	245.1			2165	07/13/21 12:38	PMH	ENE
Total/NA	Analysis	245.1		1	2173	07/13/21 16:21	EDT	ENE
Total/NA	Analysis	SM 2340B		1	2236	07/15/21 16:30	EDT	ENE

Laboratory References:

ENE = Eurofins Environment Testing New England, 646 Camp Ave, North Kingstown, RI 02852, TEL (413)789-9018

Accreditation/Certification Summary

Client: Alpha Analytical Inc
Job ID: 620-410-1
Project/Site: Alpha NPDES/RGP

Laboratory: Eurofins Environment Testing New England

Unless otherwise noted, all analytes for this laboratory were covered under each accreditation/certification below.

Authority	Program	Identification Number	Expiration Date
Massachusetts	State	M-RI907	06-30-22

The following analytes are included in this report, but the laboratory is not certified by the governing authority. This list may include analytes for which the agency does not offer certification.

Analysis Method	Prep Method	Matrix	Analyte
200.8	200.8	Water	Antimony
200.8	200.8	Water	Arsenic
200.8	200.8	Water	Silver
200.8	200.8	Water	Zinc

Method Summary

Client: Alpha Analytical Inc
Project/Site: Alpha NPDES/RGP

Job ID: 620-410-1

Method	Method Description	Protocol	Laboratory
200.7 Rev 4.4	Metals (ICP)	EPA	ENE
200.8	Metals (ICP/MS)	EPA	ENE
245.1	Mercury (CVAA)	EPA	ENE
SM 2340B	Total Hardness (as CaCO3) by calculation	SM	ENE
200.7	Preparation, Total Metals	EPA	ENE
200.8	Preparation, Total Metals	EPA	ENE
245.1	Preparation, Mercury	EPA	ENE

Protocol References:

EPA = US Environmental Protection Agency

SM = "Standard Methods For The Examination Of Water And Wastewater"

Laboratory References:

ENE = Eurofins Environment Testing New England, 646 Camp Ave, North Kingstown, RI 02852, TEL (413)789-9018

Sample Summary

Client: Alpha Analytical Inc
Project/Site: Alpha NPDES/RGP

Job ID: 620-410-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
620-410-1	SH-GP-2020-01W_06212021	Water	06/21/21 13:10	07/12/21 10:35

410 EM

Subcontract Chain of Custody

620-410 Chain of Custody

Eurofins Environment T
646 Camp Avenue
North Kingstown, RI 02852

Alpha Job Number
L2133566

ALPHA ANALYTICAL — World Class Chemistry

Client Information	Project Information	Regulatory Requirements/Report Limits
Client: Alpha Analytical Labs Address: Eight Walkup Drive Westborough, MA 01581-1019 Phone: 508.439.5170 Email: nlewis@alphalab.com	Project Location: MA Project Manager: Nathalie Lewis **Turnaround & Deliverables Information** Due Date: 07/15/21 (RUSH) Deliverables:	State/Federal Program: Regulatory Criteria:

Project Specific Requirements and/or Report Requirements

Reference following Alpha Job Number on final report/deliverables: L2133566

Report to include Method Blank, LCS/LCSD:

Additional Comments: Send all results/reports to subreports@alphalab.com need Ag, As, Cd, Cr, Cu, Ni, Pb, Sb, Zn by 200.8 -FE by 200.7 and HG by 245.1 and HARDNESS

Lab ID	Client ID	Collection Date/Time	Sample Matrix	Analysis	Batch QC
-01	SH-GP-2020-01W_06212021	06-21-21 13 10	WATER	Metals 200.8	

	Relinquished By:	Date/Time:	Received By:	Date/Time:
	Kim L. Bailey	7/9/21	Joseph C. Bergiafa	7/9/21 1651
	Joseph C. Bergiafa	7/9/21	TM	7-12-21 0900
	TL	7-12-21 1035	[illegible]	7/12/21 10:35
Form No: AL_subcoc				

4.4°C/+1/5.4°C IR06

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9/20/2021 (Rev. 1)

Serial_No:09202117:25

Login Sample Receipt Checklist

Client: Alpha Analytical Inc

Job Number: 620-410-1

Login Number: 410
List Number: 1
Creator: Makhoul, Elie

List Source: Eurofins Environment Testing New England

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.	True	
The cooler's custody seal, if present, is intact.	N/A	
Sample custody seals, if present, are intact.	N/A	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	False	Refer to Job Narrative for details.
Is the Field Sampler's name present on COC?	False	Refer to Job Narrative for details.
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

ANALYTICAL REPORT

Lab Number:	L2133852
Client:	GeoEngineers USA, PC /GeoEngineers,inc. 4 California Avenue, Suite 204 Framingham, MA 01701
ATTN:	Patrick Malone
Phone:	(425) 861-6000
Project Name:	600 GUEST STREET
Project Number:	25223-001-00
Report Date:	09/20/21

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: 600 GUEST STREET
Project Number: 25223-001-00

Lab Number: L2133852
Report Date: 09/20/21

Alpha Sample ID	Client ID	Matrix	Sample Location	Collection Date/Time	Receive Date
L2133852-01	SH-GP-2020-01W_06212021	WATER	BRIGHTON, MA	06/21/21 13:10	06/22/21
L2133852-02	SH-GP-2020-02W_06222021	WATER	BRIGHTON, MA	06/22/21 08:45	06/22/21
L2133852-03	SH-GP-2020-03W_06222021	WATER	BRIGHTON, MA	06/22/21 13:45	06/22/21
L2133852-04	SH-GP-2020-03W_06222021	WATER	BRIGHTON, MA	06/22/21 13:45	06/23/21
L2133852-05	OF_06232021	WATER	BRIGHTON, MA	06/23/21 13:15	06/23/21

Project Name:	600 GUEST STREET	**Lab Number:**	L2133852
Project Number:	25223-001-00	**Report Date:**	09/20/21

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.

Project Name:	600 GUEST STREET	**Lab Number:**	L2133852
Project Number:	25223-001-00	**Report Date:**	09/20/21

Case Narrative (continued)

Report Revision

September 20, 2021: The Subcontracted Analyses - Summary Report has been amended to include selenium on L2133852-02, -03 and -04.

Report Submission

August 03, 2021: This final report includes the results of all requested analyses.

July 26, 2021: This is a preliminary report.

The Metals and Ethanol analyses were subcontracted. Copies of the laboratory reports are included as an addendum. Please note: This data is only available in PDF format and is not available on Data Merger.

Sample Receipt

L2133852-01: A sample identified as "SH-GP-2020-01W_06212021" was listed on the Chain of Custody, but not received. This was verified by the client.

L2133852-03: The sample was received below the appropriate pH for the Total Cyanide - SM 4500 analysis. The laboratory added additional NaOH to a pH >12.

L2133852-03: The sample was received above the appropriate pH for the Subcontract - Metals 200.8 analysis. The laboratory added additional HNO3 to a pH <2.

L2133852-03: The sample was received above the appropriate pH for the Ammonia Nitrogen - SM 4500 analysis. The laboratory added additional H2SO4 to a pH <2.

L2133852-05: The analyses performed were specified by the client.

Volatile Organics by Method 624

The WG1518461-3 LCS recovery, associated with L2133852-02 and -04, is above the acceptance criteria for ethylbenzene (150%); however, the associated samples are non-detect to the RL for this target analyte. The results of the original analysis are reported.

Project Name:	600 GUEST STREET	**Lab Number:**	L2133852
Project Number:	25223-001-00	**Report Date:**	09/20/21

Case Narrative (continued)

Microextractables

The WG1519881-2 LCS recovery, associated with L2133852-02 and -04, is above the acceptance criteria for 1,2,3-trichloropropane (132%); however, the associated samples are non-detect to the RL for this target analyte. The results of the original analysis are reported.

Semivolatile Organics by SIM

L2133852-02: The surrogate recovery is above the acceptance criteria for 2,4,6-tribromophenol (171%). Since the sample was non-detect for all target analytes, re-analysis was not required.

L2133852-03: The surrogate recoveries are above the acceptance criteria for 2-fluorophenol (95%) and phenol-d6 (98%). Since the sample was non-detect for all target analytes, re-analysis was not required.

WG1517921-1: The surrogate recovery is above the acceptance criteria for 2,4,6-tribromophenol (151%). Since the blank was non-detect for all acid target analytes, re-analysis was not required.

The surrogate recovery for the WG1517921-2 LCS, associated with L2133852-02 and -03, is outside the acceptance criteria for 2,4,6-tribromophenol (155%). The LCS spike compounds are within overall method allowances; therefore, no further action was taken.

Chlorine, Total Residual

The WG1515764-4 MS recovery, performed on L2133852-02, is outside the acceptance criteria for chlorine, total residual (140%); however, the associated LCS recovery is within criteria. No further action was taken.

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

Authorized Signature: Caitlin Walukevich Caitlin Walukevich

Title: Technical Director/Representative Date: 09/20/21

ORGANICS

VOLATILES

Project Name: 600 GUEST STREET **Lab Number:** L2133852

Project Number: 25223-001-00 **Report Date:** 09/20/21

SAMPLE RESULTS

Lab ID: L2133852-02
Client ID: SH-GP-2020-02W_06222021
Sample Location: BRIGHTON, MA

Date Collected: 06/22/21 08:45
Date Received: 06/22/21
Field Prep: Not Specified

Sample Depth:
Matrix: Water
Analytical Method: 128,624.1
Analytical Date: 06/26/21 21:45
Analyst: GT

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
Methylene chloride	ND		ug/l	1.0	--	1
1,1-Dichloroethane	3.0		ug/l	1.5	--	1
Carbon tetrachloride	ND		ug/l	1.0	--	1
1,1,2-Trichloroethane	ND		ug/l	1.5	--	1
Tetrachloroethene	ND		ug/l	1.0	--	1
1,2-Dichloroethane	ND		ug/l	1.5	--	1
1,1,1-Trichloroethane	ND		ug/l	2.0	--	1
Benzene	ND		ug/l	1.0	--	1
Toluene	ND		ug/l	1.0	--	1
Ethylbenzene	ND		ug/l	1.0	--	1
Vinyl chloride	ND		ug/l	1.0	--	1
1,1-Dichloroethene	ND		ug/l	1.0	--	1
cis-1,2-Dichloroethene	ND		ug/l	1.0	--	1
Trichloroethene	ND		ug/l	1.0	--	1
1,2-Dichlorobenzene	ND		ug/l	5.0	--	1
1,3-Dichlorobenzene	ND		ug/l	5.0	--	1
1,4-Dichlorobenzene	ND		ug/l	5.0	--	1
p/m-Xylene	ND		ug/l	2.0	--	1
o-xylene	ND		ug/l	1.0	--	1
Xylenes, Total	ND		ug/l	1.0	--	1
Acetone	ND		ug/l	10	--	1
Methyl tert butyl ether	ND		ug/l	10	--	1
Tert-Butyl Alcohol	ND		ug/l	100	--	1
Tertiary-Amyl Methyl Ether	ND		ug/l	20	--	1

Project Name: 600 GUEST STREET **Lab Number:** L2133852

Project Number: 25223-001-00 **Report Date:** 09/20/21

SAMPLE RESULTS

Lab ID: L2133852-02 Date Collected: 06/22/21 08:45

Client ID: SH-GP-2020-02W_06222021 Date Received: 06/22/21

Sample Location: BRIGHTON, MA Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						

Surrogate	% Recovery	Qualifier	Acceptance Criteria
Pentafluorobenzene	110		60-140
Fluorobenzene	95		60-140
4-Bromofluorobenzene	117		60-140

Project Name: 600 GUEST STREET
Project Number: 25223-001-00
Lab Number: L2133852
Report Date: 09/20/21

SAMPLE RESULTS

Lab ID: L2133852-02
Client ID: SH-GP-2020-02W_06222021
Sample Location: BRIGHTON, MA

Date Collected: 06/22/21 08:45
Date Received: 06/22/21
Field Prep: Not Specified

Sample Depth:
Matrix: Water
Analytical Method: 128,624.1-SIM
Analytical Date: 06/26/21 21:45
Analyst: GT

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS-SIM - Westborough Lab						
1,4-Dioxane	ND		ug/l	5.0	--	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
Fluorobenzene	98		60-140
4-Bromofluorobenzene	99		60-140

Project Name: 600 GUEST STREET
Project Number: 25223-001-00
Lab Number: L2133852
Report Date: 09/20/21

SAMPLE RESULTS

Lab ID: L2133852-02
Client ID: SH-GP-2020-02W_06222021
Sample Location: BRIGHTON, MA

Date Collected: 06/22/21 08:45
Date Received: 06/22/21
Field Prep: Not Specified

Sample Depth:
Matrix: Water
Analytical Method: 14,504.1
Analytical Date: 07/06/21 13:23
Analyst: AMM

Extraction Method: EPA 504.1
Extraction Date: 07/06/21 09:31

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Column
Microextractables by GC - Westborough Lab							
1,2-Dibromoethane	ND		ug/l	0.010	--	1	A
1,2-Dibromo-3-chloropropane	ND		ug/l	0.010	--	1	A
1,2,3-Trichloropropane	ND		ug/l	0.030	--	1	A

Project Name: 600 GUEST STREET **Lab Number:** L2133852

Project Number: 25223-001-00 **Report Date:** 09/20/21

SAMPLE RESULTS

Lab ID: L2133852-04
Client ID: SH-GP-2020-03W_06222021
Sample Location: BRIGHTON, MA

Date Collected: 06/22/21 13:45
Date Received: 06/23/21
Field Prep: Not Specified

Sample Depth:
Matrix: Water
Analytical Method: 128,624.1
Analytical Date: 06/26/21 22:20
Analyst: GT

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
Methylene chloride	ND		ug/l	1.0	--	1
1,1-Dichloroethane	16		ug/l	1.5	--	1
Carbon tetrachloride	ND		ug/l	1.0	--	1
1,1,2-Trichloroethane	ND		ug/l	1.5	--	1
Tetrachloroethene	ND		ug/l	1.0	--	1
1,2-Dichloroethane	ND		ug/l	1.5	--	1
1,1,1-Trichloroethane	ND		ug/l	2.0	--	1
Benzene	ND		ug/l	1.0	--	1
Toluene	ND		ug/l	1.0	--	1
Ethylbenzene	ND		ug/l	1.0	--	1
Vinyl chloride	ND		ug/l	1.0	--	1
1,1-Dichloroethene	ND		ug/l	1.0	--	1
cis-1,2-Dichloroethene	ND		ug/l	1.0	--	1
Trichloroethene	ND		ug/l	1.0	--	1
1,2-Dichlorobenzene	ND		ug/l	5.0	--	1
1,3-Dichlorobenzene	ND		ug/l	5.0	--	1
1,4-Dichlorobenzene	ND		ug/l	5.0	--	1
p/m-Xylene	ND		ug/l	2.0	--	1
o-xylene	ND		ug/l	1.0	--	1
Xylenes, Total	ND		ug/l	1.0	--	1
Acetone	ND		ug/l	10	--	1
Methyl tert butyl ether	ND		ug/l	10	--	1
Tert-Butyl Alcohol	ND		ug/l	100	--	1
Tertiary-Amyl Methyl Ether	ND		ug/l	20	--	1

Project Name: 600 GUEST STREET **Lab Number:** L2133852

Project Number: 25223-001-00 **Report Date:** 09/20/21

SAMPLE RESULTS

Lab ID: L2133852-04 Date Collected: 06/22/21 13:45

Client ID: SH-GP-2020-03W_06222021 Date Received: 06/23/21

Sample Location: BRIGHTON, MA Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						

Surrogate	% Recovery	Qualifier	Acceptance Criteria
Pentafluorobenzene	108		60-140
Fluorobenzene	95		60-140
4-Bromofluorobenzene	115		60-140

Project Name: 600 GUEST STREET
Lab Number: L2133852
Project Number: 25223-001-00
Report Date: 09/20/21

SAMPLE RESULTS

Lab ID: L2133852-04
Client ID: SH-GP-2020-03W_06222021
Sample Location: BRIGHTON, MA

Date Collected: 06/22/21 13:45
Date Received: 06/23/21
Field Prep: Not Specified

Sample Depth:
Matrix: Water
Analytical Method: 128,624.1-SIM
Analytical Date: 06/26/21 22:20
Analyst: GT

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS-SIM - Westborough Lab						
1,4-Dioxane	24		ug/l	5.0	--	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
Fluorobenzene	98		60-140
4-Bromofluorobenzene	96		60-140

Project Name: 600 GUEST STREET
Project Number: 25223-001-00
Lab Number: L2133852
Report Date: 09/20/21

SAMPLE RESULTS

Lab ID: L2133852-04
Client ID: SH-GP-2020-03W_06222021
Sample Location: BRIGHTON, MA

Date Collected: 06/22/21 13:45
Date Received: 06/23/21
Field Prep: Not Specified

Sample Depth:
Matrix: Water
Analytical Method: 14,504.1
Analytical Date: 07/06/21 13:29
Analyst: AMM

Extraction Method: EPA 504.1
Extraction Date: 07/06/21 09:31

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Column
Microextractables by GC - Westborough Lab							
1,2-Dibromoethane	ND		ug/l	0.010	--	1	A
1,2-Dibromo-3-chloropropane	ND		ug/l	0.010	--	1	A
1,2,3-Trichloropropane	ND		ug/l	0.030	--	1	A

Project Name: 600 GUEST STREET
Project Number: 25223-001-00
Lab Number: L2133852
Report Date: 09/20/21

Method Blank Analysis
Batch Quality Control

Analytical Method: 128,624.1
Analytical Date: 06/26/21 15:17
Analyst: MKS

Parameter	Result	Qualifier	Units	RL	MDL
Volatile Organics by GC/MS - Westborough Lab for sample(s): 02,04 Batch: WG1518461-4					
Methylene chloride	ND		ug/l	1.0	--
1,1-Dichloroethane	ND		ug/l	1.5	--
Carbon tetrachloride	ND		ug/l	1.0	--
1,1,2-Trichloroethane	ND		ug/l	1.5	--
Tetrachloroethene	ND		ug/l	1.0	--
1,2-Dichloroethane	ND		ug/l	1.5	--
1,1,1-Trichloroethane	ND		ug/l	2.0	--
Benzene	ND		ug/l	1.0	--
Toluene	ND		ug/l	1.0	--
Ethylbenzene	ND		ug/l	1.0	--
Vinyl chloride	ND		ug/l	1.0	--
1,1-Dichloroethene	ND		ug/l	1.0	--
cis-1,2-Dichloroethene	ND		ug/l	1.0	--
Trichloroethene	ND		ug/l	1.0	--
1,2-Dichlorobenzene	ND		ug/l	5.0	--
1,3-Dichlorobenzene	ND		ug/l	5.0	--
1,4-Dichlorobenzene	ND		ug/l	5.0	--
p/m-Xylene	ND		ug/l	2.0	--
o-xylene	ND		ug/l	1.0	--
Xylenes, Total	ND		ug/l	1.0	--
Acetone	ND		ug/l	10	--
Methyl tert butyl ether	ND		ug/l	10	--
Tert-Butyl Alcohol	ND		ug/l	100	--
Tertiary-Amyl Methyl Ether	ND		ug/l	20	--

Project Name: 600 GUEST STREET
Project Number: 25223-001-00
Lab Number: L2133852
Report Date: 09/20/21

Method Blank Analysis
Batch Quality Control

Analytical Method: 128,624.1
Analytical Date: 06/26/21 15:17
Analyst: MKS

Parameter	Result	Qualifier	Units	RL	MDL
Volatile Organics by GC/MS - Westborough Lab for sample(s): 02,04 Batch: WG1518461-4					

Surrogate	%Recovery	Qualifier	Acceptance Criteria
Pentafluorobenzene	103		60-140
Fluorobenzene	93		60-140
4-Bromofluorobenzene	116		60-140

Project Name: 600 GUEST STREET
Project Number: 25223-001-00
Lab Number: L2133852
Report Date: 09/20/21

Method Blank Analysis
Batch Quality Control

Analytical Method: 128,624.1-SIM
Analytical Date: 06/26/21 15:17
Analyst: GT

Parameter	Result	Qualifier	Units	RL	MDL
Volatile Organics by GC/MS-SIM - Westborough Lab for sample(s): 02,04 Batch: WG1518478-4					
1,4-Dioxane	ND		ug/l	5.0	--

Surrogate	%Recovery	Qualifier	Acceptance Criteria
Fluorobenzene	97		60-140
4-Bromofluorobenzene	94		60-140

Project Name: 600 GUEST STREET
Project Number: 25223-001-00
Lab Number: L2133852
Report Date: 09/20/21

Method Blank Analysis
Batch Quality Control

Analytical Method: 14,504.1
Analytical Date: 07/06/21 12:14
Analyst: AMM

Extraction Method: EPA 504.1
Extraction Date: 07/06/21 09:31

Parameter	Result	Qualifier	Units	RL	MDL	
Microextractables by GC - Westborough Lab for sample(s): 02,04 Batch: WG1519881-1						
1,2-Dibromoethane	ND		ug/l	0.010	--	A
1,2-Dibromo-3-chloropropane	ND		ug/l	0.010	--	A
1,2,3-Trichloropropane	ND		ug/l	0.030	--	A

Lab Control Sample Analysis
Batch Quality Control

Project Name: 600 GUEST STREET
Project Number: 25223-001-00

Lab Number: L2133852
Report Date: 09/20/21

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Volatile Organics by GC/MS - Westborough Lab Associated sample(s): 02,04 Batch: WG1518461-3								
Methylene chloride	90		-		60-140	-		28
1,1-Dichloroethane	90		-		50-150	-		49
Carbon tetrachloride	95		-		70-130	-		41
1,1,2-Trichloroethane	100		-		70-130	-		45
Tetrachloroethene	105		-		70-130	-		39
1,2-Dichloroethane	95		-		70-130	-		49
1,1,1-Trichloroethane	100		-		70-130	-		36
Benzene	105		-		65-135	-		61
Toluene	120		-		70-130	-		41
Ethylbenzene	**150**	Q	-		60-140	-		63
Vinyl chloride	65		-		5-195	-		66
1,1-Dichloroethene	95		-		50-150	-		32
cis-1,2-Dichloroethene	110		-		60-140	-		30
Trichloroethene	85		-		65-135	-		48
1,2-Dichlorobenzene	115		-		65-135	-		57
1,3-Dichlorobenzene	120		-		70-130	-		43
1,4-Dichlorobenzene	120		-		65-135	-		57
p/m-Xylene	140		-		60-140	-		30
o-xylene	140		-		60-140	-		30
Acetone	72		-		40-160	-		30
Methyl tert butyl ether	90		-		60-140	-		30
Tert-Butyl Alcohol	98		-		60-140	-		30
Tertiary-Amyl Methyl Ether	85		-		60-140	-		30

Lab Control Sample Analysis

Batch Quality Control

Project Name: 600 GUEST STREET

Project Number: 25223-001-00

Lab Number: L2133852

Report Date: 09/20/21

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Volatile Organics by GC/MS - Westborough Lab Associated sample(s): 02,04 Batch: WG1518461-3								

Surrogate	LCS %Recovery	Qual	LCSD %Recovery	Qual	Acceptance Criteria
Pentafluorobenzene	106				60-140
Fluorobenzene	93				60-140
4-Bromofluorobenzene	119				60-140

Lab Control Sample Analysis

Batch Quality Control

Project Name: 600 GUEST STREET
Project Number: 25223-001-00

Lab Number: L2133852
Report Date: 09/20/21

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Volatile Organics by GC/MS-SIM - Westborough Lab Associated sample(s): 02,04 Batch: WG1518478-3								
1,4-Dioxane	98		-		60-140	-		20

Surrogate	LCS %Recovery	Qual	LCSD %Recovery	Qual	Acceptance Criteria
Fluorobenzene	98				60-140
4-Bromofluorobenzene	84				60-140

Lab Control Sample Analysis

Batch Quality Control

Project Name: 600 GUEST STREET

Project Number: 25223-001-00

Lab Number: L2133852

Report Date: 09/20/21

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits	Column
Microextractables by GC - Westborough Lab	Associated sample(s): 02,04		Batch: WG1519881-2						
1,2-Dibromoethane	120		-		80-120	-			A
1,2-Dibromo-3-chloropropane	102		-		80-120	-			A
1,2,3-Trichloropropane	**132**	Q	-		80-120	-			A

Matrix Spike Analysis

Batch Quality Control

Project Name: 600 GUEST STREET

Project Number: 25223-001-00

Lab Number: L2133852

Report Date: 09/20/21

Parameter	Native Sample	MS Added	MS Found	MS %Recovery	Qual	MSD Found	MSD %Recovery	Qual	Recovery Limits	RPD	Qual	RPD Limits	Column
Microextractables by GC - Westborough Lab Associated sample(s): 02,04 QC Batch ID: WG1519881-3 QC Sample: L2134424-12 Client ID: MS Sample													
1,2-Dibromoethane	ND	0.247	0.260	105		-	-		80-120	-		20	A
1,2-Dibromo-3-chloropropane	ND	0.247	0.234	95		-	-		80-120	-		20	A
1,2,3-Trichloropropane	ND	0.247	0.297	120		-	-		80-120	-		20	A

SEMIVOLATILES

Project Name: 600 GUEST STREET
Project Number: 25223-001-00
Lab Number: L2133852
Report Date: 09/20/21

SAMPLE RESULTS

Lab ID: L2133852-02
Client ID: SH-GP-2020-02W_06222021
Sample Location: BRIGHTON, MA

Date Collected: 06/22/21 08:45
Date Received: 06/22/21
Field Prep: Not Specified

Sample Depth:
Matrix: Water
Analytical Method: 129,625.1
Analytical Date: 06/29/21 13:12
Analyst: SZ

Extraction Method: EPA 625.1
Extraction Date: 06/28/21 17:07

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Semivolatile Organics by GC/MS - Westborough Lab						
Bis(2-ethylhexyl)phthalate	ND		ug/l	2.20	--	1
Butyl benzyl phthalate	ND		ug/l	5.00	--	1
Di-n-butylphthalate	ND		ug/l	5.00	--	1
Di-n-octylphthalate	ND		ug/l	5.00	--	1
Diethyl phthalate	ND		ug/l	5.00	--	1
Dimethyl phthalate	ND		ug/l	5.00	--	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
Nitrobenzene-d5	65		42-122
2-Fluorobiphenyl	68		46-121
4-Terphenyl-d14	82		47-138

Project Name: 600 GUEST STREET
Project Number: 25223-001-00
Lab Number: L2133852
Report Date: 09/20/21

SAMPLE RESULTS

Lab ID: L2133852-02
Client ID: SH-GP-2020-02W_06222021
Sample Location: BRIGHTON, MA

Date Collected: 06/22/21 08:45
Date Received: 06/22/21
Field Prep: Not Specified

Sample Depth:
Matrix: Water
Analytical Method: 129,625.1-SIM
Analytical Date: 06/29/21 18:11
Analyst: JJW

Extraction Method: EPA 625.1
Extraction Date: 06/28/21 17:08

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
Pentachlorophenol	ND		ug/l	1.00	--	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
2-Fluorophenol	49		25-87
Phenol-d6	32		16-65
Nitrobenzene-d5	95		42-122
2-Fluorobiphenyl	79		46-121
2,4,6-Tribromophenol	**171**	Q	45-128
4-Terphenyl-d14	76		47-138

Project Name: 600 GUEST STREET
Project Number: 25223-001-00
Lab Number: L2133852
Report Date: 09/20/21

SAMPLE RESULTS

Lab ID: L2133852-03
Client ID: SH-GP-2020-03W_06222021
Sample Location: BRIGHTON, MA

Date Collected: 06/22/21 13:45
Date Received: 06/22/21
Field Prep: Not Specified

Sample Depth:
Matrix: Water
Analytical Method: 129,625.1
Analytical Date: 07/02/21 15:57
Analyst: SZ

Extraction Method: EPA 625.1
Extraction Date: 06/28/21 17:07

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Semivolatile Organics by GC/MS - Westborough Lab						
Bis(2-ethylhexyl)phthalate	ND		ug/l	2.20	--	1
Butyl benzyl phthalate	ND		ug/l	5.00	--	1
Di-n-butylphthalate	ND		ug/l	5.00	--	1
Di-n-octylphthalate	ND		ug/l	5.00	--	1
Diethyl phthalate	ND		ug/l	5.00	--	1
Dimethyl phthalate	ND		ug/l	5.00	--	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
Nitrobenzene-d5	78		42-122
2-Fluorobiphenyl	75		46-121
4-Terphenyl-d14	89		47-138

Project Name: 600 GUEST STREET
Project Number: 25223-001-00
Lab Number: L2133852
Report Date: 09/20/21

SAMPLE RESULTS

Lab ID: L2133852-03
Client ID: SH-GP-2020-03W_06222021
Sample Location: BRIGHTON, MA

Date Collected: 06/22/21 13:45
Date Received: 06/22/21
Field Prep: Not Specified

Sample Depth:
Matrix: Water
Analytical Method: 129,625.1-SIM
Analytical Date: 07/08/21 10:25
Analyst: JJW

Extraction Method: EPA 625.1
Extraction Date: 06/28/21 17:08

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
Pentachlorophenol	ND		ug/l	1.00	--	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
2-Fluorophenol	**95**	Q	25-87
Phenol-d6	**98**	Q	16-65
Nitrobenzene-d5	115		42-122
2-Fluorobiphenyl	75		46-121
2,4,6-Tribromophenol	75		45-128
4-Terphenyl-d14	76		47-138

Project Name: 600 GUEST STREET
Project Number: 25223-001-00
Lab Number: L2133852
Report Date: 09/20/21

Method Blank Analysis
Batch Quality Control

Analytical Method: 129,625.1
Analytical Date: 06/29/21 11:18
Analyst: SZ

Extraction Method: EPA 625.1
Extraction Date: 06/28/21 17:07

Parameter	Result	Qualifier	Units	RL	MDL
Semivolatile Organics by GC/MS - Westborough Lab for sample(s): 02-03 Batch: WG1517920-1					
Bis(2-ethylhexyl)phthalate	ND		ug/l	2.20	--
Butyl benzyl phthalate	ND		ug/l	5.00	--
Di-n-butylphthalate	ND		ug/l	5.00	--
Di-n-octylphthalate	ND		ug/l	5.00	--
Diethyl phthalate	ND		ug/l	5.00	--
Dimethyl phthalate	ND		ug/l	5.00	--

Surrogate	%Recovery	Qualifier	Acceptance Criteria
Nitrobenzene-d5	65		42-122
2-Fluorobiphenyl	67		46-121
4-Terphenyl-d14	83		47-138

Project Name: 600 GUEST STREET
Project Number: 25223-001-00
Lab Number: L2133852
Report Date: 09/20/21

Method Blank Analysis
Batch Quality Control

Analytical Method: 129,625.1-SIM
Analytical Date: 06/29/21 17:22
Analyst: RP

Extraction Method: EPA 625.1
Extraction Date: 06/28/21 17:08

Parameter	Result	Qualifier	Units	RL	MDL
Semivolatile Organics by GC/MS-SIM - Westborough Lab for sample(s): 02-03 Batch: WG1517921-1					
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	--
Pentachlorophenol	ND		ug/l	1.00	--

Surrogate	%Recovery	Qualifier	Acceptance Criteria
2-Fluorophenol	45		25-87
Phenol-d6	30		16-65
Nitrobenzene-d5	85		42-122
2-Fluorobiphenyl	80		46-121
2,4,6-Tribromophenol	**151**	Q	45-128
4-Terphenyl-d14	86		47-138

Lab Control Sample Analysis
Batch Quality Control

Project Name: 600 GUEST STREET
Project Number: 25223-001-00

Lab Number: L2133852
Report Date: 09/20/21

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Semivolatile Organics by GC/MS - Westborough Lab Associated sample(s): 02-03 Batch: WG1517920-2								
Bis(2-ethylhexyl)phthalate	89		-		29-137	-		82
Butyl benzyl phthalate	93		-		1-140	-		60
Di-n-butylphthalate	85		-		8-120	-		47
Di-n-octylphthalate	91		-		19-132	-		69
Diethyl phthalate	84		-		1-120	-		100
Dimethyl phthalate	84		-		1-120	-		183

Surrogate	LCS %Recovery	Qual	LCSD %Recovery	Qual	Acceptance Criteria
Nitrobenzene-d5	75				42-122
2-Fluorobiphenyl	77				46-121
4-Terphenyl-d14	85				47-138

Lab Control Sample Analysis
Batch Quality Control

Project Name: 600 GUEST STREET
Project Number: 25223-001-00

Lab Number: L2133852
Report Date: 09/20/21

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Semivolatile Organics by GC/MS-SIM - Westborough Lab Associated sample(s): 02-03 Batch: WG1517921-2								
Acenaphthene	86		-		60-132	-		30
Fluoranthene	96		-		43-121	-		30
Naphthalene	78		-		36-120	-		30
Benzo(a)anthracene	96		-		42-133	-		30
Benzo(a)pyrene	100		-		32-148	-		30
Benzo(b)fluoranthene	107		-		42-140	-		30
Benzo(k)fluoranthene	104		-		25-146	-		30
Chrysene	95		-		44-140	-		30
Acenaphthylene	86		-		54-126	-		30
Anthracene	94		-		43-120	-		30
Benzo(ghi)perylene	92		-		1-195	-		30
Fluorene	90		-		70-120	-		30
Phenanthrene	91		-		65-120	-		30
Dibenzo(a,h)anthracene	95		-		1-200	-		30
Indeno(1,2,3-cd)pyrene	96		-		1-151	-		30
Pyrene	96		-		70-120	-		30
Pentachlorophenol	95		-		38-152	-		30

Lab Control Sample Analysis
Batch Quality Control

Project Name: 600 GUEST STREET
Project Number: 25223-001-00

Lab Number: L2133852
Report Date: 09/20/21

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits

Semivolatile Organics by GC/MS-SIM - Westborough Lab Associated sample(s): 02-03 Batch: WG1517921-2

Surrogate	LCS %Recovery	Qual	LCSD %Recovery	Qual	Acceptance Criteria
2-Fluorophenol	48				25-87
Phenol-d6	32				16-65
Nitrobenzene-d5	82				42-122
2-Fluorobiphenyl	78				46-121
2,4,6-Tribromophenol	**155**	Q			45-128
4-Terphenyl-d14	76				47-138

PCBS

Project Name: 600 GUEST STREET
Project Number: 25223-001-00
Lab Number: L2133852
Report Date: 09/20/21

SAMPLE RESULTS

Lab ID: L2133852-02
Client ID: SH-GP-2020-02W_06222021
Sample Location: BRIGHTON, MA

Date Collected: 06/22/21 08:45
Date Received: 06/22/21
Field Prep: Not Specified

Sample Depth:
Matrix: Water
Analytical Method: 127,608.3
Analytical Date: 07/07/21 12:38
Analyst: CW

Extraction Method: EPA 608.3
Extraction Date: 07/06/21 09:01
Cleanup Method: EPA 3665A
Cleanup Date: 07/06/21
Cleanup Method: EPA 3660B
Cleanup Date: 07/06/21

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

Surrogate	% Recovery	Qualifier	Acceptance Criteria	Column
2,4,5,6-Tetrachloro-m-xylene	69		37-123	B
Decachlorobiphenyl	70		38-114	B
2,4,5,6-Tetrachloro-m-xylene	63		37-123	A
Decachlorobiphenyl	63		38-114	A

Project Name: 600 GUEST STREET
Project Number: 25223-001-00
Lab Number: L2133852
Report Date: 09/20/21

SAMPLE RESULTS

Lab ID: L2133852-03
Client ID: SH-GP-2020-03W_06222021
Sample Location: BRIGHTON, MA

Date Collected: 06/22/21 13:45
Date Received: 06/22/21
Field Prep: Not Specified

Sample Depth:
Matrix: Water
Analytical Method: 127,608.3
Analytical Date: 07/07/21 12:45
Analyst: CW

Extraction Method: EPA 608.3
Extraction Date: 07/06/21 09:01
Cleanup Method: EPA 3665A
Cleanup Date: 07/06/21
Cleanup Method: EPA 3660B
Cleanup Date: 07/06/21

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

Surrogate	% Recovery	Qualifier	Acceptance Criteria	Column
2,4,5,6-Tetrachloro-m-xylene	74		37-123	B
Decachlorobiphenyl	69		38-114	B
2,4,5,6-Tetrachloro-m-xylene	68		37-123	A
Decachlorobiphenyl	65		38-114	A

Project Name: 600 GUEST STREET
Project Number: 25223-001-00
Lab Number: L2133852
Report Date: 09/20/21

Method Blank Analysis
Batch Quality Control

Analytical Method: 127,608.3
Analytical Date: 07/07/21 10:48
Analyst: CW

Extraction Method: EPA 608.3
Extraction Date: 07/06/21 09:01
Cleanup Method: EPA 3665A
Cleanup Date: 07/06/21
Cleanup Method: EPA 3660B
Cleanup Date: 07/06/21

Parameter	Result	Qualifier	Units	RL	MDL	Column
Polychlorinated Biphenyls by GC - Westborough Lab for sample(s): 02-03 Batch: WG1520635-1						
Aroclor 1016	ND		ug/l	0.250	--	A
Aroclor 1221	ND		ug/l	0.250	--	A
Aroclor 1232	ND		ug/l	0.250	--	A
Aroclor 1242	ND		ug/l	0.250	--	A
Aroclor 1248	ND		ug/l	0.250	--	A
Aroclor 1254	ND		ug/l	0.250	--	A
Aroclor 1260	ND		ug/l	0.200	--	A

Surrogate	%Recovery	Qualifier	Acceptance Criteria	Column
2,4,5,6-Tetrachloro-m-xylene	45		37-123	B
Decachlorobiphenyl	56		38-114	B
2,4,5,6-Tetrachloro-m-xylene	41		37-123	A
Decachlorobiphenyl	54		38-114	A

Lab Control Sample Analysis

Batch Quality Control

Project Name: 600 GUEST STREET

Project Number: 25223-001-00

Lab Number: L2133852

Report Date: 09/20/21

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits	Column
Polychlorinated Biphenyls by GC - Westborough Lab Associated sample(s): 02-03 Batch: WG1520635-2									
Aroclor 1016	73		-		50-140	-		36	A
Aroclor 1260	69		-		8-140	-		38	A

Surrogate	LCS %Recovery	Qual	LCSD %Recovery	Qual	Acceptance Criteria	Column
2,4,5,6-Tetrachloro-m-xylene	74				37-123	B
Decachlorobiphenyl	65				38-114	B
2,4,5,6-Tetrachloro-m-xylene	68				37-123	A
Decachlorobiphenyl	61				38-114	A

METALS

Project Name: 600 GUEST STREET
Lab Number: L2133852
Project Number: 25223-001-00
Report Date: 09/20/21

SAMPLE RESULTS

Lab ID: L2133852-02
Client ID: SH-GP-2020-02W_06222021
Sample Location: BRIGHTON, MA
Date Collected: 06/22/21 08:45
Date Received: 06/22/21
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
General Chemistry - Mansfield Lab											
Chromium, Trivalent	0.011		mg/l	0.010	--	1		07/29/21 12:50	NA	107,-	

Project Name: 600 GUEST STREET
Project Number: 25223-001-00
Lab Number: L2133852
Report Date: 09/20/21

SAMPLE RESULTS

Lab ID: L2133852-03
Client ID: SH-GP-2020-03W_06222021
Sample Location: BRIGHTON, MA
Sample Depth:
Matrix: Water

Date Collected: 06/22/21 13:45
Date Received: 06/22/21
Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Prep Method	Analytical Method	Analyst
General Chemistry - Mansfield Lab											
Chromium, Trivalent	ND		mg/l	0.010	--	1		07/29/21 12:50	NA	107,-	

INORGANICS
&
MISCELLANEOUS

Project Name: 600 GUEST STREET
Project Number: 25223-001-00

Lab Number: L2133852
Report Date: 09/20/21

SAMPLE RESULTS

Lab ID: L2133852-02
Client ID: SH-GP-2020-02W_06222021
Sample Location: BRIGHTON, MA

Date Collected: 06/22/21 08:45
Date Received: 06/22/21
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										
Solids, Total Suspended	ND		mg/l	5.0	NA	1	-	06/27/21 16:27	121,2540D	SH
Cyanide, Total	ND		mg/l	0.005	--	1	06/30/21 23:20	07/01/21 14:44	121,4500CN-CE	CR
Chlorine, Total Residual	ND		mg/l	0.02	--	1	-	06/23/21 06:22	121,4500CL-D	AW
Nitrogen, Ammonia	0.110		mg/l	0.075	--	1	07/10/21 10:00	07/12/21 20:31	121,4500NH3-BH	AT
TPH, SGT-HEM	ND		mg/l	4.00	--	1	07/07/21 19:30	07/07/21 20:30	74,1664A	IR
Phenolics, Total	ND		mg/l	0.030	--	1	07/07/21 12:07	07/08/21 10:53	4,420.1	KP
Chromium, Hexavalent	ND		mg/l	0.010	--	1	06/23/21 06:00	06/23/21 06:28	1,7196A	KA
Anions by Ion Chromatography - Westborough Lab										
Chloride	52.6		mg/l	5.00	--	10	-	07/07/21 19:53	44,300.0	JT

Project Name: 600 GUEST STREET
Project Number: 25223-001-00
Lab Number: L2133852
Report Date: 09/20/21

SAMPLE RESULTS

Lab ID: L2133852-03
Client ID: SH-GP-2020-03W_06222021
Sample Location: BRIGHTON, MA
Sample Depth:
Matrix: Water
Date Collected: 06/22/21 13:45
Date Received: 06/22/21
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	77.		mg/l	10	NA	2	-	06/29/21 16:20	121,2540D	AC
Cyanide, Total	ND		mg/l	0.005	--	1	07/01/21 18:30	07/02/21 12:31	121,4500CN-CE	CR
Chlorine, Total Residual	ND		mg/l	0.02	--	1	-	06/23/21 06:22	121,4500CL-D	AW
Nitrogen, Ammonia	1.22		mg/l	0.075	--	1	07/10/21 10:00	07/12/21 20:32	121,4500NH3-BH	AT
TPH, SGT-HEM	ND		mg/l	4.80	--	1.2	07/07/21 19:30	07/07/21 20:30	74,1664A	IR
Phenolics, Total	ND		mg/l	0.030	--	1	07/07/21 12:07	07/08/21 10:54	4,420.1	KP
Chromium, Hexavalent	ND		mg/l	0.010	--	1	06/23/21 06:00	06/23/21 06:29	1,7196A	KA
Anions by Ion Chromatography - Westborough Lab										
Chloride	370.		mg/l	5.00	--	10	-	07/07/21 20:05	44,300.0	JT

Project Name: 600 GUEST STREET
Project Number: 25223-001-00

Lab Number: L2133852
Report Date: 09/20/21

SAMPLE RESULTS

Lab ID: L2133852-05
Client ID: OF_06232021
Sample Location: BRIGHTON, MA

Date Collected: 06/23/21 13:15
Date Received: 06/23/21
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										
Nitrogen, Ammonia	1.45		mg/l	0.075	--	1	07/10/21 10:00	07/12/21 20:33	121,4500NH3-BH	AT
Chromium, Hexavalent	ND		mg/l	0.010	--	1	06/24/21 04:15	06/24/21 04:45	1,7196A	KA

Project Name: 600 GUEST STREET
Project Number: 25223-001-00
Lab Number: L2133852
Report Date: 09/20/21

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): 02-03 Batch: WG1515761-1										
Chromium, Hexavalent	ND		mg/l	0.010	--	1	06/23/21 06:00	06/23/21 06:22	1,7196A	KA
General Chemistry - Westborough Lab for sample(s): 02-03 Batch: WG1515764-1										
Chlorine, Total Residual	ND		mg/l	0.02	--	1	-	06/23/21 06:22	121,4500CL-D	AW
General Chemistry - Westborough Lab for sample(s): 05 Batch: WG1516312-1										
Chromium, Hexavalent	ND		mg/l	0.010	--	1	06/24/21 04:15	06/24/21 04:39	1,7196A	KA
General Chemistry - Westborough Lab for sample(s): 02 Batch: WG1517505-1										
Solids, Total Suspended	ND		mg/l	5.0	NA	1	-	06/27/21 16:27	121,2540D	SH
General Chemistry - Westborough Lab for sample(s): 03 Batch: WG1518374-1										
Solids, Total Suspended	ND		mg/l	5.0	NA	1	-	06/29/21 16:20	121,2540D	AC
General Chemistry - Westborough Lab for sample(s): 02 Batch: WG1519095-1										
Cyanide, Total	ND		mg/l	0.005	--	1	06/30/21 23:20	07/01/21 14:31	121,4500CN-CE	CR
General Chemistry - Westborough Lab for sample(s): 03 Batch: WG1519569-1										
Cyanide, Total	ND		mg/l	0.005	--	1	07/01/21 18:30	07/02/21 12:26	121,4500CN-CE	CR
General Chemistry - Westborough Lab for sample(s): 02-03 Batch: WG1521227-1										
Phenolics, Total	ND		mg/l	0.030	--	1	07/07/21 12:07	07/08/21 10:51	4,420.1	KP
General Chemistry - Westborough Lab for sample(s): 02-03 Batch: WG1521305-1										
TPH, SGT-HEM	ND		mg/l	4.00	--	1	07/07/21 19:30	07/07/21 20:30	74,1664A	IR
Anions by Ion Chromatography - Westborough Lab for sample(s): 02-03 Batch: WG1521935-1										
Chloride	ND		mg/l	0.500	--	1	-	07/08/21 02:20	44,300.0	JT
General Chemistry - Westborough Lab for sample(s): 02-03,05 Batch: WG1522470-1										
Nitrogen, Ammonia	ND		mg/l	0.075	--	1	07/10/21 10:00	07/12/21 20:25	121,4500NH3-BH	AT

Lab Control Sample Analysis

Batch Quality Control

Project Name: 600 GUEST STREET
Project Number: 25223-001-00

Lab Number: L2133852
Report Date: 09/20/21

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
General Chemistry - Westborough Lab Associated sample(s): 02-03 Batch: WG1515761-2								
Chromium, Hexavalent	106		-		85-115	-		20
General Chemistry - Westborough Lab Associated sample(s): 02-03 Batch: WG1515764-2								
Chlorine, Total Residual	92		-		90-110	-		
General Chemistry - Westborough Lab Associated sample(s): 05 Batch: WG1516312-2								
Chromium, Hexavalent	106		-		85-115	-		20
General Chemistry - Westborough Lab Associated sample(s): 02 Batch: WG1517505-2								
Solids, Total Suspended	107		-		80-120	-		
General Chemistry - Westborough Lab Associated sample(s): 03 Batch: WG1518374-2								
Solids, Total Suspended	98		-		80-120	-		
General Chemistry - Westborough Lab Associated sample(s): 02 Batch: WG1519095-2								
Cyanide, Total	92		-		90-110	-		
General Chemistry - Westborough Lab Associated sample(s): 03 Batch: WG1519569-2								
Cyanide, Total	109		-		90-110	-		

Lab Control Sample Analysis

Batch Quality Control

Project Name: 600 GUEST STREET
Project Number: 25223-001-00

Lab Number: L2133852
Report Date: 09/20/21

Parameter	LCS %Recovery	LCSD %Recovery	%Recovery Limits	RPD	RPD Limits
General Chemistry - Westborough Lab Associated sample(s): 02-03 Batch: WG1521227-2					
Phenolics, Total	120	-	70-130	-	
General Chemistry - Westborough Lab Associated sample(s): 02-03 Batch: WG1521305-2					
TPH	78	-	64-132	-	34
Anions by Ion Chromatography - Westborough Lab Associated sample(s): 02-03 Batch: WG1521935-2					
Chloride	103	-	90-110	-	
General Chemistry - Westborough Lab Associated sample(s): 02-03,05 Batch: WG1522470-2					
Nitrogen, Ammonia	98	-	80-120	-	20

Matrix Spike Analysis
Batch Quality Control

Project Name: 600 GUEST STREET
Project Number: 25223-001-00

Lab Number: L2133852
Report Date: 09/20/21

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): 02-03 QC Batch ID: WG1515761-4 QC Sample: L2133852-03 Client ID: SH-GP-2020-03W_06222021												
Chromium, Hexavalent	ND	0.1	0.102	102		-	-		85-115	-		20
General Chemistry - Westborough Lab Associated sample(s): 02-03 QC Batch ID: WG1515764-4 QC Sample: L2133852-02 Client ID: SH-GP-2020-02W_06222021												
Chlorine, Total Residual	ND	0.25	0.35	**140**	Q	-	-		80-120	-		20
General Chemistry - Westborough Lab Associated sample(s): 05 QC Batch ID: WG1516312-4 QC Sample: L2133852-05 Client ID: OF_06232021												
Chromium, Hexavalent	ND	0.1	0.101	101		-	-		85-115	-		20
General Chemistry - Westborough Lab Associated sample(s): 02 QC Batch ID: WG1519095-4 QC Sample: L2133740-01 Client ID: MS Sample												
Cyanide, Total	ND	0.2	0.177	**88**	Q	-	-		90-110	-		30
General Chemistry - Westborough Lab Associated sample(s): 03 QC Batch ID: WG1519569-4 QC Sample: L2134681-02 Client ID: MS Sample												
Cyanide, Total	ND	0.2	0.221	110		-	-		90-110	-		30
General Chemistry - Westborough Lab Associated sample(s): 02-03 QC Batch ID: WG1521227-4 QC Sample: L2135094-02 Client ID: MS Sample												
Phenolics, Total	ND	0.4	0.36	89		-	-		70-130	-		20
General Chemistry - Westborough Lab Associated sample(s): 02-03 QC Batch ID: WG1521305-4 QC Sample: L2133852-02 Client ID: SH-GP-2020-02W_06222021												
TPH	ND	19.8	15.4	78		-	-		64-132	-		34
Anions by Ion Chromatography - Westborough Lab Associated sample(s): 02-03 QC Batch ID: WG1521935-3 QC Sample: L2133693-01 Client ID: MS Sample												
Chloride	72.4	40	115	106		-	-		90-110	-		18

Matrix Spike Analysis
Batch Quality Control

Project Name: 600 GUEST STREET
Project Number: 25223-001-00

Lab Number: L2133852
Report Date: 09/20/21

Parameter	Native Sample	MS Added	MS Found	MS %Recovery	MSD Found	MSD %Recovery	Recovery Limits	RPD	RPD Limits
General Chemistry - Westborough Lab Associated sample(s): 02-03,05 QC Batch ID: WG1522470-4 QC Sample: L2133658-01 Client ID: MS Sample									
Nitrogen, Ammonia	0.110	4	3.52	85	-	-	80-120	-	20

Lab Duplicate Analysis
Batch Quality Control

Project Name: 600 GUEST STREET
Project Number: 25223-001-00

Lab Number: L2133852
Report Date: 09/20/21

Parameter	Native Sample	Duplicate Sample	Units	RPD	Qual	RPD Limits
General Chemistry - Westborough Lab Associated sample(s): 02-03 QC Batch ID: WG1515761-3 QC Sample: L2133852-02 Client ID: SH-GP-2020-02W_06222021						
Chromium, Hexavalent	ND	ND	mg/l	NC		20
General Chemistry - Westborough Lab Associated sample(s): 02-03 QC Batch ID: WG1515764-3 QC Sample: L2133852-02 Client ID: SH-GP-2020-02W_06222021						
Chlorine, Total Residual	ND	ND	mg/l	NC		20
General Chemistry - Westborough Lab Associated sample(s): 05 QC Batch ID: WG1516312-3 QC Sample: L2133852-05 Client ID: OF_06232021						
Chromium, Hexavalent	ND	ND	mg/l	NC		20
General Chemistry - Westborough Lab Associated sample(s): 02 QC Batch ID: WG1517505-3 QC Sample: L2133690-01 Client ID: DUP Sample						
Solids, Total Suspended	120	130	mg/l	8		29
General Chemistry - Westborough Lab Associated sample(s): 03 QC Batch ID: WG1518374-3 QC Sample: L2134018-01 Client ID: DUP Sample						
Solids, Total Suspended	82	82	mg/l	0		29
General Chemistry - Westborough Lab Associated sample(s): 02 QC Batch ID: WG1519095-3 QC Sample: L2133740-01 Client ID: DUP Sample						
Cyanide, Total	ND	ND	mg/l	NC		30
General Chemistry - Westborough Lab Associated sample(s): 03 QC Batch ID: WG1519569-3 QC Sample: L2134681-02 Client ID: DUP Sample						
Cyanide, Total	ND	ND	mg/l	NC		30
General Chemistry - Westborough Lab Associated sample(s): 02-03 QC Batch ID: WG1521227-3 QC Sample: L2135094-02 Client ID: DUP Sample						
Phenolics, Total	ND	ND	mg/l	NC		20

Lab Duplicate Analysis
Batch Quality Control

Project Name: 600 GUEST STREET
Project Number: 25223-001-00

Lab Number: L2133852
Report Date: 09/20/21

Parameter	Native Sample	Duplicate Sample	Units	RPD		RPD Limits
General Chemistry - Westborough Lab Associated sample(s): 02-03 QC Batch ID: WG1521305-3 QC Sample: L2133771-01 Client ID: DUP Sample						
TPH	ND	ND	mg/l	NC		34
Anions by Ion Chromatography - Westborough Lab Associated sample(s): 02-03 QC Batch ID: WG1521935-4 QC Sample: L2133693-01 Client ID: DUP Sample						
Chloride	72.4	72.6	mg/l	2		18
General Chemistry - Westborough Lab Associated sample(s): 02-03,05 QC Batch ID: WG1522470-3 QC Sample: L2133658-01 Client ID: DUP Sample						
Nitrogen, Ammonia	0.110	0.137	mg/l	**22**	Q	20

Project Name: 600 GUEST STREET
Project Number: 25223-001-00

Lab Number: L2133852
Report Date: 09/20/21

Sample Receipt and Container Information

Were project specific reporting limits specified? YES

Cooler Information

Cooler	Custody Seal
A	Absent
A1	Absent
B	Absent
B1	Absent

Container Information

Container ID	Container Type	Cooler	Initial pH	Final pH	Temp deg C	Pres	Seal	Frozen Date/Time	Analysis(*)
L2133852-01A	Amber 1000ml Na2S2O3	B	7	7	4.7	Y	Absent		HOLD-608(7)
L2133852-01B	Amber 1000ml Na2S2O3	B	7	7	4.7	Y	Absent		HOLD-625(7)
L2133852-01C	Amber 1000ml HCl preserved	B	<2	<2	4.7	Y	Absent		HOLD-WETCHEM()
L2133852-02A	Vial Na2S2O3 preserved	A	NA		3.5	Y	Absent		624.1-SIM-RGP(7)
L2133852-02B	Vial Na2S2O3 preserved	A	NA		3.5	Y	Absent		624.1-SIM-RGP(7)
L2133852-02C	Vial Na2S2O3 preserved	A	NA		3.5	Y	Absent		624.1-SIM-RGP(7)
L2133852-02D	Vial Na2S2O3 preserved	A	NA		3.5	Y	Absent		624.1-RGP(7)
L2133852-02E	Vial Na2S2O3 preserved	A	NA		3.5	Y	Absent		624.1-RGP(7)
L2133852-02F	Vial Na2S2O3 preserved	A	NA		3.5	Y	Absent		624.1-RGP(7)
L2133852-02G	Vial Na2S2O3 preserved	A	NA		3.5	Y	Absent		504(14)
L2133852-02H	Vial Na2S2O3 preserved	A	NA		3.5	Y	Absent		504(14)
L2133852-02I	Vial unpreserved	A	NA		3.5	Y	Absent		SUB-ETHANOL(14)
L2133852-02J	Vial unpreserved	A	NA		3.5	Y	Absent		SUB-ETHANOL(14)
L2133852-02K	Vial unpreserved	A	NA		3.5	Y	Absent		SUB-ETHANOL(14)
L2133852-02L	Plastic 250ml unpreserved	A	7	7	3.5	Y	Absent		-
L2133852-02M	Plastic 250ml HNO3 preserved	A	<2	<2	3.5	Y	Absent		SUB-METALS 200.8(180)
L2133852-02N	Plastic 250ml NaOH preserved	A	>12	>12	3.5	Y	Absent		TCN-4500(14)
L2133852-02O	Plastic 500ml H2SO4 preserved	A	<2	<2	3.5	Y	Absent		NH3-4500(28)
L2133852-02P	Plastic 950ml unpreserved	A	7	7	3.5	Y	Absent		HEXCR-7196(1),CL-300(28),TRC-4500(1)
L2133852-02Q	Plastic 950ml unpreserved	A	7	7	3.5	Y	Absent		TSS-2540(7)

*Values in parentheses indicate holding time in days

Project Name: 600 GUEST STREET
Project Number: 25223-001-00

Lab Number: L2133852
Report Date: 09/20/21

Container Information

Container ID	Container Type	Cooler	Initial pH	Final pH	Temp deg C	Pres	Seal	Frozen Date/Time	Analysis(*)
L2133852-02R	Amber 950ml H2SO4 preserved	A	<2	<2	3.5	Y	Absent		TPHENOL-420(28)
L2133852-02S	Amber 1000ml Na2S2O3	A	7	7	3.5	Y	Absent		PCB-608.3(365)
L2133852-02T	Amber 1000ml Na2S2O3	A	7	7	3.5	Y	Absent		PCB-608.3(365)
L2133852-02U	Amber 1000ml Na2S2O3	A	7	7	3.5	Y	Absent		PCB-608.3(365)
L2133852-02V	Amber 1000ml Na2S2O3	A	7	7	3.5	Y	Absent		625.1-RGP(7)
L2133852-02W	Amber 1000ml Na2S2O3	A	7	7	3.5	Y	Absent		625.1-RGP(7)
L2133852-02X	Amber 1000ml Na2S2O3	A	7	7	3.5	Y	Absent		625.1-SIM-RGP(7)
L2133852-02X1	Plastic 120ml HNO3 preserved Filtrates	A	NA		3.5	Y	Absent		HOLD-METAL-DISSOLVED(180)
L2133852-02Y	Amber 1000ml Na2S2O3	A	7	7	3.5	Y	Absent		625.1-SIM-RGP(7)
L2133852-02Z	Amber 1000ml HCl preserved	A	NA		3.5	Y	Absent		TPH-1664(28)
L2133852-02Z1	Amber 1000ml HCl preserved	A	NA		3.5	Y	Absent		TPH-1664(28)
L2133852-03A	Plastic 60 ml HNO3 preserved split	B	7	<2	4.7	N	Absent		SUB-METALS 200.8(180)
L2133852-03B	Plastic 120ml NAOH preserved split	B	7	>12	4.7	N	Absent		TCN-4500(14)
L2133852-03C	Plastic 250ml H2SO4 preserved split	B	7	<2	4.7	N	Absent		NH3-4500(28)
L2133852-03D	Plastic 250ml unpreserved	B	7	7	4.7	Y	Absent		-
L2133852-03E	Plastic 950ml unpreserved	B	7	7	4.7	Y	Absent		HEXCR-7196(1),CL-300(28),TRC-4500(1)
L2133852-03F	Plastic 950ml unpreserved	B	7	7	4.7	Y	Absent		TSS-2540(7)
L2133852-03G	Amber 950ml H2SO4 preserved	B	<2	<2	4.7	Y	Absent		TPHENOL-420(28)
L2133852-03H	Amber 1000ml Na2S2O3	B	7	7	4.7	Y	Absent		PCB-608.3(365)
L2133852-03I	Amber 1000ml Na2S2O3	B	7	7	4.7	Y	Absent		PCB-608.3(365)
L2133852-03J	Amber 1000ml Na2S2O3	B	7	7	4.7	Y	Absent		625.1-RGP(7)
L2133852-03K	Amber 1000ml Na2S2O3	B	7	7	4.7	Y	Absent		625.1-RGP(7)
L2133852-03L	Amber 1000ml Na2S2O3	B	7	7	4.7	Y	Absent		625.1-SIM-RGP(7)
L2133852-03M	Amber 1000ml HCl preserved	B	NA		4.7	Y	Absent		TPH-1664(28)
L2133852-03X	Plastic 120ml HNO3 preserved Filtrates	B	NA		4.7	Y	Absent		HOLD-METAL-DISSOLVED(180)
L2133852-04A	Vial Na2S2O3 preserved	B1	NA		6.0	Y	Absent		624.1-RGP(7),624.1-SIM-RGP(7)
L2133852-04B	Vial Na2S2O3 preserved	B1	NA		6.0	Y	Absent		624.1-RGP(7),624.1-SIM-RGP(7)
L2133852-04C	Vial Na2S2O3 preserved	B1	NA		6.0	Y	Absent		624.1-RGP(7),624.1-SIM-RGP(7)

*Values in parentheses indicate holding time in days

Project Name: 600 GUEST STREET
Project Number: 25223-001-00

Lab Number: L2133852
Report Date: 09/20/21

Container Information

Container ID	Container Type	Cooler	Initial pH	Final pH	Temp deg C	Pres	Seal	Frozen Date/Time	Analysis(*)
L2133852-04D	Vial Na2S2O3 preserved	B1	NA		6.0	Y	Absent		624.1-RGP(7),624.1-SIM-RGP(7)
L2133852-04E	Vial Na2S2O3 preserved	B1	NA		6.0	Y	Absent		504(14)
L2133852-04F	Vial Na2S2O3 preserved	B1	NA		6.0	Y	Absent		504(14)
L2133852-04G	Vial Na2S2O3 preserved	B1	NA		6.0	Y	Absent		504(14)
L2133852-04H	Vial Na2S2O3 preserved	B1	NA		6.0	Y	Absent		504(14)
L2133852-04I	Vial unpreserved	B1	NA		6.0	Y	Absent		SUB-ETHANOL(14)
L2133852-04J	Vial unpreserved	B1	NA		6.0	Y	Absent		SUB-ETHANOL(14)
L2133852-04K	Vial unpreserved	B1	NA		6.0	Y	Absent		SUB-ETHANOL(14)
L2133852-04L	Plastic 250ml HNO3 preserved	B1	<2	<2	6.0	Y	Absent		HOLD-METAL-TOTAL(180),SUB-METALS 200.8(180)
L2133852-04M	Plastic 250ml NaOH preserved	B1	>12	>12	6.0	Y	Absent		HOLD-WETCHEM()
L2133852-04N	Plastic 500ml H2SO4 preserved	B1	<2	<2	6.0	Y	Absent		HOLD-WETCHEM()
L2133852-04O	Amber 1000ml Na2S2O3	B1	7	7	6.0	Y	Absent		HOLD-WETCHEM()
L2133852-04P	Amber 1000ml HCl preserved	B1	<2	<2	6.0	Y	Absent		HOLD-WETCHEM()
L2133852-05A	Vial Na2S2O3 preserved	A1	NA		5.8	Y	Absent		HOLD-624(7)
L2133852-05B	Vial Na2S2O3 preserved	A1	NA		5.8	Y	Absent		HOLD-624(7)
L2133852-05C	Vial Na2S2O3 preserved	A1	NA		5.8	Y	Absent		HOLD-624(7)
L2133852-05D	Vial Na2S2O3 preserved	A1	NA		5.8	Y	Absent		HOLD-624(7)
L2133852-05E	Vial Na2S2O3 preserved	A1	NA		5.8	Y	Absent		HOLD-504/8011(14)
L2133852-05F	Vial Na2S2O3 preserved	A1	NA		5.8	Y	Absent		HOLD-504/8011(14)
L2133852-05G	Vial Na2S2O3 preserved	A1	NA		5.8	Y	Absent		HOLD-504/8011(14)
L2133852-05H	Vial Na2S2O3 preserved	A1	NA		5.8	Y	Absent		HOLD-504/8011(14)
L2133852-05I	Vial unpreserved	A1	NA		5.8	Y	Absent		HOLD-504/8011(14)
L2133852-05J	Vial unpreserved	A1	NA		5.8	Y	Absent		-
L2133852-05K	Vial unpreserved	A1	NA		5.8	Y	Absent		HOLD-504/8011(14)
L2133852-05L	Plastic 250ml NaOH preserved	A1	>12	>12	5.8	Y	Absent		HOLD-504/8011(14),HOLD-WETCHEM()
L2133852-05M	Plastic 250ml unpreserved	A1	7	7	5.8	Y	Absent		-
L2133852-05N	Plastic 250ml HNO3 preserved	A1	<2	<2	5.8	Y	Absent		SUB-METALS 200.8(180)
L2133852-05O	Plastic 950ml unpreserved	A1	7	7	5.8	Y	Absent		HOLD-WETCHEM()

*Values in parentheses indicate holding time in days

Project Name: 600 GUEST STREET
Project Number: 25223-001-00

Lab Number: L2133852
Report Date: 09/20/21

Container Information

Container ID	Container Type	Cooler	Initial pH	Final pH	Temp deg C	Pres	Seal	Frozen Date/Time	Analysis(*)
L2133852-05P	Plastic 500ml H2SO4 preserved	A1	<2	<2	5.8	Y	Absent		HOLD-WETCHEM(),NH3-4500(28)
L2133852-05Q	Plastic 950ml unpreserved	A1	7	7	5.8	Y	Absent		HEXCR-7196(1),HOLD-WETCHEM()
L2133852-05R	Amber 1000ml H2SO4 preserved	A1	<2	<2	5.8	Y	Absent		HOLD-WETCHEM()
L2133852-05S	Amber 1000ml HCl preserved	A1	NA		5.8	Y	Absent		HOLD-WETCHEM()
L2133852-05T	Amber 1000ml HCl preserved	A1	NA		5.8	Y	Absent		HOLD-WETCHEM()
L2133852-05U	Amber 1000ml Na2S2O3	A1	7	7	5.8	Y	Absent		HOLD-625(7)
L2133852-05V	Amber 1000ml Na2S2O3	A1	7	7	5.8	Y	Absent		HOLD-625(7)
L2133852-05W	Amber 1000ml Na2S2O3	A1	7	7	5.8	Y	Absent		HOLD-608(7)
L2133852-05X	Amber 1000ml Na2S2O3	A1	7	7	5.8	Y	Absent		HOLD-608(7)
L2133852-05X1	Plastic 120ml HNO3 preserved Filtrates	A1	NA		5.8	Y	Absent		HOLD-METAL-DISSOLVED(180)
L2133852-05Y	Amber 1000ml Na2S2O3	A1	7	7	5.8	Y	Absent		HOLD-608(7)
L2133852-05Z	Amber 1000ml Na2S2O3	A1	7	7	5.8	Y	Absent		HOLD-608(7)

*Values in parentheses indicate holding time in days

Project Name:	600 GUEST STREET	**Lab Number:**	L2133852
Project Number:	25223-001-00	**Report Date:**	09/20/21

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

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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 for: PFHpA, PFHxS, PFOA, PFNA, PFDA and PFOS. For MassDEP DW compliance analysis only, the 'PFAS, Total (6)' result is defined as the summation of results at or above the RL. Note: 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

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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.

V - The surrogate associated with this target analyte has a recovery outside the QC acceptance limits. (Applicable to MassDEP DW Compliance samples only.)

Z - The batch matrix spike and/or duplicate associated with this target analyte has a recovery/RPD outside the QC acceptance limits. (Applicable to MassDEP DW Compliance samples only.)

Report Format: Data Usability Report

Project Name:	600 GUEST STREET	**Lab Number:**	L2133852
Project Number:	25223-001-00	**Report Date:**	09/20/21

REFERENCES

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

4 Methods for Chemical Analysis of Water and Wastes. EPA 600/4-79-020. Revised March 1983.

14 Methods for the Determination of Organic Compounds in Finished Drinking Water and Raw Source Water. EPA/600/4-88/039, Revised July 1991.

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.

127 Method 608.3: Organochlorine Pesticides and PCBs by GC/HSD, EPA 821-R-16-009, December 2016.

128 Method 624.1: Purgeables by GC/MS, EPA 821-R-16-008, December 2016.

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 625/625.1: alpha-Terpineol
EPA 8260C/8260D: NPW: 1,2,4,5-Tetramethylbenzene; 4-Ethyltoluene, Azobenzene; SCM: Iodomethane (methyl iodide), 1,2,4,5-Tetramethylbenzene; 4-Ethyltoluene.
EPA 8270D/8270E: NPW: Dimethylnaphthalene,1,4-Diphenylhydrazine, alpha-Terpineol; 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.
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, SM9222D.**

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, EPA 537.1.

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.

CHAIN OF CUSTODY

PAGE 1 OF 1

Date Rec'd in Lab: 6/22/21

ALPHA Job #: L2133852

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

Project Information

Project Name: 60 GUEST STREET
Project Location: BRIGHTON MA
Project #: 25223-001-00
Project Manager: PATRICK MALONE
ALPHA Quote #: N/A

Client Information

Client: GEO ENGINEERS
Address: 239 CAUSEWAY ST. SUITE 105, BOSTON MA 02114
Phone: 617 749 9220
Email: PMALLONE@GEOENGINEERS

Turn-Around Time

☑ Standard ☐ RUSH (only confirmed if pre-approved)
Date Due:

Additional Project Information:

Report Information - Data Deliverables

☑ ADEx ☑ EMAIL

Billing Information

☑ Same as Client info PO #:

Regulatory Requirements & Project Information Requirements

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

ANALYSIS: 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 | NPDES RGP | DISSOLVED METALS *

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

ALPHA Lab ID (Lab Use Only)	Sample ID	Collection Date	Collection Time	Sample Matrix	Sampler Initials	NPDES RGP	DISSOLVED METALS	Sample Comments	TOTAL # BOTTLES
33852-01	SH-GP-2020-01W_06212021	6.21.21	1340	WATER	NRS	X			5
-02	SH-GP-2020-02W_06222021	6.22.22	0845	↓	↓	X	X	*LAB FILTER	
-03	SH-GP-2020-03W_06222021	6.22.22	1345	↓	↓	X	X	*LAB FILTER	

	NPDES RGP	DISSOLVED METALS
Container Type	P	P
Preservative	A/C	

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
NATHAN SOLOMON GEI	06.22.21 1650	Benjamin Swick AAL	6/22 16:47
Benjamin Swick AAL	6/22 18:40	[illegible]	6/22/21 18:4[illegible]

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Subcontract Chain of Custody

Tek Lab, Inc.
5445 Horsehoe Lake Road
Collinsville, IL 62234-7425

Alpha Job Number
L2133852

Client Information	Project Information	Regulatory Requirements/Report Limits
Client: Alpha Analytical Labs Address: Eight Walkup Drive Westborough, MA 01581-1019 Phone: 508.439.5170 Email: nlewis@alphalab.com	Project Location: MA Project Manager: Nathalie Lewis **Turnaround & Deliverables Information** Due Date: Deliverables:	State/Federal Program: Regulatory Criteria:

Project Specific Requirements and/or Report Requirements

Reference following Alpha Job Number on final report/deliverables: L2133852

Report to include Method Blank, LCS/LCSD:

Additional Comments: Send all results/reports to subreports@alphalab.com

Lab ID	Client ID	Collection Date/Time	Sample Matrix	Analysis	Batch QC
	SH-GP-2020-02W_06222021	06-22-21 08:45	WATER	Ethanol by EPA 1671 Revision A	

	Relinquished By:	Date/Time:	Received By:	Date/Time:
	C Sclean	6/23/21		
Form No: AL_subcoc				

CHAIN OF CUSTODY

PAGE ____ OF ____

Date Rec'd in Lab: 06/23/21

ALPHA Job #: L2133852

ALPHA ANALYTICAL

8 Walkup Drive, Westboro, MA 01581, Tel: 508-898-9220

320 Forbes Blvd, Mansfield, MA 02048, Tel: 508-822-9300

Project Information

Project Name: 60 Guest St

Project Location: Brighton MA

Project #: 25223-001-00

Project Manager: Patrick Malone

ALPHA Quote #:

Report Information - Data Deliverables

☑ ADEx ☑ EMAIL

Billing Information

☑ Same as Client info PO #:

Client Information

Client: GeoEngineers

Address: 239 Causeway St. Ste 105, Boston MA 02114

Phone: 617 749 9220

Email: PMalone@GeoEngineers

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 ____

Turn-Around Time

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

Date Due:

Additional Project Information:

ANALYSIS: 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; NPDES RGP; DISSOLVED METALS

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

ALPHA Lab ID (Lab Use Only)	Sample ID	Collection Date	Collection Time	Sample Matrix	Sampler Initials	NPDES RGP	DISSOLVED METALS	Sample Comments	TOTAL # BOTTLES
33852-04	SH-GP-2020-03W_06222021	6.22.21	1315	Water	NES	X			8
-05	OF_06232021	6.23.21	1315	Water	NES	X	X	LAB FILTER	26

Container Type:

Preservative:

Container Type	Preservative
P= Plastic	A= None
A= Amber glass	B= HCl
V= Vial	C= HNO_3
G= Glass	D= H_2SO_4
B= Bacteria cup	E= NaOH
C= Cube	F= MeOH
O= Other	G= $NaHSO_4$
E= Encore	H = $Na_2S_2O_3$
D= BOD Bottle	I= Ascorbic Acid
	J = NH_4Cl
	K= Zn Acetate
	O= Other

Relinquished By:	Date/Time	Received By:	Date/Time
[signature]	06.23.21 1425	[signature] AAL	6/23 14:25
[signature] AAL	6/23 17:47	[signature]	6/23/21 1747

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

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

ALPHA ANALYTICAL
World Class Chemistry

Subcontract Chain of Custody

Tek Lab, Inc.
5445 Horsehoe Lake Road
Collinsville, IL 62234-7425

Alpha Job Number
L2133852

Client Information

Client: Alpha Analytical Labs
Address: Eight Walkup Drive
Westborough, MA 01581-1019

Phone: 508.439.5170
Email: nlewis@alphalab.com

Project Information

Project Location: MA
Project Manager: Nathalie Lewis

Turnaround & Deliverables Information

Due Date:
Deliverables:

Regulatory Requirements/Report Limits

State/Federal Program:
Regulatory Criteria:

Project Specific Requirements and/or Report Requirements

Reference following Alpha Job Number on final report/deliverables: L2133852

Report to include Method Blank, LCS/LCSD:

Additional Comments: Send all results/reports to subreports@alphalab.com

Lab ID	Client ID	Collection Date/Time	Sample Matrix	Analysis	Batch QC
	SH-GP-2020-02W_06222021	06-22-21 08:45	WATER	Ethanol by EPA 1671 Revision A	

	Relinquished By:	Date/Time:	Received By:	Date/Time:
	C Tebeau	6/24/21		
Form No: AL_subcoc				

Teklab, Inc.
Environmental Laboratory
http://www.teklabinc.com/

June 30, 2021

Nichole Hunt
Alpha Analytical
145 Flanders Road
Westborough, MA 01581
TEL: (508) 898-9220
FAX:

Illinois	100226
Kansas	E-10374
Louisiana	05002
Louisiana	05003
Oklahoma	9978

RE: L2133852 **WorkOrder:** 21061543

Dear Nichole Hunt:

TEKLAB, INC received 1 sample on 6/24/2021 10:03:00 AM for the analysis presented in the following report.

Samples are analyzed on an as received basis unless otherwise requested and documented. The sample results contained in this report relate only to the requested analytes of interest as directed on the chain of custody. NELAP accredited fields of testing are indicated by the letters NELAP under the Certification column. Unless otherwise documented within this report, Teklab Inc. analyzes samples utilizing the most current methods in compliance with 40CFR. All tests are performed in the Collinsville, IL laboratory unless otherwise noted in the Case Narrative.

All quality control criteria applicable to the test methods employed for this project have been satisfactorily met and are in accordance with NELAP except where noted. The following report shall not be reproduced, except in full, without the written approval of Teklab, Inc.

If you have any questions regarding these tests results, please feel free to call.

Sincerely,

Marvin L. Darling II

Marvin L. Darling
Project Manager
(618)344-1004 ex 41
mdarling@teklabinc.com

Teklab, Inc.
Environmental Laboratory

Report Contents

http://www.teklabinc.com/

Client: Alpha Analytical
Client Project: L2133852

Work Order: 21061543
Report Date: 30-Jun-21

This reporting package includes the following:

Teklab, Inc.
Environmental Laboratory

Definitions

http://www.teklabinc.com/

Client: Alpha Analytical **Work Order:** 21061543

Client Project: L2133852 **Report Date:** 30-Jun-21

Abbr	Definition
*	Analytes on report marked with an asterisk are not NELAP accredited
CCV	Continuing calibration verification is a check of a standard to determine the state of calibration of an instrument between recalibration.
CRQL	A Client Requested Quantitation Limit is a reporting limit that varies according to customer request. The CRQL may not be less than the MDL.
DF	Dilution factor is the dilution performed during analysis only and does not take into account any dilutions made during sample preparation. The reported result is final and includes all dilution factors.
DNI	Did not ignite
DUP	Laboratory duplicate is a replicate aliquot prepared under the same laboratory conditions and independently analyzed to obtain a measure of precision.
ICV	Initial calibration verification is a check of a standard to determine the state of calibration of an instrument before sample analysis is initiated.
IDPH	IL Dept. of Public Health
LCS	Laboratory control sample is a sample matrix, free from the analytes of interest,spiked with verified known amounts of analytes and analyzed exactly like a sample to establish intra-laboratory or analyst specific precision and bias or to assess the performance of all or a portion of the measurement system.
LCSD	Laboratory control sample duplicate is a replicate laboratory control sample that is prepared and analyzed in order to determine the precision of the approved test method. The acceptable recovery range is listed in the QC Package (provided upon request).
MBLK	Method blank is a sample of a matrix similar to the batch of associated sample (when available) that is free from the analytes of interest and is processed simultaneously with and under the same conditions as samples through all steps of the analytical procedures, and in which no target analytes or interferences should present at concentrations that impact the analytical results for sample analyses.
MDL	"The method detection limit is defined as the minimum measured concentration of a substance that can be reported with 99% confidence that the measured concentration is distinguishable from method blank results."
MS	Matrix spike is an aliquot of matrix fortified (spiked) with known quantities of specific analytes that is subjected to the entire analytical procedures in order to determine the effect of the matrix on an approved test method's recovery system. The acceptable recovery range is listed in the QC Package (provided upon request).
MSD	Matrix spike duplicate means a replicate matrix spike that is prepared and analyzed in order to determine the precision of the approved test method. The acceptable recovery range is listed in the QC Package (provided upon request).
MW	Molecular weight
NC	Data is not acceptable for compliance purposes
ND	Not Detected at the Reporting Limit
NELAP	NELAP Accredited
PQL	Practical quantitation limit means the lowest level that can be reliably achieved within specified limits of precision and accuracy during routine laboratory operation conditions.
RL	The reporting limit the lowest level that the data is displayed in the final report. The reporting limit may vary according to customer request or sample dilution. The reporting limit may not be less than the MDL.
RPD	Relative percent difference is a calculated difference between two recoveries (ie. MS/MSD). The acceptable recovery limit is listed in the QC Package (provided upon request).
SPK	The spike is a known mass of target analyte added to a blank sample or sub-sample; used to determine recovery deficiency or for other quality control purposes.
Surr	Surrogates are compounds which are similar to the analytes of interest in chemical composition and behavior in the analytical process, but which are not normally found in environmental samples.
TIC	Tentatively identified compound: Analytes tentatively identified in the sample by using a library search. Only results not in the calibration standard will be reported as tentatively identified compounds. Results for tentatively identified compounds that are not present in the calibration standard, but are assigned a specific chemical name based upon the library search, are calculated using total peak areas from reconstructed ion chromatograms and a response factor of one. The nearest Internal Standard is used for the calculation. The results of any TICs must be considered estimated, and are flagged with a "T". If the estimated result is above the calibration range it is flagged "ET"
TNTC	Too numerous to count (> 200 CFU)

Teklab, Inc. Environmental Laboratory

Definitions

http://www.teklabinc.com/

Client: Alpha Analytical

Work Order: 21061543

Client Project: L2133852

Report Date: 30-Jun-21

Qualifiers

# -	Unknown hydrocarbon	B -	Analyte detected in associated Method Blank
C -	RL shown is a Client Requested Quantitation Limit	E -	Value above quantitation range
H -	Holding times exceeded	I -	Associated internal standard was outside method criteria
J -	Analyte detected below quantitation limits	M -	Manual Integration used to determine area response
ND -	Not Detected at the Reporting Limit	R -	RPD outside accepted recovery limits
S -	Spike Recovery outside recovery limits	T -	TIC(Tentatively identified compound)
X -	Value exceeds Maximum Contaminant Level		

Teklab, Inc.
Environmental Laboratory

Case Narrative

http://www.teklabinc.com/

Client: Alpha Analytical

Client Project: L2133852

Work Order: 21061543

Report Date: 30-Jun-21

Cooler Receipt Temp: 0.4 °C

Locations

Collinsville

Address 5445 Horseshoe Lake Road
Collinsville, IL 62234-7425
Phone (618) 344-1004
Fax (618) 344-1005
Email jhriley@teklabinc.com

Springfield

Address 3920 Pintail Dr
Springfield, IL 62711-9415
Phone (217) 698-1004
Fax (217) 698-1005
Email KKlostermann@teklabinc.com

Kansas City

Address 8421 Nieman Road
Lenexa, KS 66214
Phone (913) 541-1998
Fax (913) 541-1998
Email jhriley@teklabinc.com

Collinsville Air

Address 5445 Horseshoe Lake Road
Collinsville, IL 62234-7425
Phone (618) 344-1004
Fax (618) 344-1005
Email EHurley@teklabinc.com

Chicago

Address 1319 Butterfield Rd.
Downers Grove, IL 60515
Phone (630) 324-6855
Fax
Email arenner@teklabinc.com

Teklab, Inc. Environmental Laboratory

Accreditations

http://www.teklabinc.com/

Client: Alpha Analytical

Client Project: L2133852

Work Order: 21061543

Report Date: 30-Jun-21

State	Dept	Cert #	NELAP	Exp Date	Lab
Illinois	IEPA	100226	NELAP	1/31/2022	Collinsville
Kansas	KDHE	E-10374	NELAP	4/30/2022	Collinsville
Louisiana	LDEQ	05002	NELAP	6/30/2022	Collinsville
Louisiana	LDEQ	05003	NELAP	6/30/2022	Collinsville
Oklahoma	ODEQ	9978	NELAP	8/31/2021	Collinsville
Arkansas	ADEQ	88-0966		3/14/2022	Collinsville
Illinois	IDPH	17584		5/31/2021	Collinsville
Kentucky	UST	0073		1/31/2022	Collinsville
Missouri	MDNR	00930		5/31/2021	Collinsville
Missouri	MDNR	930		1/31/2022	Collinsville

Teklab, Inc. Environmental Laboratory

Laboratory Results

http://www.teklabinc.com/

Client: Alpha Analytical
Work Order: 21061543
Client Project: L2133852
Report Date: 30-Jun-21
Lab ID: 21061543-001
Client Sample ID: SH-GP-2020-02W_06222021
Matrix: AQUEOUS
Collection Date: 06/22/2021 8:45

Analyses	Certification	RL	Qual	Result	Units	DF	Date Analyzed	Batch
EPA 600 1671A, PHARMACEUTICAL MANUFACTURING INDUSTRY NON-PURGEABLE VOLATILE ORGANICS								
Ethanol	*	20		**ND**	mg/L	1	06/28/2021 10:53	R293753

Teklab, Inc. Environmental Laboratory

Quality Control Results

http://www.teklabinc.com/

Client: Alpha Analytical **Work Order:** 21061543

Client Project: L2133852 **Report Date:** 30-Jun-21

EPA 600 1671A, PHARMACEUTICAL MANUFACTURING INDUSTRY NON-PURGEABLE VOLATILE OR

Batch R293753 **SampType:** MBLK Units **mg/L**

SampID: MBLK-062821

Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	Low Limit	High Limit	Date Analyzed
Ethanol	*	20		**ND**						06/28/2021

Batch R293753 **SampType:** LCS Units **mg/L**

SampID: LCS-062821

Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	Low Limit	High Limit	Date Analyzed
Ethanol	*	20		**250**	250.0	0	98.3	70	132	06/28/2021

Batch R293753 **SampType:** MS Units **mg/L**

SampID: 21061628-001AMS

Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	Low Limit	High Limit	Date Analyzed
Ethanol	*	20		**230**	250.0	0	91.5	70	132	06/28/2021

Batch R293753 **SampType:** MSD Units **mg/L** RPD Limit **30**

SampID: 21061628-001AMSD

Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	RPD Ref Val	%RPD	Date Analyzed
Ethanol	*	20		**240**	250.0	0	97.3	228.8	6.13	06/28/2021

Teklab, Inc. Environmental Laboratory

Receiving Check List

http://www.teklabinc.com/

Client: Alpha Analytical
Client Project: L2133852

Work Order: 21061543
Report Date: 30-Jun-21

Carrier: UPS

Received By: ERH

Completed by: Ellie Hopkins
On: 24-Jun-21

Reviewed by: Elizabeth A. Hurley
On: 24-Jun-21

Pages to follow: Chain of custody 1 Extra pages included 0

Shipping container/cooler in good condition?	Yes ☑	No ☐	Not Present ☐	Temp °C 0.4
Type of thermal preservation?	None ☐	Ice ☑	Blue Ice ☐	Dry Ice ☐
Chain of custody present?	Yes ☑	No ☐		
Chain of custody signed when relinquished and received?	Yes ☑	No ☐		
Chain of custody agrees with sample labels?	Yes ☑	No ☐		
Samples in proper container/bottle?	Yes ☑	No ☐		
Sample containers intact?	Yes ☑	No ☐		
Sufficient sample volume for indicated test?	Yes ☑	No ☐		
All samples received within holding time?	Yes ☑	No ☐		
Reported field parameters measured:	Field ☐	Lab ☐	NA ☑	
Container/Temp Blank temperature in compliance?	Yes ☑	No ☐		

When thermal preservation is required, samples are compliant with a temperature between 0.1°C - 6.0°C, or when samples are received on ice the same day as collected.

Water – at least one vial per sample has zero headspace?	Yes ☑	No ☐	No VOA vials ☐
Water - TOX containers have zero headspace?	Yes ☐	No ☐	No TOX containers ☑
Water - pH acceptable upon receipt?	Yes ☑	No ☐	NA ☐
NPDES/CWA TCN interferences checked/treated in the field?	Yes ☐	No ☐	NA ☑

Any No responses must be detailed below or on the COC.

Subcontract Chain of Custody

Tek Lab, Inc.
5445 Horsehoe Lake Road
Collinsville, IL 62234-7425

Alpha Job Number
L2133852

21061543

Client Information	Project Information	Regulatory Requirements/Report Limits
Client: Alpha Analytical Labs Address: Eight Walkup Drive Westborough, MA 01581-1019 Phone: 508.439.5170 Email: nlewis@alphalab.com	Project Location: MA Project Manager: Nathalie Lewis **Turnaround & Deliverables Information** Due Date: Deliverables:	State/Federal Program: Regulatory Criteria:

Project Specific Requirements and/or Report Requirements

Reference following Alpha Job Number on final report/deliverables: L2133852

Report to include Method Blank, LCS/LCSD:

Additional Comments: Send all results/reports to subreports@alphalab.com

0.4 LTGI Ice OHS, Pat 6/24/21

Lab ID	Client ID	Collection Date/Time	Sample Matrix	Analysis	Batch QC
21061543-001	SH-GP-2020-02W_06222021	06-22-21 08:45	WATER	Ethanol by EPA 1671 Revision A	

Relinquished By:	Date/Time:	Received By:	Date/Time:
C. Levean	6/23/21	[illegible] (UPS)	6/24/21 1003

Form No: AL_subcoc

Pat 6/24/21

July 02, 2021

Nathalie Lewis
Alpha Analytical
145 Flanders Road
Westborough, MA 01581
TEL: (508) 439-5170
FAX:

Illinois	100226
Kansas	E-10374
Louisiana	05002
Louisiana	05003
Oklahoma	9978

RE: L2133852 **WorkOrder:** 21061628

Dear Nathalie Lewis:

TEKLAB, INC received 2 samples on 6/25/2021 11:30:00 AM for the analysis presented in the following report.

Samples are analyzed on an as received basis unless otherwise requested and documented. The sample results contained in this report relate only to the requested analytes of interest as directed on the chain of custody. NELAP accredited fields of testing are indicated by the letters NELAP under the Certification column. Unless otherwise documented within this report, Teklab Inc. analyzes samples utilizing the most current methods in compliance with 40CFR. All tests are performed in the Collinsville, IL laboratory unless otherwise noted in the Case Narrative.

All quality control criteria applicable to the test methods employed for this project have been satisfactorily met and are in accordance with NELAP except where noted. The following report shall not be reproduced, except in full, without the written approval of Teklab, Inc.

If you have any questions regarding these tests results, please feel free to call.

Sincerely,

Marvin L. Darling II

Marvin L. Darling
Project Manager
(618)344-1004 ex 41
mdarling@teklabinc.com

Teklab, Inc.
Environmental Laboratory

Report Contents

http://www.teklabinc.com/

Client: Alpha Analytical
Client Project: L2133852

Work Order: 21061628
Report Date: 02-Jul-21

This reporting package includes the following:

Teklab, Inc.
Environmental Laboratory

Definitions

http://www.teklabinc.com/

Client: Alpha Analytical **Work Order:** 21061628

Client Project: L2133852 **Report Date:** 02-Jul-21

Abbr	Definition
*	Analytes on report marked with an asterisk are not NELAP accredited
CCV	Continuing calibration verification is a check of a standard to determine the state of calibration of an instrument between recalibration.
CRQL	A Client Requested Quantitation Limit is a reporting limit that varies according to customer request. The CRQL may not be less than the MDL.
DF	Dilution factor is the dilution performed during analysis only and does not take into account any dilutions made during sample preparation. The reported result is final and includes all dilution factors.
DNI	Did not ignite
DUP	Laboratory duplicate is a replicate aliquot prepared under the same laboratory conditions and independently analyzed to obtain a measure of precision.
ICV	Initial calibration verification is a check of a standard to determine the state of calibration of an instrument before sample analysis is initiated.
IDPH	IL Dept. of Public Health
LCS	Laboratory control sample is a sample matrix, free from the analytes of interest,spiked with verified known amounts of analytes and analyzed exactly like a sample to establish intra-laboratory or analyst specific precision and bias or to assess the performance of all or a portion of the measurement system.
LCSD	Laboratory control sample duplicate is a replicate laboratory control sample that is prepared and analyzed in order to determine the precision of the approved test method. The acceptable recovery range is listed in the QC Package (provided upon request).
MBLK	Method blank is a sample of a matrix similar to the batch of associated sample (when available) that is free from the analytes of interest and is processed simultaneously with and under the same conditions as samples through all steps of the analytical procedures, and in which no target analytes or interferences should present at concentrations that impact the analytical results for sample analyses.
MDL	"The method detection limit is defined as the minimum measured concentration of a substance that can be reported with 99% confidence that the measured concentration is distinguishable from method blank results."
MS	Matrix spike is an aliquot of matrix fortified (spiked) with known quantities of specific analytes that is subjected to the entire analytical procedures in order to determine the effect of the matrix on an approved test method's recovery system. The acceptable recovery range is listed in the QC Package (provided upon request).
MSD	Matrix spike duplicate means a replicate matrix spike that is prepared and analyzed in order to determine the precision of the approved test method. The acceptable recovery range is listed in the QC Package (provided upon request).
MW	Molecular weight
NC	Data is not acceptable for compliance purposes
ND	Not Detected at the Reporting Limit
NELAP	NELAP Accredited
PQL	Practical quantitation limit means the lowest level that can be reliably achieved within specified limits of precision and accuracy during routine laboratory operation conditions.
RL	The reporting limit the lowest level that the data is displayed in the final report. The reporting limit may vary according to customer request or sample dilution. The reporting limit may not be less than the MDL.
RPD	Relative percent difference is a calculated difference between two recoveries (ie. MS/MSD). The acceptable recovery limit is listed in the QC Package (provided upon request).
SPK	The spike is a known mass of target analyte added to a blank sample or sub-sample; used to determine recovery deficiency or for other quality control purposes.
Surr	Surrogates are compounds which are similar to the analytes of interest in chemical composition and behavior in the analytical process, but which are not normally found in environmental samples.
TIC	Tentatively identified compound: Analytes tentatively identified in the sample by using a library search. Only results not in the calibration standard will be reported as tentatively identified compounds. Results for tentatively identified compounds that are not present in the calibration standard, but are assigned a specific chemical name based upon the library search, are calculated using total peak areas from reconstructed ion chromatograms and a response factor of one. The nearest Internal Standard is used for the calculation. The results of any TICs must be considered estimated, and are flagged with a "T". If the estimated result is above the calibration range it is flagged "ET"
TNTC	Too numerous to count (> 200 CFU)

Teklab, Inc. Environmental Laboratory

Definitions

http://www.teklabinc.com/

Client: Alpha Analytical

Work Order: 21061628

Client Project: L2133852

Report Date: 02-Jul-21

Qualifiers

# -	Unknown hydrocarbon	B -	Analyte detected in associated Method Blank
C -	RL shown is a Client Requested Quantitation Limit	E -	Value above quantitation range
H -	Holding times exceeded	I -	Associated internal standard was outside method criteria
J -	Analyte detected below quantitation limits	M -	Manual Integration used to determine area response
ND -	Not Detected at the Reporting Limit	R -	RPD outside accepted recovery limits
S -	Spike Recovery outside recovery limits	T -	TIC(Tentatively identified compound)
X -	Value exceeds Maximum Contaminant Level		

Teklab, Inc. Environmental Laboratory

Case Narrative

http://www.teklabinc.com/

Client: Alpha Analytical

Client Project: L2133852

Work Order: 21061628

Report Date: 02-Jul-21

Cooler Receipt Temp: 2.8 °C

This report was revised on 7/2/21 per Nathalie Lewis's request. The reason for the revision is to correct the collection time. Please replace report dated 6/30/21 with this report. MLDII 7/2/21

Locations

Collinsville

Address 5445 Horseshoe Lake Road
Collinsville, IL 62234-7425
Phone (618) 344-1004
Fax (618) 344-1005
Email jhriley@teklabinc.com

Springfield

Address 3920 Pintail Dr
Springfield, IL 62711-9415
Phone (217) 698-1004
Fax (217) 698-1005
Email KKlostermann@teklabinc.com

Kansas City

Address 8421 Nieman Road
Lenexa, KS 66214
Phone (913) 541-1998
Fax (913) 541-1998
Email jhriley@teklabinc.com

Collinsville Air

Address 5445 Horseshoe Lake Road
Collinsville, IL 62234-7425
Phone (618) 344-1004
Fax (618) 344-1005
Email EHurley@teklabinc.com

Chicago

Address 1319 Butterfield Rd.
Downers Grove, IL 60515
Phone (630) 324-6855
Fax
Email arenner@teklabinc.com

Teklab, Inc. Environmental Laboratory

Accreditations

http://www.teklabinc.com/

Client: Alpha Analytical

Client Project: L2133852

Work Order: 21061628

Report Date: 02-Jul-21

State	Dept	Cert #	NELAP	Exp Date	Lab
Illinois	IEPA	100226	NELAP	1/31/2022	Collinsville
Kansas	KDHE	E-10374	NELAP	4/30/2022	Collinsville
Louisiana	LDEQ	05002	NELAP	6/30/2022	Collinsville
Louisiana	LDEQ	05003	NELAP	6/30/2022	Collinsville
Oklahoma	ODEQ	9978	NELAP	8/31/2021	Collinsville
Arkansas	ADEQ	88-0966		3/14/2022	Collinsville
Illinois	IDPH	17584		5/31/2021	Collinsville
Kentucky	UST	0073		1/31/2022	Collinsville
Missouri	MDNR	00930		5/31/2021	Collinsville
Missouri	MDNR	930		1/31/2022	Collinsville

Teklab, Inc.
Environmental Laboratory

Laboratory Results

http://www.teklabinc.com/

Client: Alpha Analytical
Work Order: 21061628
Client Project: L2133852
Report Date: 02-Jul-21
Lab ID: 21061628-001
Client Sample ID: SH-GP-2020-03W_06222021
Matrix: AQUEOUS
Collection Date: 06/22/2021 13:45

Analyses	Certification	RL	Qual	Result	Units	DF	Date Analyzed	Batch
EPA 600 1671A, PHARMACEUTICAL MANUFACTURING INDUSTRY NON-PURGEABLE VOLATILE ORGANICS								
Ethanol	*	20		**ND**	mg/L	1	06/28/2021 12:06	R293753

Teklab, Inc. Environmental Laboratory

Quality Control Results

http://www.teklabinc.com/

Client: Alpha Analytical **Work Order:** 21061628

Client Project: L2133852 **Report Date:** 02-Jul-21

EPA 600 1671A, PHARMACEUTICAL MANUFACTURING INDUSTRY NON-PURGEABLE VOLATILE OR

Batch R293753 **SampType:** MBLK Units **mg/L**

SampID: MBLK-062821

Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	Low Limit	High Limit	Date Analyzed
Ethanol	*	20		**ND**						06/28/2021

Batch R293753 **SampType:** LCS Units **mg/L**

SampID: LCS-062821

Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	Low Limit	High Limit	Date Analyzed
Ethanol	*	20		**250**	250.0	0	98.3	70	132	06/28/2021

Batch R293753 **SampType:** MS Units **mg/L**

SampID: 21061628-001AMS

Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	Low Limit	High Limit	Date Analyzed
Ethanol	*	20		**230**	250.0	0	91.5	70	132	06/28/2021

Batch R293753 **SampType:** MSD Units **mg/L** RPD Limit **30**

SampID: 21061628-001AMSD

Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	RPD Ref Val	%RPD	Date Analyzed
Ethanol	*	20		**240**	250.0	0	97.3	228.8	6.13	06/28/2021

Teklab, Inc.
Environmental Laboratory

Receiving Check List

http://www.teklabinc.com/

Client: Alpha Analytical
Client Project: L2133852

Work Order: 21061628
Report Date: 02-Jul-21

Carrier: UPS

Received By: PRY

Completed by: Mary E. Kemp
On: 25-Jun-21
Mary E. Kemp

Reviewed by: Elizabeth A. Hurley
On: 25-Jun-21
Elizabeth A. Hurley

Pages to follow: Chain of custody 1 Extra pages included 0

Shipping container/cooler in good condition?	Yes ☑	No ☐	Not Present ☐	Temp °C **2.8**
Type of thermal preservation?	None ☐	Ice ☑	Blue Ice ☐	Dry Ice ☐
Chain of custody present?	Yes ☑	No ☐		
Chain of custody signed when relinquished and received?	Yes ☑	No ☐		
Chain of custody agrees with sample labels?	Yes ☐	No ☑		
Samples in proper container/bottle?	Yes ☑	No ☐		
Sample containers intact?	Yes ☑	No ☐		
Sufficient sample volume for indicated test?	Yes ☑	No ☐		
All samples received within holding time?	Yes ☑	No ☐		
Reported field parameters measured:	Field ☐	Lab ☐	NA ☑	
Container/Temp Blank temperature in compliance?	Yes ☑	No ☐		
When thermal preservation is required, samples are compliant with a temperature between 0.1°C - 6.0°C, or when samples are received on ice the same day as collected.				
Water – at least one vial per sample has zero headspace?	Yes ☑	No ☐	No VOA vials ☐	
Water - TOX containers have zero headspace?	Yes ☐	No ☐	No TOX containers ☑	
Water - pH acceptable upon receipt?	Yes ☑	No ☐	NA ☐	
NPDES/CWA TCN interferences checked/treated in the field?	Yes ☐	No ☐	NA ☑	

Any No responses must be detailed below or on the COC.

Received sample labeled SH-GP-2020-03W_06222021 rather than SH-GP-2020-02W_06222021. OF_06232021 was received but is not listed on the chain of custody. Per Nathalie Lewis, report SH-GP-2020-03W_06222021 rather than SH-GP-2020-02W_06222021 and do not analyze OF_06232021. - ERH/MEK 6/25/21 1210

2106161628

Subcontract Chain of Custody

Tek Lab, Inc.
5445 Horsehoe Lake Road
Collinsville, IL 62234-7425

Alpha Job Number
L2133852

Client Information	Project Information	Regulatory Requirements/Report Limits
Client: Alpha Analytical Labs Address: Eight Walkup Drive Westborough, MA 01581-1019 Phone: 508.439.5170 Email: nlewis@alphalab.com	Project Location: MA Project Manager: Nathalie Lewis **Turnaround & Deliverables Information** Due Date: Deliverables:	State/Federal Program: Regulatory Criteria:

Project Specific Requirements and/or Report Requirements

Reference following Alpha Job Number on final report/deliverables: L2133852

Report to include Method Blank, LCS/LCSD:

Additional Comments: Send all results/reports to subreports@alphalab.com

Lab ID	Client ID	Collection Date/Time	Sample Matrix	Analysis	Batch QC
21061628-001 *	SH-GP-2020-02W_06222021 *	06-22-21 08:45	WATER	Ethanol by EPA 1671 Revision A * Labeled 1345	
↓ 002	OF_06232021 6/23/21 1315	Do not analyze per Nathalie Lewis MEL 6/26/21 1210			

	Relinquished By:	Date/Time:	Received By:	Date/Time:
	C Gelbeau	6/24/21	UPS	6/25/21 1130
Form No: AL_subcoc				

Temp: 2.8°C LTS:1 Sample id does not match chain EH 6/25/21
OHS EH 6/25/21
* label label says SH-GP-202003W_06222021
Sample is -03W per Nathalie Lewis MEL 1210

EH 6/25/21

eurofins | Environment Testing America

ANALYTICAL REPORT

Eurofins Environment Testing New England
646 Camp Ave
North Kingstown, RI 02852
Tel: (413)789-9018

Laboratory Job ID: 620-409-1
Client Project/Site: L2133852
Revision: 2

For:
Alpha Analytical Inc
8 Walkup Drive
Westboro, Massachusetts 01581

Attn: Reports Dept.

Authorized for release by:
9/20/2021 4:00:53 PM

Agnes Huntley, Project Manager
(401)372-3482
agnes.huntley@eurofinset.com

This report has been electronically signed and authorized by the signatory. Electronic signature is intended to be the legally binding equivalent of a traditionally handwritten signature.

Results relate only to the items tested and the sample(s) as received by the laboratory.

Client: Alpha Analytical Inc
Project/Site: L2133852

Laboratory Job ID: 620-409-1

Table of Contents

Definitions/Glossary

Client: Alpha Analytical Inc
Project/Site: L2133852

Job ID: 620-409-1

Qualifiers

Metals

Qualifier	Qualifier Description
*+	LCS and/or LCSD is outside acceptance limits, high biased.
^-	Continuing Calibration Verification (CCV) is outside acceptance limits, low biased.
^1+	Initial Calibration Verification (ICV) is outside acceptance limits, high biased.

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
¤	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CFU	Colony Forming Unit
CNF	Contains No Free Liquid
DER	Duplicate Error Ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL	Detection Limit (DoD/DOE)
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision Level Concentration (Radiochemistry)
EDL	Estimated Detection Limit (Dioxin)
LOD	Limit of Detection (DoD/DOE)
LOQ	Limit of Quantitation (DoD/DOE)
MCL	EPA recommended "Maximum Contaminant Level"
MDA	Minimum Detectable Activity (Radiochemistry)
MDC	Minimum Detectable Concentration (Radiochemistry)
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
MPN	Most Probable Number
MQL	Method Quantitation Limit
NC	Not Calculated
ND	Not Detected at the reporting limit (or MDL or EDL if shown)
NEG	Negative / Absent
POS	Positive / Present
PQL	Practical Quantitation Limit
PRES	Presumptive
QC	Quality Control
RER	Relative Error Ratio (Radiochemistry)
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)
TNTC	Too Numerous To Count

Case Narrative

Client: Alpha Analytical Inc
Project/Site: L2133852

Job ID: 620-409-1

Job ID: 620-409-1

Laboratory: Eurofins Environment Testing New England

Narrative

Job Narrative
620-409-1

Comments
No additional comments.

Receipt
The samples were received on 7/12/2021 10:36 AM. Unless otherwise noted below, the samples arrived in good condition, and where required, properly preserved and on ice. The temperature of the cooler at receipt was 5.4º C.

Receipt Exceptions
The Chain-of-Custody (COC) was incomplete as received and/or improperly completed. The field sampler's name is not listed on the chain of custody. The preservative code for metals is not listed on the chain of custody.

Metals
Method 200.7 Rev 4.4: The initial ICB reported above the acceptable limit for Calcium and Magnesium. However, this was determined to be due to a contaminated standard and not due to the instrument. Since Calcium and Magnesium passed the CCB using a new standard, the data was determined to be acceptable: SH-GP-2020-02W_06222021 (620-409-1), SH-GP-2020-03W_06222021 (620-409-2), OF_06232021 (620-409-3) and (ICB 620-2212/15).

Method 200.8: The laboratory control sample (LCS) for preparation batch 620-2140 and analytical batch 620-2162 recovered outside control limits for the following analytes: silver. These analytes were biased high in the LCS and were not detected in the associated samples; therefore, the data have been reported.

Method 200.8: The continuing calibration verification (CCV) associated with batch 620-2254 recovered above the upper control limit for silver. The samples associated with this CCV were non-detects for the affected analytes; therefore, the data have been reported. The associated sample is impacted: SH-GP-2020-03W_06222021 (620-409-2).

Method 200.8: The laboratory control sample (LCS) associated with preparation batch 620-2204 and analytical batch 620-2273 was outside acceptance criteria for arsenic. Re-extraction and/or re-analysis could not be performed; therefore, the data have been reported. The batch matrix spike/matrix spike duplicate (MS/MSD) was within acceptance limits and may be used to evaluate matrix performance.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

Report Revision August 3, 2021
Report revised to include data for Hardness per request of the client.

Report Revision September 20, 2021
Report revised to include data for Selenium per request of the client.

Detection Summary

Client: Alpha Analytical Inc
Project/Site: L2133852

Job ID: 620-409-1

Client Sample ID: SH-GP-2020-02W_06222021 — Lab Sample ID: 620-409-1

Analyte	Result	Qualifier	RL		Unit	Dil Fac	D	Method	Prep Type
Iron	0.129		0.100		mg/L	1		200.7 Rev 4.4	Total/NA
Antimony	0.000402		0.000250		mg/L	1		200.8	Total/NA
Arsenic	0.0209		0.000500		mg/L	1		200.8	Total/NA
Chromium	0.00295		0.00100		mg/L	1		200.8	Total/NA
Copper	0.00944		0.00250		mg/L	1		200.8	Total/NA
Nickel	0.0165		0.00100		mg/L	1		200.8	Total/NA
Zinc	0.0142		0.00500		mg/L	1		200.8	Total/NA
Hardness as calcium carbonate	92.2		1.45		mg/L	1		SM 2340B	Total/NA

Client Sample ID: SH-GP-2020-03W_06222021 — Lab Sample ID: 620-409-2

Analyte	Result	Qualifier	RL		Unit	Dil Fac	D	Method	Prep Type
Iron	32.9		0.100		mg/L	1		200.7 Rev 4.4	Total/NA
Arsenic	0.0317	*+	0.00100		mg/L	1		200.8	Total/NA
Chromium	0.0111		0.00200		mg/L	1		200.8	Total/NA
Nickel	0.0123		0.00200		mg/L	1		200.8	Total/NA
Zinc	0.0235		0.0100		mg/L	1		200.8	Total/NA
Hardness as calcium carbonate	249		1.45		mg/L	1		SM 2340B	Total/NA

Client Sample ID: OF_06232021 — Lab Sample ID: 620-409-3

Analyte	Result	Qualifier	RL		Unit	Dil Fac	D	Method	Prep Type
Iron	1.02		0.100		mg/L	1		200.7 Rev 4.4	Total/NA
Antimony	0.000260		0.000250		mg/L	1		200.8	Total/NA
Arsenic	0.0261		0.000500		mg/L	1		200.8	Total/NA
Chromium	0.00226		0.00100		mg/L	1		200.8	Total/NA
Copper	0.00298		0.00250		mg/L	1		200.8	Total/NA
Lead	0.00270		0.000500		mg/L	1		200.8	Total/NA
Nickel	0.00217		0.00100		mg/L	1		200.8	Total/NA
Zinc	0.0154		0.00500		mg/L	1		200.8	Total/NA
Hardness as calcium carbonate	73.6		1.45		mg/L	1		SM 2340B	Total/NA

This Detection Summary does not include radiochemical test results.

Client Sample Results

Client: Alpha Analytical Inc
Project/Site: L2133852

Job ID: 620-409-1

Client Sample ID: SH-GP-2020-02W_06222021

Lab Sample ID: 620-409-1

Date Collected: 06/22/21 08:45

Matrix: Water

Date Received: 07/12/21 10:36

Method: 200.7 Rev 4.4 - Metals (ICP)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Iron	**0.129**		0.100		mg/L		07/12/21 15:12	07/15/21 11:57	1

Method: 200.8 - Metals (ICP/MS)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Antimony	**0.000402**		0.000250		mg/L		07/12/21 15:18	07/13/21 11:27	1
Arsenic	**0.0209**		0.000500		mg/L		07/12/21 15:18	07/13/21 11:27	1
Cadmium	ND		0.000250		mg/L		07/12/21 15:18	07/13/21 11:27	1
Chromium	**0.00295**		0.00100		mg/L		07/12/21 15:18	07/13/21 11:27	1
Copper	**0.00944**		0.00250		mg/L		07/12/21 15:18	07/13/21 11:27	1
Lead	ND		0.000500		mg/L		07/12/21 15:18	07/13/21 11:27	1
Nickel	**0.0165**		0.00100		mg/L		07/12/21 15:18	07/13/21 11:27	1
Silver	ND	^1+ *+	0.000250		mg/L		07/12/21 15:18	07/13/21 11:27	1
Zinc	**0.0142**		0.00500		mg/L		07/12/21 15:18	07/14/21 13:58	1
Selenium	ND		0.00100		mg/L		07/12/21 15:18	07/13/21 11:27	1

Method: 245.1 - Mercury (CVAA)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.000200		mg/L		07/13/21 12:38	07/13/21 16:17	1

Method: SM 2340B - Total Hardness (as CaCO3) by calculation

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Hardness as calcium carbonate	**92.2**		1.45		mg/L			08/03/21 10:11	1

Client Sample Results

Client: Alpha Analytical Inc
Project/Site: L2133852

Job ID: 620-409-1

Client Sample ID: SH-GP-2020-03W_06222021

Date Collected: 06/22/21 13:45
Date Received: 07/12/21 10:36

Lab Sample ID: 620-409-2

Matrix: Water

Method: 200.7 Rev 4.4 - Metals (ICP)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Iron	**32.9**		0.100		mg/L		07/14/21 18:22	07/15/21 12:36	1

Method: 200.8 - Metals (ICP/MS)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Antimony	ND		0.000500		mg/L		07/14/21 18:26	07/15/21 17:31	1
Arsenic	**0.0317**	*+	0.00100		mg/L		07/14/21 18:26	07/16/21 14:06	1
Cadmium	ND		0.000500		mg/L		07/14/21 18:26	07/15/21 17:31	1
Chromium	**0.0111**		0.00200		mg/L		07/14/21 18:26	07/16/21 14:06	1
Copper	ND		0.00500		mg/L		07/14/21 18:26	07/15/21 17:31	1
Lead	ND		0.00100		mg/L		07/14/21 18:26	07/15/21 17:31	1
Nickel	**0.0123**		0.00200		mg/L		07/14/21 18:26	07/16/21 14:06	1
Silver	ND	*+	0.000500		mg/L		07/14/21 18:26	07/15/21 17:31	1
Zinc	**0.0235**		0.0100		mg/L		07/14/21 18:26	07/15/21 17:31	1
Selenium	ND		0.00200		mg/L		07/14/21 18:26	07/15/21 17:31	1

Method: 245.1 - Mercury (CVAA)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.000200		mg/L		07/15/21 12:43	07/15/21 16:08	1

Method: SM 2340B - Total Hardness (as CaCO3) by calculation

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Hardness as calcium carbonate	**249**		1.45		mg/L			08/03/21 10:11	1

Client Sample Results

Client: Alpha Analytical Inc
Project/Site: L2133852

Job ID: 620-409-1

Client Sample ID: OF_06232021

Date Collected: 06/23/21 13:15
Date Received: 07/12/21 10:36

Lab Sample ID: 620-409-3

Matrix: Water

Method: 200.7 Rev 4.4 - Metals (ICP)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Iron	**1.02**		0.100		mg/L		07/12/21 15:12	07/15/21 12:03	1

Method: 200.8 - Metals (ICP/MS)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Antimony	**0.000260**		0.000250		mg/L		07/12/21 15:18	07/13/21 11:29	1
Arsenic	**0.0261**		0.000500		mg/L		07/12/21 15:18	07/13/21 11:29	1
Cadmium	ND		0.000250		mg/L		07/12/21 15:18	07/13/21 11:29	1
Chromium	**0.00226**		0.00100		mg/L		07/12/21 15:18	07/13/21 11:29	1
Copper	**0.00298**		0.00250		mg/L		07/12/21 15:18	07/13/21 11:29	1
Lead	**0.00270**		0.000500		mg/L		07/12/21 15:18	07/13/21 11:29	1
Nickel	**0.00217**		0.00100		mg/L		07/12/21 15:18	07/13/21 11:29	1
Silver	ND	^1+ *+	0.000250		mg/L		07/12/21 15:18	07/13/21 11:29	1
Zinc	**0.0154**		0.00500		mg/L		07/12/21 15:18	07/14/21 14:00	1
Selenium	ND		0.00100		mg/L		07/12/21 15:18	07/13/21 11:29	1

Method: 245.1 - Mercury (CVAA)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.000200		mg/L		07/13/21 12:38	07/13/21 16:19	1

Method: SM 2340B - Total Hardness (as CaCO3) by calculation

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Hardness as calcium carbonate	**73.6**		1.45		mg/L			07/15/21 16:30	1

QC Sample Results

Client: Alpha Analytical Inc
Project/Site: L2133852

Job ID: 620-409-1

Method: 200.7 Rev 4.4 - Metals (ICP)

Lab Sample ID: MB 620-2134/1-A
Matrix: Water
Analysis Batch: 2212

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 2134

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Iron	ND		0.100		mg/L		07/12/21 15:10	07/15/21 10:45	1

Lab Sample ID: LCS 620-2134/2-A
Matrix: Water
Analysis Batch: 2212

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 2134

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
Iron			2.50	2.507		mg/L		100	85 - 115		

Lab Sample ID: MB 620-2203/1-A
Matrix: Water
Analysis Batch: 2212

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 2203

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Iron	ND		0.100		mg/L		07/14/21 18:22	07/15/21 12:25	1

Lab Sample ID: LCS 620-2203/2-A
Matrix: Water
Analysis Batch: 2212

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 2203

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
Iron			2.50	2.641		mg/L		106	85 - 115		

Method: 200.8 - Metals (ICP/MS)

Lab Sample ID: MB 620-2140/1-A
Matrix: Water
Analysis Batch: 2162

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 2140

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Antimony	ND		0.000250		mg/L		07/12/21 15:18	07/13/21 11:01	1
Cadmium	ND		0.000250		mg/L		07/12/21 15:18	07/13/21 11:01	1
Chromium	ND		0.00100		mg/L		07/12/21 15:18	07/13/21 11:01	1
Copper	ND		0.00250		mg/L		07/12/21 15:18	07/13/21 11:01	1
Lead	ND		0.000500		mg/L		07/12/21 15:18	07/13/21 11:01	1
Nickel	ND		0.00100		mg/L		07/12/21 15:18	07/13/21 11:01	1
Silver	ND	^1+	0.000250		mg/L		07/12/21 15:18	07/13/21 11:01	1
Selenium	ND		0.00100		mg/L		07/12/21 15:18	07/13/21 11:01	1

Lab Sample ID: MB 620-2140/1-A
Matrix: Water
Analysis Batch: 2162

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 2140

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	ND		0.000500		mg/L		07/12/21 15:18	07/13/21 11:33	1
Selenium	ND		0.00100		mg/L		07/12/21 15:18	07/13/21 11:33	1

QC Sample Results

Client: Alpha Analytical Inc
Project/Site: L2133852

Job ID: 620-409-1

Method: 200.8 - Metals (ICP/MS) (Continued)

Lab Sample ID: MB 620-2140/1-A
Matrix: Water
Analysis Batch: 2198

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 2140

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Zinc	ND		0.00500		mg/L		07/12/21 15:18	07/14/21 13:34	1

Lab Sample ID: LCS 620-2140/2-A
Matrix: Water
Analysis Batch: 2162

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 2140

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
Antimony			0.0500	0.04692		mg/L		94	85 - 115		
Cadmium			0.0500	0.04635		mg/L		93	85 - 115		
Chromium			0.0500	0.04804		mg/L		96	85 - 115		
Copper			0.0500	0.04751		mg/L		95	85 - 115		
Lead			0.0500	0.04644		mg/L		93	85 - 115		
Nickel			0.0500	0.04603		mg/L		92	85 - 115		
Silver			0.0500	0.07368	^1+ *+	mg/L		147	85 - 115		
Selenium			0.250	0.2264		mg/L		91	85 - 115		

Lab Sample ID: LCS 620-2140/2-A ^5
Matrix: Water
Analysis Batch: 2164

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 2140

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
Arsenic			0.0500	0.05717		mg/L		114	85 - 115		

Lab Sample ID: LCS 620-2140/2-A ^5
Matrix: Water
Analysis Batch: 2198

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 2140

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
Zinc			0.0500	0.04384		mg/L		88	85 - 115		

Lab Sample ID: MB 620-2204/1-A
Matrix: Water
Analysis Batch: 2254

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 2204

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Antimony	ND		0.000500		mg/L		07/14/21 18:26	07/15/21 17:27	1
Arsenic	0.04599		0.00100		mg/L		07/14/21 18:26	07/15/21 17:27	1
Cadmium	ND		0.000500		mg/L		07/14/21 18:26	07/15/21 17:27	1
Chromium	0.002942		0.00200		mg/L		07/14/21 18:26	07/15/21 17:27	1
Copper	ND		0.00500		mg/L		07/14/21 18:26	07/15/21 17:27	1
Lead	ND		0.00100		mg/L		07/14/21 18:26	07/15/21 17:27	1
Nickel	0.003410		0.00200		mg/L		07/14/21 18:26	07/15/21 17:27	1
Silver	ND		0.000500		mg/L		07/14/21 18:26	07/15/21 17:27	1
Zinc	ND		0.0100		mg/L		07/14/21 18:26	07/15/21 17:27	1
Selenium	ND		0.00200		mg/L		07/14/21 18:26	07/15/21 17:27	1

QC Sample Results

Client: Alpha Analytical Inc
Project/Site: L2133852

Job ID: 620-409-1

Method: 200.8 - Metals (ICP/MS) (Continued)

Lab Sample ID: MB 620-2204/1-A
Matrix: Water
Analysis Batch: 2273

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 2204

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	ND	^-	0.00100		mg/L		07/14/21 18:26	07/16/21 14:04	1
Chromium	ND	^-	0.00200		mg/L		07/14/21 18:26	07/16/21 14:04	1
Nickel	ND	^-	0.00200		mg/L		07/14/21 18:26	07/16/21 14:04	1

Lab Sample ID: LCS 620-2204/2-A ^5
Matrix: Water
Analysis Batch: 2254

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 2204

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
Antimony			0.100	0.1019		mg/L		102	85 - 115		
Cadmium			0.100	0.1009		mg/L		101	85 - 115		
Copper			0.100	0.1047		mg/L		105	85 - 115		
Lead			0.100	0.1021		mg/L		102	85 - 115		
Silver			0.100	0.1344	*+	mg/L		134	85 - 115		
Zinc			0.100	0.09954		mg/L		100	85 - 115		
Selenium			0.500	0.4984		mg/L		100	85 - 115		

Method: 245.1 - Mercury (CVAA)

Lab Sample ID: MB 620-2165/1-A
Matrix: Water
Analysis Batch: 2173

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 2165

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.000200		mg/L		07/13/21 12:38	07/13/21 15:44	1

Lab Sample ID: LCS 620-2165/2-A
Matrix: Water
Analysis Batch: 2173

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 2165

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
Mercury			0.00500	0.004646		mg/L		93	85 - 115		

Lab Sample ID: MB 620-2227/1-A
Matrix: Water
Analysis Batch: 2237

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 2227

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.000200		mg/L		07/15/21 12:43	07/15/21 15:42	1

Lab Sample ID: LCS 620-2227/2-A
Matrix: Water
Analysis Batch: 2237

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 2227

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
Mercury			0.00500	0.004718		mg/L		94	85 - 115		

QC Association Summary

Client: Alpha Analytical Inc
Project/Site: L2133852

Job ID: 620-409-1

Metals

Prep Batch: 2134

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
620-409-1	SH-GP-2020-02W_06222021	Total/NA	Water	200.7	
620-409-3	OF_06232021	Total/NA	Water	200.7	
MB 620-2134/1-A	Method Blank	Total/NA	Water	200.7	
LCS 620-2134/2-A	Lab Control Sample	Total/NA	Water	200.7	

Prep Batch: 2140

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
620-409-1	SH-GP-2020-02W_06222021	Total/NA	Water	200.8	
620-409-3	OF_06232021	Total/NA	Water	200.8	
MB 620-2140/1-A	Method Blank	Total/NA	Water	200.8	
LCS 620-2140/2-A	Lab Control Sample	Total/NA	Water	200.8	
LCS 620-2140/2-A ^5	Lab Control Sample	Total/NA	Water	200.8	

Analysis Batch: 2162

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
620-409-1	SH-GP-2020-02W_06222021	Total/NA	Water	200.8	2140
620-409-3	OF_06232021	Total/NA	Water	200.8	2140
MB 620-2140/1-A	Method Blank	Total/NA	Water	200.8	2140
MB 620-2140/1-A	Method Blank	Total/NA	Water	200.8	2140
LCS 620-2140/2-A	Lab Control Sample	Total/NA	Water	200.8	2140

Analysis Batch: 2164

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
LCS 620-2140/2-A ^5	Lab Control Sample	Total/NA	Water	200.8	2140

Prep Batch: 2165

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
620-409-1	SH-GP-2020-02W_06222021	Total/NA	Water	245.1	
620-409-3	OF_06232021	Total/NA	Water	245.1	
MB 620-2165/1-A	Method Blank	Total/NA	Water	245.1	
LCS 620-2165/2-A	Lab Control Sample	Total/NA	Water	245.1	

Analysis Batch: 2173

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
620-409-1	SH-GP-2020-02W_06222021	Total/NA	Water	245.1	2165
620-409-3	OF_06232021	Total/NA	Water	245.1	2165
MB 620-2165/1-A	Method Blank	Total/NA	Water	245.1	2165
LCS 620-2165/2-A	Lab Control Sample	Total/NA	Water	245.1	2165

Analysis Batch: 2198

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
620-409-1	SH-GP-2020-02W_06222021	Total/NA	Water	200.8	2140
620-409-3	OF_06232021	Total/NA	Water	200.8	2140
MB 620-2140/1-A	Method Blank	Total/NA	Water	200.8	2140
LCS 620-2140/2-A ^5	Lab Control Sample	Total/NA	Water	200.8	2140

Prep Batch: 2203

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
620-409-2	SH-GP-2020-03W_06222021	Total/NA	Water	200.7	
MB 620-2203/1-A	Method Blank	Total/NA	Water	200.7	
LCS 620-2203/2-A	Lab Control Sample	Total/NA	Water	200.7	

QC Association Summary

Client: Alpha Analytical Inc
Project/Site: L2133852

Job ID: 620-409-1

Metals

Prep Batch: 2204

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
620-409-2	SH-GP-2020-03W_06222021	Total/NA	Water	200.8	
MB 620-2204/1-A	Method Blank	Total/NA	Water	200.8	
LCS 620-2204/2-A ^5	Lab Control Sample	Total/NA	Water	200.8	

Analysis Batch: 2212

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
620-409-1	SH-GP-2020-02W_06222021	Total/NA	Water	200.7 Rev 4.4	2134
620-409-2	SH-GP-2020-03W_06222021	Total/NA	Water	200.7 Rev 4.4	2203
620-409-3	OF_06232021	Total/NA	Water	200.7 Rev 4.4	2134
MB 620-2134/1-A	Method Blank	Total/NA	Water	200.7 Rev 4.4	2134
MB 620-2203/1-A	Method Blank	Total/NA	Water	200.7 Rev 4.4	2203
LCS 620-2134/2-A	Lab Control Sample	Total/NA	Water	200.7 Rev 4.4	2134
LCS 620-2203/2-A	Lab Control Sample	Total/NA	Water	200.7 Rev 4.4	2203

Prep Batch: 2227

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
620-409-2	SH-GP-2020-03W_06222021	Total/NA	Water	245.1	
MB 620-2227/1-A	Method Blank	Total/NA	Water	245.1	
LCS 620-2227/2-A	Lab Control Sample	Total/NA	Water	245.1	

Analysis Batch: 2236

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
620-409-3	OF_06232021	Total/NA	Water	SM 2340B	

Analysis Batch: 2237

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
620-409-2	SH-GP-2020-03W_06222021	Total/NA	Water	245.1	2227
MB 620-2227/1-A	Method Blank	Total/NA	Water	245.1	2227
LCS 620-2227/2-A	Lab Control Sample	Total/NA	Water	245.1	2227

Analysis Batch: 2254

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
620-409-2	SH-GP-2020-03W_06222021	Total/NA	Water	200.8	2204
MB 620-2204/1-A	Method Blank	Total/NA	Water	200.8	2204
LCS 620-2204/2-A ^5	Lab Control Sample	Total/NA	Water	200.8	2204

Analysis Batch: 2273

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
620-409-2	SH-GP-2020-03W_06222021	Total/NA	Water	200.8	2204
MB 620-2204/1-A	Method Blank	Total/NA	Water	200.8	2204

Analysis Batch: 2718

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
620-409-1	SH-GP-2020-02W_06222021	Total/NA	Water	SM 2340B	
620-409-2	SH-GP-2020-03W_06222021	Total/NA	Water	SM 2340B	

Lab Chronicle

Client: Alpha Analytical Inc
Project/Site: L2133852

Job ID: 620-409-1

Client Sample ID: SH-GP-2020-02W_06222021

Lab Sample ID: 620-409-1
Matrix: Water
Date Collected: 06/22/21 08:45
Date Received: 07/12/21 10:36

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	200.7			2134	07/12/21 15:12	PMH	ENE
Total/NA	Analysis	200.7 Rev 4.4		1	2212	07/15/21 11:57	PMH	ENE
Total/NA	Prep	200.8			2140	07/12/21 15:18	PMH	ENE
Total/NA	Analysis	200.8		1	2162	07/13/21 11:27	EDT	ENE
Total/NA	Prep	200.8			2140	07/12/21 15:18	PMH	ENE
Total/NA	Analysis	200.8		1	2198	07/14/21 13:58	EDT	ENE
Total/NA	Prep	245.1			2165	07/13/21 12:38	PMH	ENE
Total/NA	Analysis	245.1		1	2173	07/13/21 16:17	EDT	ENE
Total/NA	Analysis	SM 2340B		1	2718	08/03/21 10:11	EDT	ENE

Client Sample ID: SH-GP-2020-03W_06222021

Lab Sample ID: 620-409-2
Matrix: Water
Date Collected: 06/22/21 13:45
Date Received: 07/12/21 10:36

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	200.7			2203	07/14/21 18:22	PMH	ENE
Total/NA	Analysis	200.7 Rev 4.4		1	2212	07/15/21 12:36	PMH	ENE
Total/NA	Prep	200.8			2204	07/14/21 18:26	PMH	ENE
Total/NA	Analysis	200.8		1	2254	07/15/21 17:31	EDT	ENE
Total/NA	Prep	200.8			2204	07/14/21 18:26	PMH	ENE
Total/NA	Analysis	200.8		1	2273	07/16/21 14:06	EDT	ENE
Total/NA	Prep	245.1			2227	07/15/21 12:43	PMH	ENE
Total/NA	Analysis	245.1		1	2237	07/15/21 16:08	EDT	ENE
Total/NA	Analysis	SM 2340B		1	2718	08/03/21 10:11	EDT	ENE

Client Sample ID: OF_06232021

Lab Sample ID: 620-409-3
Matrix: Water
Date Collected: 06/23/21 13:15
Date Received: 07/12/21 10:36

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	200.7			2134	07/12/21 15:12	PMH	ENE
Total/NA	Analysis	200.7 Rev 4.4		1	2212	07/15/21 12:03	PMH	ENE
Total/NA	Prep	200.8			2140	07/12/21 15:18	PMH	ENE
Total/NA	Analysis	200.8		1	2162	07/13/21 11:29	EDT	ENE
Total/NA	Prep	200.8			2140	07/12/21 15:18	PMH	ENE
Total/NA	Analysis	200.8		1	2198	07/14/21 14:00	EDT	ENE
Total/NA	Prep	245.1			2165	07/13/21 12:38	PMH	ENE
Total/NA	Analysis	245.1		1	2173	07/13/21 16:19	EDT	ENE
Total/NA	Analysis	SM 2340B		1	2236	07/15/21 16:30	EDT	ENE

Laboratory References:

ENE = Eurofins Environment Testing New England, 646 Camp Ave, North Kingstown, RI 02852, TEL (413)789-9018

Accreditation/Certification Summary

Client: Alpha Analytical Inc
Project/Site: L2133852

Job ID: 620-409-1

Laboratory: Eurofins Environment Testing New England

Unless otherwise noted, all analytes for this laboratory were covered under each accreditation/certification below.

Authority	Program	Identification Number	Expiration Date
Rhode Island	State	LAI00368	12-31-21

The following analytes are included in this report, but the laboratory is not certified by the governing authority. This list may include analytes for which the agency does not offer certification.

Analysis Method	Prep Method	Matrix	Analyte
200.8	200.8	Water	Antimony
200.8	200.8	Water	Arsenic
200.8	200.8	Water	Silver

Method Summary

Client: Alpha Analytical Inc
Project/Site: L2133852

Job ID: 620-409-1

Method	Method Description	Protocol	Laboratory
200.7 Rev 4.4	Metals (ICP)	EPA	ENE
200.8	Metals (ICP/MS)	EPA	ENE
245.1	Mercury (CVAA)	EPA	ENE
SM 2340B	Total Hardness (as CaCO3) by calculation	SM	ENE
200.7	Preparation, Total Metals	EPA	ENE
200.8	Preparation, Total Metals	EPA	ENE
245.1	Preparation, Mercury	EPA	ENE

Protocol References:

EPA = US Environmental Protection Agency

SM = "Standard Methods For The Examination Of Water And Wastewater"

Laboratory References:

ENE = Eurofins Environment Testing New England, 646 Camp Ave, North Kingstown, RI 02852, TEL (413)789-9018

Sample Summary

Client: Alpha Analytical Inc
Project/Site: L2133852

Job ID: 620-409-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
620-409-1	SH-GP-2020-02W_06222021	Water	06/22/21 08:45	07/12/21 10:36
620-409-2	SH-GP-2020-03W_06222021	Water	06/22/21 13:45	07/12/21 10:36
620-409-3	OF_06232021	Water	06/23/21 13:15	07/12/21 10:36

409EW

Subcontract Chai

620-409 Chain of Custody

Eurofins Environment Te
646 Camp Avenue
North Kingstown, RI 02852

Alpha Job Number
L2133852

Client Information	Project Information	Regulatory Requirements/Report Limits
Client: Alpha Analytical Labs Address: Eight Walkup Drive Westborough, MA 01581-1019 Phone: 508.439.5170 Email: nlewis@alphalab.com	Project Location: MA Project Manager: Nathalie Lewis **Turnaround & Deliverables Information** Due Date: 07/15/21 (RUSH) Deliverables:	State/Federal Program: Regulatory Criteria:

Project Specific Requirements and/or Report Requirements

Reference following Alpha Job Number on final report/deliverables: L2133852

Report to include Method Blank, LCS/LCSD:

Additional Comments: Send all results/reports to subreports@alphalab.com need Ag, As, Cd, Cr, Cu, Ni, Pb, Sb, Zn by 200.8 -FE by 200.7 and HG by 245.1 and HARDNESS

Lab ID	Client ID	Collection Date/Time	Sample Matrix	Analysis	Batch QC
-01	SH-GP-2020-02W_06222021	06-22-21 08 45	WATER	Metals 200 8	
-03	SH-GP-2020-03W_06222021	06-22-21 13 45	WATER	Metals 200 8	
-05	OF_06232021	06-23-21 13 15	WATER	Metals 200.8	

	Relinquished By:	Date/Time:	Received By:	Date/Time:
	Kyle L Bailey	7/9/21	Joseph C. Brigham	7/9/21 1651
	Joseph C. Brigham	7/9/21	[illegible]	7-12-21 0900
	[illegible]	7-12-21 10:35	Patsy Howard	7-12-21 10:36

Form No: AL_subcoc

4.4°C | +1 | 5.4°C IR06

409EW

ALPHA ANALYTICAL
World Class Chemistry

Subcontract Chain of Custody

620-409 Chain of Custody

Eurofins Environment Testing
646 Camp Avenue
North Kingstown, RI 02852

Alpha Job Number
L2133852

Client Information	Project Information	Regulatory Requirements/Report Limits
Client: Alpha Analytical Labs Address: Eight Walkup Drive Westborough, MA 01581-1019 Phone: 508.439.5170 Email: nlewis@alphalab.com	Project Location: MA Project Manager: Nathalie Lewis **Turnaround & Deliverables Information** Due Date: 07/15/21 (RUSH) Deliverables:	State/Federal Program: Regulatory Criteria:

Project Specific Requirements and/or Report Requirements

Reference following Alpha Job Number on final report/deliverables: L2133852

Report to include Method Blank, LCS/LCSD:

Additional Comments: Send all results/reports to subreports@alphalab.com need Ag, As, Cd, Cr, Cu, Ni, Pb, Sb, Zn by 200.8 -FE by 200.7 and HG by 245.1 and HARDNESS

Lab ID	Client ID	Collection Date/Time	Sample Matrix	Analysis	Batch QC
-01	SH-GP-2020-02W_06222021	06-22-21 08 45	WATER	Metals 200.8	
-02	SH-GP-2020-03W_06222021	06-22-21 13.45	WATER	Metals 200.8	
-03	OF_06232021	06-23-21 13 15	WATER	Metals 200.8	

Cancelled Hardness from -02W and -03W per client request. - [illegible] 7/13

	Relinquished By:	Date/Time:	Received By:	Date/Time:
	Kim L. Bailey	7/9/21	Joseph C. Bergstrom	7/9/21 1651
	Joseph C. Bergstrom	7/9/21	TM	7-12-21 0900
	TM	7-12-21 10:35	[illegible] Howard	7-12-21 10:36
Form No: AL_subcoc				

4.4°C/+1/5.4°C IR06

Serial_No:09202117:24

14 13 12 11 10 9 8 7 6 5 4 3 2 1

Login Sample Receipt Checklist

Client: Alpha Analytical Inc

Job Number: 620-409-1

Login Number: 409
List Number: 1
Creator: Makhoul, Elie

List Source: Eurofins Environment Testing New England

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.	True	
The cooler's custody seal, if present, is intact.	N/A	
Sample custody seals, if present, are intact.	N/A	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	False	Refer to Job Narrative for details.
COC is filled out with all pertinent information.	False	Refer to Job Narrative for details.
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

APPENDIX F
Dewatering Discharge Permit Application

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

DEWATERING DISCHARGE PERMIT APPLICATION

OWNER / AUTHORIZED APPLICANT PROVIDE INFORMATION HERE:

Company Name: Consigli Construction Co., Address: 266 Summer Street, Boston, MA 02210

Phone Number: (617) 259-1007 Fax number: _____

Contact person name: Mr. Jeff Costa Title: Senior Superintendent

Cell number: (774) 573-2953 Email address: JCosta@consigli.com

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

Owner's Information (if different from above):

Owner of property being dewatered: Lendlease Development Inc.

Owner's mailing address: 20 City Square, 2nd Floor Boston, Massachusetts 02129 Phone number: (617) 557-6400

Location of Discharge & Proposed Treatment System(s):

Street number and name: 60 Guest Street Neighborhood Brighton

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

Describe Proposed Pre-Treatment System(s): Settling tank, bag filter, other optional components.

BWSC Outfall No. 25E037 Receiving Waters Charles River

Temporary Discharges (Provide Anticipated Dates of Discharge): From 03/01/2022 To 10/01/2023

☐ Groundwater Remediation	☐ Tank Removal/Installation	☑ Foundation Excavation
☐ Utility/Manhole Pumping	☐ Test Pipe	☐ Trench Excavation
☐ Accumulated Surface Water	☐ Hydrogeologic Testing	☐ Other Excavation dewatering during construction for various subsurface st

Permanent Discharges

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

---

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

Submit Completed Application to: Boston Water and Sewer Commission
Engineering Customer Services
980 Harrison Avenue, Boston, MA 02119
Attn: Jodi Dobay, Engineering Customer Service
E-mail: beginj@bwsc.org
Phone: 617-989-7259 Fax: 617-989-7716

Signature of Authorized Representative for Property Owner: _____ Date: 11/29/2021

APPENDIX G
Endangered Species and Wildlife Documentation

IPaC **U.S. Fish & Wildlife Service**

IPaC resource list

This report is an automatically generated list of species and other resources such as critical habitat (collectively referred to as *trust resources*) under the U.S. Fish and Wildlife Service's (USFWS) jurisdiction that are known or expected to be on or near the project area referenced below. The list may also include trust resources that occur outside of the project area, but that could potentially be directly or indirectly affected by activities in the project area. However, determining the likelihood and extent of effects a project may have on trust resources typically requires gathering additional site-specific (e.g., vegetation/species surveys) and project-specific (e.g., magnitude and timing of proposed activities) information.

Below is a summary of the project information you provided and contact information for the USFWS office(s) with jurisdiction in the defined project area. Please read the introduction to each section that follows (Endangered Species, Migratory Birds, USFWS Facilities, and NWI Wetlands) for additional information applicable to the trust resources addressed in that section.

Location

Suffolk County, Massachusetts

Local office

New England Ecological Services Field Office

(603) 223-2541
(603) 223-0104

70 Commercial Street, Suite 300
Concord, NH 03301-5094

http://www.fws.gov/newengland

Endangered species

This resource list is for informational purposes only and does not constitute an analysis of project level impacts.

The primary information used to generate this list is the known or expected range of each species. Additional areas of influence (AOI) for species are also considered. An AOI includes areas outside of the species range if the species could be indirectly affected by activities in that area (e.g., placing a dam upstream of a fish population even if that fish does not occur at the dam site, may indirectly impact the species by reducing or eliminating water flow downstream). Because species can move, and site conditions can change, the species on this list are not guaranteed to be found on or near the project area. To fully determine any potential effects to species, additional site-specific and project-specific information is often required.

Section 7 of the Endangered Species Act **requires** Federal agencies to "request of the Secretary information whether any species which is listed or proposed to be listed may be present in the area of such proposed action" for any project that is conducted, permitted, funded, or licensed by any Federal agency. A letter from the local office and a species list which fulfills this requirement can **only** be obtained by requesting an official species list from either the Regulatory Review section in IPaC (see directions below) or from the local field office directly.

For project evaluations that require USFWS concurrence/review, please return to the IPaC website and request an official species list by doing the following:

1. Draw the project location and click CONTINUE.
2. Click DEFINE PROJECT.
3. Log in (if directed to do so).
4. Provide a name and description for your project.
5. Click REQUEST SPECIES LIST.

Listed species[1] and their critical habitats are managed by the Ecological Services Program of the U.S. Fish and Wildlife Service (USFWS) and the fisheries division of the National Oceanic and Atmospheric Administration (NOAA Fisheries[2]).

Species and critical habitats under the sole responsibility of NOAA Fisheries are **not** shown on this list. Please contact NOAA Fisheries for species under their jurisdiction.

1. Species listed under the Endangered Species Act are threatened or endangered; IPaC also shows species that are candidates, or proposed, for listing. See the listing status page for more information. IPaC only shows species that are regulated by USFWS (see FAQ).
2. 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.

The following species are potentially affected by activities in this location:

Insects

NAME	STATUS

Monarch Butterfly Danaus plexippus Candidate
Wherever found
No critical habitat has been designated for this species.
http://ecos.fws.gov/ecp/species/9743

Critical habitats

Potential effects to critical habitat(s) in this location must be analyzed along with the endangered species themselves.

THERE ARE NO CRITICAL HABITATS AT THIS LOCATION.

Migratory birds

Certain birds are protected under the Migratory Bird Treaty Act[1] and the Bald and Golden Eagle Protection Act[2].

Any person or organization who plans or conducts activities that may result in impacts to migratory birds, eagles, and their habitats should follow appropriate regulations and consider implementing appropriate conservation measures, as described below.

1. The Migratory Birds Treaty Act of 1918.
2. The Bald and Golden Eagle Protection Act of 1940.

Additional information can be found using the following links:

- Birds of Conservation Concern http://www.fws.gov/birds/management/managed-species/birds-of-conservation-concern.php
- Measures for avoiding and minimizing impacts to birds http://www.fws.gov/birds/management/project-assessment-tools-and-guidance/conservation-measures.php
- Nationwide conservation measures for birds http://www.fws.gov/migratorybirds/pdf/management/nationwidestandardconservationmeasures.pdf

The birds listed below are birds of particular concern either because they occur on the USFWS Birds of Conservation Concern (BCC) list or warrant special attention in your project location. To learn more about the levels of concern for birds on your list and how this list is generated, see the FAQ below. This is not a list of every bird you may find in this location, nor a guarantee that every bird on this list will be found in your project area. To see exact locations of where birders and the general public have sighted birds in and around your project area, visit the E-bird data mapping tool (Tip: enter your location, desired date range and a species on your list). For projects that occur off the Atlantic Coast, additional maps and models detailing the relative occurrence and abundance of bird species on your list are available. Links to additional information about Atlantic Coast birds, and other important information about your migratory bird list, including how to properly interpret and use your migratory bird report, can be found below.

For guidance on when to schedule activities or implement avoidance and minimization measures to reduce impacts to migratory birds on your list, click on the PROBABILITY OF PRESENCE SUMMARY at the top of your list to see when these birds are most likely to be present and breeding in your project area.

NAME	BREEDING SEASON (IF A BREEDING SEASON IS INDICATED FOR A BIRD ON YOUR LIST, THE BIRD MAY BREED IN YOUR PROJECT AREA SOMETIME WITHIN THE TIMEFRAME SPECIFIED, WHICH IS A VERY LIBERAL ESTIMATE OF THE DATES INSIDE WHICH THE BIRD BREEDS ACROSS ITS ENTIRE RANGE. "BREEDS ELSEWHERE" INDICATES THAT THE BIRD DOES NOT LIKELY BREED IN YOUR PROJECT AREA.)
Bald Eagle *Haliaeetus leucocephalus* This is not a Bird of Conservation Concern (BCC) in this area, but warrants attention because of the Eagle Act or for potential susceptibilities in offshore areas from certain types of development or activities. http://ecos.fws.gov/ecp/species/1626	Breeds Oct 15 to Aug 31
Black-billed Cuckoo *Coccyzus erythropthalmus* This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska. http://ecos.fws.gov/ecp/species/9399	Breeds May 15 to Oct 10
Blue-winged Warbler *Vermivora pinus* This is a Bird of Conservation Concern (BCC) only in particular Bird Conservation Regions (BCRs) in the continental USA	Breeds May 1 to Jun 30
Bobolink *Dolichonyx oryzivorus* This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.	Breeds May 20 to Jul 31
Canada Warbler *Cardellina canadensis* This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.	Breeds May 20 to Aug 10
Cerulean Warbler *Dendroica cerulea* This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska. http://ecos.fws.gov/ecp/species/2974	Breeds Apr 29 to Jul 20

Kentucky Warbler Oporornis formosus This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.	Breeds Apr 20 to Aug 20
Lesser Yellowlegs Tringa flavipes This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska. http://ecos.fws.gov/ecp/species/9679	Breeds elsewhere
Prairie Warbler Dendroica discolor This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.	Breeds May 1 to Jul 31
Prothonotary Warbler Protonotaria citrea This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.	Breeds Apr 1 to Jul 31
Red-headed Woodpecker Melanerpes erythrocephalus This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.	Breeds May 10 to Sep 10
Rusty Blackbird Euphagus carolinus This is a Bird of Conservation Concern (BCC) only in particular Bird Conservation Regions (BCRs) in the continental USA	Breeds elsewhere
Wood Thrush Hylocichla mustelina This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.	Breeds May 10 to Aug 31

Probability of Presence Summary

The graphs below provide our best understanding of when birds of concern are most likely to be present in your project area. This information can be used to tailor and schedule your project activities to avoid or minimize impacts to birds. Please make sure you read and understand the FAQ "Proper Interpretation and Use of Your Migratory Bird Report" before using or attempting to interpret this report.

Probability of Presence (■)

Each green bar represents the bird's relative probability of presence in the 10km grid cell(s) your project overlaps during a particular week of the year. (A year is represented as 12 4-week months.) A taller bar indicates a higher probability of species presence. The survey effort (see below) can be used to establish a level of confidence in the presence score. One can have higher confidence in the presence score if the corresponding survey effort is also high.

How is the probability of presence score calculated? The calculation is done in three steps:

1. The probability of presence for each week is calculated as the number of survey events in the week where the species was detected divided by the total number of survey events for that week. For example, if in week 12 there were 20 survey events and the Spotted Towhee was found in 5 of them, the probability of presence of the Spotted Towhee in week 12 is 0.25.
2. To properly present the pattern of presence across the year, the relative probability of presence is calculated. This is the probability of presence divided by the maximum probability of presence across all weeks. For example, imagine the probability of presence in week 20 for the Spotted Towhee is 0.05, and that the probability of presence at week 12 (0.25) is the maximum of any week of the year. The relative probability of presence on week 12 is 0.25/0.25 = 1; at week 20 it is 0.05/0.25 = 0.2.
3. The relative probability of presence calculated in the previous step undergoes a statistical conversion so that all possible values fall between 0 and 10, inclusive. This is the probability of presence score.

To see a bar's probability of presence score, simply hover your mouse cursor over the bar.

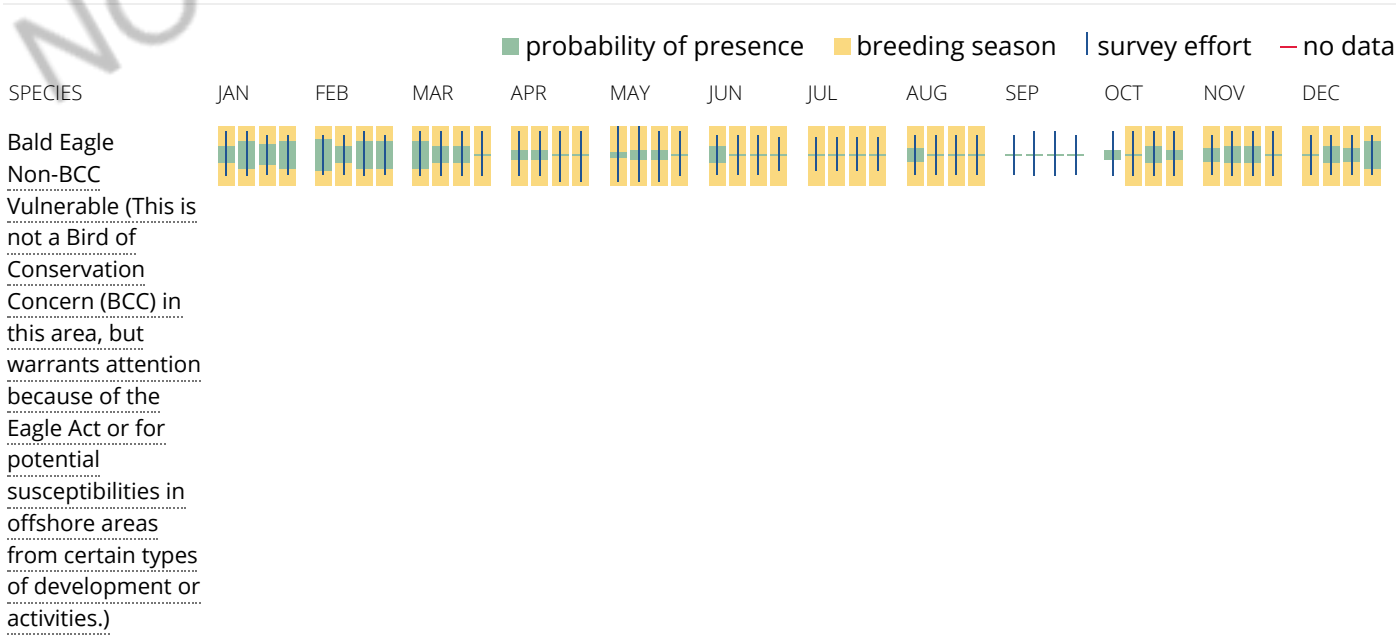
Breeding Season (▪)
Yellow bars denote a very liberal estimate of the time-frame inside which the bird breeds across its entire range. If there are no yellow bars shown for a bird, it does not breed in your project area.

Survey Effort (|)
Vertical black lines superimposed on probability of presence bars indicate the number of surveys performed for that species in the 10km grid cell(s) your project area overlaps. The number of surveys is expressed as a range, for example, 33 to 64 surveys.

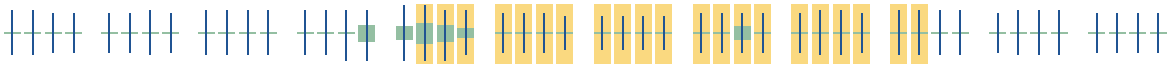
To see a bar's survey effort range, simply hover your mouse cursor over the bar.

No Data (–)
A week is marked as having no data if there were no survey events for that week.

Survey Timeframe
Surveys from only the last 10 years are used in order to ensure delivery of currently relevant information. The exception to this is areas off the Atlantic coast, where bird returns are based on all years of available data, since data in these areas is currently much more sparse.

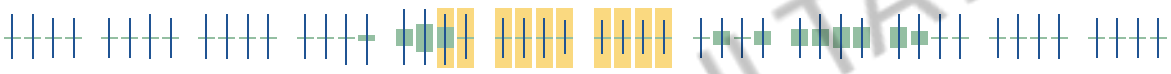


Black-billed Cuckoo BCC Rangewide (CON) (This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.)

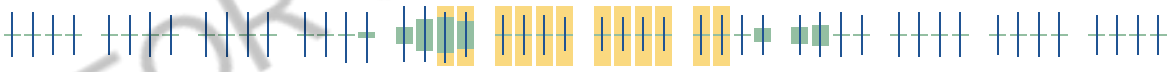


Blue-winged Warbler BCC - BCR (This is a Bird of Conservation Concern (BCC) only in particular Bird Conservation Regions (BCRs) in the continental USA)

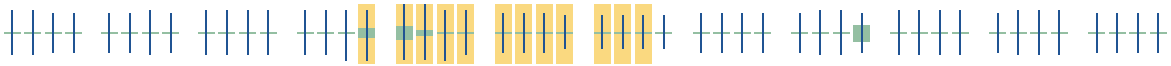
Bobolink BCC Rangewide (CON) (This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.)



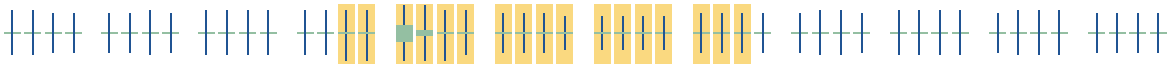
Canada Warbler BCC Rangewide (CON) (This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.)



Cerulean Warbler BCC Rangewide (CON) (This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.)

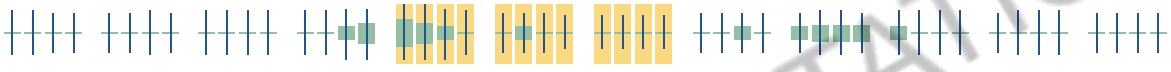


Kentucky Warbler BCC Rangewide (CON) (This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.)

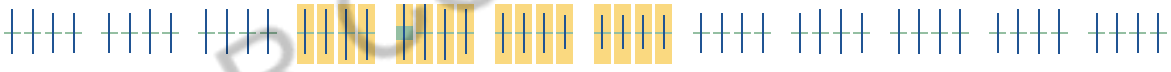


Lesser Yellowlegs BCC Rangewide (CON) (This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.)

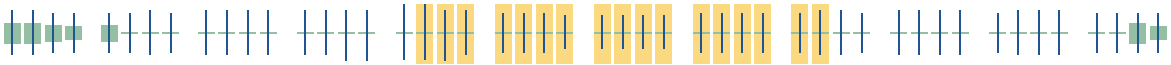
Prairie Warbler BCC Rangewide (CON) (This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.)

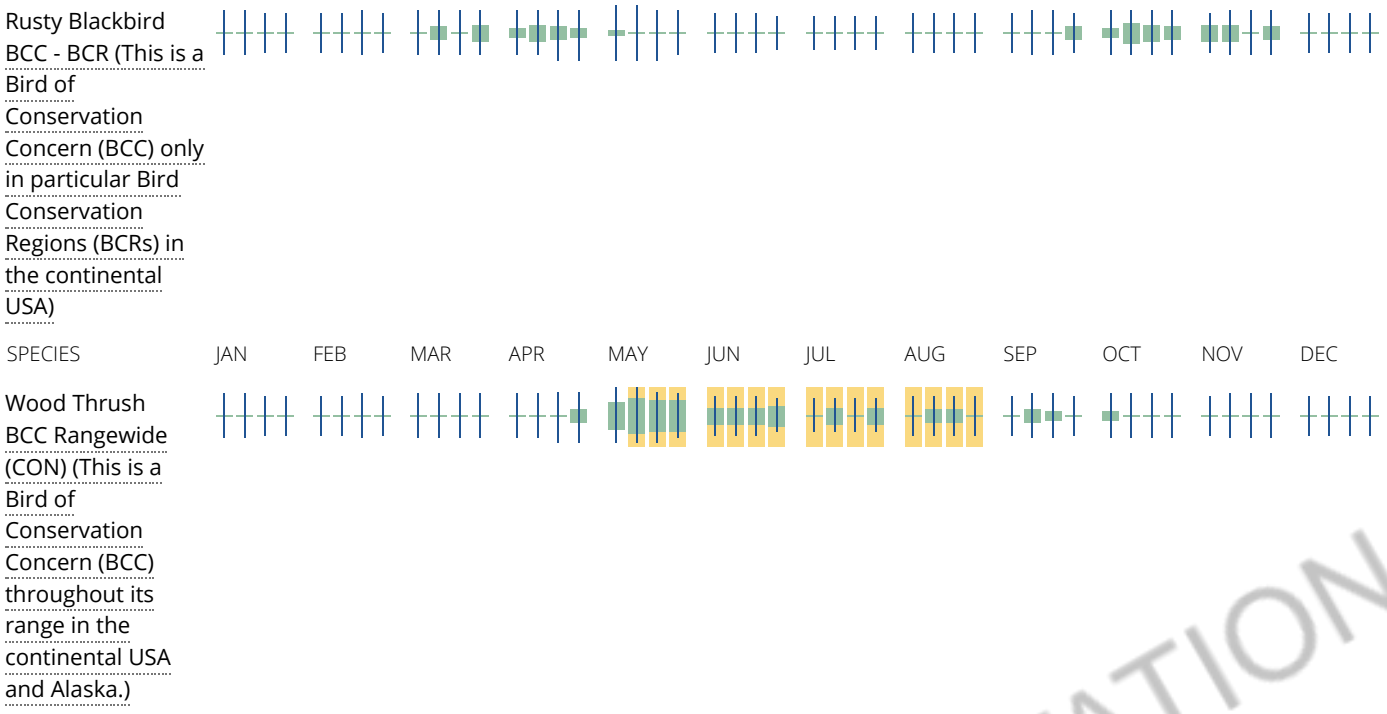


Prothonotary Warbler BCC Rangewide (CON) (This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.)



Red-headed Woodpecker BCC Rangewide (CON) (This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.)





Tell me more about conservation measures I can implement to avoid or minimize impacts to migratory birds.

Nationwide Conservation Measures describes measures that can help avoid and minimize impacts to all birds at any location year round. Implementation of these measures is particularly important when birds are most likely to occur in the project area. When birds may be breeding in the area, identifying the locations of any active nests and avoiding their destruction is a very helpful impact minimization measure. To see when birds are most likely to occur and be breeding in your project area, view the Probability of Presence Summary. Additional measures or permits may be advisable depending on the type of activity you are conducting and the type of infrastructure or bird species present on your project site.

What does IPaC use to generate the migratory birds potentially occurring in my specified location?

The Migratory Bird Resource List is comprised of USFWS Birds of Conservation Concern (BCC) and other species that may warrant special attention in your project location.

The migratory bird list generated for your project is derived from data provided by the Avian Knowledge Network (AKN). The AKN data is based on a growing collection of survey, banding, and citizen science datasets and is queried and filtered to return a list of those birds reported as occurring in the 10km grid cell(s) which your project intersects, and that have been identified as warranting special attention because they are a BCC species in that area, an eagle (Eagle Act requirements may apply), or a species that has a particular vulnerability to offshore activities or development.

Again, the Migratory Bird Resource list includes only a subset of birds that may occur in your project area. It is not representative of all birds that may occur in your project area. To get a list of all birds potentially present in your project area, please visit the AKN Phenology Tool.

What does IPaC use to generate the probability of presence graphs for the migratory birds potentially occurring in my specified location?

The probability of presence graphs associated with your migratory bird list are based on data provided by the Avian Knowledge Network (AKN). This data is derived from a growing collection of survey, banding, and citizen science datasets .

Probability of presence data is continuously being updated as new and better information becomes available. To learn more about how the probability of presence graphs are produced and how to interpret them, go the Probability of Presence Summary and then click on the "Tell me about these graphs" link.

How do I know if a bird is breeding, wintering, migrating or present year-round in my project area?

To see what part of a particular bird's range your project area falls within (i.e. breeding, wintering, migrating or year-round), you may refer to the following resources: The Cornell Lab of Ornithology All About Birds Bird Guide, or (if you are unsuccessful in locating the bird of interest there), the Cornell Lab of Ornithology Neotropical Birds guide. If a bird on your migratory bird species list has a breeding season associated with it, if that bird does occur in your project area, there may be nests present at some point within the timeframe specified. If "Breeds elsewhere" is indicated, then the bird likely does not breed in your project area.

What are the levels of concern for migratory birds?

Migratory birds delivered through IPaC fall into the following distinct categories of concern:

1. "BCC Rangewide" birds are Birds of Conservation Concern (BCC) that are of concern throughout their range anywhere within the USA (including Hawaii, the Pacific Islands, Puerto Rico, and the Virgin Islands);
2. "BCC - BCR" birds are BCCs that are of concern only in particular Bird Conservation Regions (BCRs) in the continental USA; and
3. "Non-BCC - Vulnerable" birds are not BCC species in your project area, but appear on your list either because of the Eagle Act requirements (for eagles) or (for non-eagles) potential susceptibilities in offshore areas from certain types of development or activities (e.g. offshore energy development or longline fishing).

Although it is important to try to avoid and minimize impacts to all birds, efforts should be made, in particular, to avoid and minimize impacts to the birds on this list, especially eagles and BCC species of rangewide concern. For more information on conservation measures you can implement to help avoid and minimize migratory bird impacts and requirements for eagles, please see the FAQs for these topics.

Details about birds that are potentially affected by offshore projects

For additional details about the relative occurrence and abundance of both individual bird species and groups of bird species within your project area off the Atlantic Coast, please visit the Northeast Ocean Data Portal. The Portal also offers data and information about other taxa besides birds that may be helpful to you in your project review. Alternately, you may download the bird model results files underlying the portal maps through the NOAA NCCOS Integrative Statistical Modeling and Predictive Mapping of Marine Bird Distributions and Abundance on the Atlantic Outer Continental Shelf project webpage.

Bird tracking data can also provide additional details about occurrence and habitat use throughout the year, including migration. Models relying on survey data may not include this information. For additional information on marine bird tracking data, see the Diving Bird Study and the nanotag studies or contact Caleb Spiegel or Pam Loring.

What if I have eagles on my list?

If your project has the potential to disturb or kill eagles, you may need to obtain a permit to avoid violating the Eagle Act should such impacts occur.

Proper Interpretation and Use of Your Migratory Bird Report

The migratory bird list generated is not a list of all birds in your project area, only a subset of birds of priority concern. To learn more about how your list is generated, and see options for identifying what other birds may be in your project area, please see the FAQ "What does IPaC use to generate the migratory birds potentially occurring in my specified location". Please be aware this report provides the "probability of presence" of birds within the 10 km grid cell(s) that overlap your project; not your exact project footprint. On the graphs provided, please also look

carefully at the survey effort (indicated by the black vertical bar) and for the existence of the "no data" indicator (a red horizontal bar). A high survey effort is the key component. If the survey effort is high, then the probability of presence score can be viewed as more dependable. In contrast, a low survey effort bar or no data bar means a lack of data and, therefore, a lack of certainty about presence of the species. This list is not perfect; it is simply a starting point for identifying what birds of concern have the potential to be in your project area, when they might be there, and if they might be breeding (which means nests might be present). The list helps you know what to look for to confirm presence, and helps guide you in knowing when to implement conservation measures to avoid or minimize potential impacts from your project activities, should presence be confirmed. To learn more about conservation measures, visit the FAQ "Tell me about conservation measures I can implement to avoid or minimize impacts to migratory birds" at the bottom of your migratory bird trust resources page.

Facilities

Wildlife refuges and fish hatcheries

REFUGE AND FISH HATCHERY INFORMATION IS NOT AVAILABLE AT THIS TIME

Wetlands in the National Wetlands Inventory

Impacts to NWI wetlands and other aquatic habitats may be subject to regulation under Section 404 of the Clean Water Act, or other State/Federal statutes.

For more information please contact the Regulatory Program of the local U.S. Army Corps of Engineers District.

WETLAND INFORMATION IS NOT AVAILABLE AT THIS TIME

This can happen when the National Wetlands Inventory (NWI) map service is unavailable, or for very large projects that intersect many wetland areas. Try again, or visit the NWI map to view wetlands at this location.

Data limitations

The Service's objective of mapping wetlands and deepwater habitats is to produce reconnaissance level information on the location, type and size of these resources. The maps are prepared from the analysis of high altitude imagery. Wetlands are identified based on vegetation, visible hydrology and geography. A margin of error is inherent in the use of imagery; thus, detailed on-the-ground inspection of any particular site may result in revision of the wetland boundaries or classification established through image analysis.

The accuracy of image interpretation depends on the quality of the imagery, the experience of the image analysts, the amount and quality of the collateral data and the amount of ground truth verification work conducted. Metadata should be consulted to determine the date of the source imagery used and any mapping problems.

Wetlands or other mapped features may have changed since the date of the imagery or field work. There may be occasional differences in polygon boundaries or classifications between the information depicted on the map and the actual conditions on site.

Data exclusions

Certain wetland habitats are excluded from the National mapping program because of the limitations of aerial imagery as the primary data source used to detect wetlands. These habitats include seagrasses or submerged aquatic vegetation that are found in the intertidal and subtidal zones of estuaries and nearshore coastal waters. Some deepwater reef communities (coral or tuberficid worm reefs) have also been excluded from the inventory. These habitats, because of their depth, go undetected by aerial imagery.

Data precautions

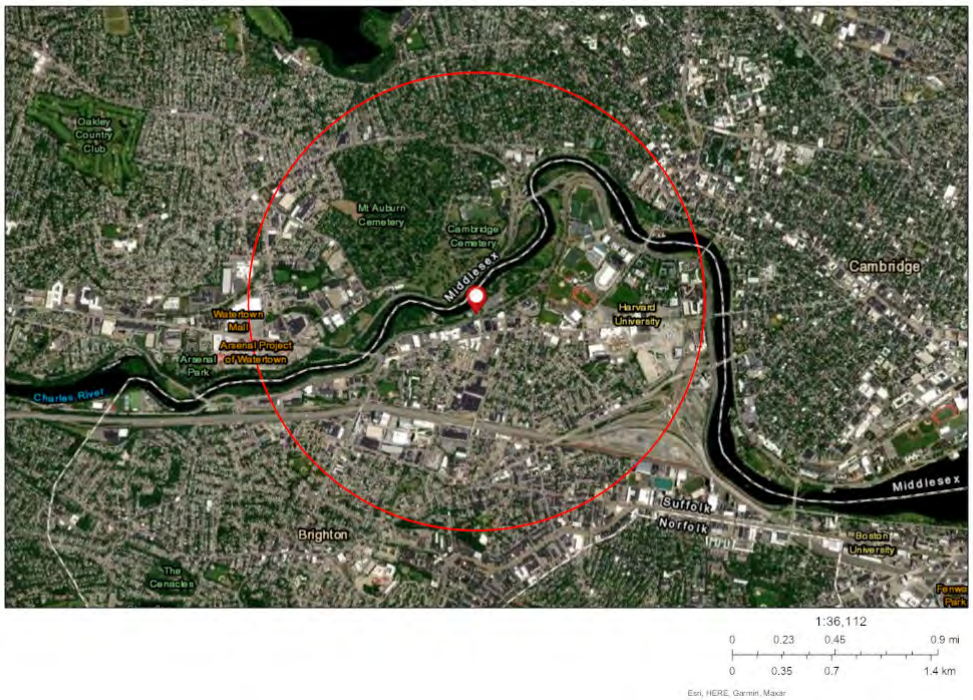
Federal, state, and local regulatory agencies with jurisdiction over wetlands may define and describe wetlands in a different manner than that used in this inventory. There is no attempt, in either the design or products of this inventory, to define the limits of proprietary jurisdiction of any Federal, state, or local government or to establish the geographical scope of the regulatory programs of government agencies. Persons intending to engage in activities involving modifications within or adjacent to wetland areas should seek the advice of appropriate federal, state, or local agencies concerning specified agency regulatory programs and proprietary jurisdictions that may affect such activities.

Drawn Action Area & Overlapping S7 Consultation Areas

Area of Interest (AOI) Information

Area : 2,009.02 acres

Sep 16 2021 8:41:04 Eastern Daylight Time



Discharge location: Charles River. Brighton, MA 02135

Summary

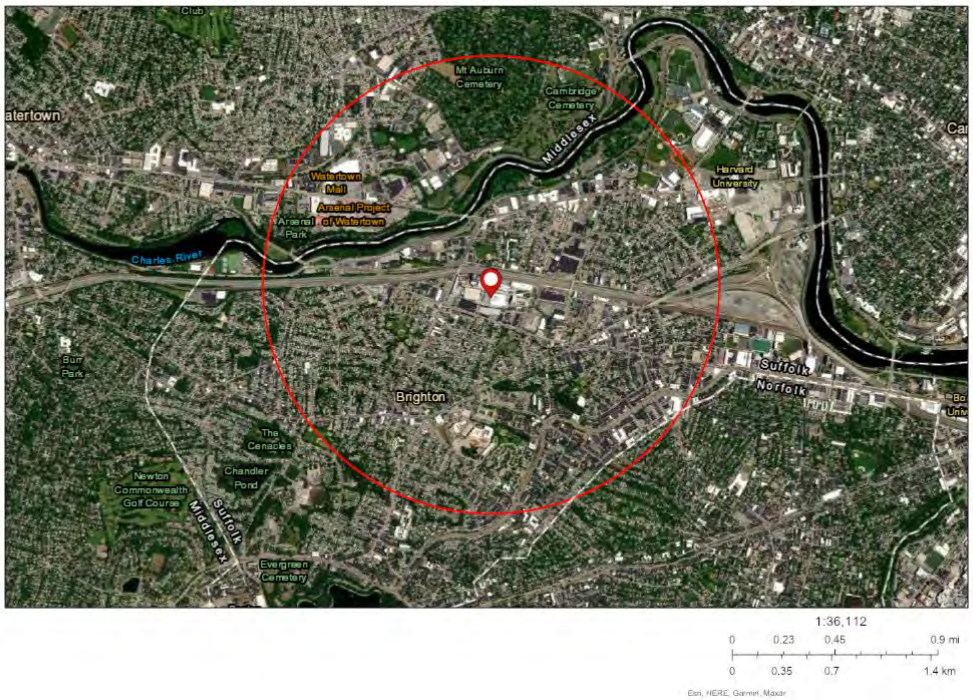
Name	Count	Area(acres)	Length(mi)
Atlantic Sturgeon	0	0	N/A
Shortnose Sturgeon	0	0	N/A
Atlantic Salmon	0	0	N/A
Sea Turtles	0	0	N/A
Atlantic Large Whales	0	0	N/A
In or Near Critical Habitat	0	0	N/A

Drawn Action Area & Overlapping S7 Consultation Areas

Area of Interest (AOI) Information

Area : 2,009.02 acres

Sep 16 2021 8:38:25 Eastern Daylight Time



Site Location: 60 Gust Street, Brighton, MA 02135

Summary

Name	Count	Area(acres)	Length(mi)
Atlantic Sturgeon	0	0	N/A
Shortnose Sturgeon	0	0	N/A
Atlantic Salmon	0	0	N/A
Sea Turtles	0	0	N/A
Atlantic Large Whales	0	0	N/A
In or Near Critical Habitat	0	0	N/A

United States Department of the Interior

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

In Reply Refer To: September 08, 2021
Consultation Code: 05E1NE00-2021-SLI-4672
Event Code: 05E1NE00-2021-E-14310
Project Name: BWSC Outfall 25E037

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-4672
Event Code: Some(05E1NE00-2021-E-14310)
Project Name: BWSC Outfall 25E037
Project Type: DEVELOPMENT
Project Description: Proposed outfall location for construction dewatering discharge under NPDES RGP.

Project Location:

Approximate location of the project can be viewed in Google Maps: https://www.google.com/maps/@42.36478485,-71.13787018694609,14z

Counties: Middlesex and Suffolk counties, Massachusetts

Endangered Species Act Species

There is a total of 1 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.

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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.

Insects

NAME	STATUS
Monarch Butterfly *Danaus plexippus* No critical habitat has been designated for this species. Species profile: https://ecos.fws.gov/ecp/species/9743	Candidate

Critical habitats

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

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: September 08, 2021
Consultation Code: 05E1NE00-2021-SLI-4667
Event Code: 05E1NE00-2021-E-14290
Project Name: 60 Guest Street

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.

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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-4667
Event Code: Some(05E1NE00-2021-E-14290)
Project Name: 60 Guest Street
Project Type: DEVELOPMENT
Project Description: The project consists of approximately 1.75 acres of land located at 60 Guest Street in Brighton, MA. The site is being redeveloped, which will consist of excavation and construction dewatering subject to a NPDES RGP.

Project Location:

Approximate location of the project can be viewed in Google Maps: https://www.google.com/maps/@42.35741165,-71.14508553181885,14z

Counties: Suffolk County, Massachusetts

Endangered Species Act Species

There is a total of 1 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.

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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.

Insects

NAME	STATUS
Monarch Butterfly *Danaus plexippus* No critical habitat has been designated for this species. Species profile: https://ecos.fws.gov/ecp/species/9743	Candidate

Critical habitats

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

APPENDIX H
Historic Places – Brighton, Massachusetts Documentation

National Register of Historic Places Research and Documentation
60 Guest Street, Brighton, Massachusetts

Site Name	Distance from Site (mi)	Address	Date Lited	On Historic Places Map	In Boston Landing NOI
Brighton Center Historic District	0.70	Intersection of Market and Washington St.	2/20/2001	Yes	Yes
Brighton Allston Congregational	0.78	404 Washington St.	8/21/1997	Yes (under a different name?)	Yes
Chestnut Hill Reservoir Historic District	1.60	Beacon St. and Comm. Ave.	1/18/1990	Yes	Yes
Evergreen Cemetery	1.55	2060 Comm. Ave.	8/14/2009	Yes	Yes
Oak Square School	1.25	35 Nonatum St.	11/10/1980	Yes	Yes
Charles River Resiveration Parkways	0.17	Soldiers Field Road	7/19/2010	Yes	No
Charles River Reservation (Speedway)-Upper Basin Headquarters	0.35	1420-1440 Soldiers Field Rd.	7/19/2010	Yes	Yes
Engine House No. 34	0.40	444 Western Ave.	11/10/1980	Yes	Yes
Allston Congregational Church	0.67	41 Quint Ave.	11/7/1997	Yes	No
Harvard Avenue Historic District	0.73	Harvard Ave. from Cambridge St. to Comm. Ave.	4/28/2000	Yes	No
Beacon Street Historic District	1.30	Beacon St. from St. Mary's St. to Ayr Rd.	10/17/1985	Yes	No
Cypress-Emerson Historic District	1.50	Waverly, Emerson, and Cypress Sts.	10/17/1985	Yes	No
Arcade Building	1.50	320A Harvard St.	10/17/1985	Yes	No
Town Stable	1.50	235 Cypress St. (incorrect? Not on normal map)	10/17/1985	Yes	No
Devotion, Edward, House	1.50	347 Harvard St. (not on normal map)	2/14/1978	Yes	No
House at 156 Mason Terrace	1.32	156 Mason Tr. (not on normal map)	10/17/1985	Yes	No
Orrock, Rev. John, House	1.54	64 Winchester St. (in incorrect spot on historic map, not on normal map)	10/17/1985	Yes	No
Commanding Officer's Quarters, Watertown Arsenal	0.96	443 Arsenal St.	10/7/1976	Yes	No
Watertown Arsenal Historic District	0.96	Arsenal St.	5/14/1999	Yes	No
Watertown Town Diner	1.15	627 Mount Auburn St.	9/22/1999	Yes	No
Mount Auburn Cemetery	0.95	580 Mount Auburn St.	4/21/1975	Yes	No

Notes:
GeoEngineers USA (GeoEngineers) conducted a review of the National Register of Historic Places within Birghton, Massachusetts, using the map feature provided by the Cultural Resoources GIS facility and the NRHP Database. The search returned 21 results that are nearby the site. None are located at or abutting the site.