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

289 WALK HILL AVENUE

BOSTON, MASSACHUSETTS

MARCH 24, 2022

Prepared For:

Dellbrook|JKS
859 Willard Street
Quincy, MA 02169

PROJECT NO. 6954

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

March 24, 2022

Dellbrook|JKS
859 Willard Street
Quincy, MA 02169

Attention: EPA/OEP RGP Applications Coordinator
Reference: 289 Walk Hill Avenue
Boston, Massachusetts
Notice of Intent for Temporary Construction Dewatering Discharge;
Massachusetts Remediation General Permit MAG910000

Ladies and Gentlemen:

Enclosed herein is our Notice of Intent for Temporary Construction Dewatering Discharge for the proposed 289 Walk Hill Avenue, Boston, Massachusetts. These services were performed, and this permit application was prepared with the authorization of our client, Walk Hill Owner LLC.

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

Very truly yours,

McPHAIL ASSOCIATES, LLC

Shakib Ahmed, P.G. William J. Burns, L.S.P.

\\MCPHAIL-FS2\McPhail\Working Documents\Reports\6954_289_WalkHillAve_Boston_MA_RGP_032422.docx

SA/wjb

GEOTECHNICAL AND GEOENVIRONMENTAL ENGINEERS
2269 Massachusetts Avenue
Cambridge, Massachusetts 02140
(617) 868-1420

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1.0 - INTRODUCTION

1.1 - GENERAL

In accordance with the provisions of the Remediation General Permit MAG910000 that has been prepared for the Commonwealth of Massachusetts, the following is a summary of the site and groundwater quality information in support of a Notice of Intent for the temporary discharge of groundwater to the Muddy River via the Stony Brook Conduit. The temporary discharge of construction dewatering will occur as part of the proposed redevelopment of the property located at 289 Walk Hill Avenue in Boston, Massachusetts (subject site). Refer to **Figure 1,** Project Location Plan for the general site locus.

These services were performed and this permit application was prepared with the authorization of our client, Walk Hill Owner LLC. These services are subject to the **Limitations** contained herein.

The required Notice of Intent Form contained in the RGP permit and Boston Water & Sewer Dewatering Discharge Permit Application are included in **Appendix A**. This project is considered Activity Category III-G as defined in the RGP. Based on the activity category, and in accordance with the RGP, contamination Type A: Inorganics, as defined in Table 2 of the RGP apply.

1.2 – APPLICANT/OPERATOR

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

Dellbrook|JKS
859 Willard Street
Quincy, MA 02169

Attention: Mr. Rich Hamaty
Tel: (617) 360-1819
Email: rhamaty@dellbrookjks.com

1.3 – SITE OWNER

Walk Hill Owner LLC
60 K Street, Suite 302
Boston, MA 02127

Attention: Mr. Pete Doucet
Tel: (781) 316-6641
Email: pd@torprops.com

2.0 – SITE AND PROJECT DESCRIPTION

2.1 – EXISTING SITE CONDITIONS

The subject site is currently vacant in anticipation of redevelopment and the pre-existing buildings have recently been demolished. The subject site consists of four (4), contiguous, rectangular-shaped parcels of land bounded by Canterbury Street to the northwest, Walk Hill Avenue to the northeast, American Legion Highway to the south, and a vacant lot to the southwest. A cemetery exists to the northwest and northeast across Canterbury Street and Walk Hill Avenue, respectively.

The 283 Walk Hill Avenue property was formerly occupied by two one-story structures which were used as retail and associated storage space for the previous use of the subject site as "Louie the Florist & Garden Center". One of the buildings had contained space that was used as a greenhouse. The 289 Walk Hill Avenue property was occupied by a vacant one-story strip mall style building with a basement. The former building previously contained a restaurant and a florist shop. The 574-578 Canterbury Street parcels were occupied by three (3) residential buildings. The 574 Canterbury Street building was a split-level style residential house.

The limits of the subject site are shown on the enclosed **Figure 2** which was prepared from a 20-scale drawing entitled "Existing Conditions Plan" dated January 16, 2018, by Design Consultants, Inc.

2.2 – PROPOSED DEVELOPMENT

The subject site is currently vacant in anticipation of redevelopment and the pre-existing buildings have recently been demolished. Further redevelopment of the subject site includes the construction of a three (3)- to four (4)-story, C-shaped, 31,000 square foot residential building that will contain one (1) level of partially below-grade parking. The remainder of the subject site, located outside of the proposed building footprint, is proposed to be occupied by an asphalt paved parking lot and a landscaped courtyard.

Based upon a set of construction drawings entitled "Walk Hill Residences" prepared by Design Consultants, Inc. and dated January 16, 2018, the below-grade parking floor slab will be located at approximately Elevation +44, which will vary from approximately 4 to 12 feet below the exterior site grades.

2.3 – SITE ENVIRONMENTAL SETTING AND SURROUNDING HISTORICAL PLACES

Based on an on-line edition of the Massachusetts Geographic Information Systems MassDEP MCP Numerical Ranking System Map, the subject site is not located within the boundaries of a Sole Source Aquifer, Potentially Productive Aquifer or within a Zone II, Interim Wellhead Protection Area as defined by the Massachusetts Department of Environmental Protection. Further, there are no public drinking water supply wells, no Areas of Critical Environmental Concern, no fish habitats, no habitats of Species of Special Concern or Threatened or

Endangered Species within specified distances of the subject site. Protected Open Space areas are location 230 feet northwest and 430 feet southeast from the subject site. The Resource Map indicates that there are no water bodies or wetland areas at the subject site. The closest identified open water body is Lake Hibiscus located approximately 1,800 feet north of the subject site. The nearest unnamed waterbody is an intermittent stream, considered to be an open section of Stony Brook, located approximately 240 feet southeast from the subject site. Additional waterbodies are located approximately 430 feet to the southeast and approximately 2,100 feet south of the subject site. No areas designated as solid waste sites (landfills) are noted as being located within 1,000 feet of the site. A copy of the Massachusetts DEP Phase I Site Assessment Map is included in **Appendix B**.

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

The subject site is not listed on the State or National Register of Historical Places. Copies of the State of Massachusetts MACRIS reports are included in **Appendix B**.

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

2.4 – SITE AND RELEASE HISTORY

Historical information suggests that the currently demolished buildings were constructed between 1930 and 1965 at the subject site. 283 Walk Hill Avenue property has historically operated as a florist and garden center with associated greenhouses called "Louie the Florist & Garden Center". The 289 Walk Hill Avenue property had been occupied by a strip-mall style building since at least 1965. The strip-mall style building was most recently occupied by a restaurant and a florist with associated greenhouse. The 574-578 Canterbury Street

properties were previously occupied by single family residential house since their development.

MCP Release History

RTN 3-37332 – Subsurface investigation performed for the purpose of soil pre-characterization identified soils that exhibited concentrations of metals including antimony, lead, and zinc; polycyclic aromatic hydrocarbons (PAHs) including benzo(a)anthracene, benzo(a)pyrene, benzo(b)fluoranthene, acenaphthylene, phenanthrene, dibenzo(a,h)anthracene, indeno(1,2,3-cd)pyrene, 2-methylnaphthalene, 1,3,5-trimethylbenzen; and total petroleum hydrocarbon (TPH), that were above the MCP Reportable Concentrations. The detection triggered a 120-day notification to MassDEP in accordance with the MCP. A Release Notification form was submitted to the MassDEP for the above referenced constituents on February 28, 2022, and subsequently assigned RTN 3-37332. Although the extent of the release has yet to be fully delineated, the Contaminants of Concern (COCs) are considered to be localized to soil at the northern and eastern portion of the subject site. The analysis of groundwater has not detected a release of COCs in groundwater.

3.0 – CONSTRUCTION SITE DEWATERING AND TREATMENT

3.1 – SITE DEWATERING DETAILS

As noted above, redevelopment of the subject site includes the construction of one (1) level of partially below-grade parking. The parking floor slab will be located at approximately Elevation +44, which will vary from approximately 4 to 12 feet below the exterior site grades. Groundwater was observed at the subject site at approximately Elevation +39.4, which correspond to a depth of approximately 8 to 14 feet below ground surface. As a result, it is unlikely that the general excavation to construct the proposed building foundation will encounter groundwater with the exception of localized portions of the site.

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

A review of available subgrade utility plans provided by the Boston Water and Sewer Commission indicates that stormwater is collected within catch basins on Walk Hill Avenue and Canterbury Street located northeast and northwest of the subject site. The catch basin connects to the stormwater drain system beneath Walk Hill Avenue and eventually runs south parallel to the American Legion Highway to the Stony Brook Conduit. The conduit eventually discharges into the Muddy River at CSO046-1. The location of the relevant stormwater catch basin in relation to the subject site is indicated on **Figure 2**. The flow

path of the discharge is shown in plans provided by the Boston Water and Sewer Commission, which is included in **Figures 3A and 3B**.

3.2 – SUMMARY OF GROUNDWATER AND SURFACE WATER ANALYSIS

In February 2022, McPhail Associates, LLC obtained one (1) sample of groundwater at the subject site from monitoring well B-4 (OW). The groundwater sample was submitted to a certified laboratory for analysis for the presence of compounds required to be tested for under the EPA's Remediation General Permit (RGP) application, including metals, polynuclear aromatic hydrocarbons (PAHs), pH, ammonia, total suspended solids (TSS), total residual chlorine (TRC), hardness, chloride, and cyanide. Analytical results of the testing of the above referenced groundwater sample that was obtained in February 2022 are summarized on the enclosed **Table 1**, and laboratory data is included in **Appendix C**.

A surface water sample was obtained from the IL2 culvert (42° 17' 14.4'' N, 71° 6' 28.3'' W) in March 2022 and analyzed for the presence of pH, total metals, hardness, and ammonia nitrogen. The location of the IL2 culvert is depicted on **Figure 3A**. Analytical test results are included on the enclosed **Table 2**, and laboratory data is included in **Appendix D**.

A Dilution Factor (DF) was calculated for the detected levels of metals pursuant to the procedure contained in RGP MAG910000, Appendix V. The purpose of the DF calculation is to establish Total Recoverable Limits for metals, taking into consideration the anticipated dilution of the detected analyte upon discharge into the Charles River. The calculated DF was then used to find the appropriate Dilution Range Concentrations (DRCs) contained in MAG910000, Appendix IV. The Minimum Flow Rate calculated by the USGS Streamstats GIS database at the location of discharge into the Muddy River for 7 consecutive days with a recurrence interval of 10 years (7Q10 flow) is 8.75 ft^3/sec thus resulting in a DF of 41.3 assuming a design flow rate of 100 GPM.

In summary, groundwater testing performed at the subject site has detected concentrations of total copper, nickel, and zinc, however, the concentration does not exceed the applicable Water Quality Based Effluent Limitations contained in Table 2 of Section 2.1 of the RGP. Surface water testing performed at the IL3 culvert detected concentrations of arsenic, chromium, copper, nickel, and zinc below the applicable EPA National Recommended Aquatic Life Criteria for freshwater Criterion Continuous Concentration (EPA-ALFCCC). Cadmium, iron, and lead were detected at concentrations that exceeded the EPA-ALFCCC.

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

3.3 – GROUNDWATER TREATMENT

Based upon the anticipated rates of construction dewatering in conjunction with the results of the above referenced groundwater analyses, it is our opinion that a treatment system consisting of an approximately 10,000-gallon capacity settling tank and bag filters in series is necessary to meet the effluent limitations of the RGP. These treatment components will be used to settle out particulate matter containing inorganic compounds in the effluent to meet the applicable discharge limits established by the US EPA prior to discharge. If increased pH levels are detected in the effluent (such as during the placement of concrete for the foundation system) carbon dioxide gas for pH adjustment will be utilized, if necessary, as construction activities at the subject site transition from excavation to installation of concrete footings. If the addition of concrete requires a pH conditioner to meet permit effluent limitations or applicable water quality standards, a Notice of Change (NOC) will be filed on behalf of the operator with the specific laboratory data sheets and necessary information attached.

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

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

4.0 – SUMMARY AND CONCLUSIONS

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

Based on the results of the above referenced groundwater analyses, treatment of construction dewatering effluent will be necessary to meet the discharge limits for inorganic compounds established by the US EPA prior to off-site discharge. The proposed construction dewatering effluent treatment system will consist of a 10,000-gallon capacity settling tank, bag filters and, if required, pH adjustment tank and GAC filters in series in order to meet the discharge limits established by the RGP. However, should the effluent monitoring results identify concentrations of contaminants that are in excess of the limits established by the RGP, additional mitigative measures will be implemented to meet the allowable discharge limits.

5.0 – LIMITATIONS

The purpose of this report is to present the results of testing of groundwater samples obtained from on-site monitoring wells in connection with the redevelopment of the 289 Walk Hill Avenue property in Boston, Massachusetts, in support of an application for approval of construction site dewatering discharge into surface waters of the Commonwealth of Massachusetts under EPA's Massachusetts Remediation General Permit MAG910000.

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

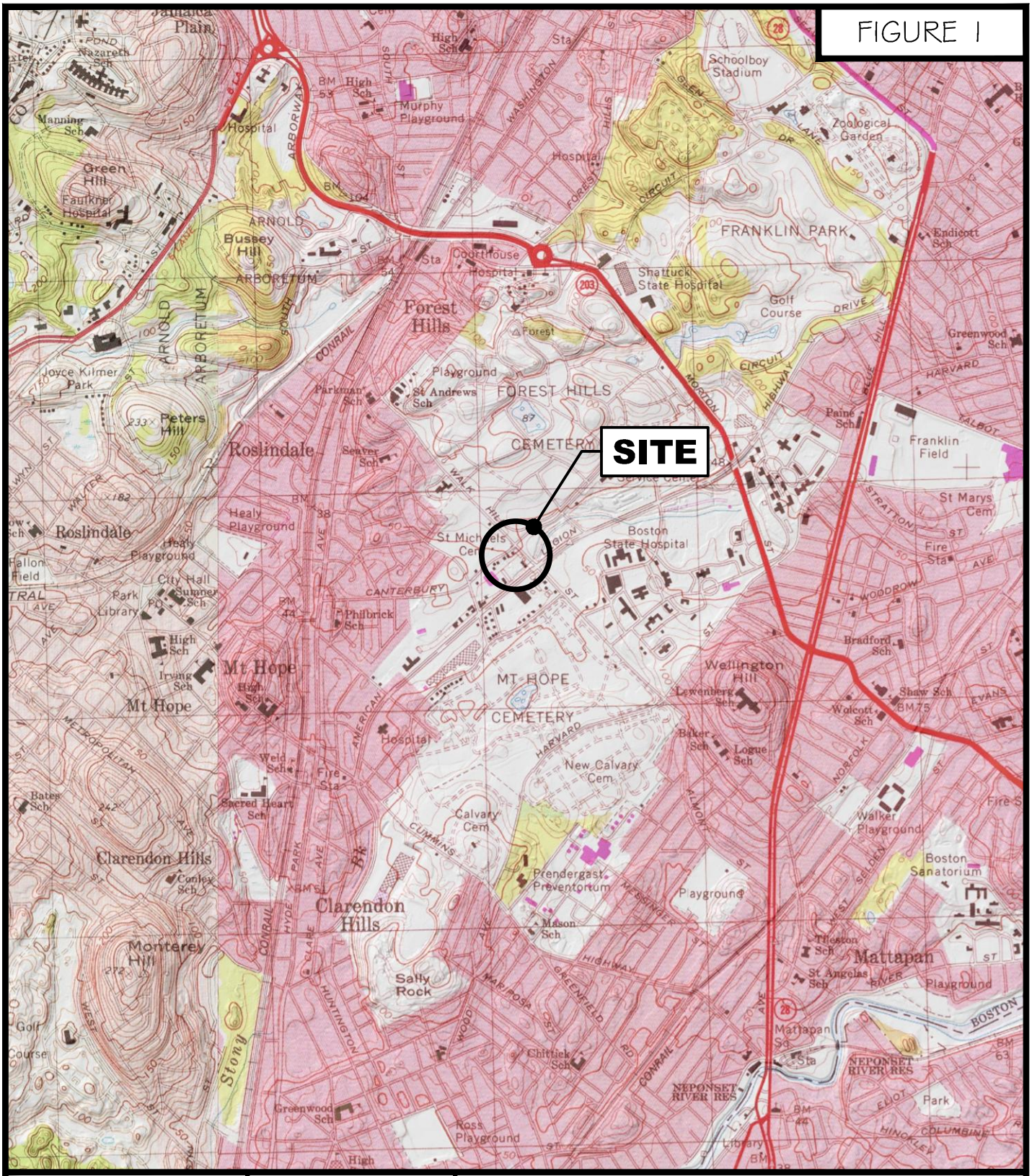
The conclusions submitted in this report are based in part upon laboratory test data obtained from analysis of groundwater samples, and are contingent upon their validity. The data have been reviewed, and interpretations have been made in the text. It should also be noted that fluctuations in the types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

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

This report and application have been prepared on behalf of and for the exclusive use of Walk Hill Owner LLC. and Dellbrook|JKS. This report and the findings contained herein shall not, in whole or in part, be disseminated or conveyed to any other party, other than submission to relevant governmental agencies, nor used in whole or in part by any other party without the prior written consent of McPhail Associates, LLC.

FIGURES

FIGURE 1



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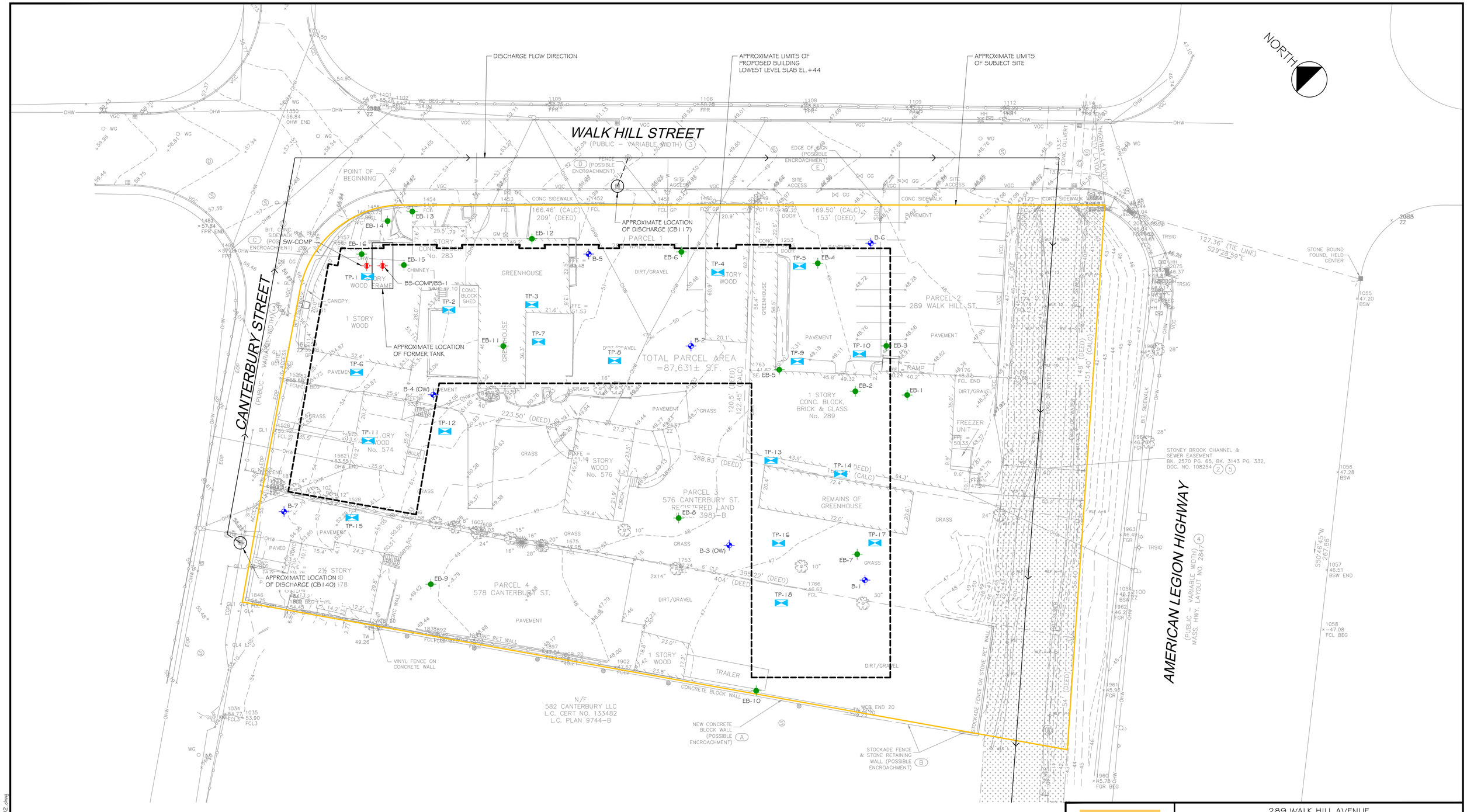
SCALE 1:25,000

PROJECT LOCATION PLAN

WALK HILL RESIDENCES

BOSTON MASSACHUSETTS



LEGEND

— APPROXIMATE LOCATION OF TEST PIT PERFORMED BY DELLBROOK ON OCTOBER 20 AND 21, 2021 FOR McPHAIL ASSOCIATES, LLC

— APPROXIMATE LOCATION OF SAMPLE OBTAINED BY McPHAIL ASSOCIATES, LLC ON SEPTEMBER 28, 2021

— APPROXIMATE LOCATION OF BORING PERFORMED BY TECHNICAL DRILLING SERVICES, INC. FROM MARCH 2 TO 4, 2020 FOR McPHAIL ASSOCIATES, LLC

— APPROXIMATE LOCATION OF BORING PERFORMED BY EBI CONSULTING ON DECEMBER 6 AND 7, 2016

(OW) — INDICATES OBSERVATION WELL INSTALLED WITHIN COMPLETED BOREHOLE

REFERENCE: THIS PLAN WAS PREPARED FROM A 20-SCALE DRAWING ENTITLED "ALTA/NSPS LAND TITLE SURVEY" DATED JANUARY 16, 2018 BY DESIGN CONSULTANTS, INC.

GRAPHIC SCALE

20 0 20 40 80

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289 WALK HILL AVENUE

BOSTON MASSACHUSETTS

SUBSURFACE EXPLORATION PLAN

FOR

DELLBROOK|JKS

BY

McPHAIL ASSOCIATES, LLC

Date: MARCH 2022	Dwn: F.G.P.	Chkd: S.A.	Scale: 1" = 20'
Project No: 6854			FIGURE 2

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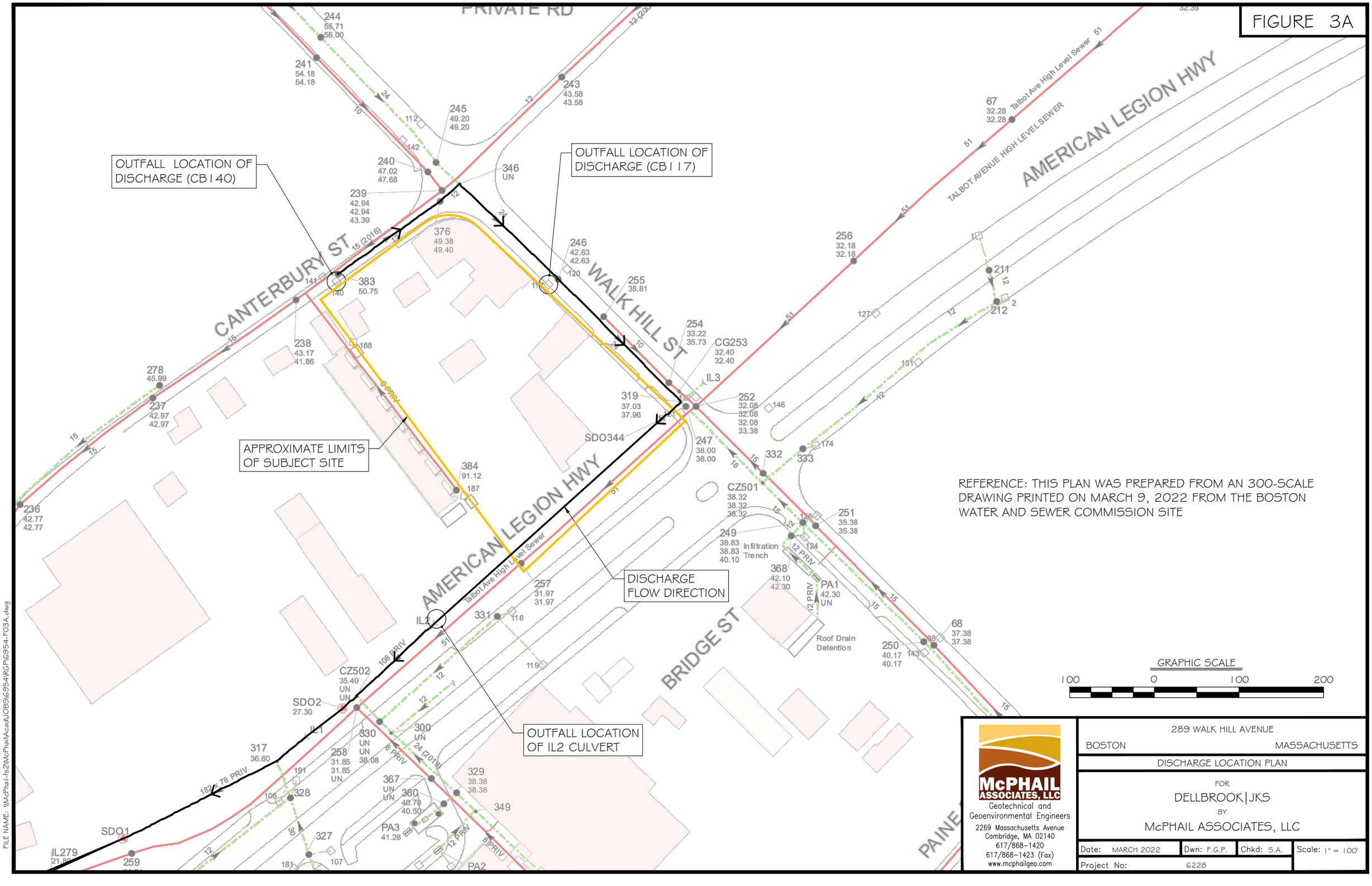
FIGURE 3A



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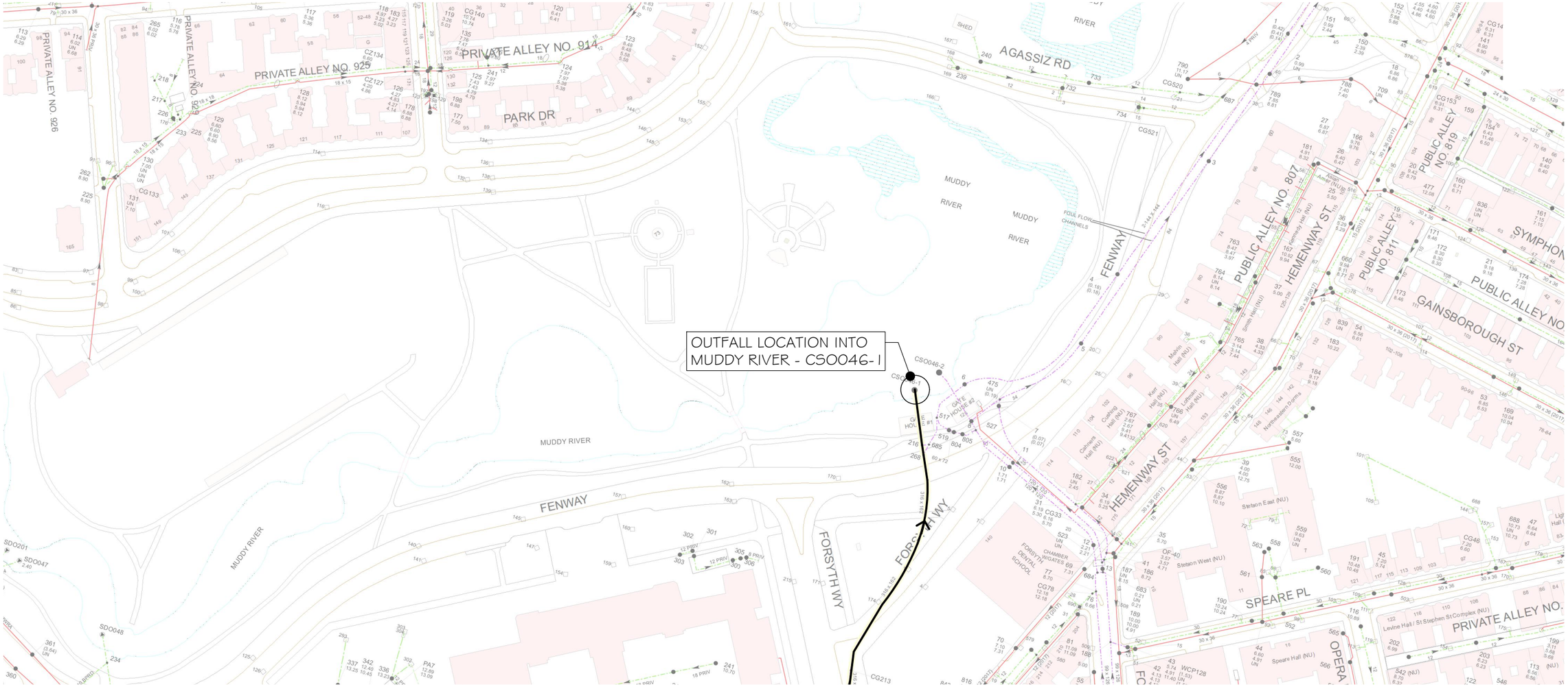
289 WALK HILL AVENUE
BOSTON MASSACHUSETTS

DISCHARGE LOCATION PLAN

FOR
DELLBROOK|JKS
BY
McPHAIL ASSOCIATES, LLC

Date: MARCH 2022	Dwn: F.G.P.	Chkd: S.A.	Scale: 1" = 100'
Project No: 6228			

FIGURE 3B



REFERENCE: THIS PLAN WAS PREPARED FROM AN 200-SCALE DRAWING PRINTED ON APRIL 6, 2021 FROM THE BOSTON WATER AND SEWER COMMISSION SITE

GRAPHIC SCALE

200 0 200 400

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289 WALK HILL AVENUE
BOSTON MASSACHUSETTS

DISCHARGE LOCATION PLAN

FOR
DELLBROOK|JKS
BY
McPHAIL ASSOCIATES, LLC

Date: MARCH 2022	Dwn: F.G.P.	Chkd: S.A.	Scale: 1" = 200'
Project No: 6228			

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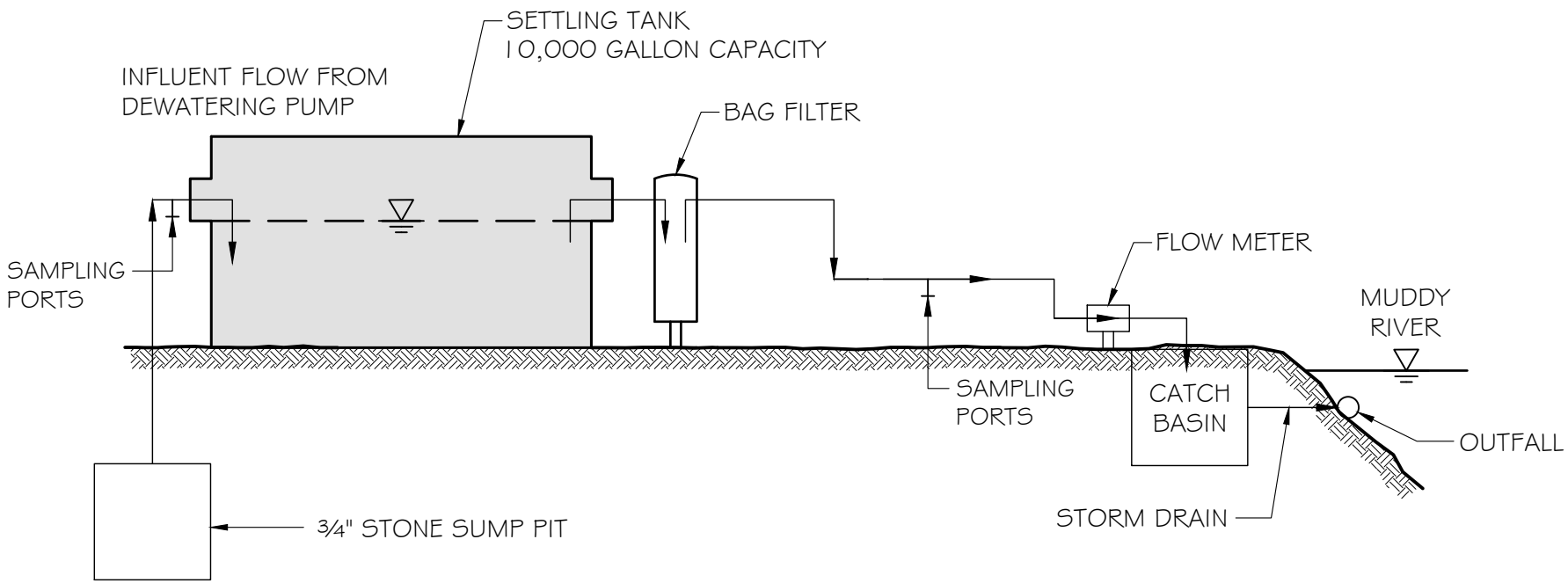
FIGURE 4



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289 WALK HILL AVENUE
BOSTON MASSACHUSETTS

SCHEMATIC OF TREATMENT SYSTEM

FOR
DELLBROOK|JKS
BY
McPHAIL ASSOCIATES, LLC
CONSULTING GEOTECHNICAL ENGINEERS

Date: MARCH 2022	Dwn: F.G.P.	Chkd: S.A.	Scale: N.T.S.
Project No: 6954			

TABLES

Table 1
ANALYTICAL RESULTS - GROUNDWATER

289 Walk Hill Avenue
Boston, MA
Project No: 6954

LOCATION	*MCP 2019 RCGW-2 Reportable Concentrations Criteria*	*Water Quality Based Effluent Limitations (Freshwater)*	B-4 (OW)
SAMPLING DATE			2/11/2022
LAB SAMPLE ID			L2207529-01
SAMPLE TYPE			WATER
SAMPLE DEPTH (ft.)			-
Anions by Ion Chromatography (ug/l)			
Chloride	-	*230000*	554000
General Chemistry			
Solids, Total Suspended	-	-	34000
Cyanide, Total	*30*	*5.2*	ND(5)
Chlorine, Total Residual	-	*11.0*	ND(20)
pH (H)	-	-	7.2
Nitrogen, Ammonia	-	-	ND(75)
Total Hardness by SM 2340B (ug/l)			
Hardness	-	-	449000
Total Metals (ug/l)			
Antimony, Total	*8000*	*640*	ND(4)
Arsenic, Total	*900*	*10*	ND(1)
Cadmium, Total	*4*	*0.25*	ND(0.2)
Chromium, Total	*300*	-	ND(1)
Chromium, Trivalent	*600*	*74*	ND(10)
Chromium, Hexavalent	*300*	*11*	ND(10)
Copper, Total	*100000*	*9*	ND(1)
Iron, Total	-	*1000*	163
Lead, Total	*10*	*2.5*	ND(1)
Mercury, Total	*20*	*0.77*	ND(0.2)
Nickel, Total	*200*	*52*	ND(2)
Selenium, Total	*100*	*5.0*	ND(5)
Silver, Total	*7*	*3.2*	ND(0.4)
Zinc, Total	*900*	*120*	12.12

ND = Not Detected
\- = Not Tested
Bold = Exceeds WQBEL Freshwater Criteria

Table 1
ANALYTICAL RESULTS - GROUNDWATER

289 Walk Hill Avenue
Boston, MA
Project No: 6954

LOCATION	*MCP 2019 RCGW-2 Reportable Concentrations Criteria*	*Water Quality Based Effluent Limitations (Freshwater)*	B-4 (OW)
SAMPLING DATE			2/11/2022
LAB SAMPLE ID			L2207529-01
SAMPLE TYPE			WATER
SAMPLE DEPTH (ft.)			-
Semivolatile Organics by GC/MS (ug/l)			
Bis(2-ethylhexyl)phthalate	*50000*	-	ND(2.2)
Butyl benzyl phthalate	*10000*	-	ND(5)
Di-n-butylphthalate	*5000*	-	ND(5)
Di-n-octylphthalate	*100000*	-	ND(5)
Diethyl phthalate	*9000*	-	ND(5)
Dimethyl phthalate	*50000*	-	ND(5)
SUM	-	*3*	ND
Semivolatile Organics by GC/MS-SIM (ug/l)			
Acenaphthene	*10000*	-	ND(0.1)
Fluoranthene	*200*	-	ND(0.1)
Naphthalene	*700*	*20*	ND(0.1)
Benzo(a)anthracene	*1000*	*0.0038*	ND(0.1)
Benzo(a)pyrene	*500*	*0.0038*	ND(0.1)
Benzo(b)fluoranthene	*400*	*0.0038*	ND(0.1)
Benzo(k)fluoranthene	*100*	*0.0038*	ND(0.1)
Chrysene	*70*	*0.0038*	ND(0.1)
Acenaphthylene	*40*	-	ND(0.1)
Anthracene	*30*	-	ND(0.1)
Benzo(ghi)perylene	*20*	-	ND(0.1)
Fluorene	*40*	-	ND(0.1)
Phenanthrene	*10000*	-	ND(0.1)
Dibenzo(a,h)anthracene	*40*	*0.0038*	ND(0.1)
Indeno(1,2,3-cd)pyrene	*100*	*0.0038*	ND(0.1)
Pyrene	*20*	-	ND(0.1)
Pentachlorophenol	*200*	-	ND(1)
SUM	-	-	ND

ND = Not Detected
\- = Not Tested
Bold = Exceeds WQBEL Freshwater Criteria

Table 2
ANALYTICAL RESULTS - SURFACE WATER

289 Walk Hill Avenue
Boston, MA
Project No: 6954

LOCATION	EPA - Aquatic Life Chronic Criteria (Freshwater)	STONY BROOK SW
SAMPLING DATE		3/7/2022
LAB SAMPLE ID		L2211843-01
SAMPLE TYPE		WATER
SAMPLE DEPTH (ft.)		
General Chemistry		
pH (H)	-	7
Nitrogen, Ammonia	-	367
Total Hardness by SM 2340B		
Hardness	-	121000
Total Metals		
Antimony, Total	-	ND(4)
Arsenic, Total	150	1.26
Cadmium, Total	0.25	**0.37**
Chromium, Total	-	1.18
Copper, Total	-	8.42
Iron, Total	1000	**2070**
Lead, Total	2.5	**16.55**
Mercury, Total	0.77	ND(0.2)
Nickel, Total	52	2.39
Selenium, Total	5	**ND(5)**
Silver, Total	-	ND(0.4)
Zinc, Total	120	58.24

ND = Not Detected
\- = Not Tested
Bold = Exceeds WQBEL Freshwater Criteria

APPENDIX A:

NOTICE OF INTENT TRANSMITTAL FORM

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

A. General site information:

<table>
<tr><td rowspan="2">1. Name of site:
289 Walk Hill Avenue</td><td colspan="3">Site address:
Street: 289 Walk Hill Avenue</td></tr>
<tr><td>City: Boston</td><td>State: MA</td><td>Zip: 02131</td></tr>
<tr><td rowspan="5">2. Site owner
Walk Hill Owner LLC

Owner is (check one): ☐ Federal ☐ State/Tribal ■ Private
☐ Other; if so, specify:</td><td colspan="3">Contact Person: Pete Doucet</td></tr>
<tr><td colspan="2">Telephone: 718-316-6641</td><td>Email: pd@torprops.com</td></tr>
<tr><td colspan="3">Mailing address:
Street: 60 K Street, Suite 302</td></tr>
<tr><td>City: Boston</td><td>State: MA</td><td>Zip: 02127</td></tr>
<tr><td colspan="3"></td></tr>
<tr><td rowspan="5">3. Site operator, if different than owner
Dellbrook|JKS</td><td colspan="3">Contact Person: Rich Hamaty</td></tr>
<tr><td colspan="2">Telephone: (617) 360-1819</td><td>Email: rhamaty@dellbrookjks.com</td></tr>
<tr><td colspan="3">Mailing address:
Street: 859 Willard Street</td></tr>
<tr><td>City: Quincy</td><td>State: MA</td><td>Zip: 02169</td></tr>
<tr><td colspan="3"></td></tr>
<tr><td>4. NPDES permit number assigned by EPA:

NPDES permit is (check all that apply: ☐ RGP ☐ DGP ☐ CGP
☐ MSGP ☐ Individual NPDES permit ☐ Other; if so, specify:</td><td colspan="3">5. Other regulatory program(s) that apply to the site (check all that apply):
■ MA Chapter 21e; list RTN(s):
RTN 3-37332
☐ 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):
Muddy River	CSO046-1	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
If yes, specify:

3. Indicate if the receiving water(s) is listed in the State's Integrated List of Waters (i.e., CWA Section 303(d)). Include which designated uses are impaired, and any pollutants indicated. Also, indicate if a final TMDL is available for any of the indicated pollutants. For more information, contact the appropriate State as noted in Part 4.6 of the RGP. Cat 5 Section 303(d); Impairments included in the supplemental information.

4. Indicate the seven day-ten-year low flow (7Q10) of the receiving water determined in accordance with the instructions in Appendix V for sites located in Massachusetts and Appendix VI for sites located in New Hampshire.	8.75 ft^3/sec
5. Indicate the requested dilution factor for the calculation of water quality-based effluent limitations (WQBELs) determined in accordance with the instructions in Appendix V for sites in Massachusetts and Appendix VI for sites in New Hampshire.	0.144 MGD

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: March 25, 2022

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

C. Source water information:

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

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

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

D. Discharge information

1.The discharge(s) is a(n) (check any that apply): ☐ Existing discharge ■ New discharge ☐ New source	
Outfall(s): Stony Brook Conduit CSO046-1	Outfall location(s): (Latitude, Longitude) 42.34160, -71.09280
Discharges enter the receiving water(s) via (check any that apply): ☐ Direct discharge to the receiving water ■ Indirect discharge, if so, specify: Discharge indirectly into the Muddy River after entering the Stony Brook Conduit ☐ A private storm sewer system ■ A municipal storm sewer system If the discharge enters the receiving water via a private or municipal storm sewer system: Has notification been provided to the owner of this system? (check one): ■ Yes ☐ No Has the operator has received permission from the owner to use such system for discharges? (check one): ☐ Yes ■ No, if so, explain, with an estimated timeframe for obtaining permission: Upon approval of this NOI Has the operator attached a summary of any additional requirements the owner of this system has specified? (check one): ☐ Yes ■ No	
Provide the expected start and end dates of discharge(s) (month/year): June 2022 - December 2022 Indicate if the discharge is expected to occur over a duration of: ■ less than 12 months ☐ 12 months or more ☐ is an emergency discharge	
Has the operator attached a site plan in accordance with the instructions in D, above? (check one): ■ Yes ☐ No	

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

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

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

4. Influent and Effluent Characteristics

Parameter	Known or believed absent	Known or believed present	# of samples	Test method (#)	Detection limit (µg/l)	Influent		Effluent Limitations	
						Daily maximum (µg/l)	Daily average (µg/l)	TBEL	WQBEL
A. Inorganics									
Ammonia	✔		1	350.1	75	ND		Report mg/L	---
Chloride		✔	1	44300		554000		Report µg/l	---
Total Residual Chlorine	✔		1	1214500	20	ND		0.2 mg/L	
Total Suspended Solids		✔	1	1212540		34000		30 mg/L	---
Antimony	✔		1	3,200.8	4	ND		206 µg/L	
Arsenic	✔		1	3,200.8	1	ND		104 µg/L	
Cadmium	✔		1	3,200.8	0.2	ND		10.2 µg/L	
Chromium III	✔		1	107	10	ND		323 µg/L	
Chromium VI	✔		1	107	10	ND		323 µg/L	
Copper		✔	1	3,200.8	1	ND		242 µg/L	
Iron		✔	1	19200.7	50	163		5,000 µg/L	
Lead	✔		1	3,200.8	1	ND		160 µg/L	
Mercury	✔		1	3,245.1	0.2	ND		0.739 µg/L	
Nickel		✔	1	3,200.8	2	ND		1,450 µg/L	
Selenium	✔		1	3,200.8	5	ND		235.8 µg/L	
Silver	✔		1	3,200.8	0.4	ND		35.1 µg/L	
Zinc		✔	1	3,200.8	10	12.12		420 µg/L	
Cyanide	✔		1	121,4500	5	ND		178 mg/L	
B. Non-Halogenated VOCs									
Total BTEX								100 µg/L	---
Benzene								5.0 µg/L	---
1,4 Dioxane								200 µg/L	---
Acetone								7.97 mg/L	---
Phenol								1,080 µg/L	

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

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	✔							100 µg/L	---
Naphthalene	✔							20 µg/L	---
E. Halogenated SVOCs									
Total PCBs	✔							0.000064 µg/L	---
Pentachlorophenol	✔							1.0 µg/L	---
F. Fuels Parameters									
Total Petroleum Hydrocarbons	✔							5.0 mg/L	---
Ethanol	✔							Report mg/L	---
Methyl-tert-Butyl Ether	✔							70 µg/L	
tert-Butyl Alcohol	✔							120 µg/L in MA 40 µg/L in NH	---
tert-Amyl Methyl Ether	✔							90 µg/L in MA 140 µg/L in NH	---
Other (i.e., pH, temperature, hardness, salinity, LC_{50}, additional pollutants present); if so, specify:									
pH		✔	1			6.77			
Temp		✔	1			12.1 C			

E. Treatment system information

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

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

2. Provide a written description of all treatment system(s) or processes that will be applied to the effluent prior to discharge.
Settling tank and bag filters to remove suspended soil particulates prior to off-site discharge

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

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

3. Provide the **design flow capacity** in gallons per minute (gpm) of the most limiting component. Indicate the most limiting component: settling tank Is use of a flow meter feasible? (check one): ■ Yes ☐ No, if so, provide justification:	100
Provide the proposed maximum effluent flow in gpm.	100
Provide the average effluent flow in gpm.	38
If Activity Category IV applies, indicate the estimated total volume of water that will be discharged:	

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

F. Chemical and additive information

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

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

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

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

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

G. Endangered Species Act eligibility determination

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

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

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

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

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

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

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

H. National Historic Preservation Act eligibility determination

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

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

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

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

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

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

I. Supplemental information

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

Section B-3: list of impairments: bottom deposits, flow regime mod, physical substrate habitat alterations, DDT & PCBs in fish tissue, DO, E. Coli, odor, oil & grease, phosphorus, turbidity, metals in sediment

Section J: Permission from the owner of the municipal storm sewer system will be received upon approval of this NOI.

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

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

J. Certification requirement

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

BMPP certification statement: BMPP has been implemented in accordance with good engineering practices following Part 2.5 of the RGP	
Notification provided to the appropriate State, including a copy of this NOI, if required.	Check one: Yes ■ No ☐
Notification provided to the municipality in which the discharge is located, including a copy of this NOI, if requested.	Check one: Yes ■ No ☐
Notification provided to the owner of a private or municipal storm sewer system, if such system is used for site discharges, including a copy of this NOI, if requested.	Check one: Yes ■ No ☐ NA ☐
Permission obtained from the owner of a private or municipal storm sewer system, if such system is used for site discharges. If yes, attach additional conditions. If no, attach explanation and timeframe for obtaining permission.	Check one: Yes ☐ No ■ NA ☐
Notification provided to the owner/operator of the area associated with activities covered by an additional discharge permit(s). Additional discharge permit is (check one): ☐ RGP ☐ DGP ☐ CGP ☐ MSGP ☐ Individual NPDES permit ☐ Other; if so, specify:	Check one: Yes ☐ No ■ NA ☐
Signature:	Date: 3-23-22
Print Name and Title: Rich Hamaty, Superintendent	

Boston Water and Sewer Commission
980 Harrison Avenue
Boston, MA 02119-2540

DEWATERING DISCHARGE PERMIT APPLICATION

OWNER / AUTHORIZED APPLICANT PROVIDE INFORMATION HERE:

Company Name: Dellbrook|JKS Address: 859 Willard Street

Phone Number: (617) 360-1819 Fax number: _____

Contact person name: Rich Hamaty Title: Superintendent

Cell number: (617) 360-1819 Email address: rhamaty@dellbrookjks.com

Permit Request (check one): ☑ New Application ☐ Permit Extension ☐ Other (Specify): _____

Owner's Information (if different from above):

Owner of property being dewatered: Walk Hill Owner LLC

Owner's mailing address: 60 K Street, Suite 302 Phone number: 781-316-6641

Location of Discharge & Proposed Treatment System(s):

Street number and name: 289 Walk Hill Avenue Neighborhood Boston, MA

Discharge is to a: ☐ Sanitary Sewer ☐ Combined Sewer ☐ Storm Drain ☐ Other (specify): _____

Describe Proposed Pre-Treatment System(s): Settling tank and bag filters to remove sediment

BWSC Outfall No. IL-2 Receiving Waters Stony Brook

Temporary Discharges (Provide Anticipated Dates of Discharge): From 06/01/2022 To 12/31/2022

☐ Groundwater Remediation	☐ Tank Removal/Installation	☑ Foundation Excavation
☐ Utility/Manhole Pumping	☐ Test Pipe	☑ Trench Excavation
☑ Accumulated Surface Water	☐ Hydrogeologic Testing	☐ Other _____

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: Matthew Tuttle, Engineering Customer Service
E-mail: tuttlemp@bwsc.org
Phone: 617-989-7204 Fax: 617-989-7716

Signature of Authorized Representative for Property Owner: _____ Date: 3-23-22

APPENDIX B:

ADDITIONAL NOI SUPPORT INFORMATION

MassDEP - Bureau of Waste Site Cleanup

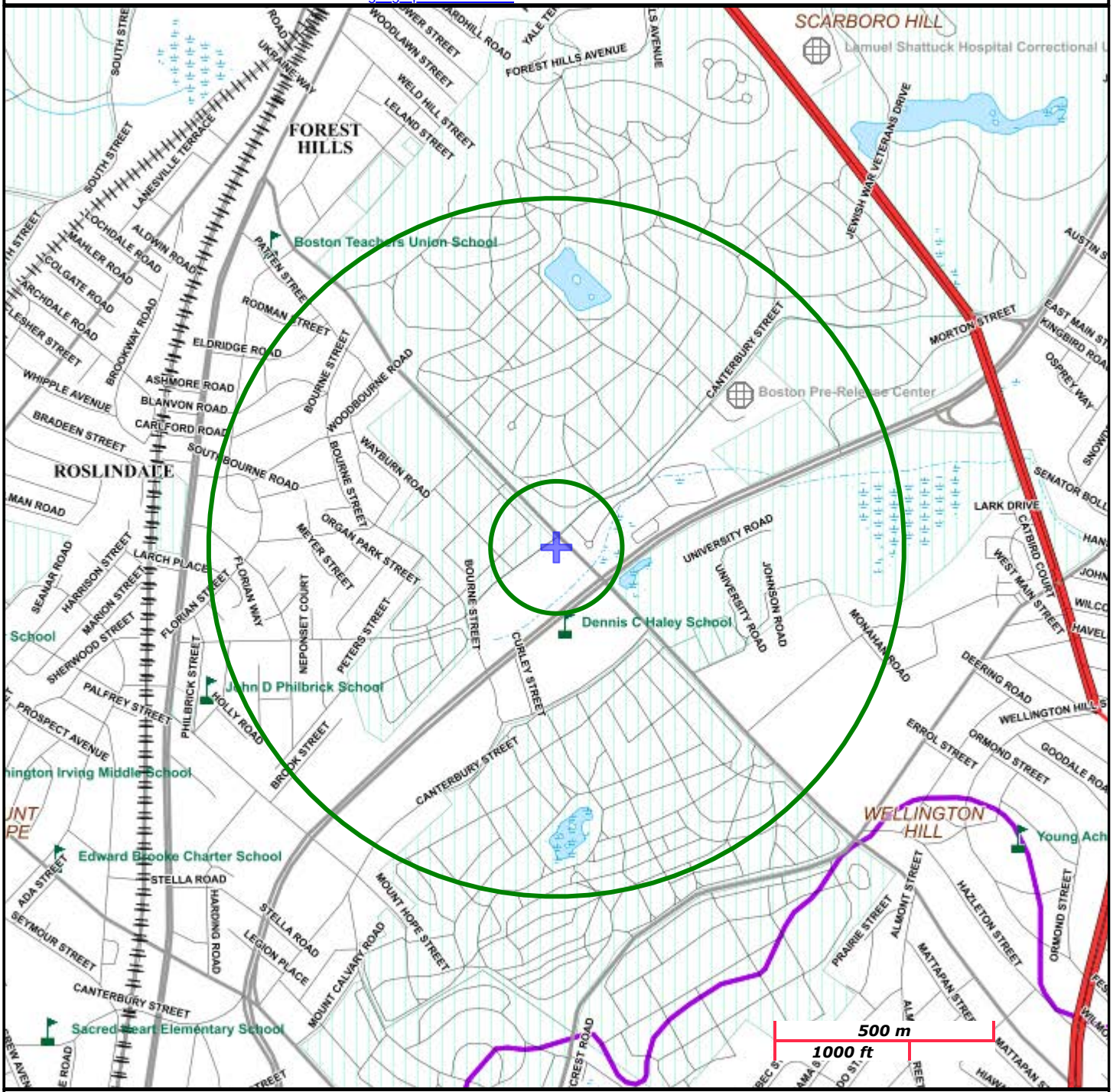
Phase 1 Site Assessment Map: 500 feet & 0.5 Mile Radii

Site Information:
283-289 WALK HILL STREET
283 WALK HILL STREET BOSTON, MA

NAD83 UTM Meters:
4683947mN , 326206mE (Zone: 19)
March 1, 2022

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.

Massachusetts Cultural Resource Information System

MACRIS

MACRIS Search Results

Search Date: 3/1/2022

Search Criteria: Town(s): Boston; Place: Roslindale; Street Name: Walk Hill;

Inv. No.	Property Name	Street	Town	Year	Designations
BOS.15367	Forest Hills Cemetery Crematory and Columbarium	Walk Hill St	Boston	1893	NRIND;
BOS.10758	Chemical Engine #13 Fire House	16-18 Walk Hill St	Boston	1909	
BOS.10759	Parkman, Francis Primary School	25 Walk Hill St	Boston	1899	NRDIS;
BOS.10760	Saint Andrew the Apostle Roman Catholic Church	38 Walk Hill St	Boston	1919	
BOS.15294	Saint Andrew the Apostle Roman Catholic Rectory	38 Walk Hill St	Boston	R 1875	
BOS.14527	Saint Andrew's Commercial Building	43 Walk Hill St	Boston	1923	NRDIS;
BOS.14528	Hinderlang, M. V. House	47 Walk Hill St	Boston	1905	NRDIS;
BOS.14529	McCormack, Delia House	49 Walk Hill St	Boston	1910	NRDIS;
BOS.14530	Lawlor, Thomas House	51-53 Walk Hill St	Boston	1929	NRDIS;
BOS.14531	Hinderlang, Francis House	55 Walk Hill St	Boston	1913	NRDIS;
BOS.14532	Cunningham, John House	59 Walk Hill St	Boston	1906	NRDIS;
BOS.14533	Horan, Francis House	61 Walk Hill St	Boston	1931	NRDIS;
BOS.14534	Hanly, Patrick House	63 Walk Hill St	Boston	1907	NRDIS;
BOS.14535	Leahy, Anastasia House	65 Walk Hill St	Boston	1902	NRDIS;
BOS.14536	Hardy, Horatio House	67-69 Walk Hill St	Boston	1916	NRDIS;
BOS.14537	DeRoches, Charles House	71 Walk Hill St	Boston	1896	NRDIS;
BOS.14538	Holland, John H. House	75-77 Walk Hill St	Boston	1929	NRDIS;
BOS.14539	Holland, John H. House	79-81 Walk Hill St	Boston	C 1955	NRDIS;
BOS.14540	Buckley, Charles House	83-85 Walk Hill St	Boston	1929	NRDIS;
BOS.14541	Davis, Fred P. House	87 Walk Hill St	Boston	1925	NRDIS;
BOS.14542	Home Construction Company House	89 Walk Hill St	Boston	C 1914	NRDIS;
BOS.821	Mount Hope Cemetery	355 Walk Hill St	Boston	1852	NRIND; NRMPS;
BOS.9728	Mount Hope Cemetery - Boston Police Monument	355 Walk Hill St	Boston	R 1935	NRIND; NRMPS;
BOS.9723	Mount Hope Cemetery - Elks Monument	355 Walk Hill St	Boston	R 1885	NRIND; NRMPS;
BOS.9715	Mount Hope Cemetery - Fairfield Tomb	355 Walk Hill St	Boston	R 1880	NRIND; NRMPS;
BOS.9724	Mount Hope Cemetery - Freemasons Monument	355 Walk Hill St	Boston	R 1885	NRIND; NRMPS;
BOS.9726	Mount Hope Cemetery - G. A. R. Monument	355 Walk Hill St	Boston	1873	NRIND; NRMPS;
BOS.9721	Mount Hope Cemetery - Hall Lot Fence	355 Walk Hill St	Boston	R 1850	NRIND; NRMPS;
BOS.9716	Mount Hope Cemetery - Heyl Tomb	355 Walk Hill St	Boston	R 1880	NRIND; NRMPS;
BOS.9720	Mount Hope Cemetery - Jones Lot Fence	355 Walk Hill St	Boston	R 1880	NRIND; NRMPS;
BOS.9713	Mount Hope Cemetery - Lienau - Graham Tomb	355 Walk Hill St	Boston	R 1880	NRIND; NRMPS;
BOS.9717	Mount Hope Cemetery - Mack - Moore Tomb	355 Walk Hill St	Boston	R 1880	NRIND; NRMPS;
BOS.9705	Mount Hope Cemetery - Meadow Vale Pond	355 Walk Hill St	Boston	R 1865	NRIND; NRMPS;
BOS.9722	Mount Hope Cemetery - Odd Fellows Monument	355 Walk Hill St	Boston	1877	NRIND; NRMPS;
BOS.9718	Mount Hope Cemetery - Poole - Boyco Tomb	355 Walk Hill St	Boston	R 1880	NRIND; NRMPS;
BOS.9719	Mount Hope Cemetery - Rollo Lot Fence	355 Walk Hill St	Boston	R 1880	NRIND; NRMPS;
BOS.9725	Mount Hope Cemetery - Soldiers & Sailors Monument	355 Walk Hill St	Boston	1867	NRIND; NRMPS;
BOS.9706	Mount Hope Cemetery - Sylvan Pond	355 Walk Hill St	Boston	R 1865	NRIND; NRMPS;

Inv. No.	Property Name	Street	Town	Year	Designations
BOS.9714	Mount Hope Cemetery - Whitney Tomb	355 Walk Hill St	Boston	R 1880	NRIND; NRMPS;
BOS.9710	Mount Hope Cemetery - Wooden Gazebo	355 Walk Hill St	Boston	R 1980	NRIND; NRMPS;
BOS.9727	Mount Hope Cemetery - World War Veterans Monument	355 Walk Hill St	Boston	1954	NRIND; NRMPS;
BOS.10819	Mount Hope Cemetery Administration Building	355 Walk Hill St	Boston	1903	NRIND; NRMPS;
BOS.10820	Mount Hope Cemetery Chapel	355 Walk Hill St	Boston	C 1900	NRIND; NRMPS;
BOS.9707	Mount Hope Cemetery Circulation System	355 Walk Hill St	Boston	1852	NRIND; NRMPS;
BOS.9712	Mount Hope Cemetery Flag Pole	355 Walk Hill St	Boston	R 1980	NRIND; NRMPS;
BOS.9709	Mount Hope Cemetery Interior Stone Retaining Walls	355 Walk Hill St	Boston	R 1880	NRIND; NRMPS;
BOS.13978	Mount Hope Cemetery Maintenance Building	355 Walk Hill St	Boston	R 1995	NRIND; NRMPS;
BOS.9708	Mount Hope Cemetery Perimeter Walls and Fences	355 Walk Hill St	Boston	1858	NRIND; NRMPS;
BOS.9711	Mount Hope Cemetery Receiving Tomb	355 Walk Hill St	Boston	1875	NRIND; NRMPS;

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: March 01, 2022
Project Code: 2022-0014108
Project Name: 283-289 Walk Hill 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:

Please review this letter each time you request an Official Species List, we will continue to update it with additional information and links to websites may change.

About Official Species Lists

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. Federal and non-Federal project proponents have responsibilities under the Act to consider effects on listed species.

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 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. 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 by returning to an existing project's page in IPaC.

Endangered Species Act Project Review

Please visit the "**New England Field Office Endangered Species Project Review and Consultation**" website for step-by-step instructions on how to consider effects on listed

species and prepare and submit a project review package if necessary:

https://www.fws.gov/newengland/endangeredspecies/project-review/index.html

NOTE Please do not use the **Consultation Package Builder** tool in IPaC except in specific situations following coordination with our office. Please follow the project review guidance on our website instead and reference your **Project Code** in all correspondence.

Additional Info About Section 7 of the Act
Under section 7(a)(2) of the Act and its implementing regulations (50 CFR 402 et seq.), Federal agencies are required to determine whether projects may affect threatened and endangered species and/or designated critical habitat. If a Federal agency, or its non-Federal representative, determines 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 Federal agency also may need to consider proposed species and proposed critical habitat in the consultation. 50 CFR 402.14(c)(1) specifies the information required for consultation under the Act regardless of the format of the evaluation. 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

In addition to consultation requirements under Section 7(a)(2) of the ESA, please note that under sections 7(a)(1) 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. Please contact NEFO if you would like more information.

Candidate species that appear on the enclosed species list have no current protections under the ESA. The species' occurrence on an official species list does not convey a requirement to consider impacts to this species as you would a proposed, threatened, or endangered species. The ESA does not provide for interagency consultations on candidate species under section 7, however, the Service recommends that all project proponents incorporate measures into projects to benefit candidate species and their habitats wherever possible.

Migratory Birds

In addition to responsibilities to protect threatened and endangered species under the Endangered Species Act (ESA), there are additional responsibilities under the Migratory Bird Treaty Act (MBTA) and the Bald and Golden Eagle Protection Act (BGEPA) to protect native birds from project-related impacts. Any activity, intentional or unintentional, resulting in take of migratory birds, including eagles, is prohibited unless otherwise permitted by the U.S. Fish and Wildlife Service (50 C.F.R. Sec. 10.12 and 16 U.S.C. Sec. 668(a)). For more information regarding these Acts see:

https://www.fws.gov/birds/policies-and-regulations.php

Please feel free to contact us at **newengland@fws.gov** with your **Project Code** in the subject line if you need more information or assistance regarding the potential impacts to federally proposed, listed, and candidate species and federally designated and proposed critical habitat.

Attachment(s): Official Species List

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

Project Code: 2022-0014108
Event Code: None
Project Name: 283-289 Walk Hill Street
Project Type: Residential Construction
Project Description: 283-289 Walk Hill Street & 574-578 Canterbury Street; RGP Permit for dewatering.
Project Location:

Approximate location of the project can be viewed in Google Maps: https://www.google.com/maps/@42.28788755,-71.10766633964667,14z

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

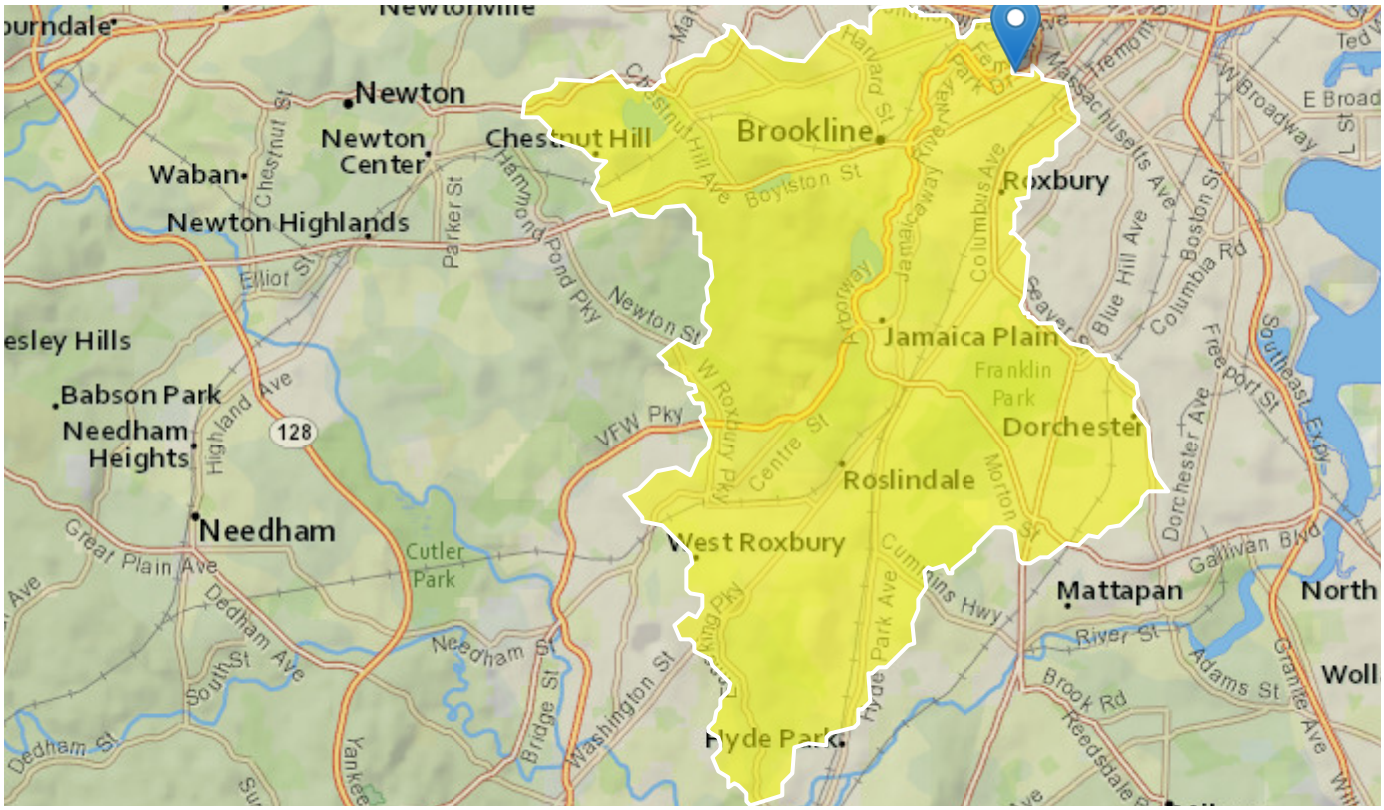
THERE ARE NO CRITICAL HABITATS WITHIN YOUR PROJECT AREA UNDER THIS OFFICE'S JURISDICTION.

IPaC User Contact Information

Agency: McPhail Associates, LLC
Name: Shakib Ahmed
Address: 2269 Massachusetts Avenue
City: Cambridge
State: MA
Zip: 02140
Email sahmed@mcphailgeo.com
Phone: 6179095042

StreamStats Report 283-289 Walk Hill St. Boston

Region ID: MA
Workspace ID: MA20220325180756653000
Clicked Point (Latitude, Longitude): 42.34077, -71.09502
Time: 2022-03-25 14:08:17 -0400



Storm drain to Muddy River

Basin Characteristics

Parameter Code	Parameter Description	Value	Unit
BSLDEM250	Mean basin slope computed from 1:250K DEM	2.797	percent
DRFTPERSTR	Area of stratified drift per unit of stream length	1.71	square mile per mile
DRNAREA	Area that drains to a point on a stream	19.8	square miles
MAREGION	Region of Massachusetts 0 for Eastern 1 for Western	0	dimensionless

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

Parameter Code	Parameter Name	Value	Units	Min Limit	Max Limit
DRNAREA	Drainage Area	19.8	square miles	1.61	149
BSLDEM250	Mean Basin Slope from 250K DEM	2.797	percent	0.32	24.6
DRFTPERSTR	Stratified Drift per Stream Length	1.71	square mile per mile	0	1.29
MAREGION	Massachusetts Region	0	dimensionless	0	1

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

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

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

Statistic	Value	Unit
7 Day 2 Year Low Flow	11.1	ft^3/s
7 Day 10 Year Low Flow	8.99	ft^3/s

Low-Flow Statistics Citations

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

Application Version: 4.8.0
StreamStats Services Version: 1.2.22
NSS Services Version: 2.1.2

APPENDIX C:

LABORATORY ANALYTICAL DATA - GROUNDWATER

ANALYTICAL REPORT

Lab Number:	L2207529
Client:	McPhail Associates 2269 Massachusetts Avenue Cambridge, MA 02140
ATTN:	Ambrose Donovan
Phone:	(617) 868-1420
Project Name:	283-289 WALK HILL STREET
Project Number:	6954.9.03
Report Date:	02/18/22

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: 283-289 WALK HILL STREET
Project Number: 6954.9.03

Lab Number: L2207529
Report Date: 02/18/22

Alpha Sample ID	Client ID	Matrix	Sample Location	Collection Date/Time	Receive Date
L2207529-01	B-4 (OW)	WATER	BOSTON, MA	02/11/22 09:00	02/11/22

Project Name:	283-289 WALK HILL STREET	**Lab Number:**	L2207529
Project Number:	6954.9.03	**Report Date:**	02/18/22

Case Narrative

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

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

When multiple Batch Quality Control elements are reported (e.g. more than one LCS), the associated samples for each element are noted in the grey shaded header line of each data table. Any Laboratory Batch, Sample Specific % recovery or RPD value that is outside the listed Acceptance Criteria is bolded in the report. In reference to questions H (CAM) or 4 (RCP) when "NO" is checked, the performance criteria for CAM and RCP methods allow for some quality control failures to occur and still be within method compliance. In these instances, the specific failure is not narrated but noted in the associated QC Outlier Summary Report, located directly after the Case Narrative. QC information is also incorporated in the Data Usability Assessment table (Format 11) of our Data Merger tool, where it can be reviewed in conjunction with the sample result, associated regulatory criteria and any associated data usability implications.

Soil/sediments, solids and tissues are reported on a dry weight basis unless otherwise noted. Definitions of all data qualifiers and acronyms used in this report are provided in the Glossary located at the back of the report.

HOLD POLICY - For samples submitted on hold, Alpha's policy is to hold samples (with the exception of Air canisters) free of charge for 21 calendar days from the date the project is completed. After 21 calendar days, we will dispose of all samples submitted including those put on hold unless you have contacted your Alpha Project Manager and made arrangements for Alpha to continue to hold the samples. Air canisters will be disposed after 3 business days from the date the project is completed.

Please contact Project Management at 800-624-9220 with any questions.

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

Authorized Signature:  Caitlin Walukevich

Title: Technical Director/Representative Date: 02/18/22

ORGANICS

SEMIVOLATILES

Project Name: 283-289 WALK HILL STREET
Project Number: 6954.9.03
Lab Number: L2207529
Report Date: 02/18/22

SAMPLE RESULTS

Lab ID: L2207529-01
Client ID: B-4 (OW)
Sample Location: BOSTON, MA

Date Collected: 02/11/22 09:00
Date Received: 02/11/22
Field Prep: Not Specified

Sample Depth:
Matrix: Water
Analytical Method: 129,625.1
Analytical Date: 02/18/22 11:56
Analyst: SZ

Extraction Method: EPA 625.1
Extraction Date: 02/17/22 03:11

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	66		42-122
2-Fluorobiphenyl	69		46-121
4-Terphenyl-d14	85		47-138

Project Name: 283-289 WALK HILL STREET
Project Number: 6954.9.03
Lab Number: L2207529
Report Date: 02/18/22

SAMPLE RESULTS

Lab ID: L2207529-01
Client ID: B-4 (OW)
Sample Location: BOSTON, MA

Date Collected: 02/11/22 09:00
Date Received: 02/11/22
Field Prep: Not Specified

Sample Depth:
Matrix: Water
Analytical Method: 129,625.1-SIM
Analytical Date: 02/18/22 11:55
Analyst: DV

Extraction Method: EPA 625.1
Extraction Date: 02/17/22 03:18

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	41		25-87
Phenol-d6	29		16-65
Nitrobenzene-d5	70		42-122
2-Fluorobiphenyl	69		46-121
2,4,6-Tribromophenol	99		45-128
4-Terphenyl-d14	96		47-138

Project Name: 283-289 WALK HILL STREET
Project Number: 6954.9.03
Lab Number: L2207529
Report Date: 02/18/22

Method Blank Analysis
Batch Quality Control

Analytical Method: 129,625.1
Analytical Date: 02/18/22 10:48
Analyst: SZ

Extraction Method: EPA 625.1
Extraction Date: 02/17/22 03:11

Parameter	Result	Qualifier	Units	RL	MDL
Semivolatile Organics by GC/MS - Westborough Lab for sample(s): 01 Batch: WG1605891-1					
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	59		42-122
2-Fluorobiphenyl	65		46-121
4-Terphenyl-d14	81		47-138

Project Name: 283-289 WALK HILL STREET
Project Number: 6954.9.03
Lab Number: L2207529
Report Date: 02/18/22

Method Blank Analysis
Batch Quality Control

Analytical Method: 129,625.1-SIM
Analytical Date: 02/18/22 11:39
Analyst: DV

Extraction Method: EPA 625.1
Extraction Date: 02/17/22 03:18

Parameter	Result	Qualifier	Units	RL	MDL
Semivolatile Organics by GC/MS-SIM - Westborough Lab for sample(s): 01 Batch: WG1605894-1					
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	39		25-87
Phenol-d6	27		16-65
Nitrobenzene-d5	65		42-122
2-Fluorobiphenyl	65		46-121
2,4,6-Tribromophenol	89		45-128
4-Terphenyl-d14	89		47-138

Lab Control Sample Analysis
Batch Quality Control

Project Name: 283-289 WALK HILL STREET
Project Number: 6954.9.03

Lab Number: L2207529
Report Date: 02/18/22

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: WG1605891-3								
Bis(2-ethylhexyl)phthalate	85		-		29-137	-		82
Butyl benzyl phthalate	79		-		1-140	-		60
Di-n-butylphthalate	77		-		8-120	-		47
Di-n-octylphthalate	84		-		19-132	-		69
Diethyl phthalate	75		-		1-120	-		100
Dimethyl phthalate	78		-		1-120	-		183

Surrogate	LCS %Recovery	Qual	LCSD %Recovery	Qual	Acceptance Criteria
Nitrobenzene-d5	72				42-122
2-Fluorobiphenyl	72				46-121
4-Terphenyl-d14	72				47-138

Lab Control Sample Analysis
Batch Quality Control

Project Name: 283-289 WALK HILL STREET
Project Number: 6954.9.03

Lab Number: L2207529
Report Date: 02/18/22

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: WG1605894-2								
Acenaphthene	72		-		60-132	-		30
Fluoranthene	80		-		43-121	-		30
Naphthalene	69		-		36-120	-		30
Benzo(a)anthracene	85		-		42-133	-		30
Benzo(a)pyrene	84		-		32-148	-		30
Benzo(b)fluoranthene	81		-		42-140	-		30
Benzo(k)fluoranthene	82		-		25-146	-		30
Chrysene	68		-		44-140	-		30
Acenaphthylene	80		-		54-126	-		30
Anthracene	76		-		43-120	-		30
Benzo(ghi)perylene	81		-		1-195	-		30
Fluorene	78		-		70-120	-		30
Phenanthrene	71		-		65-120	-		30
Dibenzo(a,h)anthracene	88		-		1-200	-		30
Indeno(1,2,3-cd)pyrene	86		-		1-151	-		30
Pyrene	80		-		70-120	-		30
Pentachlorophenol	66		-		38-152	-		30

Lab Control Sample Analysis
Batch Quality Control

Project Name: 283-289 WALK HILL STREET
Project Number: 6954.9.03

Lab Number: L2207529
Report Date: 02/18/22

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: WG1605894-2

Surrogate	LCS %Recovery	Qual	LCSD %Recovery	Qual	Acceptance Criteria
2-Fluorophenol	51				25-87
Phenol-d6	35				16-65
Nitrobenzene-d5	78				42-122
2-Fluorobiphenyl	73				46-121
2,4,6-Tribromophenol	96				45-128
4-Terphenyl-d14	84				47-138

METALS

Project Name: 283-289 WALK HILL STREET
Project Number: 6954.9.03
Lab Number: L2207529
Report Date: 02/18/22

SAMPLE RESULTS

Lab ID: L2207529-01
Client ID: B-4 (OW)
Sample Location: BOSTON, MA
Date Collected: 02/11/22 09:00
Date Received: 02/11/22
Field Prep: Not Specified

Sample Depth:
Matrix: Water

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Prep Method	Analytical Method	Analyst
Total Metals - Mansfield Lab											
Antimony, Total	ND		mg/l	0.00400	--	1	02/15/22 16:24	02/15/22 21:39	EPA 3005A	3,200.8	SV
Arsenic, Total	ND		mg/l	0.00100	--	1	02/15/22 16:24	02/15/22 21:39	EPA 3005A	3,200.8	SV
Cadmium, Total	ND		mg/l	0.00020	--	1	02/15/22 16:24	02/15/22 21:39	EPA 3005A	3,200.8	SV
Chromium, Total	ND		mg/l	0.00100	--	1	02/15/22 16:24	02/15/22 21:39	EPA 3005A	3,200.8	SV
Copper, Total	ND		mg/l	0.00100	--	1	02/15/22 16:24	02/15/22 21:39	EPA 3005A	3,200.8	SV
Iron, Total	0.163		mg/l	0.050	--	1	02/15/22 16:24	02/17/22 00:22	EPA 3005A	19,200.7	EW
Lead, Total	ND		mg/l	0.00100	--	1	02/15/22 16:24	02/15/22 21:39	EPA 3005A	3,200.8	SV
Mercury, Total	ND		mg/l	0.00020	--	1	02/15/22 17:56	02/16/22 20:39	EPA 245.1	3,245.1	BV
Nickel, Total	ND		mg/l	0.00200	--	1	02/15/22 16:24	02/15/22 21:39	EPA 3005A	3,200.8	SV
Selenium, Total	ND		mg/l	0.00500	--	1	02/15/22 16:24	02/15/22 21:39	EPA 3005A	3,200.8	SV
Silver, Total	ND		mg/l	0.00040	--	1	02/15/22 16:24	02/15/22 21:39	EPA 3005A	3,200.8	SV
Zinc, Total	0.01212		mg/l	0.01000	--	1	02/15/22 16:24	02/15/22 21:39	EPA 3005A	3,200.8	SV
Total Hardness by SM 2340B - Mansfield Lab											
Hardness	449		mg/l	0.660	NA	1	02/15/22 16:24	02/17/22 00:22	EPA 3005A	19,200.7	EW
General Chemistry - Mansfield Lab											
Chromium, Trivalent	ND		mg/l	0.010	--	1		02/15/22 21:39	NA	107,-	

Project Name: 283-289 WALK HILL STREET **Lab Number:** L2207529

Project Number: 6954.9.03 **Report Date:** 02/18/22

Method Blank Analysis
Batch Quality Control

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
Total Metals - Mansfield Lab for sample(s): 01 Batch: WG1605164-1										
Iron, Total	ND		mg/l	0.050	--	1	02/15/22 16:24	02/16/22 22:19	19,200.7	EW

Prep Information

Digestion Method: EPA 3005A

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
Total Hardness by SM 2340B - Mansfield Lab for sample(s): 01 Batch: WG1605164-1										
Hardness	ND		mg/l	0.660	NA	1	02/15/22 16:24	02/16/22 22:19	19,200.7	EW

Prep Information

Digestion Method: EPA 3005A

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
Total Metals - Mansfield Lab for sample(s): 01 Batch: WG1605178-1										
Antimony, Total	ND		mg/l	0.00400	--	1	02/15/22 16:24	02/15/22 20:50	3,200.8	SV
Arsenic, Total	ND		mg/l	0.00100	--	1	02/15/22 16:24	02/15/22 20:50	3,200.8	SV
Cadmium, Total	ND		mg/l	0.00020	--	1	02/15/22 16:24	02/15/22 20:50	3,200.8	SV
Chromium, Total	ND		mg/l	0.00100	--	1	02/15/22 16:24	02/15/22 20:50	3,200.8	SV
Copper, Total	ND		mg/l	0.00100	--	1	02/15/22 16:24	02/15/22 20:50	3,200.8	SV
Lead, Total	ND		mg/l	0.00100	--	1	02/15/22 16:24	02/15/22 20:50	3,200.8	SV
Nickel, Total	ND		mg/l	0.00200	--	1	02/15/22 16:24	02/15/22 20:50	3,200.8	SV
Selenium, Total	ND		mg/l	0.00500	--	1	02/15/22 16:24	02/15/22 20:50	3,200.8	SV
Silver, Total	ND		mg/l	0.00040	--	1	02/15/22 16:24	02/15/22 20:50	3,200.8	SV
Zinc, Total	ND		mg/l	0.01000	--	1	02/15/22 16:24	02/15/22 20:50	3,200.8	SV

Prep Information

Digestion Method: EPA 3005A

Project Name: 283-289 WALK HILL STREET
Project Number: 6954.9.03
Lab Number: L2207529
Report Date: 02/18/22

Method Blank Analysis
Batch Quality Control

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
Total Metals - Mansfield Lab for sample(s): 01 Batch: WG1605179-1										
Mercury, Total	ND		mg/l	0.00020	--	1	02/15/22 17:56	02/16/22 20:16	3,245.1	BV

Prep Information

Digestion Method: EPA 245.1

Lab Control Sample Analysis

Batch Quality Control

Project Name: 283-289 WALK HILL STREET

Project Number: 6954.9.03

Lab Number: L2207529

Report Date: 02/18/22

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Total Metals - Mansfield Lab Associated sample(s): 01 Batch: WG1605164-2								
Iron, Total	93		-		85-115	-		
Total Hardness by SM 2340B - Mansfield Lab Associated sample(s): 01 Batch: WG1605164-2								
Hardness	100		-		85-115	-		
Total Metals - Mansfield Lab Associated sample(s): 01 Batch: WG1605178-2								
Antimony, Total	93		-		85-115	-		
Arsenic, Total	98		-		85-115	-		
Cadmium, Total	95		-		85-115	-		
Chromium, Total	98		-		85-115	-		
Copper, Total	95		-		85-115	-		
Lead, Total	96		-		85-115	-		
Nickel, Total	95		-		85-115	-		
Selenium, Total	96		-		85-115	-		
Silver, Total	98		-		85-115	-		
Zinc, Total	96		-		85-115	-		
Total Metals - Mansfield Lab Associated sample(s): 01 Batch: WG1605179-2								
Mercury, Total	104		-		85-115	-		

Matrix Spike Analysis
Batch Quality Control

Project Name: 283-289 WALK HILL STREET
Project Number: 6954.9.03

Lab Number: L2207529
Report Date: 02/18/22

Parameter	Native Sample	MS Added	MS Found	MS %Recovery	Qual	MSD Found	MSD %Recovery	Qual	Recovery Limits	RPD	Qual	RPD Limits
Total Metals - Mansfield Lab Associated sample(s): 01 QC Batch ID: WG1605164-3 QC Sample: L2207736-01 Client ID: MS Sample												
Iron, Total	0.767	1	1.83	106		-	-		75-125	-		20
Total Hardness by SM 2340B - Mansfield Lab Associated sample(s): 01 QC Batch ID: WG1605164-3 QC Sample: L2207736-01 Client ID: MS Sample												
Hardness	98.1	66.2	164	100		-	-		75-125	-		20
Total Metals - Mansfield Lab Associated sample(s): 01 QC Batch ID: WG1605164-7 QC Sample: L2207736-02 Client ID: MS Sample												
Iron, Total	ND	1	0.974	97		-	-		75-125	-		20
Total Hardness by SM 2340B - Mansfield Lab Associated sample(s): 01 QC Batch ID: WG1605164-7 QC Sample: L2207736-02 Client ID: MS Sample												
Hardness	107	66.2	172	98		-	-		75-125	-		20
Total Metals - Mansfield Lab Associated sample(s): 01 QC Batch ID: WG1605178-3 QC Sample: L2207736-01 Client ID: MS Sample												
Antimony, Total	ND	0.5	0.4792	96		-	-		70-130	-		20
Arsenic, Total	0.00150	0.12	0.1207	99		-	-		70-130	-		20
Cadmium, Total	ND	0.053	0.05074	96		-	-		70-130	-		20
Chromium, Total	0.00299	0.2	0.1966	97		-	-		70-130	-		20
Copper, Total	0.05390	0.25	0.2905	95		-	-		70-130	-		20
Lead, Total	0.01355	0.53	0.5077	93		-	-		70-130	-		20
Nickel, Total	0.01218	0.5	0.4733	92		-	-		70-130	-		20
Selenium, Total	ND	0.12	0.1156	96		-	-		70-130	-		20
Silver, Total	ND	0.05	0.04924	98		-	-		70-130	-		20
Zinc, Total	0.09979	0.5	0.5894	98		-	-		70-130	-		20
Total Metals - Mansfield Lab Associated sample(s): 01 QC Batch ID: WG1605179-3 QC Sample: L2207777-01 Client ID: MS Sample												
Mercury, Total	ND	0.005	0.00501	100		-	-		70-130	-		20

Lab Duplicate Analysis
Batch Quality Control

Project Name: 283-289 WALK HILL STREET
Project Number: 6954.9.03

Lab Number: L2207529
Report Date: 02/18/22

Parameter	Native Sample	Duplicate Sample	Units	RPD	Qual	RPD Limits
Total Metals - Mansfield Lab Associated sample(s): 01 QC Batch ID: WG1605164-4 QC Sample: L2207736-01 Client ID: DUP Sample						
Iron, Total	0.767	0.887	mg/l	15		20
Total Hardness by SM 2340B - Mansfield Lab Associated sample(s): 01 QC Batch ID: WG1605164-4 QC Sample: L2207736-01 Client ID: DUP Sample						
Hardness	98.1	95.1	mg/l	3		20
Total Metals - Mansfield Lab Associated sample(s): 01 QC Batch ID: WG1605164-8 QC Sample: L2207736-02 Client ID: DUP Sample						
Iron, Total	ND	ND	mg/l	NC		20
Total Hardness by SM 2340B - Mansfield Lab Associated sample(s): 01 QC Batch ID: WG1605164-8 QC Sample: L2207736-02 Client ID: DUP Sample						
Hardness	107	105	mg/l	2		20
Total Metals - Mansfield Lab Associated sample(s): 01 QC Batch ID: WG1605178-4 QC Sample: L2207736-01 Client ID: DUP Sample						
Antimony, Total	ND	0.00618	mg/l	NC		20
Arsenic, Total	0.00150	0.00159	mg/l	6		20
Cadmium, Total	ND	ND	mg/l	NC		20
Chromium, Total	0.00299	0.00313	mg/l	5		20
Copper, Total	0.05390	0.05390	mg/l	0		20
Lead, Total	0.01355	0.01380	mg/l	2		20
Nickel, Total	0.01218	0.01233	mg/l	1		20
Selenium, Total	ND	ND	mg/l	NC		20
Silver, Total	ND	ND	mg/l	NC		20
Zinc, Total	0.09979	0.1009	mg/l	1		20

Lab Duplicate Analysis

Batch Quality Control

Project Name: 283-289 WALK HILL STREET
Project Number: 6954.9.03

Lab Number: L2207529
Report Date: 02/18/22

Parameter	Native Sample	Duplicate Sample	Units	RPD	RPD Limits
Total Metals - Mansfield Lab Associated sample(s): 01 QC Batch ID: WG1605179-4 QC Sample: L2207777-01 Client ID: DUP Sample					
Mercury, Total	ND	ND	mg/l	NC	20

INORGANICS
&
MISCELLANEOUS

Project Name: 283-289 WALK HILL STREET
Project Number: 6954.9.03
Lab Number: L2207529
Report Date: 02/18/22

SAMPLE RESULTS

Lab ID: L2207529-01
Client ID: B-4 (OW)
Sample Location: BOSTON, MA
Sample Depth:
Matrix: Water
Date Collected: 02/11/22 09:00
Date Received: 02/11/22
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	34.		mg/l	5.0	NA	1	-	02/14/22 21:00	121,2540D	MD
Cyanide, Total	ND		mg/l	0.005	--	1	02/14/22 06:00	02/14/22 11:38	121,4500CN-CE	CS
Chlorine, Total Residual	ND		mg/l	0.02	--	1	-	02/11/22 22:14	121,4500CL-D	AS
pH (H)	7.2		SU	-	NA	1	-	02/15/22 09:30	121,4500H+-B	KP
Nitrogen, Ammonia	ND		mg/l	0.075	--	1	02/12/22 02:53	02/14/22 16:45	121,4500NH3-BH	AT
Chromium, Hexavalent	ND		mg/l	0.010	--	1	02/12/22 06:45	02/12/22 06:58	1,7196A	KA
Anions by Ion Chromatography - Westborough Lab										
Chloride	554.		mg/l	12.5	--	25	-	02/14/22 16:50	44,300.0	SH

Project Name: 283-289 WALK HILL STREET
Project Number: 6954.9.03
Lab Number: L2207529
Report Date: 02/18/22

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: WG1604223-1										
Chlorine, Total Residual	ND		mg/l	0.02	--	1	-	02/11/22 22:14	121,4500CL-D	AS
General Chemistry - Westborough Lab for sample(s): 01 Batch: WG1604244-1										
Nitrogen, Ammonia	ND		mg/l	0.075	--	1	02/12/22 02:53	02/14/22 16:38	121,4500NH3-BH	AT
General Chemistry - Westborough Lab for sample(s): 01 Batch: WG1604288-1										
Chromium, Hexavalent	ND		mg/l	0.010	--	1	02/12/22 06:45	02/12/22 06:54	1,7196A	KA
General Chemistry - Westborough Lab for sample(s): 01 Batch: WG1604509-1										
Cyanide, Total	ND		mg/l	0.005	--	1	02/14/22 06:00	02/14/22 10:54	121,4500CN-CE	CS
Anions by Ion Chromatography - Westborough Lab for sample(s): 01 Batch: WG1604870-1										
Chloride	ND		mg/l	0.500	--	1	-	02/14/22 15:55	44,300.0	SH
General Chemistry - Westborough Lab for sample(s): 01 Batch: WG1604880-1										
Solids, Total Suspended	ND		mg/l	5.0	NA	1	-	02/14/22 21:00	121,2540D	MD

Lab Control Sample Analysis

Batch Quality Control

Project Name: 283-289 WALK HILL STREET
Project Number: 6954.9.03

Lab Number: L2207529
Report Date: 02/18/22

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
General Chemistry - Westborough Lab Associated sample(s): 01 Batch: WG1604223-2								
Chlorine, Total Residual	104		-		90-110	-		
General Chemistry - Westborough Lab Associated sample(s): 01 Batch: WG1604244-2								
Nitrogen, Ammonia	98		-		80-120	-		20
General Chemistry - Westborough Lab Associated sample(s): 01 Batch: WG1604288-2								
Chromium, Hexavalent	104		-		85-115	-		20
General Chemistry - Westborough Lab Associated sample(s): 01 Batch: WG1604509-2								
Cyanide, Total	102		-		90-110	-		
Anions by Ion Chromatography - Westborough Lab Associated sample(s): 01 Batch: WG1604870-2								
Chloride	103		-		90-110	-		
General Chemistry - Westborough Lab Associated sample(s): 01 Batch: WG1604880-2								
Solids, Total Suspended	107		-		80-120	-		
General Chemistry - Westborough Lab Associated sample(s): 01 Batch: WG1605067-1								
pH	100		-		99-101	-		5

Matrix Spike Analysis
Batch Quality Control

Project Name: 283-289 WALK HILL STREET
Project Number: 6954.9.03

Lab Number: L2207529
Report Date: 02/18/22

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: WG1604223-4 QC Sample: L2207529-01 Client ID: B-4 (OW)												
Chlorine, Total Residual	ND	0.025	0.03	120		-	-		80-120	-		20
General Chemistry - Westborough Lab Associated sample(s): 01 QC Batch ID: WG1604244-4 QC Sample: L2206996-02 Client ID: MS Sample												
Nitrogen, Ammonia	1.43	4	5.32	97		-	-		80-120	-		20
General Chemistry - Westborough Lab Associated sample(s): 01 QC Batch ID: WG1604288-4 QC Sample: L2207529-01 Client ID: B-4 (OW)												
Chromium, Hexavalent	ND	0.1	0.103	103		-	-		85-115	-		20
General Chemistry - Westborough Lab Associated sample(s): 01 QC Batch ID: WG1604509-4 QC Sample: L2206461-01 Client ID: MS Sample												
Cyanide, Total	ND	0.2	0.223	**112**	Q	-	-		90-110	-		30
Anions by Ion Chromatography - Westborough Lab Associated sample(s): 01 QC Batch ID: WG1604870-3 QC Sample: L2207415-05 Client ID: MS Sample												
Chloride	20.9	4	24.1	**81**	Q	-	-		90-110	-		18

Lab Duplicate Analysis

Batch Quality Control

Project Name: 283-289 WALK HILL STREET
Project Number: 6954.9.03

Lab Number: L2207529
Report Date: 02/18/22

Parameter	Native Sample	Duplicate Sample	Units	RPD	Qual	RPD Limits
General Chemistry - Westborough Lab Associated sample(s): 01 QC Batch ID: WG1604223-3 QC Sample: L2207529-01 Client ID: B-4 (OW)						
Chlorine, Total Residual	ND	ND	mg/l	NC		20
General Chemistry - Westborough Lab Associated sample(s): 01 QC Batch ID: WG1604244-3 QC Sample: L2206996-02 Client ID: DUP Sample						
Nitrogen, Ammonia	1.43	1.59	mg/l	11		20
General Chemistry - Westborough Lab Associated sample(s): 01 QC Batch ID: WG1604288-3 QC Sample: L2207529-01 Client ID: B-4 (OW)						
Chromium, Hexavalent	ND	ND	mg/l	NC		20
General Chemistry - Westborough Lab Associated sample(s): 01 QC Batch ID: WG1604509-3 QC Sample: L2206446-01 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: WG1604870-4 QC Sample: L2207415-05 Client ID: DUP Sample						
Chloride	20.9	21.6	mg/l	3		18
General Chemistry - Westborough Lab Associated sample(s): 01 QC Batch ID: WG1604880-3 QC Sample: L2206814-01 Client ID: DUP Sample						
Solids, Total Suspended	65	67	mg/l	3		29
General Chemistry - Westborough Lab Associated sample(s): 01 QC Batch ID: WG1605067-2 QC Sample: L2207668-01 Client ID: DUP Sample						
pH	7.7	7.7	SU	0		5

Project Name: 283-289 WALK HILL STREET
Project Number: 6954.9.03

Lab Number: L2207529
Report Date: 02/18/22

Sample Receipt and Container Information

Were project specific reporting limits specified? YES

Cooler Information

Cooler	Custody Seal
B	Absent

Container Information

Container ID	Container Type	Cooler	Initial pH	Final pH	Temp deg C	Pres	Seal	Frozen Date/Time	Analysis(*)
L2207529-01A	Plastic 250ml HNO3 preserved	B	<2	<2	3.5	Y	Absent		CD-2008T(180),NI-2008T(180),ZN-2008T(180),HARDU(180),CU-2008T(180),FE-UI(180),AG-2008T(180),AS-2008T(180),SE-2008T(180),HG-U(28),PB-2008T(180),CR-2008T(180),SB-2008T(180)
L2207529-01B	Plastic 250ml NaOH preserved	B	>12	>12	3.5	Y	Absent		TCN-4500(14)
L2207529-01C	Plastic 500ml H2SO4 preserved	B	<2	<2	3.5	Y	Absent		NH3-4500(28)
L2207529-01D	Plastic 950ml unpreserved	B	7	7	3.5	Y	Absent		CL-300(28),HEXCR-7196(1),TRC-4500(1),PH-4500(.01)
L2207529-01E	Plastic 950ml unpreserved	B	7	7	3.5	Y	Absent		TSS-2540(7)
L2207529-01F	Amber 1000ml Na2S2O3	B	7	7	3.5	Y	Absent		625.1-RGP(7)
L2207529-01G	Amber 1000ml Na2S2O3	B	7	7	3.5	Y	Absent		625.1-RGP(7)
L2207529-01H	Amber 1000ml Na2S2O3	B	7	7	3.5	Y	Absent		625.1-SIM-RGP(7)
L2207529-01I	Amber 1000ml Na2S2O3	B	7	7	3.5	Y	Absent		625.1-SIM-RGP(7)

*Values in parentheses indicate holding time in days

Project Name:	283-289 WALK HILL STREET	**Lab Number:**	L2207529
Project Number:	6954.9.03	**Report Date:**	02/18/22

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:	283-289 WALK HILL STREET	**Lab Number:**	L2207529
Project Number:	6954.9.03	**Report Date:**	02/18/22

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:	283-289 WALK HILL STREET	**Lab Number:**	L2207529
Project Number:	6954.9.03	**Report Date:**	02/18/22

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:	283-289 WALK HILL STREET	**Lab Number:**	L2207529
Project Number:	6954.9.03	**Report Date:**	02/18/22

REFERENCES

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

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

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

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

107 Alpha Analytical - In-house calculation method.

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

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

LIMITATION OF LIABILITIES

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

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

Certification Information

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

Westborough Facility
EPA 624/624.1: m/p-xylene, o-xylene, Naphthalene
EPA 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 COUSTODY

PAGE 1 OF 1

ALPHA ANALYTICAL — World Class Chemistry

Westborough, MA TEL: 508-898-9220 FAX: 508-898-9193
Mansfield, MA TEL: 508-822-9300 FAX: 508-822-3288

Date Rec'd in Lab: 2/11/22

ALPHA Job #: L2207529

Project Information

Project Name: 283-289 Walk Hill Street

Project Location: Boston, MA

Project #: 6954.9.03

Project Manager: Shakib Ahmed

ALPHA Quote #:

Client Information

Client: McPhail Associates, LLC

Address: 2269 Massachusetts Avenue

Cambridge, MA 02140

Phone: (617) 868-1420

Fax:

Email: SAhmed@mcphailgeo.com

☐ These samples have been Previously analyzed by Alpha

Turn-Around Time

☒ Standard ☐ Rush (ONLY IF PRE-APPROVED)

Due Date: Time:

Report Information Data Deliverables

☐ FAX ☒ EMAIL
☒ ADEx ☐ Add'l Deliverables

Billing Information

☐ Same as Client info PO #:

Regulatory Requirements/Report Limits

State/Fed Program	Criteria
NPDES RGP	

Other Project Specific Requirements/Comments/Detection Limits:

Circle the following ~~if required~~:
SALINITY (HARDNESS) (PH)
Sect. A inorganics: Ammonia, Chloride, TRC,TSS,CrVI,CrIII, Tot-CN, RGP Metals
B- Non-Hal- VOC- 624.1, 624.1-SIM, Tot. Phenol Sect C- VOC- 624.1 & 504
D:625.1/625.1-SIM: E- PCB's, PCP(625.1-SIM): F-TPH, 8260, Sub-Ethanol

ANALYSIS

ALPHA Lab ID (Lab Use Only)	Sample ID	Collection Date	Collection Time	Sample Matrix	Sampler's Initials	RGP Metals (200.8) (A)	TSS- (A)	Ammonia (4500 (A))	TCN (A)	HexCr (7196), TRC, Cl- (A)	624.1(B, C, F)/8260SIM (B)	Tphenol-420 (B)	504-EDB (C)	625.1/625.1SIM- (D, E)	PCB-608- (E)	TPH-1664-(F)	SUB-ETHANOL (F)	Sample Specific Comments	TOTAL # BOTTLES
07529-01	B-4 (OW)	2/11/22	9:00	GW	LTE	☒	☒	☒	☒	☒	☐	☐	☐	☒	☐	☐	☐		9
Container Type						P	P	P	P	P	V	A	V	A	A	A	V		
Preservative						C	A	D	E	A	B	D	H	A	H	B	B		

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

Relinquished By:	Date/Time	Received By:	Date/Time
[signature]	2/11/22 10:30	[signature] AAL	2/11/22 13:02
[signature] AAL	2/11/22 14:38	[signature] AAL	2/11/22 14:38

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

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

APPENDIX D:

LABORATORY ANALYTICAL DATA – SURFACE WATER

ANALYTICAL REPORT

Lab Number:	L2211843
Client:	McPhail Associates 2269 Massachusetts Avenue Cambridge, MA 02140
ATTN:	Ambrose Donovan
Phone:	(617) 868-1420
Project Name:	WALK HILL RESIDENCY
Project Number:	6954.9.03
Report Date:	03/14/22

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: WALK HILL RESIDENCY
Project Number: 6954.9.03

Lab Number: L2211843
Report Date: 03/14/22

Alpha Sample ID	Client ID	Matrix	Sample Location	Collection Date/Time	Receive Date
L2211843-01	STONY BROOK SW	WATER	BOSTON, MA	03/07/22 07:20	03/07/22

Project Name:	WALK HILL RESIDENCY	**Lab Number:**	L2211843
Project Number:	6954.9.03	**Report Date:**	03/14/22

Case Narrative

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

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

When multiple Batch Quality Control elements are reported (e.g. more than one LCS), the associated samples for each element are noted in the grey shaded header line of each data table. Any Laboratory Batch, Sample Specific % recovery or RPD value that is outside the listed Acceptance Criteria is bolded in the report. In reference to questions H (CAM) or 4 (RCP) when "NO" is checked, the performance criteria for CAM and RCP methods allow for some quality control failures to occur and still be within method compliance. In these instances, the specific failure is not narrated but noted in the associated QC Outlier Summary Report, located directly after the Case Narrative. QC information is also incorporated in the Data Usability Assessment table (Format 11) of our Data Merger tool, where it can be reviewed in conjunction with the sample result, associated regulatory criteria and any associated data usability implications.

Soil/sediments, solids and tissues are reported on a dry weight basis unless otherwise noted. Definitions of all data qualifiers and acronyms used in this report are provided in the Glossary located at the back of the report.

HOLD POLICY - For samples submitted on hold, Alpha's policy is to hold samples (with the exception of Air canisters) free of charge for 21 calendar days from the date the project is completed. After 21 calendar days, we will dispose of all samples submitted including those put on hold unless you have contacted your Alpha Project Manager and made arrangements for Alpha to continue to hold the samples. Air canisters will be disposed after 3 business days from the date the project is completed.

Please contact Project Management at 800-624-9220 with any questions.

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

Authorized Signature: Melissa Sturgis Melissa Sturgis

Title: Technical Director/Representative Date: 03/14/22

METALS

Project Name: WALK HILL RESIDENCY
Project Number: 6954.9.03
Lab Number: L2211843
Report Date: 03/14/22

SAMPLE RESULTS

Lab ID: L2211843-01
Client ID: STONY BROOK SW
Sample Location: BOSTON, MA
Date Collected: 03/07/22 07:20
Date Received: 03/07/22
Field Prep: Not Specified

Sample Depth:
Matrix: Water

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Prep Method	Analytical Method	Analyst
Total Metals - Mansfield Lab											
Antimony, Total	ND		mg/l	0.00400	--	1	03/10/22 14:31	03/11/22 10:40	EPA 3005A	3,200.8	SV
Arsenic, Total	0.00126		mg/l	0.00100	--	1	03/10/22 14:31	03/11/22 10:40	EPA 3005A	3,200.8	SV
Cadmium, Total	0.00037		mg/l	0.00020	--	1	03/10/22 14:31	03/11/22 10:40	EPA 3005A	3,200.8	SV
Chromium, Total	0.00118		mg/l	0.00100	--	1	03/10/22 14:31	03/11/22 10:40	EPA 3005A	3,200.8	SV
Copper, Total	0.00842		mg/l	0.00100	--	1	03/10/22 14:31	03/11/22 10:40	EPA 3005A	3,200.8	SV
Iron, Total	2.07		mg/l	0.050	--	1	03/10/22 14:31	03/13/22 19:11	EPA 3005A	19,200.7	DL
Lead, Total	0.01655		mg/l	0.00100	--	1	03/10/22 14:31	03/11/22 10:40	EPA 3005A	3,200.8	SV
Mercury, Total	ND		mg/l	0.00020	--	1	03/11/22 11:15	03/11/22 21:45	EPA 245.1	3,245.1	ZK
Nickel, Total	0.00239		mg/l	0.00200	--	1	03/10/22 14:31	03/11/22 10:40	EPA 3005A	3,200.8	SV
Selenium, Total	ND		mg/l	0.00500	--	1	03/10/22 14:31	03/11/22 10:40	EPA 3005A	3,200.8	SV
Silver, Total	ND		mg/l	0.00040	--	1	03/10/22 14:31	03/11/22 10:40	EPA 3005A	3,200.8	SV
Zinc, Total	0.05824		mg/l	0.01000	--	1	03/10/22 14:31	03/11/22 10:40	EPA 3005A	3,200.8	SV
Total Hardness by SM 2340B - Mansfield Lab											
Hardness	121		mg/l	0.660	NA	1	03/10/22 14:31	03/13/22 19:11	EPA 3005A	19,200.7	DL

Project Name: WALK HILL RESIDENCY **Lab Number:** L2211843

Project Number: 6954.9.03 **Report Date:** 03/14/22

Method Blank Analysis
Batch Quality Control

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
Total Metals - Mansfield Lab for sample(s): 01 Batch: WG1614133-1										
Iron, Total	ND		mg/l	0.050	--	1	03/10/22 14:31	03/13/22 16:54	19,200.7	DL

Prep Information

Digestion Method: EPA 3005A

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
Total Hardness by SM 2340B - Mansfield Lab for sample(s): 01 Batch: WG1614133-1										
Hardness	ND		mg/l	0.660	NA	1	03/10/22 14:31	03/13/22 16:54	19,200.7	DL

Prep Information

Digestion Method: EPA 3005A

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
Total Metals - Mansfield Lab for sample(s): 01 Batch: WG1614138-1										
Antimony, Total	ND		mg/l	0.00400	--	1	03/10/22 14:31	03/10/22 18:19	3,200.8	SV
Arsenic, Total	ND		mg/l	0.00100	--	1	03/10/22 14:31	03/10/22 18:19	3,200.8	SV
Cadmium, Total	ND		mg/l	0.00020	--	1	03/10/22 14:31	03/10/22 18:19	3,200.8	SV
Chromium, Total	ND		mg/l	0.00100	--	1	03/10/22 14:31	03/10/22 18:19	3,200.8	SV
Copper, Total	ND		mg/l	0.00100	--	1	03/10/22 14:31	03/10/22 18:19	3,200.8	SV
Lead, Total	ND		mg/l	0.00100	--	1	03/10/22 14:31	03/10/22 18:19	3,200.8	SV
Nickel, Total	ND		mg/l	0.00200	--	1	03/10/22 14:31	03/10/22 18:19	3,200.8	SV
Selenium, Total	ND		mg/l	0.00500	--	1	03/10/22 14:31	03/10/22 18:19	3,200.8	SV
Silver, Total	ND		mg/l	0.00040	--	1	03/10/22 14:31	03/10/22 18:19	3,200.8	SV
Zinc, Total	ND		mg/l	0.01000	--	1	03/10/22 14:31	03/10/22 18:19	3,200.8	SV

Prep Information

Digestion Method: EPA 3005A

Project Name: WALK HILL RESIDENCY
Project Number: 6954.9.03
Lab Number: L2211843
Report Date: 03/14/22

Method Blank Analysis
Batch Quality Control

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
Total Metals - Mansfield Lab for sample(s): 01 Batch: WG1614295-1										
Mercury, Total	ND		mg/l	0.00020	--	1	03/11/22 11:15	03/11/22 21:15	3,245.1	ZK

Prep Information

Digestion Method: EPA 245.1

Lab Control Sample Analysis

Batch Quality Control

Project Name: WALK HILL RESIDENCY

Project Number: 6954.9.03

Lab Number: L2211843

Report Date: 03/14/22

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Total Metals - Mansfield Lab Associated sample(s): 01 Batch: WG1614133-2								
Iron, Total	101		-		85-115	-		
Total Hardness by SM 2340B - Mansfield Lab Associated sample(s): 01 Batch: WG1614133-2								
Hardness	100		-		85-115	-		
Total Metals - Mansfield Lab Associated sample(s): 01 Batch: WG1614138-2								
Antimony, Total	88		-		85-115	-		
Arsenic, Total	94		-		85-115	-		
Cadmium, Total	92		-		85-115	-		
Chromium, Total	97		-		85-115	-		
Copper, Total	90		-		85-115	-		
Lead, Total	92		-		85-115	-		
Nickel, Total	91		-		85-115	-		
Selenium, Total	92		-		85-115	-		
Silver, Total	85		-		85-115	-		
Zinc, Total	93		-		85-115	-		
Total Metals - Mansfield Lab Associated sample(s): 01 Batch: WG1614295-2								
Mercury, Total	96		-		85-115	-		

Matrix Spike Analysis
Batch Quality Control

Project Name: WALK HILL RESIDENCY
Project Number: 6954.9.03

Lab Number: L2211843
Report Date: 03/14/22

Parameter	Native Sample	MS Added	MS Found	MS %Recovery	Qual	MSD Found	MSD %Recovery	Qual	Recovery Limits	RPD	Qual	RPD Limits
Total Metals - Mansfield Lab Associated sample(s): 01 QC Batch ID: WG1614133-3 QC Sample: L2210505-02 Client ID: MS Sample												
Iron, Total	0.265	1	1.26	100		-	-		75-125	-		20
Total Hardness by SM 2340B - Mansfield Lab Associated sample(s): 01 QC Batch ID: WG1614133-3 QC Sample: L2210505-02 Client ID: MS Sample												
Hardness	102	66.2	168	100		-	-		75-125	-		20
Total Metals - Mansfield Lab Associated sample(s): 01 QC Batch ID: WG1614133-7 QC Sample: L2210505-03 Client ID: MS Sample												
Iron, Total	53.4	1	51.9	**0**	Q	-	-		75-125	-		20
Total Hardness by SM 2340B - Mansfield Lab Associated sample(s): 01 QC Batch ID: WG1614133-7 QC Sample: L2210505-03 Client ID: MS Sample												
Hardness	298	66.2	354	85		-	-		75-125	-		20
Total Metals - Mansfield Lab Associated sample(s): 01 QC Batch ID: WG1614138-3 QC Sample: L2210505-02 Client ID: MS Sample												
Antimony, Total	ND	0.5	0.4009	80		-	-		70-130	-		20
Arsenic, Total	0.00364	0.12	0.1118	90		-	-		70-130	-		20
Cadmium, Total	ND	0.053	0.04705	89		-	-		70-130	-		20
Chromium, Total	ND	0.2	0.1927	96		-	-		70-130	-		20
Copper, Total	ND	0.25	0.2212	88		-	-		70-130	-		20
Lead, Total	ND	0.53	0.4395	83		-	-		70-130	-		20
Nickel, Total	ND	0.5	0.4396	88		-	-		70-130	-		20
Selenium, Total	ND	0.12	0.1074	90		-	-		70-130	-		20
Silver, Total	ND	0.05	0.04104	82		-	-		70-130	-		20
Zinc, Total	0.01103	0.5	0.4609	90		-	-		70-130	-		20
Total Metals - Mansfield Lab Associated sample(s): 01 QC Batch ID: WG1614295-3 QC Sample: L2212275-01 Client ID: MS Sample												
Mercury, Total	ND	0.005	0.00491	98		-	-		70-130	-		20

Lab Duplicate Analysis

Batch Quality Control

Project Name: WALK HILL RESIDENCY

Project Number: 6954.9.03

Lab Number: L2211843

Report Date: 03/14/22

Parameter	Native Sample	Duplicate Sample	Units	RPD	Qual	RPD Limits
Total Metals - Mansfield Lab Associated sample(s): 01 QC Batch ID: WG1614133-4 QC Sample: L2210505-02 Client ID: DUP Sample						
Iron, Total	0.265	0.251	mg/l	5		20
Total Metals - Mansfield Lab Associated sample(s): 01 QC Batch ID: WG1614133-8 QC Sample: L2210505-03 Client ID: DUP Sample						
Iron, Total	53.4	52.6	mg/l	2		20
Total Metals - Mansfield Lab Associated sample(s): 01 QC Batch ID: WG1614138-4 QC Sample: L2210505-02 Client ID: DUP Sample						
Arsenic, Total	0.00364	0.00376	mg/l	3		20
Cadmium, Total	ND	ND	mg/l	NC		20
Chromium, Total	ND	ND	mg/l	NC		20
Copper, Total	ND	ND	mg/l	NC		20
Lead, Total	ND	0.00100	mg/l	NC		20
Selenium, Total	ND	ND	mg/l	NC		20
Silver, Total	ND	ND	mg/l	NC		20
Zinc, Total	0.01103	0.01096	mg/l	1		20
Total Metals - Mansfield Lab Associated sample(s): 01 QC Batch ID: WG1614295-4 QC Sample: L2212275-01 Client ID: DUP Sample						
Mercury, Total	ND	ND	mg/l	NC		20

INORGANICS
&
MISCELLANEOUS

Project Name: WALK HILL RESIDENCY
Project Number: 6954.9.03

Lab Number: L2211843
Report Date: 03/14/22

SAMPLE RESULTS

Lab ID: L2211843-01
Client ID: STONY BROOK SW
Sample Location: BOSTON, MA

Date Collected: 03/07/22 07:20
Date Received: 03/07/22
Field Prep: Not Specified

Sample Depth:
Matrix: Water

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Westborough Lab										
pH (H)	7.0		SU	-	NA	1	-	03/09/22 07:21	121,4500H+-B	KA
Nitrogen, Ammonia	0.367		mg/l	0.075	--	1	03/08/22 12:25	03/08/22 20:11	121,4500NH3-BH	AT

Project Name: WALK HILL RESIDENCY
Project Number: 6954.9.03
Lab Number: L2211843
Report Date: 03/14/22

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: WG1613001-1										
Nitrogen, Ammonia	ND		mg/l	0.075	--	1	03/08/22 12:25	03/08/22 19:50	121,4500NH3-BH	AT

Lab Control Sample Analysis

Batch Quality Control

Project Name: WALK HILL RESIDENCY

Project Number: 6954.9.03

Lab Number: L2211843

Report Date: 03/14/22

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
General Chemistry - Westborough Lab Associated sample(s): 01 Batch: WG1613001-2								
Nitrogen, Ammonia	91		-		80-120	-		20
General Chemistry - Westborough Lab Associated sample(s): 01 Batch: WG1613467-1								
pH	100		-		99-101	-		5

Matrix Spike Analysis
Batch Quality Control

Project Name: WALK HILL RESIDENCY
Project Number: 6954.9.03

Lab Number: L2211843
Report Date: 03/14/22

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: WG1613001-4 QC Sample: L2211418-02 Client ID: MS Sample												
Nitrogen, Ammonia	ND	4	3.62	90		-	-		80-120	-		20

Lab Duplicate Analysis

Batch Quality Control

Project Name: WALK HILL RESIDENCY

Project Number: 6954.9.03

Lab Number: L2211843

Report Date: 03/14/22

Parameter	Native Sample	Duplicate Sample	Units	RPD	Qual	RPD Limits
General Chemistry - Westborough Lab Associated sample(s): 01 QC Batch ID: WG1613001-3 QC Sample: L2211418-02 Client ID: DUP Sample						
Nitrogen, Ammonia	ND	0.121	mg/l	NC		20
General Chemistry - Westborough Lab Associated sample(s): 01 QC Batch ID: WG1613467-2 QC Sample: L2211705-01 Client ID: DUP Sample						
pH	6.3	6.3	SU	0		5

Project Name: WALK HILL RESIDENCY
Project Number: 6954.9.03

Lab Number: L2211843
Report Date: 03/14/22

Sample Receipt and Container Information

Were project specific reporting limits specified? YES

Cooler Information

Cooler	Custody Seal
A	Absent

Container Information

Container ID	Container Type	Cooler	Initial pH	Final pH	Temp deg C	Pres	Seal	Frozen Date/Time	Analysis(*)
L2211843-01A	Plastic 60ml unpreserved	A	7	7	3.9	Y	Absent		PH-4500(.01)
L2211843-01B	Plastic 250ml unpreserved	A	7	7	3.9	Y	Absent		ARCHIVE()
L2211843-01C	Plastic 250ml HNO3 preserved	A	<2	<2	3.9	Y	Absent		CD-2008T(180),NI-2008T(180),ZN-2008T(180),HARDU(180),FE-UI(180),CU-2008T(180),AG-2008T(180),HG-U(28),AS-2008T(180),SE-2008T(180),PB-2008T(180),CR-2008T(180),SB-2008T(180)
L2211843-01D	Plastic 500ml H2SO4 preserved	A	<2	<2	3.9	Y	Absent		NH3-4500(28)

*Values in parentheses indicate holding time in days

Project Name:	WALK HILL RESIDENCY	**Lab Number:**	L2211843
Project Number:	6954.9.03	**Report Date:**	03/14/22

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:	WALK HILL RESIDENCY	**Lab Number:**	L2211843
Project Number:	6954.9.03	**Report Date:**	03/14/22

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:	WALK HILL RESIDENCY	**Lab Number:**	L2211843
Project Number:	6954.9.03	**Report Date:**	03/14/22

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:	WALK HILL RESIDENCY	**Lab Number:**	L2211843
Project Number:	6954.9.03	**Report Date:**	03/14/22

REFERENCES

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

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

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

LIMITATION OF LIABILITIES

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

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

Certification Information

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

Westborough Facility
EPA 624/624.1: 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.

Serial_No:03142214:29

CHAIN OF CUSTODY

PAGE 1 OF 1

Date Rec'd in Lab: 3/7/22

ALPHA Job #: L2211843

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: Walk Hill Residences
Project Location: Boston, MA
Project #: 6954.9.03
Project Manager: Shakib Ahmed
ALPHA Quote #:

Report Information - Data Deliverables

☒ ADEx ☒ EMAIL

Billing Information

☐ Same as Client info PO #:

Client Information

Client: Mcphail Associates
Address: 2269 Massachusetts Ave, cambridge, MA 02140
Phone: 617-868-1420
Email: Sahmed@Mcphailgeo.com

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; Total Hg Total Metals; NH3; PH; Hardness

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

ALPHA Lab ID (Lab Use Only)	Sample ID	Collection Date	Collection Time	Sample Matrix	Sampler Initials	Total Hg Total Metals	NH3	PH	Hardness	Sample Comments	TOTAL # BOTTLES
11843-01	Stony Brook SW	3/7/2022	7:20	GW	ZRD	X	X	X	X		4
Container Type						P	P	P	P		
Preservative						C	D	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
Bailey Fridse	3/7/2022 08:50	Mcphail Fridse	3/7/2022 08:50
Rob Maiato	3/7/22 1815	Rob Maiato AAL	3/7/22 1555 / 3/7/22 1815

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

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

APPENDIX E:

BEST MANAGEMENT PRACTICE PLAN

BEST MANAGEMENT PRACTICES PLAN

A Notice of Intent for a Remediation General Permit (RGP) under the National Pollutant Discharge Elimination System (NPDES) has been submitted to the US Environmental Protection Agency (EPA) in anticipation of temporary construction dewatering that will occur during redevelopment of 289 Walk Hill Avenue property in Boston, Massachusetts. This Best Management Practices Plan (BMPP) has been prepared as an Appendix to the RGP and will be posted at the site during the time period that temporary construction dewatering is occurring at the site.

Water Treatment and Management

During construction of the proposed building foundation, dewatering effluent is anticipated to be pumped from localized sumps and trenches within the excavation directly into a settling tank. The effluent will then flow through the necessary treatment systems and discharge through hoses or piping connected into storm water drains CB117 located northeast of the project site on Walk Hill Avenue or CB140 located northwest of the project site on Canterbury Street. Based upon a review of the Boston Water and Sewer Commission stormwater drainage plan, the above referenced stormwater drain system ultimately discharges into the Muddy River via the Stony Brook Conduit, at outfall CSO046-1.

Discharge Monitoring and Compliance

Regular sampling and testing will be conducted at the influent to the system and the treated effluent as required by the RGP. During the first week of discharge, the operator must sample the untreated influent and treated effluent two times: one (1) sample of untreated influent and one (1) sample of treated effluent be collected on the first day of discharge, and one (1) sample of untreated influent and one (1) sample of treated effluent must be collected on one additional non-consecutive day within the first week of discharge. Samples must be analyzed in accordance with 40 CFR §136 unless otherwise specified by the RGP, with a maximum 5-day turnaround time and results must be reviewed no more than 48 hours from receipt of the results of each sampling event. After the first week, samples may be analyzed with up to a ten (10)-day turnaround time and results must be reviewed no more than 72 hours from receipt of the results. If the treatment system is operating as designed and achieving the effluent limitations outlined in the RGP, on-going sampling shall be conducted weekly for three (3) additional weeks beginning no earlier than 24 hours following initial sampling, and monthly as described below. Any adjustments/reductions in monitoring frequency must be approved by EPA in writing.

In accordance with Part 4.1 of the RGP, the operator must perform routine monthly monitoring for both influent and effluent beginning no more than 30 days following the completion of the sampling requirements for new discharges or discharges that have been interrupted. The routine monthly monitoring is to be conducted through the end of the scheduled discharge. The routine monthly monitoring must continue for five (5) consecutive months prior to submission of any request for modification of monitoring frequency.

Dewatering activity for the Site is classified as Category III-G: Sites with Known Contamination. Monitoring shall include analysis of influent and effluent samples for the presence of pH and inorganics as listed in the RGP including: ammonia, chloride, total residual chlorine, total suspended solids, antimony, arsenic, cadmium, chromium III, chromium VI, copper, lead, mercury, nickel, selenium, silver, zinc, and cyanide.

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

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

System Maintenance

A number of methods will be used to minimize the potential for violations during the term of this permit discharge. Scheduled regular maintenance and periodic cleaning of the treatment system will be conducted to verify proper operation and shall be conducted in accordance with Section 1.11 of the project earthwork specifications. Regular maintenance will include checking the condition of the treatment system equipment such as the settling tanks, bag filters, hoses, pumps, and flow meters. Equipment will be monitored daily for potential matters and unscheduled maintenance requirements.

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

Miscellaneous Items

It is anticipated that the erosion control measures and the nature of the site will minimize potential runoff to or from the site. The project specifications also include requirements for erosion control. Site security for the treatment system will be addressed within the overall site security plan.

No adverse effects on designated uses of surrounding surface water bodies are anticipated. The nearest surface water body is an intermittent stream, considered to be an open section of Stony Brook, located approximately 240 feet southeast from the subject site. Dewatering

effluent will be pumped into a settling tank. Water within the settling tank will pumped through bag filters and GAC filters prior to discharge into the storm drains.

Management of Treatment System Materials

Dewatering effluent will be pumped directly into the treatment system from the excavation with use of hoses and localized sumps to minimize handling. The Contractor will establish staging areas for equipment or materials storage that may be possible sources of pollution away from any dewatering activities, to the extent practicable.

Sediment from the tank used in the treatment system will be characterized and removed from the site to an appropriate receiving facility, in accordance with applicable laws and regulations. Bag filters will be replaced/disposed of, as necessary.