Phase II Environmental Site Assessment
For

240 – 260 Lakefront Boulevard
City of Buffalo, Erie County,
New York

Prepared by:

C&S Engineers, Inc.
141 Elm Street Suite 100
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Prepared for:
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Williamsville, New York 14221

December 2017
C&S Project No: E67.022.001

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EXECUTIVE SUMMARY

The purpose of this Phase II Environmental Site Assessment (ESA) is to advance the findings of a previously conducted Phase I ESA. The scope of this Phase II ESA includes: a subsurface investigation; soil sample collection; groundwater sample collection and; analytical testing on a site located at 240 – 260 Lakefront Boulevard, Buffalo, Erie County, New York.

The following findings are made in this Phase II ESA:

1. Offsite RECs identified in the Phase I ESA do not appear to have impacted the Site.
2. Fill was generally observed across the Site from beneath the topsoil to approximately 13 feet to 26 feet bgs. The fill material consists of a mixture of soil types (sand, silt and/or clay), ash, coal, and construction demolition debris. In some soil borings, beneath the fill material was native silty clay.
3. Contaminant concentrations in subsurface soils exceeded New York State Department of Environmental Conservation (NYSDEC) Soil Cleanup Objectives (SCO), including Pesticides, Polychlorinated biphenyl (PCB), semi-volatile organic compounds (SVOC) and metals at concentrations above the Unrestricted, Residential and/or Industrial Use SCOs.
    a. Analytical results indicate that contaminants are located within the fill material. Contaminant concentrations varied significantly both vertically and horizontally across the Site due to the heterogeneous nature of the fill material. There are indications the highest contaminant concentrations tend to be within the first 10 feet of fill material. Soil samples collected from 4 to 6 feet bgs in B-1 and MW-3 had higher levels of contamination than deeper samples collected from 14 to 20 feet bgs. However, additional soil sampling should be conducted to evaluate this observation.
    b. Contaminant concentrations were the highest in B-2, B-4, B-5, B-6 and MW-3. These locations contained SVOC contaminants, primarily PAH compounds, which exceed Restricted Residential Use and Industrial Use SCOs. MW-3 contained concentrations of five PAH compounds that are significantly over Industrial Use SCOs. The lab results for benzo(a)pyrene (26 mg/kg) is 24 times higher than the Industrial Use SCO of 1.1 mg/kg.
    c. Most soil samples had detections of PCBs, four out of 13 samples contained PCB levels above Unrestricted Use. The highest concentration of PCBs was detected at B-6. The soil sample collected at B-6-2-4.5FT exceeded Commercial Use SCOs for PCBs.

d. Five out of 13 samples contained concentrations of pesticides (DDE, DDD, and DDT) above Unrestricted Use SCOs. Chromium, lead, mercury, nickel, silver and zinc were detected at levels above Unrestricted Use, except for one sample containing levels of cadmium above Residential Use and one sample containing mercury above Restricted Residential.

4. Groundwater was present at depths of approximately 7 to 9 feet bgs. All groundwater samples contained at least one contaminant concentration exceeding NYSDEC TOGS Groundwater Standards, for contaminants including PCB, VOCs, SVOCs and metals.

    a. MW-3 contained the most contaminant concentrations above NYS TOGS Groundwater Standards. PCBs were detected at 1.51 ug/L; NYS TOGS Groundwater Standard for PCB is 0.009 ug/L. Other contaminants detected from the MW-3 samples include nine SVOCs, one metal and one VOC.

    b. At this time, a point source could not be identified as the cause of the groundwater contamination. The most likely source of contamination is groundwater contact with urban fill. Contaminants within the urban fill can dissolve over time and migrate into the groundwater.

Discussion and Conclusions

A private entity intends to acquire this site to redevelop the property and the building for office space use. According to the NYS SCOs, this particular site use is categorized under Residential Use.

Subsurface soil and groundwater impacts on the Site were identified during this assessment.

Contaminant concentrations above the Commercial Use and Industrial Use SCOs are present in the subsurface fill material located on both properties that comprised the Site, 240 and 260 Lakefront Boulevard.

Contamination of the subsurface soil is potentially due to unregulated placement of fill material to create land for the Waterfront Village. Due to the presence of the contamination within the fill, which is the uppermost soil-type material at the Site, exposure to impacted soil is likely if any invasive site improvement (i.e., earthwork, utility construction) is conducted.

Because the analytical results are above the SCOs for the intended use of the property (Residential), the Site appears to be eligible for cleanup and redevelopment under the new NYS Brownfield Cleanup Program (BCP). The BCP provides a structured approach for the remediation of contamination sites. The program also provides tax benefits and a release of liability for the property owner.

The results of this report should be reviewed by the NYSDEC to determine potential participation in this program.

1.0 INTRODUCTION

1.1 Site Description

The Site is located at 240-260 Lakefront Boulevard (SBL 110.59-1-4.1 and 110.59-1-3.1) within the City of Buffalo, Erie County, New York (the Site). The property is comprised of vacant land on two adjoining parcels totaling approximately 2.4782 acres. The Site location is shown in ***Figure 1***. The Site was formerly part of a commercial harbor (Erie Basin Marina) with most of the area consisting of waterway for freight shipments. A portion of a railway dock intersected the center of the Site with a marina and the Niagara Slip to the Erie Canal to the north. The marina and the Site were backfilled, such that the Site remained vacant land.

1.2 Phase I ESA Findings

According to the Phase I ESA, four Recognized Environmental Conditions (RECs) were identified. These include:

1. Database Record Search listing of the Transformer (Pad Mounted) which included a spill that was closed as not meeting cleanup standards following a non-PCB oil spill onto the grass.

2. Database Record Search listing for Buffalo Public School #95 which included a spill closed as not meeting cleanup standards following a petroleum contamination discovery while removing a 20,000-gallon fiberglass UST.

3. Database Record Search listing 4th Street Site for its historic use as a manufactured gas plant under the name Citizen Gas Light Company.

4. The presence of material used in filling the marina and the Site in the late 1970s. There is potential that various waste and urban fill materials may have been used to build up the Site. In addition, usage oil/fuels during the operation of the railroad dock are an environmental concern.

1.3 Phase II ESA Scope and Objectives

The purpose of this Phase II ESA is to characterize the RECs identified in the previously conducted Phase I ESA and assess whether the soil and groundwater has been impacted by these concerns. As discussed below, the scope of the Phase II ESA includes: subsurface soil investigation, groundwater characterization, soil and groundwater sample collection, and analytical testing.

This investigation was conducted over the course of several days. Subsurface soil investigations took place on November 27 through the 30, 2017. Groundwater sampling occurred on December 6, 2017.

2.0 SITE INVESTIGATION METHODS

2.1 Subsurface Investigation

Buffalo Drilling Company, Inc. advanced 10 soil borings from ground surface to approximately bedrock or to refusal. Drilling was conducted using a truck mounted Auger drilling unit. Each boring location was assessed for visual impairment, olfactory indications of impairment, total VOCs using a photoionization detector (PID) and sampled using a 30-inch long by two-inch outside diameter hollow steel tube split in half lengthwise. All non-disposable sampling equipment was decontaminated between drill locations to avoid potential cross contamination of samples.

Material description and physical evidence of contamination (odors, staining or sheen) of each split-spoon sample was recorded on soil boring logs provided in ***Appendix A*.**

Samples were collected and placed in a plastic zip lock bag. Head space readings for samples were conducted using a Mini-Rae 2000 photo-ionization detector ("PID") with an 11.7-volt lamp. The PID head space readings for all samples and the depths of the selected lab analysis samples are recorded on the soil boring logs provided in ***Appendix A***.

Subsurface samples were selected based on visual impairment, olfactory indications of impairment, utilization of a photoionization detector (PID) to identify "evidence of impairment," and depth. Samples were mainly extracted from urban fill on the Site. These samples were collected and placed in clean bottles supplied by the laboratory.

The soil samples were analyzed for analytes in 6 NYCRR Part 375-6.8 volatile organic compounds (VOCs), SVOCs, pesticides, PCBs, metals List metals, Total Cyanide, Trivalent Chromium, and Hexavalent Chromium. Alpha Analytical, Inc. was contracted to analyze soil samples for VOCs using EPA Method 8260C, SVOCs using EPA Method 8270D, pesticides using EPA Method 8081B, PCBs using EPA Method 8082A, NY Part 375 Metals, Total Cyanide using EPA Method 9010C/9012B, and Trivalent Chromium using EPA Method 7196/6010. No QA/QC samples were collected for this investigation. Soil investigation locations are shown on ***Figure 2***. All soil sample analytical results are summarized in ***Table 1*** following the text of this document.

2.2 Groundwater Characterization

Buffalo Drilling Company, Inc. installed three groundwater monitoring wells on the Site. Three groundwater monitoring wells were completed with five feet of two-inch, Schedule 40 0.010-slot well screen connected to a Schedule 40 PVC well riser to complete the well. The borehole annulus was filled with sand, sealed with

bentonite to approximately ten feet below ground surface, sealed with soil cuttings to approximately ground surface, and grouted to ground surface.

The groundwater monitoring wells were developed using a peristaltic pump and the removal of three to five well volumes. Groundwater sampling followed well development and was conducted using low-flow purging. Before and after purging the well, water levels were measured using an electric water level sounder capable of measuring to the 0.01-foot accuracy. Water quality measurements such as pH, turbidity, dissolved oxygen, temperature, and conductivity were collected until stabilized. Calibration times, purging volumes, water levels and field measurements were recorded in a field log and are included in ***Appendix B.***

Groundwater samples were collected from each well using low-flow purging methods. Groundwater samples were pumped into clean bottles supplied by the lab and analyzed for parameters in 6 NYCRR Part 375-6.8 volatile organic compounds (VOCs), SVOCs, pesticides, PCBs, metals List metals, Total Cyanide, Trivalent Chromium, and Hexavalent Chromium using techniques in accordance with USEPA guidance. QA/QC samples included one trip blank with no other samples collected for this investigation. All groundwater sample analytical results are summarized in ***Table 2*** following the text of this document.

Well construction and development logs, along with groundwater sampling logs, are provided in ***Appendix B*****.**

3.0 PHASE II ESA FINDINGS

3.1 Subsurface Conditions

Soil samples were collected from each of the 10 borings. The table below summarizes the location, the depth below ground surface (bgs), and total depth of the soil boring below ground surface.

Table 3-1: Summary of Collected Subsurface Soil Samples

Boring ID	*Sample Depth (ft. bgs)*	*Total Depth (ft. bgs)*
B-1	4 - 5	28
	14 - 15	
B-2	6 - 9	25.2
B-3	2 - 7	
B-4	3 - 10	37
B-5	1 - 6	32.8
B-6	2 - 4.5	26
B-7	0.5 - 4.5	32
MW-1	1.5 - 6	32.1
	25 - 26	
MW-2	2 - 8	20
MW-3	2 - 6	34
	16 - 20	

Each soil sample retrieved from the split-spoon sample drill was observed for general soil type, estimated moisture content, and any evidence of contamination.

3.1.1 Site Stratigraphy

The soils from borehole samples were generally classified in the following categories:

Topsoil/Silty Clay- Topsoil and brown, silty clay was observed in many areas from the surface to 8 inches below grade

Fill- Anthropogenic sources of any one, or mixture, of the material re-worked to build a site to a defined grade. This material included:

	Crushed Rock	Wood
	Sand	Concrete
	Bricks	Gravel
Silty Clay-	Red/brown in color; varying plasticity based on depth	

Fill was generally observed across the Site from beneath the topsoil to approximately 13 feet to 26 feet bgs. The fill material consists of a mixture of soil types (sand, silt and/or clay), ash, coal, and construction demolition debris. In some soil borings, beneath the fill material was native silty clay.

3.1.2 Groundwater Conditions

Saturated soils encountered during the boring program were typically found at 10 to 20 feet below grade. During the boring program, the soils were saturated where water was encountered. During monitoring well sampling, the static water level generally ranged from 7 to 9 feet below grade.

Table 3-2: Summary of Groundwater Monitoring Wells

Well ID	*Groundwater Depth (ft.)*	*Elevation (ft.)*	*Groundwater Elevation (ft.)*
MW-1	9.32	582.37	573.05
MW-2	9.73	583.63	573.90
MW-3	7.65	582.28	574.63

Due to the close proximity of the Site to Lake Erie, groundwater levels will be greatly influenced by lake conditions. The National Oceanic and Atmospheric Administration and the Army Corps of Engineers continuously monitor lake water levels. The average monthly lake elevation for November 2017 was 572.37 feet; a difference of 0.68 – 2.26 feet between lake level and on-site groundwater levels.

3.2 Analytical Results

3.2.1 Soil Sampling Results

A total of 13 subsurface soil samples were collected. Soil results are discussed below in comparison to the NYSDEC's SCOs outlined in 6NYRR Part 375-6.8(b). The Remediation Program SCOs effective December 14, 2006, includes SCOs that are based on protection of human health, groundwater, and ecological resources. The SCOs are based on the following site uses:

Unrestricted Use: This land use category is intended to be representative of pre-disposal conditions and requires no restrictions on the use of the site. The unrestricted use soil cleanup objectives represent the concentration of a contaminant in soil which will require no use restrictions on the site for the protection of public health, groundwater and ecological resources due to the presence of contaminants in the soil.

Residential Use: This land use category is intended for single family housing and requires the fewest restrictions on the use of the site. It allows only two restrictions: a groundwater use restriction and / or a prohibition against producing animal products for human consumption.

Restricted-Residential Use: This land use category is intended for apartments, condominium, co-operative or other multi-family / common property control residential development. In addition to the restrictions for residential use, this use prohibits vegetable gardens, unless planted in gardens where the soil achieves the residential use soil cleanup objectives; and a prohibition of single-family housing. Restricted-Residential use is the appropriate use category for the following:

- Day care or other child care facilities;
- Elementary or secondary schools; or
- College or boarding school residential buildings; and

This use allows for active recreational uses, which includes recreational activities with a reasonable potential for soil contact, such as:

- Designated picnic areas
- Playgrounds
- Natural grass sports playing fields, including surrounding unpaved spectator areas

Commercial Use: This land use category anticipates use by businesses with the primary purpose of buying, selling or trading of merchandise or services. It is the appropriate use category for:

- Health care facilities, including hospitals, clinics etc.
- College academic and administrative facilities

This use allows for passive recreational purposes, which includes recreational uses with limited potential for soil contact, such as:

- Artificial surface fields

- Outdoor tennis or basketball courts
- Other paved recreational facilities used for roller hockey, roller skating, shuffle board, etc.
- Outdoor pools
- Indoor sports or recreational facilities
- Golf courses
- Paved (raised) bike or walking paths

Industrial Use: This land use category anticipates that use of the property will be the primary purpose of manufacturing, production, fabrication or assembly processes and ancillary services. Industrial use does not include any recreational component.

The above described use-based SCOs are intended to apply to:

- The development and implementation of remedial programs for inactive hazardous waste disposal sites, including, but not limited to, sites listed on the national priorities list (NPL) or are being addressed by the Department of Defense or the Department of Energy.
- The development and implementation of remedial programs for the Brownfield Cleanup Program,
- The development and implementation of remedial programs for the environmental restoration program (ERP).
- The soil cleanup objectives for remedial programs, specifically under subpart 375-6.

The Phase II ESA analytical results are compared in the following sections to the range of SCOs to give a sense of the severity of any impacts.

3.2.1.1 Subsurface Soil Sampling Results

Subsurface soil samples were collected from borings. The table below provides a summary of analyte concentration exceedances. ***Figures 3 and 3A*** shows sample locations which contained analytes with concentration exceedances. Additionally, ***Appendix C*** provides the subsurface soil laboratory analysis results.

Table 3-3: Summary of Samples Exceeding Soil Cleanup Criteria

		Unrestricted	Residential	Restricted Residential	Commercial	Industrial
B-1	4 - 5	2				
	14 - 15	1				
B-2	6 - 9	8	1	3		1
B-3	2 - 7					
B-4	3 - 10	7	2	3		1

B-5	1 - 6	6	1	3		1
B-6	2 - 4.5	3	1	3	1	1
B-7	0.5 - 4.5	2				
MW-1	1.5 - 6	2				
	25 - 26					
MW-2	2 - 8					
MW-3	2 - 6	3		3		5
	16 - 20	2				

3.2.1.1.1 Soil Borings

A total of 13 subsurface soil samples were collected and analyzed from the borings. Ten samples analyzed contained analytes that exceeded at least one NYS SCO. ***Table 1*** summarizes the analytical results and Table 3-2 (in text above) summarizes the SCO contraventions.

VOCs

One sample contained analyte concentrations above Unrestricted Use SCOs for acetone.

SVOCs

SVOCs were detected in five samples. SVOCs, primarily polycyclic aromatic hydrocarbons (PAHs), were detected at concentrations exceeding Residential Use, Restricted Residential Use and Industrial Use SCOs. The sample collected from MW-3 at 2-6 feet contained the highest concentration of PAHs. Five analytes from this sample exceeded Industrial Use SCOs.

Pesticides

Five samples contained pesticides above Unrestricted Use SCOs for DDE, DDD and DDT.

PCBs

Five samples contained PCB concentrations above Unrestricted Use SCOs. B-6-2-4.5FT contained PCBs concentrations above Commercial Use SCOs.

Metals

All samples contained concentrations in excess of SCOs. These included:

- Lead was detected above Unrestricted Use SCOs.
- Zinc was detected above Unrestricted Use SCOs in four samples.

- Mercury was detected above Unrestricted Use SCOs in nine samples and one sample above Restricted Residential Use SCOs in MW-3-2-6FT.
- Chromium was detected above Unrestricted Use SCOs in B-2-6-9FT.
- Copper was detected above Unrestricted Use SCOs in MW-3-2-6FT.
- Cadmium was detected above Residential Use SCOs in BH-4-3-10FT.

3.2.2 Groundwater Characterization Results

Groundwater samples were collected from all three monitoring wells on site. However, due to minimal groundwater recharge from MW-1 only VOCs could be collected from this monitoring well.

Table 2 summarizes the analytical results and ***Figure 4*** shows the results graphically. Additionally, ***Appendix D*** provides the groundwater laboratory analysis results.

VOCs

VOCs were detected in two groundwater samples. Benzene was detected in the two samples slightly above NYS TOGS Groundwater Standards.

SVOCs

SVOCs, primarily PAHs, were detected only in MW-3. Nine SVOCs were detected in this sample above NYS TOGS Groundwater Standards.

Pesticides

Pesticides were not detected in the groundwater samples.

PCBs

PCBs were detected only in MW-3. The sample contained concentrations of PCBs at 1.51 ug/L: the NYS TOGS Groundwater Standard for PCB is 0.009 ug/L.

Metals

MW-2 contained concentrations that exceeded standards for lead, manganese, and mercury. MW-3 exceeded standards for manganese.

4.0 PHASE II ESA SUMMARY

4.1 Findings

1. Offsite RECs identified in the Phase I ESA do not appear to have impacted the Site.

2. Fill was generally observed across the Site from beneath the topsoil to approximately 13 feet to 26 feet bgs. The fill material consists of a mixture of soil types (sand, silt and/or clay), ash, coal, and construction demolition debris. In some soil borings, beneath the fill material was native silty clay.

3. Contaminant concentrations in subsurface soils exceeded NYSDEC SCOs, including Pesticides, PCB, SVOCs and metals at concentrations above the Unrestricted, Residential and/or Industrial Use SCOs.

    a. Analytical results indicate that contaminants are located within the fill material. Contaminant concentrations varied significantly both vertically and horizontally across the Site due to the heterogeneous nature of the fill material. Generally, the highest contaminant concentrations tend to be located within the first 10 feet of fill material. Soil samples collected from 4 to 6 feet bgs in B-1 and MW-3 had higher levels of contamination than deeper samples collected from 14 to 20 feet bgs. However, additional soil sampling should be conducted to evaluate this observation.

    b. Contaminant concentrations were the highest in B-2, B-4, B-5, B-6 and MW-3. These locations contained SVOC contaminants, primarily PAH compounds, which exceed Restricted Residential Use and Industrial Use SCOs. MW-3 contained concentrations of five PAH compounds that are significantly over Industrial Use SCOs. The lab results for benzo(a)pyrene (26 mg/kg) is 24 times higher than the Industrial Use SCO of 1.1 mg/kg.

    c. Most soil samples contained detectable concentrations of PCBs, and four out of 13 samples contained PCB levels above Unrestricted Use SCOs. The highest concentration of PCBs was detected at B-6. The soil sample collected at B-6-2-4.5FT exceeded Commercial Use SCOs for PCBs.

    d. Five out of 13 samples contained concentrations of pesticides (DDE, DDD, and DDT) above Unrestricted Use SCOs. Chromium, lead, mercury, nickel, silver and zinc were detected at levels above Unrestricted Use, except for one sample containing levels of cadmium above Residential Use and one sample containing mercury above Restricted Residential.

4. Groundwater was present at depths of approximately 7 to 9 feet bgs. All groundwater samples contained at least one contaminant concentration exceeding NYSDEC TOGS Groundwater Standards, including PCB, VOCs, SVOCs and metals.

a. MW-3 contained the most contaminant concentrations above NYS TOGS Groundwater Standards. PCBs were detected at 1.51 ug/L; NYS TOGS Groundwater Standard for PCB is 0.009 ug/L. Other contaminants detected from the MW-3 samples include nine SVOCs, one metal and one VOC.

b. At this time, a point source could not be identified as the cause of the groundwater contamination. The most likely source of contamination is groundwater contact with urban fill. Contaminants within the urban fill can dissolve over time and migrate into the groundwater.

4.2 Discussion and Conclusions

A private entity intends to acquire this site to redevelop the property for new single-family residences. According to the NYS SCOs, this particular site use is categorized under Residential Use.

Subsurface soil and groundwater impacts on the Site were identified during this assessment.

Contaminant concentrations above the Commercial Use and Industrial Use SCOs are present in the subsurface fill material located on both properties that comprised the Site, 240 and 260 Lakefront Boulevard.

Contamination of the subsurface soil is potentially due to unregulated placement of fill material to create land for the Waterfront Village. Due to the presence of the contamination within the fill, which is the uppermost soil-type material at the Site, exposure to impacted soil is likely if any invasive site improvement (i.e., earthwork, utility construction) is conducted.

Because the analytical results are above the SCOs for the intended use of the property (Residential), the Site appears to be eligible for cleanup and redevelopment under the new NYS Brownfield Cleanup Program (BCP). The BCP provides a structured approach for the remediation of contamination sites. The program also provides tax benefits and a release of liability for the property owner. The results of this report should be reviewed by the NYSDEC to determine potential participation in this program.

5.0 DISCLAIMER

C&S's conclusions are based on conditions that existed on the Site in November 2017 through December 2017. Past and present conditions that could not be observed were established on the basis of documents. C&S cannot attest to the completeness of accuracy of these materials.

This report was prepared by C&S expressly and exclusively for use by Ciminelli Real Estate Corporation, its successors and/or assigns. Except where specifically stated to the contrary, the information contained herein was provided to C&S by others

and has not been verified independently or otherwise examined to determine its accuracy, completeness, or feasibility. In addition, C&S may have had to rely upon the assumptions, especially as to future conditions and events. Accordingly, neither C&S nor any person acting on its behalf (a) makes any warranty or representation, whether expressed or implied, concerning the usefulness of the information contained in this report, or (b) assumes liabilities with respect to the use of or for damages resulting from the use of any information contained in this Environmental Site Assessment (ESA) report. Further, C&S cannot promise that any assumed conditions will come to pass.

No one is authorized to rely on this report for any purpose, except to the extent that such reliance is specifically authorized in writing by C&S. Any person who intends to take action, which is in any way related to or affected by the information contained herein, should independently verify all such information. The report speaks only as of the date issued. C&S has no responsibility for updating the information herein, and therefore, it should not be assumed that any information contained herein in this ESA continues to be accurate subsequent to 180 days from the date of the site inspection.

It would be extremely expensive, and perhaps not possible, to conduct an investigation that would ensure the detection of environmental impacts at the subject site, which now are, or in the future might be, considered hazardous. This investigation does not guarantee that C&S discovered all the environmental impacts at the Subject Properties. Similarly, a property which, in fact, is unaffected by environmental impacts at the time of the assessment may later, due to natural phenomena or other intervention, become contaminated.

Except where stated to be the contrary, this ESA has been prepared solely on the basis of readily available visual observation. Except where stated to be the contrary, no demolition or removal by C&S has been accomplished to reveal hidden conditions. No testing such as the testing of materials, equipment, or systems has been performed to verify current conditions or to predict future conditions.

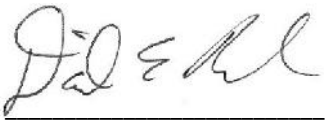
Future regulatory modifications, agency interpretation, or policy changes may affect the compliance status of the property.

A title search, indoor air quality, and wetland surveys were not requested as part of this project. These topics require specialized expertise. A specialty survey can be performed upon request.

ENVIRONMENTAL PROFESSIONAL STATEMENT AND QUALIFICATIONS

We declare that, to the best of our professional knowledge and belief, we meet the definition of *Environmental Professional* as defined in §312.10 of 40 CFR 312.

We have the specific qualifications based on education, training, and experience (as summarized on the resumes which follow this page) to assess a property of the nature, history and setting of the Site. To the best of our knowledge and belief, C&S Engineers Inc. has developed and performed all appropriate inquiries in general conformance with the standards and practices set forth in 40 CFR Part 31.



Daniel E. Riker, P.G.
Department Manager – Environmental Services

FIGURES

Legend

- Subject Property
- Parcel Boundaries

0 150 300 600
Feet

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N

240-260 LAKEFRONT BOULEVARD
PHASE II ENVIRONMENTAL SITE ASSESSMENT
BUFFALO, NEW YORK

MARK	DATE	DESCRIPTION

REVISIONS

PROJECT NO:	E67.022.001
DATE:	DECEMBER 1, 2017
DRAWN BY:	A. SVIRGUN
DESIGNED BY:	A. SVIRGUN
CHECKED BY:	

SITE LOCATION

FIGURE 1

Legend

- Subject Property
- Parcel Boundaries
- Monitoring Well Location
- Soil Boring Location

0 30 60 120 Feet

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240-260 LAKEFRONT BOULEVARD, BUFFALO, NEW YORK
PHASE II ENVIRONMENTAL SITE ASSESSMENT

MARK	DATE	DESCRIPTION

REVISIONS

PROJECT NO:	E67.022.001
DATE:	NOVEMBER 30, 2017
DRAWN BY:	A. SVIRGUN
DESIGNED BY:	A. SVIRGUN
CHECKED BY:	

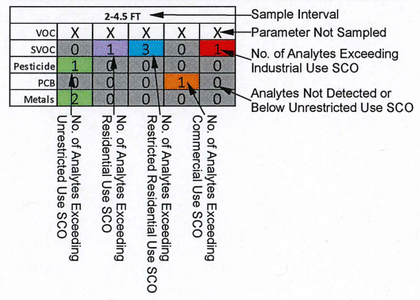
SOIL INVESTIGATION LOCATIONS

FIGURE 2

Legend

- Subject Property
- Parcel Boundaries
- Monitoring Well Location
- Soil Boring Location

Label Legend



Notes

1) COORDINATE SYSTEM: NAD 1983 STATEPLANE NY WEST FIPS 3103
PROJECTION: TRANSVERSE MERCATOR
DATUM: NORTH AMERICAN 1983
UNITS: FOOT US

0 30 60 120 Feet

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240-260 LAKEFRONT BOULEVARD
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BUFFALO, NEW YORK

MARK	DATE	DESCRIPTION
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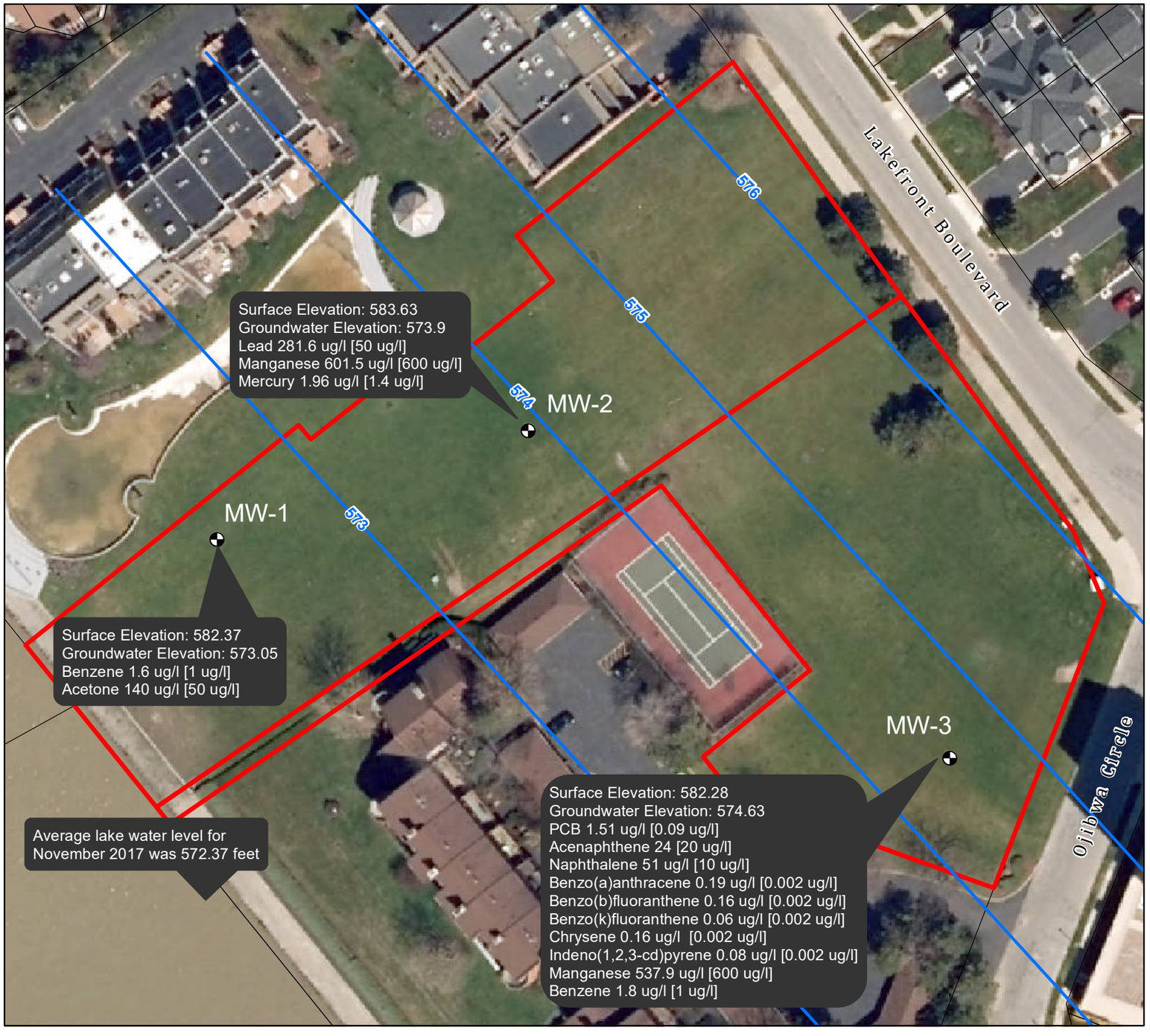
PROJECT NO: E67.022.001
DATE: DECEMBER 1, 2017
DRAWN BY: A. SVIRGUN
DESIGNED BY: A. SVIRGUN
CHECKED BY:

SOIL SAMPLE RESULTS

FIGURE 3



Legend

- Subject Property
- Parcel Boundaries
- Monitoring Well Location
- Groundwater Elevation Contour (ft.)

Label Legend

Iron 300 ug/l [300 ug/l]

- Reported Concentration (ug/l)
- Groundwater TOGS Guidance Value (New York TOGS 111 Groundwater Effluent Limitations criteria)

Notes

1) COORDINATE SYSTEM: NAD 1983 STATEPLANE NY WEST FIPS 3103
PROJECTION: TRANSVERSE MERCATOR
DATUM: NORTH AMERICAN 1983
UNITS: FOOT US

0 30 60 120 Feet

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N

240-260 LAKEFRONT BOULEVARD
PHASE II ENVIRONMENTAL
SITE ASSESSMENT
BUFFALO, NEW YORK

MARK	DATE	DESCRIPTION
REVISIONS		

PROJECT NO:	E67.022.001
DATE:	DECEMBER 1, 2017
DRAWN BY:	A. SVIRGUN
DESIGNED BY:	A. SVIRGUN
CHECKED BY:	

GROUNDWATER SAMPLE RESULTS

FIGURE 4

TABLES

Soil Sample Results
240 - 260 Lakefront Boulevard Phase II

Table 1

						LOCATION	B-1-4-5 FT		B-1-14-15 FT		B-2-6-9 FT		B-3-2-7 FT		B-4-3-10 FT		B-5-1-6 FT		B-6-2-4.5 FT	
						SAMPLING DATE	11/27/2017		11/27/2017		11/27/2017		11/27/2017		11/28/2017		11/28/2017		11/28/2017	
						SAMPLE TYPE	SO		SO		SO		SO		SO		SO		SO	
						SAMPLE DEPTH (ft.)	4-5		14-15		6-9		2-7		3-10		1-6		2-4.5	
						UNITS	mg/kg		mg/kg		mg/kg		mg/kg		mg/kg		mg/kg		mg/kg	
	Unrestricted Use	Residential Use	Restricted Residential Use	Commercial Use	Industrial Use															
Pesticides																				
Delta-BHC	0.04	100	100	500	1000	-	-	-	-	ND		ND		0.0014	J	0.00366		0.000795	JPI
Lindane	0.1	0.28	1.3	9.2	23	-	-	-	-	ND		ND		ND		ND		ND	
Alpha-BHC	0.02	0.097	0.48	3.4	6.8	-	-	-	-	ND		ND		3		ND		ND	
Beta-BHC	0.036	0.072	0.36	3	14	-	-	-	-	ND		ND		ND		ND		ND	
Heptachlor	0.042	0.42	2.1	15	29	-	-	-	-	0.000583	JPI	ND		ND		ND		ND	
Aldrin	0.005	0.019	0.097	0.68	1.4	-	-	-	-	ND		ND		ND		ND		ND	
Endrin	0.014	2.2	11	89	410	-	-	-	-	0.00434		0.000757	J	ND		0.0035		0.00328	
Dieldrin	0.005	0.039	0.2	1.4	2.8	-	-	-	-	0.0036	P	0.00104	J	0.0015	P	0.00277		0.00243	P
4,4'-DDE	0.0033	1.8	8.9	62	120	-	-	-	-	0.000732	JPI	ND		**0.00579**		**0.00373**		ND	
4,4'-DDD	0.0033	2.6	13	92	180	-	-	-	-	0.00131	JPI	0.001	J	**0.00578**		**0.00715**		0.00319	
4,4'-DDT	0.0033	1.7	7.9	47	94	-	-	-	-	**0.00788**		0.00183	J	0.00211	J	**0.00626**		**0.00532**	
Endosulfan I	2.4	4.8	24	200	920	-	-	-	-	ND		ND		ND		ND		ND	
Endosulfan II	2.4	4.8	24	200	920	-	-	-	-	ND		ND		ND		ND		0.000866	JPI
Endosulfan sulfate	2.4	4.8	24	200	920	-	-	-	-	0.00116	PI	0.000764	U	ND		ND		ND	
cis-Chlordane	0.094	0.91	4.2	24	47	-	-	-	-	0.00402	PI	0.000907	J	ND		ND		0.00164	J
PCB																				
PCBs, Total	0.1	1	1	1	25	-	-	-	-	**0.243**		0.0346	J	**0.144**	J	**0.55**		**1.66**	J
SVOC																				
Acenaphthene	20	100	100	500	1000	0.029	J	0.11	J	0.29		0.17		0.28		0.39		0.24	
Hexachlorobenzene	0.33	0.33	1.2	6	12	ND		ND		ND		ND		ND		ND		ND	
Fluoranthene	100	100	100	500	1000	0.36		0.96		3		0.94		3.7		3.6		2.9	
Naphthalene	12	100	100	500	1000	0.043	J	0.061	J	0.23		0.065	J	0.16	J	0.22		0.23	
Benzo(a)anthracene	1	1	1	5.6	11	0.18		0.42		**1.5**		0.42		**1.8**		**1.6**		**1.5**	
Benzo(a)pyrene	1	1	1	1	1.1	0.19		0.36		**1.3**		0.36		**1.6**		**1.4**		**1.3**	
Benzo(b)fluoranthene	1	1	1	5.6	11	0.22		0.46		**1.7**		0.46		**2**		**1.8**		**1.7**	
Benzo(k)fluoranthene	0.8	1	3.9	56	110	0.077	J	0.15		0.63		0.14		0.75		0.63		0.61	
Chrysene	1	1	3.9	56	110	0.17		0.46		**1.4**		0.4		**1.7**		**1.6**		**1.4**	
Acenaphthylene	100	100	100	500	1000	ND		0.036	J	0.18		ND		0.15	J	0.13	J	0.12	J
Anthracene	100	100	100	500	1000	0.073	J	0.2		0.74		0.3		0.77		0.67		0.64	
Benzo(ghi)perylene	100	100	100	500	1000	0.13	J	0.2		0.73		0.2		0.87		0.88		0.7	
Fluorene	30	100	100	500	1000	0.038	J	0.13	J	0.33		0.16	J	0.34		0.33		0.28	
Phenanthrene	100	100	100	500	1000	0.28		0.8		2.3		1.1		2.9		3.2		2.3	
Dibenzo(a,h)anthracene	0.33	0.33	0.33	0.56	1.1	0.044	J	0.062	J	0.22		0.066	J	0.24		0.21		0.2	
Indeno(1,2,3-cd)pyrene	0.5	0.5	0.5	5.6	11	0.11	J	0.22		**0.86**		0.23		**0.98**		**0.89**		**0.81**	
Pyrene	100	100	100	500	1000	0.28		0.8		2.4		0.75		3.1		3.1		2.3	
Dibenzofuran	7	14	59	350	1000	0.023	J	0.073	J	0.21		0.11	J	0.18	J	0.27		0.18	J
Pentachlorophenol	0.8	2.4	6.7	6.7	55	ND		ND		ND		ND		ND		ND		ND	
Phenol	0.33	100	100	500	1000	ND		ND		ND		ND		ND		ND		ND	
2-Methylphenol	0.33	100	100	500	1000	ND		ND		ND		ND		ND		ND		ND	
3-Methylphenol/4-Methylphenol	0.33	34	100	500	1000	ND		ND		ND		ND		ND		ND		ND	
Total Metals																				
Arsenic, Total	13	16	16	16	16	4.41		2.85		6.48		2.1		6.5		6.94		7.36	
Barium, Total	350	350	400	400	10000	64.2		44.6		150		37.3		92.9		73.8		154	
Beryllium, Total	7.2	14	72	590	2700	0.484		0.258	J	1.36		0.199	J	0.412	J	0.454		0.338	J
Cadmium, Total	2.5	2.5	4.3	9.3	60	ND		ND		ND		ND		**3.16**		1.17		0.293	J
Chromium, Trivalent	30	36	180	1500	6800	-	-	-	-	**31**		9.2		27		21		14	
Chromium, Hexavalent	1	22	110	400	800	-	-	-	-	ND		ND		ND		ND		ND	
Chromium, Total						17.1		8.15		31		9.21		27.1		21.2		13.5	
Copper, Total	50	270	270	270	10000	17.5		15.5		40.5		10.7		34		45.3		40.4	
Cyanide, Total	27	27	27	27	10000	-	-	-	-	1.4		ND		ND		0.49	J	3.2	
Lead, Total	63	400	400	1000	3900	34.9		45.9		**74**		16.3		**133**		**113**		**99.3**	
Manganese, Total	1600	2000	2000	10000	10000	366		304		716		317		410		388		350	
Mercury, Total	0.18	0.81	0.81	2.8	5.7	**0.24**		**0.49**		**0.42**		0.067	J	**0.54**		**0.38**		**0.44**	
Nickel, Total	30	140	310	310	10000	9.95		5.4		**56**		6.84		15.9		14.5		14.6	
Selenium, Total	3.9	36	180	1500	6800	ND		ND		ND		ND		ND		ND		ND	

Soil Sample Results
240 - 260 Lakefront Boulevard Phase II

Table 1

						LOCATION	B-1-4-5 FT		B-1-14-15 FT		B-2-6-9 FT		B-3-2-7 FT		B-4-3-10 FT		B-5-1-6 FT		B-6-2-4.5 FT	
						SAMPLING DATE	11/27/2017		11/27/2017		11/27/2017		11/27/2017		11/28/2017		11/28/2017		11/28/2017	
						SAMPLE TYPE	SO		SO		SO		SO		SO		SO		SO	
						SAMPLE DEPTH (ft.)	4-5		14-15		6-9		2-7		3-10		1-6		2-4.5	
						UNITS	mg/kg		mg/kg		mg/kg		mg/kg		mg/kg		mg/kg		mg/kg	
	Unrestricted Use	Residential Use	Restricted Residential Use	Commercial Use	Industrial Use															
Silver, Total	2	36	180	1500	6800	**2.91**		ND		0.323	J	ND		0.347	J	0.544	J	0.284	J
Zinc, Total	109	2200	10000	10000	10000	72.4		81.8		**170**		60.9		**153**		**177**		108	
VOC																				
Methylene chloride	0.05	51	100	500	1000	-	-	ND		ND		ND		ND		ND		ND	
1,1-Dichloroethane	0.27	19	26	240	480	-	-	ND		ND		ND		ND		ND		ND	
Chloroform	0.37	10	49	350	700	-	-	ND		ND		ND		ND		ND		ND	
Carbon tetrachloride	0.76	1.4	2.4	22	44	-	-	ND		ND		ND		ND		ND		ND	
Tetrachloroethene	1.3	5.5	19	150	300	-	-	ND		ND		ND		ND		ND		ND	
Chlorobenzene	1.1	100	100	500	1000	-	-	ND		ND		ND		ND		ND		ND	
1,2-Dichloroethane	0.02	2.3	3.1	30	60	-	-	ND		ND		ND		ND		ND		ND	
1,1,1-Trichloroethane	0.68	100	100	500	1000	-	-	ND		ND		ND		ND		ND		ND	
Benzene	0.06	2.9	4.8	44	89	-	-	0.0018		ND		ND		ND		ND		ND	
Toluene	0.7	100	100	500	1000	-	-	0.002		0.00034	J	0.00028	J	0.00026	J	ND		ND	
Ethylbenzene	1	30	41	390	780	-	-	0.00038	J	ND		ND		ND		ND		ND	
Vinyl chloride	0.02	0.21	0.9	13	27	-	-	ND		ND		ND		ND		ND		ND	
1,1-Dichloroethene	0.33	100	100	500	1000	-	-	ND		ND		ND		ND		ND		ND	
trans-1,2-Dichloroethene	0.19	100	100	500	1000	-	-	ND		ND		ND		ND		ND		ND	
Trichloroethene	0.47	10	21	200	400	-	-	ND		ND		ND		ND		ND		ND	
1,2-Dichlorobenzene	1.1	100	100	500	1000	-	-	ND		ND		ND		ND		ND		ND	
1,3-Dichlorobenzene	2.4	17	49	280	560	-	-	ND		ND		ND		ND		ND		ND	
1,4-Dichlorobenzene	1.8	9.8	13	130	250	-	-	ND		ND		ND		ND		ND		ND	
Methyl tert butyl ether	0.93	62	100	500	1000	-	-	ND		ND		ND		ND		ND		ND	
p/m-Xylene						-	-	ND		ND		ND		ND		ND		ND	
o-Xylene						-	-	ND		ND		ND		ND		ND		ND	
cis-1,2-Dichloroethene	0.25	59	100	500	1000	-	-	ND		ND		ND		ND		ND		ND	
Acetone	0.05	100	100	500	1000	-	-	0.039		0.019		0.016		**0.052**		0.0025	J	ND	
2-Butanone	0.12	100	100	500	1000	-	-	ND		0.0023	J	ND		ND		ND		ND	
n-Butylbenzene	12	100	100	500	1000	-	-	ND		ND		ND		ND		ND		ND	
sec-Butylbenzene	11	100	100	500	1000	-	-	ND		ND		ND		ND		ND		ND	
tert-Butylbenzene	5.9	100	100	500	1000	-	-	ND		ND		ND		ND		ND		ND	
n-Propylbenzene	3.9	100	100	500	1000	-	-	ND		ND		ND		ND		ND		ND	
1,3,5-Trimethylbenzene	8.4	47	52	190	380	-	-	0.00077	J	ND		ND		ND		ND		ND	
1,2,4-Trimethylbenzene	3.6	47	52	190	380	-	-	0.0013	J	0.00021	J	ND		ND		ND		ND	
1,4-Dioxane	0.1	9.8	13	130	250	-	-	ND		ND		ND		ND		ND		ND	

Soil Sample Results
240 - 260 Lakefront Boulevard Phase II

Table 1

						LOCATION	B-7-0.5-4.5 FT		MW-1-1.5-6 FT		MW-2-2-8 FT		MW-3-2-6 FT		MW-3-16-20 FT		MW-1-25-26 FT	
						SAMPLING DATE	11/29/2017		11/29/2017		11/29/2017		11/30/2017		11/30/2017		11/29/2017	
						SAMPLE TYPE	SO		SO		SO		SO		SO		SO	
						SAMPLE DEPTH (ft.)	0.5-4.5		1.5-6		2-8		2-6		16-20		25-26	
						UNITS	mg/kg		mg/kg		mg/kg		mg/kg		mg/kg		mg/kg	
	Unrestricted Use	Residential Use	Restricted Residential Use	Commercial Use	Industrial Use													
Pesticides																		
Delta-BHC	0.04	100	100	500	1000	0.00281	P	0.000537	JPI	0.00158	J	-	-	0.00881		-	-	
Lindane	0.1	0.28	1.3	9.2	23	ND		ND		ND		-	-	ND		-	-	
Alpha-BHC	0.02	0.097	0.48	3.4	6.8	ND		ND		ND		-	-	ND		-	-	
Beta-BHC	0.036	0.072	0.36	3	14	ND		ND		ND		-	-	ND		-	-	
Heptachlor	0.042	0.42	2.1	15	29	ND		ND		ND		-	-	ND		-	-	
Aldrin	0.005	0.019	0.097	0.68	1.4	ND		ND		ND		-	-	ND		-	-	
Endrin	0.014	2.2	11	89	410	ND		ND		ND		-	-	ND		-	-	
Dieldrin	0.005	0.039	0.2	1.4	2.8	ND		ND		ND		-	-	ND		-	-	
4,4'-DDE	0.0033	1.8	8.9	62	120	0.00165	J	ND		ND		-	-	**0.00587**		-	-	
4,4'-DDD	0.0033	2.6	13	92	180	0.00201	J	ND		ND		-	-	ND		-	-	
4,4'-DDT	0.0033	1.7	7.9	47	94	ND		ND		ND		-	-	ND		-	-	
Endosulfan I	2.4	4.8	24	200	920	ND		ND		ND		-	-	ND		-	-	
Endosulfan II	2.4	4.8	24	200	920	ND		ND		ND		-	-	ND		-	-	
Endosulfan sulfate	2.4	4.8	24	200	920	ND		ND		ND		-	-	ND		-	-	
cis-Chlordane	0.094	0.91	4.2	24	47	0.000811	J	ND		ND		-	-	0.000953	JPI	-	-	
PCB																		
PCBs, Total	0.1	1	1	1	25	**0.128**	J	**0.179**	J	ND		-	-	0.0199	J	-	-	
SVOC																		
Acenaphthene	20	100	100	500	1000	0.073	J	ND		ND		13	E	0.28		-	-	
Hexachlorobenzene	0.33	0.33	1.2	6	12	ND		ND		ND		ND		ND		-	-	
Fluoranthene	100	100	100	500	1000	1.3		ND		ND		48	E	1.9		-	-	
Naphthalene	12	100	100	500	1000	0.16	J	0.036	J	ND		3.6		0.64		-	-	
Benzo(a)anthracene	1	1	1	5.6	11	0.58		ND		ND		**30**	E	0.88		-	-	
Benzo(a)pyrene	1	1	1	1	1.1	0.48		ND		ND		**26**	E	0.74		-	-	
Benzo(b)fluoranthene	1	1	1	5.6	11	0.63		ND		ND		**33**	E	0.95		-	-	
Benzo(k)fluoranthene	0.8	1	3.9	56	110	0.24		ND		ND		**8.7**		0.36		-	-	
Chrysene	1	1	3.9	56	110	0.55		ND		ND		**23**	E	0.8		-	-	
Acenaphthylene	100	100	100	500	1000	0.18		ND		ND		0.15	J	0.048	J	-	-	
Anthracene	100	100	100	500	1000	0.28		ND		ND		25	E	0.48		-	-	
Benzo(ghi)perylene	100	100	100	500	1000	0.26		ND		ND		13	E	0.36		-	-	
Fluorene	30	100	100	500	1000	0.19	J	ND		ND		16	E	0.29		-	-	
Phenanthrene	100	100	100	500	1000	1.3		ND		ND		51	E	1.9		-	-	
Dibenzo(a,h)anthracene	0.33	0.33	0.33	0.56	1.1	0.072	J	ND		ND		**3.9**		0.1	J	-	-	
Indeno(1,2,3-cd)pyrene	0.5	0.5	0.5	5.6	11	0.29		ND		ND		**16**	E	0.43		-	-	
Pyrene	100	100	100	500	1000	1		ND		ND		41	E	1.5		-	-	
Dibenzofuran	7	14	59	350	1000	0.12	J	ND		ND		**10**	E	0.23		-	-	
Pentachlorophenol	0.8	2.4	6.7	6.7	55	ND		ND		ND		ND		ND		-	-	
Phenol	0.33	100	100	500	1000	ND		ND		ND		ND		0.1	J	-	-	
2-Methylphenol	0.33	100	100	500	1000	ND		ND		ND		ND		0.033	J	-	-	
3-Methylphenol/4-Methylphenol	0.33	34	100	500	1000	ND		ND		ND		0.074	J	0.086	J	-	-	
Total Metals																		
Arsenic, Total	13	16	16	16	16	3.47		5.25		5.36		7.62		3.3		-	-	
Barium, Total	350	350	400	400	10000	34.1		61		43.9		152		70.6		-	-	
Beryllium, Total	7.2	14	72	590	2700	0.181	J	0.444		0.303		1.28		0.615		-	-	
Cadmium, Total	2.5	2.5	4.3	9.3	60	0.154	J	0.055	J	0.252	J	0.27	J	ND		-	-	
Chromium, Trivalent	30	36	180	1500	6800	6.9		-	-	12		-	-	-	-	-	-	
Chromium, Hexavalent	1	22	110	400	800	ND		-	-	ND		-	-	-	-	-	-	
Chromium, Total						6.9		10.3		11.5		35.7		11.4		-	-	
Copper, Total	50	270	270	270	10000	23.7		29.1		25.2		**50.1**		13.8		-	-	
Cyanide, Total	27	27	27	27	10000	ND		ND		ND		-	-	ND		-	-	
Lead, Total	63	400	400	1000	3900	35.9		48.4		46.2		**148**		21		-	-	
Manganese, Total	1600	2000	2000	10000	10000	272		379		288		796		716		-	-	
Mercury, Total	0.18	0.81	0.81	2.8	5.7	**0.39**		**0.33**		0.15		**1.4**		**0.22**		-	-	
Nickel, Total	30	140	310	310	10000	7.72		8.51		12.4		11.3		10.2		-	-	
Selenium, Total	3.9	36	180	1500	6800	ND		ND		ND		0.432	J	ND		-	-	

Soil Sample Results
240 - 260 Lakefront Boulevard Phase II

Table 1

						LOCATION	B-7-0.5-4.5 FT		MW-1-1.5-6 FT		MW-2-2-8 FT		MW-3-2-6 FT		MW-3-16-20 FT		MW-1-25-26 FT	
						SAMPLING DATE	11/29/2017		11/29/2017		11/29/2017		11/30/2017		11/30/2017		11/29/2017	
						SAMPLE TYPE	SO		SO		SO		SO		SO		SO	
						SAMPLE DEPTH (ft.)	0.5-4.5		1.5-6		2-8		2-6		16-20		25-26	
						UNITS	mg/kg		mg/kg		mg/kg		mg/kg		mg/kg		mg/kg	
	Unrestricted Use	Residential Use	Restricted Residential Use	Commercial Use	Industrial Use													
Silver, Total	2	36	180	1500	6800	ND		0.157	J	0.243	J	0.696		0.16	J	-	-	
Zinc, Total	109	2200	10000	10000	10000	62.1		58.6		72.4		**148**		47.7		-	-	
VOC																		
Methylene chloride	0.05	51	100	500	1000	ND		ND		ND		-	-	ND		ND		
1,1-Dichloroethane	0.27	19	26	240	480	ND		ND		ND		-	-	ND		ND		
Chloroform	0.37	10	49	350	700	ND		ND		ND		-	-	ND		ND		
Carbon tetrachloride	0.76	1.4	2.4	22	44	ND		ND		ND		-	-	ND		ND		
Tetrachloroethene	1.3	5.5	19	150	300	ND		ND		ND		-	-	ND		ND		
Chlorobenzene	1.1	100	100	500	1000	ND		ND		ND		-	-	ND		0.16		
1,2-Dichloroethane	0.02	2.3	3.1	30	60	ND		ND		ND		-	-	ND		ND		
1,1,1-Trichloroethane	0.68	100	100	500	1000	ND		ND		ND		-	-	ND		ND		
Benzene	0.06	2.9	4.8	44	89	ND		ND		ND		-	-	ND		ND		
Toluene	0.7	100	100	500	1000	ND		ND		0.00047	J	-	-	ND		0.028		J
Ethylbenzene	1	30	41	390	780	ND		ND		ND		-	-	ND		ND		
Vinyl chloride	0.02	0.21	0.9	13	27	ND		ND		ND		-	-	ND		ND		
1,1-Dichloroethene	0.33	100	100	500	1000	ND		ND		ND		-	-	ND		ND		
trans-1,2-Dichloroethene	0.19	100	100	500	1000	ND		ND		ND		-	-	ND		ND		
Trichloroethene	0.47	10	21	200	400	ND		ND		ND		-	-	ND		ND		
1,2-Dichlorobenzene	1.1	100	100	500	1000	ND		ND		ND		-	-	ND		0.043		J
1,3-Dichlorobenzene	2.4	17	49	280	560	ND		ND		ND		-	-	ND		0.029		J
1,4-Dichlorobenzene	1.8	9.8	13	130	250	ND		ND		ND		-	-	ND		0.24		J
Methyl tert butyl ether	0.93	62	100	500	1000	ND		ND		ND		-	-	ND		ND		
p/m-Xylene						ND		ND		0.00057	J	-	-	0.019	J	0.032		J
o-Xylene						ND		ND		0.00062	J	-	-	ND		0.037		J
cis-1,2-Dichloroethene	0.25	59	100	500	1000	ND		ND		ND		-	-	ND		ND		
Acetone	0.05	100	100	500	1000	ND		0.0025	J	0.0087	J	-	-	ND		ND		
2-Butanone	0.12	100	100	500	1000	ND		ND		ND		-	-	ND		ND		
n-Butylbenzene	12	100	100	500	1000	ND		ND		0.00049	J	-	-	0.22		0.063		J
sec-Butylbenzene	11	100	100	500	1000	ND		ND		0.00024	J	-	-	0.026	J	0.07		J
tert-Butylbenzene	5.9	100	100	500	1000	ND		ND		ND		-	-	ND		ND		
n-Propylbenzene	3.9	100	100	500	1000	ND		ND		ND		-	-	0.013	J	ND		
1,3,5-Trimethylbenzene	8.4	47	52	190	380	ND		ND		0.00046	J	-	-	0.057	J	ND		
1,2,4-Trimethylbenzene	3.6	47	52	190	380	ND		0.00024	J	0.0031	J	-	-	0.34		0.026		J
1,4-Dioxane	0.1	9.8	13	130	250	ND		ND		ND		-	-	ND		ND		

Groundwater Sample Results
240 - 260 Lakefront Boulevard Phase II

Table 2

	LOCATION	MW-1		MW-2		MW-3	
	SAMPLING DATE	12/6/2017		12/6/2017		12/6/2017	
	SAMPLE TYPE	WG		WG		WG	
	UNITS	ug/L		ug/L		ug/L	
	NY-TOGS-GA						
Pesticides							
Delta-BHC	0.04	-	-	ND		ND	
Lindane	0.05	-	-	ND		ND	
Alpha-BHC	0.01	-	-	ND		ND	
Beta-BHC	0.04	-	-	ND		ND	
Heptachlor	0.04	-	-	ND		ND	
Aldrin	0	-	-	ND		ND	
Endrin	0	-	-	ND		ND	
Dieldrin	0.004	-	-	ND		ND	
4,4'-DDE	0.2	-	-	ND		ND	
4,4'-DDD	0.3	-	-	ND		ND	
4,4'-DDT	0.2	-	-	ND		0.041	
Endosulfan I		-	-	ND		ND	
Endosulfan II		-	-	ND		ND	
Endosulfan sulfate		-	-	ND		ND	
cis-Chlordane		-	-	ND		ND	
PCB							
PCBs, Total	0.09	-	-	ND		**1.51**	
SVOC							
Dibenzofuran		-	-	ND		13	
Phenol	2	-	-	ND		ND	
2-Methylphenol		-	-	ND		2	J
3-Methylphenol/4-Methylphenol		-	-	ND		8.1	
Acenaphthene	20	-	-	0.23		**24**	
Fluoranthene	50	-	-	0.05	J	1.7	
Naphthalene	10	-	-	ND		**51**	
Benzo(a)anthracene	0.002	-	-	ND		**0.19**	
Benzo(a)pyrene		-	-	ND		0.13	
Benzo(b)fluoranthene	0.002	-	-	ND		**0.16**	
Benzo(k)fluoranthene	0.002	-	-	ND		**0.06**	J
Chrysene	0.002	-	-	ND		**0.16**	
Acenaphthylene		-	-	ND		0.26	
Anthracene	50	-	-	ND		3.7	
Benzo(ghi)perylene		-	-	ND		0.07	J
Fluorene	50	-	-	ND		16	
Phenanthrene	50	-	-	0.05	J	19	
Dibenzo(a,h)anthracene		-	-	ND		ND	
Indeno(1,2,3-cd)pyrene	0.002	-	-	ND		**0.08**	J
Pyrene	50	-	-	0.04	J	0.95	
Pentachlorophenol	2	-	-	ND		1.7	
Hexachlorobenzene	0.04	-	-	ND		ND	
Total Metals							
Arsenic, Total	50	-	-	14.31		0.93	
Barium, Total	2000	-	-	245.4		150.9	
Beryllium, Total	3	-	-	0.58		ND	
Cadmium, Total	10	-	-	0.95		ND	
Chromium, Total	100	-	-	29.26		1.88	
Chromium, Trivalent		-	-	29		ND	
Chromium, Hexavalent	100	-	-	ND		3	J
Copper, Total	1000	-	-	56.3		2.48	
Cyanide, Total	400	-	-	ND		8	
Lead, Total	50	-	-	**281.6**		6.25	
Manganese, Total	600	-	-	**601.5**		**537.9**	
Mercury, Total	1.4	-	-	**1.96**		ND	
Nickel, Total	200	-	-	24.99		1.31	J
Selenium, Total	20	-	-	5.58		ND	
Silver, Total	100	-	-	0.64		ND	
Zinc, Total	5000	-	-	279.1		14.89	
VOC							
Methylene chloride	5	ND		ND		ND	
1,1-Dichloroethane	5	ND		ND		ND	
Chloroform	7	ND		ND		ND	
Carbon tetrachloride	5	ND		ND		ND	
Tetrachloroethene	5	ND		ND		0.42	J
Chlorobenzene	5	ND		ND		ND	
1,2-Dichloroethane	0.6	ND		ND		ND	
1,1,1-Trichloroethane	5	ND		ND		ND	
Benzene	1	**1.6**		ND		**1.8**	
Toluene	5	0.92	J	ND		1.2	J
Ethylbenzene	5	ND		ND		ND	
Vinyl chloride	2	ND		ND		ND	
1,1-Dichloroethene	5	ND		ND		ND	
trans-1,2-Dichloroethene	5	ND		ND		ND	
Trichloroethene	5	0.66		ND		0.25	J
1,2-Dichlorobenzene	3	ND		ND		ND	
1,3-Dichlorobenzene	3	ND		ND		ND	
1,4-Dichlorobenzene	3	ND		ND		ND	
Methyl tert butyl ether	10	ND		ND		ND	
p/m-Xylene	5	ND		ND		1.5	J
o-Xylene	5	0.77	J	ND		1.2	J
cis-1,2-Dichloroethene	5	ND		ND		ND	
Acetone	50	**140**		1.5	J	8.9	
2-Butanone	50	6.9		ND		ND	
n-Butylbenzene	5	ND		ND		ND	
sec-Butylbenzene	5	ND		ND		ND	
tert-Butylbenzene	5	ND		ND		ND	
n-Propylbenzene	5	ND		ND		ND	
1,3,5-Trimethylbenzene	5	ND		ND		0.74	J
1,2,4-Trimethylbenzene	5	1	J	ND		2.3	J
1,4-Dioxane		ND		ND		ND	

APPENDICES

APPENDIX A

Soil Boring Logs

C&S Engineers, Inc.
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BORING LOG

Boring No.	**B-1**
Sheet 1 of:	(B-29 BDC)
Project No.:	E67.022.001
Surface Elev.:	
Datum:	GROUND SURFACE
Start Date:	11/27/17
Finish Date:	11/27/17
Inspector:	AS

Project Name:	240-260 Lakefront Boulevard							
Location:	240-260 Lakefront Boulevard							
Client:								
Drilling Firm:	Buffalo Drilling Company							
Groundwater	**Depth**	**Date & Time**	**Drill Rig:**	Auger (Split-Spoon Sampling)				
While Drilling:			**Casing:**		**Rock Core:**		**Undist:**	
Before Casing Removal:			**Sampler:**		**Other:**			
After Casing Removal:			**Hammer:**					

(N -- No. of blows to drive sampler 12" w/140 lb. hammer falling 30" ASTM D-1586, Standard Penetration Test)

Depth (ft)	Sample No.	Symbol	Blows on Sampler per 6"	c - coarse, m - medium, f - fine	**MATERIAL DESCRIPTION** S - Sand, $ - Silt, G - Gravel, C - Clay, cly - clayey	a - and - 35-50%, s - some - 20-35%, l - little - 10-20%, t - trace - 0-10%		**COMMENTS** (e.g., N-value, recovery, relative moisture, core run, RQD, % recovered)
			2	0-10"	***Brown, soft to dense, Silty CLAY, rock at 9 inches***		ppm:	8:40 AM
1			4				2.7	Sunny, Partly Cloudy, 36°F
			6				2	10" recovered
2			8				5.8	
			7	0-3"	***Brown, soft to dense, Silty CLAY, rock at 9 inches***		2.4	
3			18	3-5"	***(FILL) Concrete***		2.2	13' recovered
			27	5-13"	***(FILL) Red brick, yellow mottles, concrete mix***		2.1	
4			22					
	B-1		4	1-5"	***(FILL) Red brick in Silty CLAY, wood pieces at 7 inches***		1.3	
5			8		***and 11 inches***		1.2	18" recovered
			8	5-18"	***Silty CLAY, embedded FILL, small stone, red mottles, dense***		1.2	
6			8					
			1	0-13"	***(FILL) Brown, moist/soft, Silty CLAY, red brick mottles***		0.7	
7			2					13" recovered
			3					no petro-like odors
8			4					
			1	0-4"	***Soft, brown, Silty CLAY***		0.6	
9			1	4-7"	***Dense, brown, Silty CLAY***		0.5	11" recovered
			2	7-11"	***(FILL) 'Saturated, brown, Silty CLAY, small embedded***		0.7	no petro-like odors
10			2		***stone/brick***			
			1	0-11"	***(FILL) Wet, brown, Silty CLAY, some embedded brick and stone,***		0.5	
11			1		***(1/3-inch diameter)***		0.5	11" recovered
			2				0.5	no petro-like odors
12			3					
			1	0-2"	***Soft, brown, Silty CLAY***		0.5	
13			2	2-11"	***(FILL) Wet, brown, Silty SAND, soft, red mottles, stone***		0.6	11" recovered
			5				0.5	no petro-like odors
14			3					
	B-1		1	0-10"	***(FILL) Wet, brown, Silty SAND***		3.3	
15			2					10" recovered
			3					petro-like odors?
16			3					
			7	0-13"	***Wet, Silty SAND, coarse, embedded FILL (stone, red brick,***		0.5	
17			7		***1-inch diameter and smaller)***		0.5	13" recovered
			7					
18			8					
			22	(NO RECOVERY)				
19			6		***WATER, Wet, Silty SAND, embedded FILL***			~1" recovered
			6					
20			6					
21								
22								

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BORING LOG

Boring No.	**B-1**
Sheet 2 of:	2
Project No.:	E67.022.001
Start Date:	11/27/2017
Finish Date:	11/27/2017
Inspector:	AS

Project Name: 240-260 Lakefront Boulevard
Location: 240-260 Lakefront Boulevard
Client:

Depth (ft)	Sample No.	Symbol	Blows on Sampler per 6"	MATERIAL DESCRIPTION (c - coarse, m - medium, f - fine; a - and - 35-50%, s - some - 20-35%, l - little - 10-20%, t - trace - 0-10%; S - Sand, $ - Silt, G - Gravel, C - Clay, cly - clayey)		COMMENTS (e.g., N-value, recovery, moisture, core run, RQD, % recovered)
					ppm:	
24						
			11	0-2" ***Saturated, silty SAND, soft, foamy***		
25			7	2-4" ***(FILL) Concrete/stone***		13" recovered
			7	4-13" ***(FILL) Brown, silty SAND, loam, silty CLAY, red brick mottles***		no petro-like odors
26			2			
27						
28						
29				***REFUSAL AT 28 FEET***		
30						
31						Sample:
32						***B-1-4-5 FT***
33						*0.8 ppm headspace PID*
						8:50 AM
34						*SVOCS, Metals*
35						***B-1-14-15 FT***
						3.3 ppm headspace PID
36						*9:34 AM*
37						*VOCs, SVOCs, Metals*
38						
39						
40						
41						
42						
43						
44						
45						
46						
47						
48						
49						

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BORING LOG

Boring No.	**B-2**
Sheet 1 of:	(B-27 BDC)
Project No.:	E67.022.001
Surface Elev.:	
Datum:	GROUND SURFACE
Start Date:	11/27/17
Finish Date:	11/27/17
Inspector:	AS

Project Name:	240-260 Lakefront Boulevard							
Location:	240-260 Lakefront Boulevard							
Client:								
Drilling Firm:	Buffalo Drilling Company							
Groundwater	**Depth**	**Date & Time**	**Drill Rig:**	Auger (Split-Spoon Sampling)				
While Drilling:			**Casing:**		**Rock Core:**		**Undist:**	
Before Casing Removal:			**Sampler:**		**Other:**	by trees/Lakefront Blvd		
After Casing Removal:			**Hammer:**					

(N -- No. of blows to drive sampler 12" w/140 lb. hammer falling 30" ASTM D-1586, Standard Penetration Test)

Depth (ft)	Sample No.	Symbol	Blows on Sampler per 6"	c - coarse, m - medium, f - fine; **MATERIAL DESCRIPTION**; S - Sand, $ - Silt, G - Gravel, C - Clay, cly - clayey; a - and - 35-50%, s - some - 20-35%, l - little - 10-20%, t - trace - 0-10%		**COMMENTS** (e.g., N-value, recovery, relative moisture, core run, RQD, % recovered)
			2	0-16" ***(FILL) Brown, dry, Silty CLAY, embedded rock, brick, wood***	ppm:	10:46 AM
1			4		0.5	16" recovered
			8		0.5	
2			8		0.6	
			16	0-18" ***(FILL) Brown, Silty CLAY, dry, wood pieces from 9-10 inches,***	5	
3			15	***sweet odor, brick fragments, concrete, stone***	86.4	18" recovered
			16	***(included in composite for sample B-2 - was in plastic bag for***	5.2	No petro-like odors
4			14	***headspace PID reading of 7.7 ppm)***		Sweet odor (wood piece)
			8	0-18" ***(FILL) Brown, Silty CLAY, dry, concrete, yellow***	0.6	
5			12	***mottles, brick, yellow sand***	0.6	18" recovered
			12		0.7	No petro-like odors
6			12			
	B-2		3	0-17" ***(FILL) Dry, brown, Silty CLAY, dark, concrete, brick, stone***	0.7	
7			14	***(white and yellow fragments), pink rock***	1.8	17" recovered
			11		1.7	No petro-like odors
8			11			
			6	0-3" ***(FILL) Dry, brown, Silty CLAY, red mottles, white Sand/stone***	0.5	
9			50/2		1.4	3" recovered
						No petro-like odors
10						
			28	0-10" ***(FILL) Concrete, very fine crushed concrete, slag, red***	4.2	
11			50/4	***mottles***	2.7	10" recovered
						No petro-like odors
12						
			1	(NO RECOVERY)		
13			4			
			4			
14			4			
			1	0-2" ***Wet, brown, Silty CLAY, 1-inch diameter rock***	0.6	
15			2			2" recovered
			3			No petro-like odors
16			2			
			1	0-6" ***Wet/soft, brown, Silty SAND, rock (3/4" diameter), red mottles***		
17			1	6-13" ***Soft, Silty SAND, red mottles***		13" recovered
			2	***blackish staining but no petro-like odors, organic material?***		No petro-like odors
18			2			
			2	***Wet, red brick, brown, Silty CLAY, saturated, stone and***		
19			1	***gravel***		
			1			No petro-like odors
20			4			
21						
22						

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BORING LOG

Boring No.	**B-2**
Sheet 2 of:	2
Project No.:	E67.022.001
Start Date:	11/27/2017
Finish Date:	11/27/2017
Inspector:	AS

Project Name: 240-260 Lakefront Boulevard
Location: 240-260 Lakefront Boulevard
Client:

c - coarse
m - medium
f - fine

a - and - 35-50%
s - some - 20-35%
l - little - 10-20%
t - trace - 0-10%

S - Sand, $ - Silt, G - Gravel, C - Clay, cly - clayey

Depth (ft)	Sample No.	Symbol	Blows on Sampler per 6"	MATERIAL DESCRIPTION	ppm:	COMMENTS (e.g., N-value, recovery, moisture, core run, RQD, % recovered)
24						
			4	0-10" ***Wet, soft, brown, Silty CLAY***	0.5	10" recovered
25			50/5		0.5	No petro-like odors
26				***REFUSAL AT 25.2 FEET***		*Sample:*
27						***B-2-6-9 FT***
28						*11:24 AM*
29						*VOCs, SVOCs, Pesticides, PCBs, Metals, Hex Chrom*
30						
31						
32						
33						
34						
35						
36						
37						
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49						

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BORING LOG

Boring No.	**B-3**
Sheet 1 of:	(B-17 BDC)
Project No.:	E67.022.001
Surface Elev.:	
Datum:	GROUND SURFACE
Start Date:	11/27/17
Finish Date:	11/27/17
Inspector:	AS

Project Name:	240-260 Lakefront Boulevard							
Location:	240-260 Lakefront Boulevard							
Client:								
Drilling Firm:	Buffalo Drilling Company							
Groundwater	**Depth**	**Date & Time**	**Drill Rig:**	Auger (Split-Spoon Sampling)				
While Drilling:			**Casing:**		**Rock Core:**		**Undist:**	
Before Casing Removal:			**Sampler:**		**Other:**	moved 5 ft northwest due to sewer		
After Casing Removal:			**Hammer:**			easement, moved 5 ft NW after refusal		

(N -- No. of blows to drive sampler 12" w/140 lb. hammer falling 30" ASTM D-1586, Standard Penetration Test)

Depth (ft)	Sample No.	Symbol	Blows on Sampler per 6"	MATERIAL DESCRIPTION (c - coarse, m - medium, f - fine; a - and - 35-50%, s - some - 20-35%, l - little - 10-20%, t - trace - 0-10%; S - Sand, $ - Silt, G - Gravel, C - Clay, cly - clayey)		COMMENTS (e.g., N-value, recovery, relative moisture, core run, RQD, % recovered)
			2	0-5" ***Topsoil, brown, dense, Silty CLAY***	ppm:	1:10 PM
1			8	5-8" ***Stone/gravel (0.5-inch diameter and smaller)***	0.3	17" recovered
			8	8-11" ***Concrete***	0.4	No petro-like odors
2			14	11-12" ***Red brick*** 12-17" ***Brown, Silty CLAY, embedded rock***	0.4	
			2	0-13" ***(FILL) Wet, brown, Silty CLAY, embedded stone, gravel,***	0.3	
3			9	***brick, wood***	0.4	13" recovered
			7		0.4	No petro-like odors
4			25			
			5	0-8" ***(FILL) Wet, dense to soft, Silty CLAY, brown, embedded stone***	0.3	
5	B-3		50/5	***and brick***	0.3	8" recovered
					0.4	No petro-like odors
6				***(REFUSAL AT 5 FEET; MOVED 5 FEET NW)***		
			7	0-4.5" ***Brown, Silty CLAY, soft to dry/dense, brick fragments***	0.2	
7			7	4.5-9" ***Brown, Silty SAND, dry, soft***	0.3	9" recovered
			5			No petro-like odors
8			6			
			2	0-7" ***(FILL) Red/brown, Silty CLAY, some gravel and wood***		
9			3	***pieces***		7" recovered
			4			No petro-like odors
10			4			
			1	0-11" ***(FILL) Brown, Silty CLAY, soft, embedded gravel***	0.4	
11			2		0.4	11" recovered
			3			No petro-like odors
12			4			
			1	0-13" ***(FILL) Brown, Silty CLAY, soft/moist, embedded stone,***	0.3	
13			1	***gravel rock***	0.4	13" recovered
			2		0.4	No petro-like odors
14			50/5			
			15	0-7" ***White, brittle stone (concrete?) at 0-1 inches, dense,***	0.4	
15			11	***red-brown, Silty CLAY***	0.4	7" recovered
			6			
16			9			
			3	0-13" ***Soft, brown, Silty CLAY***		
17			2	13-14" ***Dense, brown, Silty CLAY***	PID	14" recovered
			3		DIED	No petro-like odors
18			14		AT 2:27 PM	
			1	0-14.5" ***Soft, brown, moist, Silty CLAY***		
19			2			14.5" recovered
			3			No petro-like odors
20			5			
21						
22						

C&S Engineers, Inc. 141 Elm Street Buffalo, New York 14203 Phone: 716-847-1630 Fax: 716-847-1454 www.cscos.com	**BORING LOG**	***Boring No.***	**B-3**
		Sheet 2 of:	2
		Project No.:	E67.022.001
Project Name: 240-260 Lakefront Boulevard		***Start Date:***	11/27/2017
Location: 240-260 Lakefront Boulevard		***Finish Date:***	11/27/2017
Client:		***Inspector:***	AS

Depth (ft)	Sample No.	Symbol	Blows on Sampler per 6"	c - coarse m - medium f - fine **MATERIAL DESCRIPTION** S - Sand, $ - Silt, G - Gravel, C - Clay, cly - clayey a - and - 35-50% s - some - 20-35% l - little - 10-20% t - trace - 0-10%	ppm:	**COMMENTS** (e.g., N-value, recovery, moisture, core run, RQD, % recovered)
24						
25			3 5	0-20" ***Soft to dense, brown, Silty CLAY, some embedded stone at 10 inches, embedded stone throughout (1/4-inch diameter and smaller with some larger)***		20" recovered
26			5 7			No petro-like odors
27						
28						
29						
30			1 2	0-25" ***Dark brown/blackish, soft towards bottom, white fragments (shells?)***		25" recovered
31			2 3			No petro-like odors
32			1 2			
33			2 7			
34				***REFUSAL***		*Sample:*
35						***B-3-2-7 FT***
36						*2:00 PM*
37						*VOCs, SVOCs, Pesticides, PCBs, Metals, Hex Chrom*
38						
39						
40						
41						
42						
43						
44						
45						
46						
47						
48						
49						

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BORING LOG

Boring No.	**B-4**
Sheet 1 of:	(B-1 BDC)
Project No.:	E67.022.001
Surface Elev.:	
Datum:	GROUND SURFACE
Start Date:	11/28/17
Finish Date:	11/28/17
Inspector:	AS

Project Name:	240-260 Lakefront Boulevard						***Undist:***	
Location:	240-260 Lakefront Boulevard							
Client:								
Drilling Firm:	Buffalo Drilling Company							
Groundwater	***Depth***	***Date & Time***	***Drill Rig:***	Auger (Split-Spoon Sampling)				
While Drilling:			***Casing:***		***Rock Core:***			
Before Casing Removal:			***Sampler:***		***Other:***			
After Casing Removal:			***Hammer:***					

(N -- No. of blows to drive sampler 12" w/140 lb. hammer falling 30" ASTM D-1586, Standard Penetration Test)

Depth (ft)	Sample No.	Symbol	Blows on Sampler per 6"	c - coarse m - medium f - fine **MATERIAL DESCRIPTION** S - Sand, $ - Silt, G - Gravel, C - Clay, cly - clayey a - and - 35-50% s - some - 20-35% l - little - 10-20% t - trace - 0-10%		ppm:	**COMMENTS** (e.g., N-value, recovery, relative moisture, core run, RQD, % recovered)
			2	0-7"	***Brown, moist, Silty CLAY, embedded stone***	0	8:40 AM
1			19	7-12"	***Gravel, Silty SAND, brown, concrete at 11-12 inches***	0	17" recovered
			20	12-17"	***Dense, brown, Silty CLAY***	0	No petro-like odors
2			21			0	
			20	0-3"	***Soft, brown, Silty CLAY, moist***	0	
3			32	3-14"	***(FILL) Dense, brown, Silty CLAY, dry, embedded concrete,***	0	14" recovered
			50/5		***gravel, red/yellow mottles, brick, blue-green material,***	0	No petro-like odors
4			-		***black, shiny rock***	0	
			50/5	0-4"	***Concrete, white/grey, fine dust***	0	
5			-				4" recovered
			-				No petro-like odors
6			-		***(REFUSAL AT 6 FEET; MOVED 5 FEET SW; REFUSAL AT 4.5 FEET; MOVED 5 FEET E)***		
	B-4		39	0-1"	***Stone***	0.2	
7			17	2-6"	***Brown, Silty CLAY, moist, soft, possibly tree roots?***	0.2	8" recovered
			17	6-8"	***Stone, concrete, crushed, grey***		No petro-like odors
8			17				
			4	0-8"	***Dense, brown, Silty CLAY, concrete/gravel at 0-1 inches and***	0.1	
9			5		***8 inches***	0.1	8" recovered
			14				No petro-like odors
10			5				
			1	0-4"	***Gravel (1/4-inch diameter and smaller), wet, brown, Silty CLAY***	0.2	
11			5	4-8"	***Brown, Silty CLAY, brick pieces, embedded stone***	0.2	8" recovered
			5				No petro-like odors
12			5				
			17	0-1"	***Stone and gravel***	0.2	
13			15	1-7"	***Soft, wet, brown, Silty CLAY, embedded rock***	0.1	12" recovered
			7	7-12"	***Dense, moist, brown, Silty CLAY, dark staining but organic***	0.1	No petro-like odors
14			8		***material because no petro-like odors***		
			1	0-10"	***Dense, brown, Silty CLAY***	0.2	
15			1	10-18"	***Soft, brown, Silty CLAY, rare embedded stone (1.5 inch length,***	0.2	18" recovered
			4		***1/2-inch width), blackish material (organic material)***	0.2	No petro-like odors
16			3				
17							
18							
			2	0-4"	***Soft, brown, moist, Silty CLAY***	0.2	
19			4	4-9"	***Dense, brown, moist, Silty CLAY***	0.1	16" recovered
			3	9-16"	***Soft, brown, mist, Silty CLAY***	0.3	No petro-like odors
20			5				
21							
22							

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BORING LOG

Boring No.	**B-4**
Sheet 2 of:	2
Project No.:	E67.022.001
Start Date:	11/28/2017
Finish Date:	11/28/2017
Inspector:	AS

Project Name: 240-260 Lakefront Boulevard
Location: 240-260 Lakefront Boulevard
Client:

Depth (ft)	Sample No.	Symbol	Blows on Sampler per 6"	MATERIAL DESCRIPTION (c - coarse, m - medium, f - fine; a - and - 35-50%, s - some - 20-35%, l - little - 10-20%, t - trace - 0-10%; S - Sand, $ - Silt, G - Gravel, C - Clay, cly - clayey)		COMMENTS (e.g., N-value, recovery, moisture, core run, RQD, % recovered)
					ppm:	
24						
			1	0-12" ***Soft, brown, Silty CLAY, moist***	2.8	
25			2		1.1	12" recovered
			4			No petro-like odors
26			6			
27						
28						
29						
				0-25" ***Soft, Silty CLAY, black, moist***	0.8	
30					1.5	25" recovered
					2.5	No petro-like odors
31						Asphalt-like smell? Lake
						bottom/sediment smell?
32						
33						
34						
35						
36						
37						
38				***REFUSAL AT 37 FEET***		*Sample:*
39						***B-4-3-10 FT***
						9:30 AM
40						*VOCs, SVOCs, Pesticides,*
						PCBs, Metals, Hex Chrom
41						
42						
43						
44						
45						
46						
47						
48						
49						

C&S Engineers, Inc.	BORING LOG	Boring No.	B-5
141 Elm Street Buffalo, New York 14203 Phone: 716-847-1630 Fax: 716-847-1454 www.cscos.com		Sheet 1 of:	(B-4 BDC)
		Project No.:	E67.022.001

Project Name:	240-260 Lakefront Boulevard					**Surface Elev.:**	
Location:	240-260 Lakefront Boulevard					**Datum:**	GROUND SURFACE
Client:						**Start Date:**	11/28/17
Drilling Firm:	Buffalo Drilling Company					**Finish Date:**	11/28/17
Groundwater	**Depth**	**Date & Time**	**Drill Rig:**	Auger (Split-Spoon Sampling)		**Inspector:**	AS
While Drilling:			**Casing:**		**Rock Core:**	**Undist:**	
Before Casing Removal:			**Sampler:**		**Other:**	Moved 10 ft SE to avoid possible drainage	
After Casing Removal:			**Hammer:**		line		

(N -- No. of blows to drive sampler 12" w/140 lb. hammer falling 30" ASTM D-1586, Standard Penetration Test)

Depth (ft)	Sample No.	Symbol	Blows on Sampler per 6"	c - coarse, m - medium, f - fine **MATERIAL DESCRIPTION** S - Sand, $ - Silt, G - Gravel, C - Clay, cly - clayey a - and - 35-50%, s - some - 20-35%, l - little - 10-20%, t - trace - 0-10%		**COMMENTS** (e.g., N-value, recovery, relative moisture, core run, RQD, % recovered)
			2	0-6" ***Brown, moist, Silty CLAY, soft***	ppm:	11:15 AM
1			4	6-11" ***(FILL) Silty CLAY with concrete, yellow/red mottles,***	0.4	11:26 AM (New Location)
			6	***blackish staining, but no petro-like odors***	0.4	11" recovered
2			12		0.4	No petro-like odors
			2	0-13" ***(FILL) Silty CLAY, brown, embedded rock***	0.4	
3			8		0.3	13" recovered
	B-5		50/3			No petro-like odors
4			-			
			50/5	0-6.5" ***(FILL) Silty CLAY, brown, dense, red brick, ash-like flaking***	0.3	
5			-			6.5" recovered
			-			No petro-like odors
6			-			
			15	(NO RECOVERY)		
7			17			
			19			
8			20			
			1	0-5" ***Brown, moist, Silty CLAY, soft***	0.3	
9			6	5-12" ***Brown, moist, Silty SAND and clay (loam), dense, embedded***	0.2	12" recovered
			8	***rocks (1-inch diameter and smaller)***	0.2	No petro-like odors
10			6			
			1	0-7" ***Soft, moist, brown, Silty SAND/CLAY***	0.3	
11			2	7-13" ***(FILL) Dense, brown, Silty CLAY with red brick, gravel, see-***	0.3	13" recovered
			15	***through stone that glistens red in the light, black glistening***	0.2	No petro-like odors
12			25	***material***		
			11	0-4" ***(FILL) Brown, saturated, Silty CLAY, 1-inch concrete, brick,***	0.3	
13			11	***yellow staining, wet***	0.3	4" recovered
			5			No petro-like odors
14			5			
			2	(NO RECOVERY)		
15			2			
			2			
16			2			
			1	0-4" ***Saturated, brown, Silty CLAY***	0.4	
17			2	4-16" ***Soft, brown, Silty CLAY***	0.3	18" recovered
			2	16-18" ***Dense, brown, Silty CLAY***	0.2	No petro-like odors
18			2			
			1	0-4" ***Saturated, brown, Silty CLAY***	0.4	
19			10	4-9" ***Moist/wet, WOOD (chips and pieces) encased in Silty CLAY***	0.4	9" recovered
			10	***(FILL)***	0.4	No petro-like odors
20			12			
21						
22						

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BORING LOG

Boring No.	**B-5**
Sheet 2 of:	2
Project No.:	E67.022.001
Start Date:	11/28/2017
Finish Date:	11/28/2017
Inspector:	AS

Project Name: 240-260 Lakefront Boulevard
Location: 240-260 Lakefront Boulevard
Client:

Depth (ft)	Sample No.	Symbol	Blows on Sampler per 6"	MATERIAL DESCRIPTION (c - coarse, m - medium, f - fine; a - and - 35-50%, s - some - 20-35%, l - little - 10-20%, t - trace - 0-10%; S - Sand, $ - Silt, G - Gravel, C - Clay, cly - clayey)	ppm:	COMMENTS (e.g., N-value, recovery, moisture, core run, RQD, % recovered)
24						
			1	0-15" ***Brown, Silty CLAY, wet, dense***	0.4	
25			5		0.3	15" recovered
			7		0.4	No petro-like odors
26			12			
27						
28						
29						
				0-25" ***Dense, brown, Silty CLAY, moist; saturated/wet/very soft***	0.3	
30				***at 0-2 inches and 19-20 inches***	0.2	25" recovered
					0.2	No petro-like odors
31						
32						
33				***REFUSAL AT 32.8 FEET***		*Sample:*
34						***B-5-1-6 FT***
						11:34 AM
35						*VOCs, SVOCs, Pesticides,*
36						*PCBs, Metals, Hex Chrom*
37						
38						
39						
40						
41						
42						
43						
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45						
46						
47						
48						
49						

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BORING LOG

Boring No.	**B-6**
Sheet 1 of:	(B-5 BDC)
Project No.:	E67.022.001
Surface Elev.:	
Datum:	GROUND SURFACE
Start Date:	11/28/17
Finish Date:	11/28/17
Inspector:	AS

Project Name:	240-260 Lakefront Boulevard							
Location:	240-260 Lakefront Boulevard							
Client:								
Drilling Firm:	Buffalo Drilling Company							
Groundwater	**Depth**	**Date & Time**	**Drill Rig:**	Auger (Split-Spoon Sampling)				
While Drilling:			**Casing:**		**Rock Core:**		**Undist:**	
Before Casing Removal:			**Sampler:**		**Other:**	Pulled up straight from B-5; located		
After Casing Removal:			**Hammer:**			SW of proposed location to avoid drainage line		

(N -- No. of blows to drive sampler 12" w/140 lb. hammer falling 30" ASTM D-1586, Standard Penetration Test)

Depth (ft)	Sample No.	Symbol	Blows on Sampler per 6"	MATERIAL DESCRIPTION (c - coarse, m - medium, f - fine; a - and - 35-50%, s - some - 20-35%, l - little - 10-20%, t - trace - 0-10%; S - Sand, $ - Silt, G - Gravel, C - Clay, cly - clayey)			COMMENTS (e.g., N-value, recovery, relative moisture, core run, RQD, % recovered)
			1	0-14"	***(FILL) Brown, Silty CLAY, moist, soft, some embedded stone***	ppm:	1:45 PM
1			2		***and red mottles***	0.3	14" recovered
			2			0.2	No petro-like odors
2			6			0.3	
			14	0-5"	***Brown, Silty CLAY, some stone***	0.3	
3			14	5-17"	***(FILL) Yellow-brone stone, brick, Silty CLAY***	0.2	17" recovered
	B-6		12			0.2	No petro-like odors
4			10				
			2	0-10.5"	***(FILL) Brown, Silty CLAY, dense, embedded brick fragments,***	0.2	
5			10		***gravel***	0.2	10.5" recovered
			12			0.2	No petro-like odors
6			14				
			6	0-6.5"	***(FILL) dry, soft, red brick fragments, blue-green rock, Silty***	0.2	
7			8		***SAND, brown***	0.3	14" recovered
			8	6.5-14"	***Brown, Silty CLAY, dense***	0.3	No petro-like odors
8			8				
			1	0-15"	***Soft, Silty CLAY, brown, moist, embedded brick fragments,***	0.2	
9			11		***gravel, coarse Sand, grey***	0.3	15" recovered
			7				No petro-like odors
10			7				
			2	0-15"	***(FILL) Brown, Silty CLAY, soft, red brick, small rocks, 1-inch***	0.3	
11			10		***diameter stone, wood pieces, black material, but smells***	0.3	15" recovered
			9		***organic and ocean-like (decayed organic matter)***	0.3	No petro-like odors
12			8				
			1	0-2"	***Stone and wood pieces***	0.2	
13			4				2" recovered
			7				
14			5				
			1	(NO RECOVERY)			
15			1				
			1				
16			1				
			7	0-7"	***(FILL) Thin rock, wood, brick fragments and gravel, wet/loose***	0.2	
17			5		***soil***	0.2	7" recovered
			2				No petro-like odors
18			5				
			2	0-5"	***Gravel, thin flat rocks, wet/loose soil***	0.2	
19			27			0.2	5" recovered
			14				No petro-like odors
20			10				
21							
22							

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BORING LOG

Boring No.	**B-6**
Sheet 2 of:	2
Project No.:	E67.022.001
Start Date:	11/28/2017
Finish Date:	11/28/2017
Inspector:	AS

Project Name:	240-260 Lakefront Boulevard
Location:	240-260 Lakefront Boulevard
Client:	

Depth (ft)	Sample No.	Symbol	Blows on Sampler per 6"	c - coarse, m - medium, f - fine **MATERIAL DESCRIPTION** S - Sand, $ - Silt, G - Gravel, C - Clay, cly - clayey a - and - 35-50%, s - some - 20-35%, l - little - 10-20%, t - trace - 0-10%	ppm:	**COMMENTS** (e.g., N-value, recovery, moisture, core run, RQD, % recovered)
24						
			14	0-6" ***Gravel, stone, flat thin rock, wet/loose soil***	0.2	
25			50/5		0.2	6" recovered
			-			No petro-like odors
26			-			
27				***REFUSAL AT 26 FEET***		*Sample:*
28						***B-6-2-4.5 FT***
						1:55 PM
29						*VOCs, SVOCs, Pesticides,*
						PCBs, Metals, Hex Chrom
30						
31						
32						
33						
34						
35						
36						
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49						

C&S Engineers, Inc.	BORING LOG	Boring No.	B-7
141 Elm Street Buffalo, New York 14203 Phone: 716-847-1630 Fax: 716-847-1454 www.cscos.com		Sheet 1 of:	(B-20 BDC)
		Project No.:	E67.022.001

Project Name:	240-260 Lakefront Boulevard						**Surface Elev.:**		
Location:	240-260 Lakefront Boulevard						**Datum:**	GROUND SURFACE	
Client:							**Start Date:**	11/29/17	
Drilling Firm:	Buffalo Drilling Company						**Finish Date:**	11/29/17	
Groundwater	**Depth**	**Date & Time**	**Drill Rig:**	Auger (Split-Spoon Sampling)			**Inspector:**	AS	
While Drilling:			**Casing:**		**Rock Core:**		**Undist:**		
Before Casing Removal:			**Sampler:**		**Other:**				
After Casing Removal:			**Hammer:**						

(N -- No. of blows to drive sampler 12" w/140 lb. hammer falling 30" ASTM D-1586, Standard Penetration Test)

Depth (ft)	Sample No.	Symbol	Blows on Sampler per 6"	c - coarse m - medium f - fine **MATERIAL DESCRIPTION** S - Sand, $ - Silt, G - Gravel, C - Clay, cly - clayey a - and - 35-50% s - some - 20-35% l - little - 10-20% t - trace - 0-10%			**COMMENTS** (e.g., N-value, recovery, relative moisture, core run, RQD, % recovered)
			2	0-4"	***Brown, dry, Silty CLAY, gravel***	ppm:	8:50 AM
1			4	4-13"	***(FILL) Brick, yellow mottles***	0.4	Sunny; 45°F - Fair
			6			0.5	13" recovered
2			8			0.6	No petro-like odors
	B-7		5	0-13"	***(FILL) Brown, Silty SAND, moist, embedded stone, brick***	0.3	
3			5		***fragments, gravel***	0.3	13" recovered
			4			0.4	No petro-like odors
4			4				
			12	0-11"	***(FILL) Brown, Silty CLAY, moist, soft to dense, concrete at***	0.5	
5			21		***4-6 inches, brick, gravel***	0.7	11" recovered
			24				No petro-like odors
6			20				
			20	0-8"	***(FILL) Brown, dry, Silty SAND, coarse, embedded concrete***	0.2	
7			22		***pieces (1-inch diameter and smaller), red and yellow mottles***	0.3	8" recovered
			17				No petro-like odors
8			20				
			6	0-10"	***(FILL) Brown, Silty SAND, coarse, embedded concrete,***	0.1	
9			6		***maroon Silty SAND (standstone?), yellow mottles***	0.2	10" recovered
			5				No petro-like odors
10			5				
			1	0-8"	***(FILL) Brown, Silty SAND, wet/saturated gravel and rock***	0.1	
11			2		***1/4-inch diameter and smaller***	0.2	8" recovered
			1				No petro-like odors
12			2				
			1	0-7"	***Wet/loose soil, dense to soft, brown, Silty CLAY, rare***	0.2	
13			4		***red mottles and one embedded stone (1/2-inch diameter)***	0.3	7" recovered
			1				No petro-like odors
14			2				
			2	0-12"	***Loose to soft, wet, brown, Silty CLAY, embedded tiny gravel***	0.2	
15			3		***(1/8-inch and smaller), stone***	0.3	12" recovered
			2				No petro-like odors
16			3				
			2	0-5"	***Wet, brown, Silty CLAY among Concrete/Stone of***	0.4	
17			15		***varying sizes (1/2-inch diameter mode)***	0.3	5" recovered
			9				No petro-like odors
18			12				
			4	0-7"	***Wet, Stone, five 1.5-inch diameter stones and 1/2-inch***	0.3	
19			7		***diameter gravel from 5-6 inches***	0.2	7" recovered
			5			0.2	No petro-like odors
20			4				
21							
22							

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BORING LOG

Boring No.	**B-7**
Sheet 2 of:	2
Project No.:	E67.022.001
Start Date:	11/29/2017
Finish Date:	11/29/2017
Inspector:	AS

Project Name: 240-260 Lakefront Boulevard
Location: 240-260 Lakefront Boulevard
Client:

Depth (ft)	Sample No.	Symbol	Blows on Sampler per 6"	MATERIAL DESCRIPTION (c - coarse, m - medium, f - fine; a - and - 35-50%, s - some - 20-35%, l - little - 10-20%, t - trace - 0-10%; S - Sand, $ - Silt, G - Gravel, C - Clay, cly - clayey)	ppm:	COMMENTS (e.g., N-value, recovery, moisture, core run, RQD, % recovered)
24						
			1	0-4" ***Loose, brown, Silty CLAY***	0.4	
25			4	4-8.5" ***Stone (1-inch diameter and smaller), dense, brown, Silty***	0.3	8.5" recovered
			6	***CLAY***		No petro-like odors
26			6			
27						
28						
29						
				0-22" ***Dense to soft, brown, wet, Silty CLAY***	0.2	
30					0.3	22" recovered
						No petro-like odors
31						
32						
33				***REFUSAL AT 32 FEET***		*Sample:*
34						***B-7-0.5-4.5 FT***
						9:10 AM
35						*VOCs, SVOCs, Pesticides,*
36						*PCBs, Metals, Hex Chrom*
37						
38						
39						
40						
41						
42						
43						
44						
45						
46						
47						
48						
49						

C&S Engineers, Inc. 141 Elm Street Buffalo, New York 14203 Phone: 716-847-1630 Fax: 716-847-1454 www.cscos.com	**BORING LOG**	***Boring No.***	**MW-1**
		Sheet 1 of:	(B-12 BDC)
		Project No.:	E67.022.001

Project Name:	240-260 Lakefront Boulevard	***Surface Elev.:***	
Location:	240-260 Lakefront Boulevard	***Datum:***	GROUND SURFACE
Client:		***Start Date:***	11/29/17
Drilling Firm:	Buffalo Drilling Company	***Finish Date:***	11/29/17

Groundwater	***Depth***	***Date & Time***	***Drill Rig:***	Auger (Split-Spoon Sampling)			***Inspector:***	AS
While Drilling:			***Casing:***		***Rock Core:***		***Undist:***	
Before Casing Removal:			***Sampler:***		***Other:***			
After Casing Removal:			***Hammer:***					

(N -- No. of blows to drive sampler 12" w/140 lb. hammer falling 30" ASTM D-1586, Standard Penetration Test)

Depth (ft)	Sample No.	Symbol	Blows on Sampler per 6"	c - coarse m - medium f - fine **MATERIAL DESCRIPTION** S - Sand, $ - Silt, G - Gravel, C - Clay, cly - clayey a - and - 35-50% s - some - 20-35% l - little - 10-20% t - trace - 0-10%			**COMMENTS** (e.g., N-value, recovery, relative moisture, core run, RQD, % recovered)
			2	0-7.5"	***(FILL) Topsoil, brown, Silty CLAY, moist, soft, red brick***	ppm:	10:45 AM
1			4		***pieces, evergreen colored stone***	0.3	7.5" recovered
			14			0.4	No petro-like odors
2			6				
			4	0-4"	***(FILL) Concrete, brown, Silty CLAY, coarse sand, fine stone,***	0.2	
3			8		***gravel***	0.3	4" recovered
			9				No petro-like odors
4	MW-1		8				
			9	0-8"	***Brown, Silty CLAY, moist, dense***	0.4	
5			10			0.3	8" recovered
			14				No petro-like odors
6			10				
			2	0-9"	***Dense, brown, moist, Silty CLAY***	0.3	
7			7	9-11"	***Brown, moist, Silty SAND***	0.3	11" recovered
			14				No petro-like odors
8			20				
			2	0-3.5"	***Dense, brown, moist, Silty CLAY***	0.3	
9			17	3.5-11.5"	***(FILL) Brown, Silty SAND, mist, concrete, red brick***	0.3	11.5" recovered
			19				No petro-like odors
10			21				
			12	0-4"	***(FILL) Red brick, yellow***	0.3	
11			7	4-10"	***(FILL) 'Brown, Silty CLAY, gravel, concrete, red/yellow***	0.3	10" recovered
			7		***mottles***	0.3	No petro-like odors
12			7				
			50/4	0-8"	***(FILL) Gravel, fine stone (less than 1/8-inch diameter),***	0.3	
13			-		***sand, brown, wet, red brick fragments***	0.4	8" recovered
			-				No petro-like odors
14			-				
			7	0-11	***(FILL) Stone, fine Gravel, sand, brown, wet, Silty SAND,***	0.4	
15			11		***medium coarseness, blue-green material (slag?)***	0.4	11" recovered
			19				No petro-like odors
16			28				
			1	0-5"	***Brown, Silty CLAY, gravel, red mottles***	0.3	
17			2	5-5.5"	***Red rock with white and black markings***		5.5" recovered
			7				No petro-like odors
18			30				
			1	0-7"	***Dense, brown, Silty CLAY***	0.3	
19			50/5	7-7.5"	***Thin, black rock***	0.4	7.5" recovered
			-				
20			-				
21							
22							

C&S Engineers, Inc.
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BORING LOG

Boring No.	**MW-1**
Sheet 2 of:	2
Project No.:	E67.022.001
Start Date:	11/29/2017
Finish Date:	11/29/2017
Inspector:	AS

Project Name: 240-260 Lakefront Boulevard
Location: 240-260 Lakefront Boulevard
Client:

Depth (ft)	Sample No.	Symbol	Blows on Sampler per 6"	MATERIAL DESCRIPTION (c - coarse, m - medium, f - fine; a - and - 35-50%, s - some - 20-35%, l - little - 10-20%, t - trace - 0-10%; S - Sand, $ - Silt, G - Gravel, C - Clay, cly - clayey)	ppm:	COMMENTS (e.g., N-value, recovery, moisture, core run, RQD, % recovered)
24						
25				0-27" ***Grey/blackish, wet to moist, Silty CLAY***	4	
					8.4	27" recovered
					7.2	Lake bottom smell?
26	MW-1					Possibly petro-like odor?
27						
28						
29						
30				0-5" ***Wet/loose, brown, Silty CLAY***	3.7	
				5-25" ***Greyish/blackish, Silty CLAY, soft, moist***	3.5	25" recovered
31					2.4	Possibly petro-like odor?
32						
33				***REFUSAL AT 32.1 FEET***		*Sample:*
34						***MW-1-1.5-6 FT***
35						*11:05 AM*
						VOCs, SVOCs, Pesticides,
36						*PCBs, Metals*
37						***MW-1-25-26 FT***
						11:50 AM
38						*VOCs*
39						
40						
41						
42						
43						
44						
45						
46						
47						
48						
49						

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BORING LOG

Boring No.	**MW-2**
Sheet 1 of:	(B-15 BDC)
Project No.:	E67.022.001
Surface Elev.:	
Datum:	GROUND SURFACE
Start Date:	11/29/17
Finish Date:	11/29/17
Inspector:	AS

Project Name:	240-260 Lakefront Boulevard							
Location:	240-260 Lakefront Boulevard							
Client:								
Drilling Firm:	Buffalo Drilling Company							
Groundwater	**Depth**	**Date & Time**	**Drill Rig:**	Auger (Split-Spoon Sampling)				
While Drilling:			**Casing:**		**Rock Core:**		**Undist:**	
Before Casing Removal:			**Sampler:**		**Other:**			
After Casing Removal:			**Hammer:**					

(N -- No. of blows to drive sampler 12" w/140 lb. hammer falling 30" ASTM D-1586, Standard Penetration Test)

Depth (ft)	Sample No.	Symbol	Blows on Sampler per 6"	c - coarse, m - medium, f - fine **MATERIAL DESCRIPTION** S - Sand, $ - Silt, G - Gravel, C - Clay, cly - clayey a - and - 35-50%, s - some - 20-35%, l - little - 10-20%, t - trace - 0-10%	ppm:	**COMMENTS** (e.g., N-value, recovery, relative moisture, core run, RQD, % recovered)
			2	0-8" ***Topsoil, brown, Silty CLAY, moist, soft***	1:01 PM	
1			50/5		0.3	8" recovered
			-		0.3	No petro-like odors
2			-			
			15	0-6" ***Brown, Silty CLAY, moist, soft***	0.2	
3			15	6-8.5" ***(FILL) Red brick***	0.3	13" recovered
			12	8.5-13" ***(FILL) Light brown, Silty SAND, moist***	0.3	No petro-like odors
4			20			
			30	0-2" ***(FILL) Gravel, rock, stone***	0.3	
5	MW-2		12	2-4" ***Dense, moist, Silty CLAY, brown***	0.4	4" recovered
			10			No petro-like odors
6			10			
			10	0-13" ***Brown, Silty SAND, some embedded rock, last four inches***	0.3	
7			17	***were comprised of clay***	0.3	13" recovered
			14		0.2	No petro-like odors
8			10			
			4	0-7" ***Brown, Silty SAND, soft***	0.3	
9			3	7-15" ***Brown, Silty CLAY, soft, yellow/red mottles***	0.3	15" recovered
			3		0.3	No petro-like odors
10			3			
			1	0-11" ***Brown, Silty CLAY, moist, soft to dense***	0.3	
11			1	11-12" ***Wood pieces, dark staining, but no petro-like odors***	0.4	12" recovered
			8			No petro-like odors
12			9			
			27	(NO RECOVERY)		
13			18	***Wet, few wood chips***		
			8			
14			4			
			4	0-6" ***Loose, Silty CLAY, with a few wood pieces***	0.3	
15			4		0.3	6" recovered
			4			No petro-like odors
16			4			
			50/5	0-3" ***Rocks***	0.3	
17			-	3-7" ***Wood***	0.2	7" recovered
			-			No petro-like odors
18			-			
			25	0-9" ***Wood***	0.3	
19			50/4		0.2	9" recovered
			-			No petro-like odors
20			-			
21				***REFUSAL AT 20 FEET; PROBABLY FROM HITTING WOOD***		*Sample:*
						MW-2-2-8 FT
22						*1:20 PM*
						VOCs, SVOCs, Pesticides,

C&S Engineers, Inc.	BORING LOG	Boring No.	MW-3
141 Elm Street Buffalo, New York 14203 Phone: 716-847-1630 Fax: 716-847-1454 www.cscos.com		Sheet 1 of:	(B-35 BDC)
		Project No.:	E67.022.001

Project Name:	240-260 Lakefront Boulevard							**Surface Elev.:**	
Location:	240-260 Lakefront Boulevard							**Datum:**	GROUND SURFACE
Client:								**Start Date:**	11/30/17
Drilling Firm:	Buffalo Drilling Company							**Finish Date:**	11/30/17
Groundwater	**Depth**	**Date & Time**	**Drill Rig:**	Auger (Split-Spoon Sampling)				**Inspector:**	AS
While Drilling:			**Casing:**		**Rock Core:**		**Undist:**		
Before Casing Removal:			**Sampler:**		**Other:**				
After Casing Removal:			**Hammer:**						

(N -- No. of blows to drive sampler 12" w/140 lb. hammer falling 30" ASTM D-1586, Standard Penetration Test)

Depth (ft)	Sample No.	Symbol	Blows on Sampler per 6"	c - coarse m - medium f - fine **MATERIAL DESCRIPTION** S - Sand, $ - Silt, G - Gravel, C - Clay, cly - clayey a - and - 35-50% s - some - 20-35% l - little - 10-20% t - trace - 0-10%		**COMMENTS** (e.g., N-value, recovery, relative moisture, core run, RQD, % recovered)
			6	0-5" ***Topsoil, brown, Silty CLAY***	ppm:	9:20 AM
1			50/5	5-6" ***Concrete***		Cloudy, Windy
			-			6" recovered
2			-			
			10	0-15" ***(FILL) Black, yellow/red mottles, bluegreen material (slag?),***		
3			44	***gravel, concrete at 7.5-8.5 inches***		15" recovered
	MW-3		50/4			No petro-like odor
4			-			
			28	0-18" ***(FILL) Blackish/grey, embedded concrete, red/yellow mottles,***		
5			18	***blue-green material***		18" recovered
			19			No petro-like odor
6			15			
			16	0-5" ***(FILL) Concrete/stones***		
7			9	5-7" ***(FILL) Wood***		13" recovered
			6	7-13" ***(FILL) Grey, Silty CLAY, moist, soft, embedded brick, sand***		No petro-like odor
8			4			
			3	0-4" ***(FILL) Grey/brown, Silty CLAY, soft, mosit to saturated,***		
9			6	***embedded stone***		4" recovered
			7			No petro-like odor
10			5			
			3	0-5" ***(FILL) Soft, embedded small stones***		
11			10	5-17" ***(FILL) Dense, brown, Silty CLAY, orange mottles***		17" recovered
			15			
12			50/4			
			8	0-12" ***(FILL) Silty CLAY, sand (coarse), gravel, rock, wet***		
13			6			12" recovered
			4			No petro-like odor
14			8			
			18	0-8" ***(FILL) Concrete/gravel, wet***		
15			20			8" recovered
			12			No petro-like odor
16			10			
			7	0-3" ***(FILL) Gravel/stone***		
17	MW-3		8	3-11" ***(FILL) Brown, dense, moist, Silty CLAY, red brick, small stone***		15" recovered
			6	11-15" ***(FILL) Gravel and coarse sand***		No petro-like odor
18			6	***wet***		
			6	0-9" ***(FILL) Silty CLAY, wet, soft, rock and red brick embedded***		
19			7	***wet***		9" recovered
			11			No petro-like odor
20			11			
21						
22						

C&S COMPANIES	**C&S Engineers, Inc.** 141 Elm Street Buffalo, New York 14203 Phone: 716-847-1630 Fax: 716-847-1454 www.cscos.com	**BORING LOG**	***Boring No.***	**MW-3**
			Sheet 2 of:	2
			Project No.:	E67.022.001
Project Name:	240-260 Lakefront Boulevard		***Start Date:***	11/30/2017
Location:	240-260 Lakefront Boulevard		***Finish Date:***	11/30/2017
Client:			***Inspector:***	AS

Depth (ft)	Sample No.	Symbol	Blows on Sampler per 6"	c - coarse m - medium f - fine **MATERIAL DESCRIPTION** S - Sand, $ - Silt, G - Gravel, C - Clay, cly - clayey a - and - 35-50% s - some - 20-35% l - little - 10-20% t - trace - 0-10%	ppm:	**COMMENTS** (e.g., N-value, recovery, moisture, core run, RQD, % recovered)
24						
			7	(NO RECOVERY)		
25			8	***Silty CLAY, sand, loose***		
			10			No petro-like odor
26			10			
27						
28						
29						
			13	0-12" ***(FILL) Brown, Silty CLAY, wet, embedded brick and gravel,***		
30			23	***orange/red brick at 10-12 inches***		12" recovered
			35			No petro-like odor
31			50/3			
32						
33						
34						
35				***REFUSAL AT 34 FEET***		*Sample:*
36				***Fill throughout borings (similar fill) until bedrock/refusal***		***MW-3-2-6 FT***
						9:10 AM
37						*SVOCs, Metals*
38						***MW-3-16-20 FT***
						10:25 AM
39						*VOCs, SVOCs, Pesticides,*
						PCBs, Metals
40						
41						
42						
43						
44						
45						
46						
47						
48						
49						

APPENDIX B

Groundwater Well Construction and Sampling Field Data

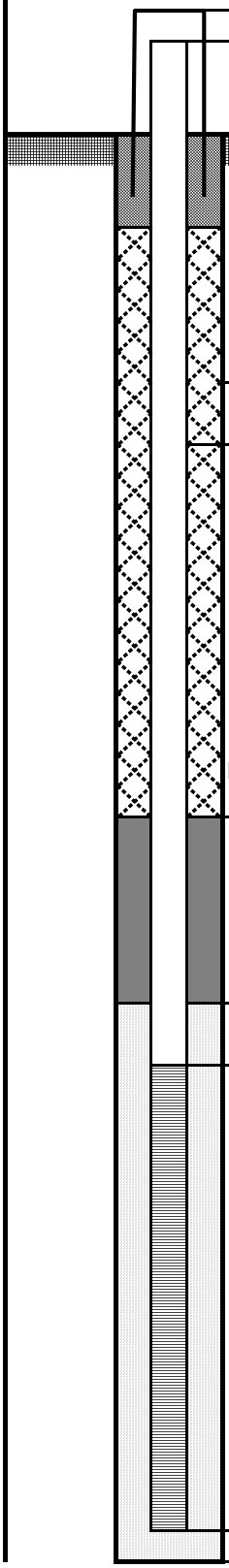
C&S Engineers, Inc.
141 Elm Street
Buffalo, New York 14203
Phone: 716-847-1630
Fax: 716-847-1454
www.cscos.com

GROUNDWATER OBSERVATION WELL CONSTRUCTION LOG

Well No.	**MW-1**
Project No.:	E67.022.001
Surface Elev.:	
Datum:	GROUND SURFACE
Start Date:	
Finish Date:	
Inspector:	
Casing:	

Project Name:	240-260 Lakefront Boulevard
Location:	240-260 Lakefront Boulevard
Client:	
Drilling Firm:	Buffalo Drilling Company
Drill Rig:	Auger

Notes: (provide description of observation well location, method of construction, development method and any other information)



Top Protective Casing
Top of Riser

0'-0" Ground Surface

Surface Backfill Material
- [X] Soil Cuttings
- [ ] Bentonite Slurry
- [ ] Cement/Bentonite Grout
- [ ] Concrete

6" Bore Hole Diameter

2" Well Diameter

Well Material
- [x] PVC
- [ ] Stainless Steel

Backfill Material
- [X] Soil Cuttings
- [ ] Bentonite Slurry
- [ ] Cement/Bentonite Grout
- [ ] Concrete

Depth To:

10 FT Top of Seal

Seal Material
- [X] Bentonite Chips/Pellets
- [ ] Bentonite Slurry
- [ ] Cement/Bentonite Grout

14 FT Top of Filter Pack

15 FT Top of Screen

Screen Slot Size
- [X] 010 in
- [ ] 015 in
- [ ] 020 in
- [ ] 025 in

Filter Material
- [X] 00 Sand Pack — 2 Sand Bags
- [ ] 0 Sand Pack
- [ ] 1 Sand Pack
- [ ] 2 Sand Pack
- [ ] 3 Sand Pack
- [ ] 4 Sand Pack

20 FT Bottom of Screen

20 FT Bottom of Bore Hole

Groundwater Measurement Data

Date	Time	Depth to Water	Water Elevation	Tide Status

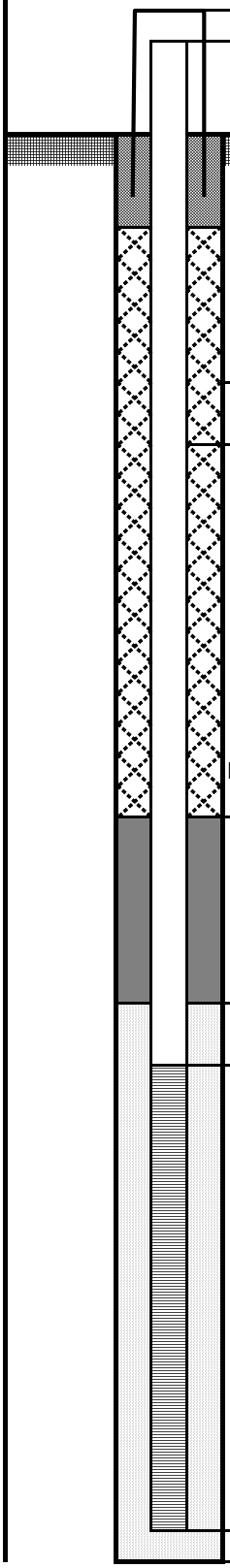
C&S Engineers, Inc.
141 Elm Street
Buffalo, New York 14203
Phone: 716-847-1630
Fax: 716-847-1454
www.cscos.com

GROUNDWATER OBSERVATION WELL CONSTRUCTION LOG

Well No.	**MW-2**
Project No.:	E67.022.001
Surface Elev.:	
Project Name:	240-260 Lakefront Boulevard
Datum:	GROUND SURFACE
Location:	240-260 Lakefront Boulevard
Start Date:	11/29/17
Client:	
Finish Date:	11/30/17
Drilling Firm:	Buffalo Drilling Company
Inspector:	AS
Drill Rig:	Auger
Casing:	

Notes: (provide description of observation well location, method of construction, development method and any other information)

MW-2 in MW-2 Soil Boring location since refusal was at wood, instead of bedrock.



Top Protective Casing
Top of Riser

0'-0" Ground Surface

Surface Backfill Material
- [X] Soil Cuttings
- [ ] Bentonite Slurry
- [ ] Cement/Bentonite Grout
- [ ] Concrete

6" Bore Hole Diameter

2" Well Diameter

Well Material
- [x] PVC
- [ ] Stainless Steel

Backfill Material
- [X] Soil Cuttings
- [ ] Bentonite Slurry
- [ ] Cement/Bentonite Grout
- [ ] Concrete

Depth To:

10 FT Top of Seal

Seal Material
- [X] Bentonite Chips/Pellets
- [ ] Bentonite Slurry
- [ ] Cement/Bentonite Grout

14 FT Top of Filter Pack

15 FT Top of Screen

Screen Slot Size
- [X] 010 in
- [ ] 015 in
- [ ] 020 in
- [ ] 025 in

Filter Material
- [X] 00 Sand Pack — 2 Sand Bags
- [ ] 0 Sand Pack
- [ ] 1 Sand Pack
- [ ] 2 Sand Pack
- [ ] 3 Sand Pack
- [ ] 4 Sand Pack

20 FT Bottom of Screen

20 FT Bottom of Bore Hole

Groundwater Measurement Data

Date	Time	Depth to Water	Water Elevation	Tide Status

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Fax: 716-847-1454
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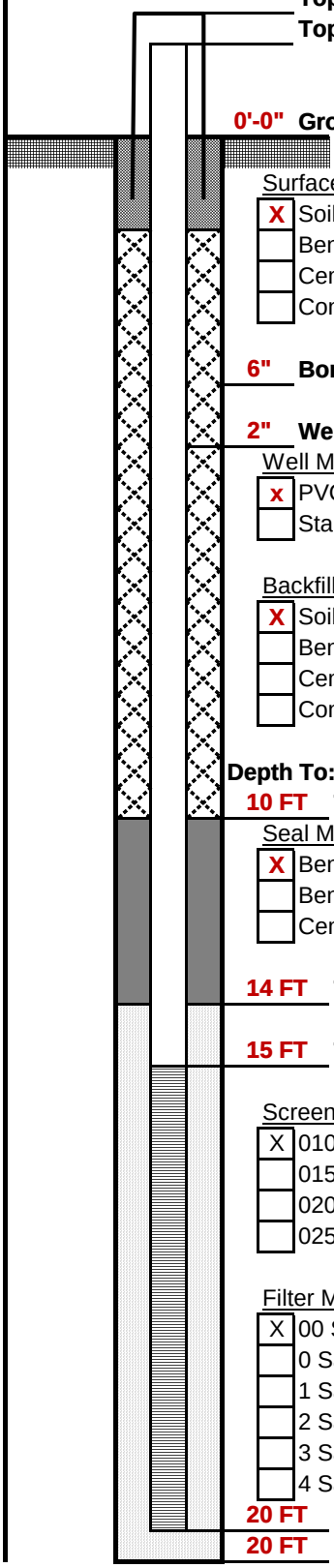
GROUNDWATER OBSERVATION WELL CONSTRUCTION LOG

Well No.	**MW-3**
Project No.:	E67.022.001
Surface Elev.:	
Datum:	GROUND SURFACE
Start Date:	
Finish Date:	
Inspector:	
Casing:	

Project Name: 240-260 Lakefront Boulevard
Location: 240-260 Lakefront Boulevard
Client:
Drilling Firm: Buffalo Drilling Company
Drill Rig: Auger

Notes: (provide description of observation well location, method of construction, development method and any other information)



Top Protective Casing
Top of Riser

0'-0" Ground Surface

Surface Backfill Material
- [X] Soil Cuttings
- [ ] Bentonite Slurry
- [ ] Cement/Bentonite Grout
- [ ] Concrete

6" Bore Hole Diameter

2" Well Diameter

Well Material
- [x] PVC
- [ ] Stainless Steel

Backfill Material
- [X] Soil Cuttings
- [ ] Bentonite Slurry
- [ ] Cement/Bentonite Grout
- [ ] Concrete

Depth To:

10 FT Top of Seal

Seal Material
- [X] Bentonite Chips/Pellets
- [ ] Bentonite Slurry
- [ ] Cement/Bentonite Grout

14 FT Top of Filter Pack

15 FT Top of Screen

Screen Slot Size
- [X] 010 in
- [ ] 015 in
- [ ] 020 in
- [ ] 025 in

Filter Material
- [X] 00 Sand Pack — 2 Sand Bags
- [ ] 0 Sand Pack
- [ ] 1 Sand Pack
- [ ] 2 Sand Pack
- [ ] 3 Sand Pack
- [ ] 4 Sand Pack

20 FT Bottom of Screen

20 FT Bottom of Bore Hole

Groundwater Measurement Data

Date	Time	Depth to Water	Water Elevation	Tide Status

C&S Engineers, Inc.
141 Elm Street Suite 100
Buffalo, New York 14203
Phone: 716-847-1630
www.cscos.com

Well Sampling Field Data Sheet

Well Casing Unit Volume (gal/l.f.)		
1¼" = 0.08	2" = 0.17	3" = 0.38
4" = 0.66	6" = 1.5	8" = 2.6

Client Name: _____
Site Name: _____
Project No.: _____
Field Staff: _____

8:57 am

WELL DATA

2nd attempt @ MW-1

Date		12/16							
Well Number		MW-1							
Diameter (inches)		2"							
Total Sounded Depth (feet)		20.75'							
Static Water Level (feet)		9.32'							
H_2O Column (feet)		11.43'							
Pump Intake (feet)		13'							
Well Volume (gallons)		1.9431							
x 3 Amount to Evacuate (gallons)		5.8293							
Amount Evacuated (gallons)									

0.8 ppm headspace

FIELD READINGS

Date	Stabilization Criteria	12/16							
Time		9:20	9:34						
pH (Std. Units)	+/-0.1								
Conductivity (mS/cm)	3%								
Turbidity (NTU)	10%								
D.O. (mg/L)	10%								
Temperature (°C) (°F)	3%								
ORP[3](mV)	+/-10 mv								
Appearance		T	VT			VT	VT		
Free Product (Yes/No)				(removed 1 gal)		(0.5 gal removed)			
Odor									
Comments		pump @ 13'	pump @ 15			12:24 pump @ 15'	12:39 pm pump @ 16'		

C = Clear T = Turbid ST = Semi Turbid VT = Very Turbid

MW-1 @ 12:39 pm
VOCs sample only
(very turbid; mud-like)

19.36' water level @ noon

C&S Engineers, Inc.
141 Elm Street Suite 100
Buffalo, New York 14203
Phone: 716-847-1630
www.cscos.com

Well Sampling Field Data Sheet

Well Casing Unit Volume (gal/l.f.)		
1¼" = 0.08	2" = 0.17	3" = 0.38
4" = 0.66	6" = 1.5	8" = 2.6

Client Name: Ciminelli Real Estate Corporation
Site Name: Lakefront Boulevard
Project No.: E67.022.001
Field Staff: AS

0.2 ppm headspace

WELL DATA

Date		12/6							
Well Number		MW-2							
Diameter (inches)		2"							
Total Sounded Depth (feet)		19.02'							
Static Water Level (feet)		9.73'							
H_2O Column (feet)		9.29'							
Pump Intake (feet)									
Well Volume (gallons)		1.5793							
x3 Amount to Evacuate (gallons)		4.7379							
Amount Evacuated (gallons)									

x5 7.8965 gal

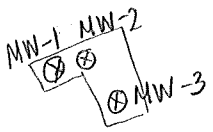
10:25 am

FIELD READINGS

Date	Stabilization Criteria	12/6							
Time							10:47 am	(done @ 10:53 am)	
pH (Std. Units)	+/-0.1								
Conductivity (mS/cm)	3%								
Turbidity (NTU)	10%								
D.O. (mg/L)	10%								
Temperature (°C) (°F)	3%								
ORP[3](mV)	+/-10 mv								
Appearance		clear/turbid	→	clear			→		
Free Product (Yes/No)									
Odor									
Amount Excavated (gallons)		0 gal	2	4	6	8	sample		
Comments					pump @ 12'				

C = Clear T = Turbid ST = Semi Turbid VT = Very Turbid

MW-2 @ 10:50 am



C&S Engineers, Inc.
141 Elm Street Suite 100
Buffalo, New York 14203
Phone: 716-847-1630
www.cscos.com

Well Sampling Field Data Sheet

Well Casing Unit Volume (gal/l.f.)		
1¼" = 0.08	2" = 0.17	3" = 0.38
4" = 0.66	6" = 1.5	8" = 2.6

Client Name: Ciminelli Real Estate Corporation
Site Name: Lakefront Boulevard
Project No.: E67.022.001
Field Staff: AS

0.6 ppm headspace

WELL DATA

Date		12/16							
Well Number		MW-3							
Diameter (inches)		2"							
Total Sounded Depth (feet)		20.68'							
Static Water Level (feet)		7.65'							
H_2O Column (feet)		13.03'							
Pump Intake (feet)									
Well Volume (gallons)		2.2151'							
X3 Amount to Evacuate (gallons)		6.6453 gal							
Amount Evacuated (gallons)									
X5		11.0755 gal							

FIELD READINGS

	Stabilization Criteria								
Date		12/16							
Time		11:29 am							
pH (Std. Units)	+/-0.1								
Conductivity (mS/cm)	3%								
Turbidity (NTU)	10%								
D.O. (mg/L)	10%								
Temperature (°C) (°F)	3%								
ORP[3](mV)	+/-10 mv								
Appearance		clear/ST	VT	T	T	T	T/Clear		
Free Product (Yes/No)		No	No	No	No	No	No		
Odor		No	No	No	No	No	Yes?		
Amount Excavated (gallons)		0 gal	2	4	5	6	8		
Comments		clear, little bit turbid pump @ 11 ft		pump @ 14.5'		pump @15'			

C = Clear T = Turbid ST = Semi Turbid VT = Very Turbid

Sampling started @ 8 gal
11:43 am
bursts of clear/fast water (turbid/clear)
11:49 am

MW-3 @ 11:45 am

APPENDIX C

Laboratory Analytical Report – Soil

ANALYTICAL REPORT

Lab Number:	L1743544
Client:	C&S Companies 141 Elm Street, Suite 100 Buffalo, NY 14203
ATTN:	Cody Martin
Phone:	(716) 847-1630
Project Name:	LAKEFRONT BOULEVARD
Project Number:	E67.022.001
Report Date:	12/11/17

Certifications & Approvals: MA (M-MA086), NH NELAP (2064), NJ NELAP (MA935), CT (PH-0574), IL (200077), ME (MA00086), MD (348), NY (11148), NC (25700/666), PA (68-03671), RI (LAO00065), TX (T104704476), VT (VT-0935), VA (460195), USDA (Permit #P330-14-00197).

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

Project Name: LAKEFRONT BOULEVARD
Project Number: E67.022.001

Lab Number: L1743544
Report Date: 12/11/17

Alpha Sample ID	Client ID	Matrix	Sample Location	Collection Date/Time	Receive Date
L1743544-01	B-1-4-5 FT	SOIL	240-260 LAKEFRONT BLVD.	11/27/17 08:50	11/28/17
L1743544-02	B-1-14-15 FT	SOIL	240-260 LAKEFRONT BLVD.	11/27/17 09:34	11/28/17
L1743544-03	B-2-6-9 FT	SOIL	240-260 LAKEFRONT BLVD.	11/27/17 11:24	11/28/17
L1743544-04	B-3-2-7 FT	SOIL	240-260 LAKEFRONT BLVD.	11/27/17 14:00	11/28/17
L1743544-05	B-4-3-10 FT	SOIL	240-260 LAKEFRONT BLVD.	11/28/17 09:30	11/28/17
L1743544-06	B-5-1-6 FT	SOIL	240-260 LAKEFRONT BLVD.	11/28/17 11:34	11/28/17
L1743544-07	B-6-2-4.5 FT	SOIL	240-260 LAKEFRONT BLVD.	11/28/17 13:55	11/28/17

Project Name: LAKEFRONT BOULEVARD
Project Number: E67.022.001
Lab Number: L1743544
Report Date: 12/11/17

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. All specific QC information is also incorporated in the Data Usability format of our Data Merger tool where it can be reviewed along with any associated usability implications. Soil/sediments, solids and tissues are reported on a dry weight basis unless otherwise noted. Definitions of all data qualifiers and acronyms used in this report are provided in the Glossary located at the back of the report.

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

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

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

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

Project Name: LAKEFRONT BOULEVARD **Lab Number:** L1743544
Project Number: E67.022.001 **Report Date:** 12/11/17

Case Narrative (continued)

Report Submission

All non-detect (ND) or estimated concentrations (J-qualified) have been quantitated to the limit noted in the MDL column.

Volatile Organics

Any reported concentrations that are below 200 ug/kg may be low due to the sample not being collected according to 5035-L/5035A-L low-level specifications.

PCBs

L1743544-03, -04, -05, -06 and -07 contains peaks which match the retention times for Aroclor 1242, but do not match the area ratios typical for this aroclor. The result for Aroclor 1242 is reported as "weathered".
L1743544-07: The surrogate recoveries are below the acceptance criteria for 2,4,5,6-tetrachloro-m-xylene (0%) and decachlorobiphenyl (0%) due to the dilution required to quantitate the sample. Re-extraction was not required; therefore, the results of the original analysis are reported.

Total Metals

L1743544-01 through -07: The sample has elevated detection limits for all elements, with the exception of mercury, due to the dilution required by matrix interferences encountered during analysis.
The WG1068261-3 MS recovery for manganese (44%), performed on L1743544-01, does not apply because the sample concentration is greater than four times the spike amount added.
The WG1068261-3 MS recovery, performed on L1743544-01, is outside the acceptance criteria for zinc (127%). A post digestion spike was performed and was within acceptance criteria.
The WG1068261-4 Laboratory Duplicate RPD for lead (36%), performed on L1743544-01, is outside the acceptance criteria. The elevated RPD has been attributed to the non-homogeneous nature of the native sample.

Cyanide, Total

The WG1067404-2/-3 LCS/LCSD recoveries (68%/72%), associated with L1743544-03 through -07, are

Project Name:	LAKEFRONT BOULEVARD	**Lab Number:**	L1743544
Project Number:	E67.022.001	**Report Date:**	12/11/17

Case Narrative (continued)

outside our in-house acceptance criteria, but within the vendor-certified acceptance limits. The results of the original analyses are reported.

Hexavalent Chromium

The WG1067835-5 Soluble MS recovery (55%), performed on L1743544-05, was outside the acceptance criteria. This has been attributed to matrix interference. A post-spike was performed with a recovery of 110%.

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:  Amita Naik

Title: Technical Director/Representative Date: 12/11/17

ORGANICS

VOLATILES

Project Name: LAKEFRONT BOULEVARD
Project Number: E67.022.001
Lab Number: L1743544
Report Date: 12/11/17

SAMPLE RESULTS

Lab ID: L1743544-02
Client ID: B-1-14-15 FT
Sample Location: 240-260 LAKEFRONT BLVD.
Date Collected: 11/27/17 09:34
Date Received: 11/28/17
Field Prep: Not Specified

Matrix: Soil
Analytical Method: 1,8260C
Analytical Date: 12/05/17 11:26
Analyst: JC
Percent Solids: 85%

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
Methylene chloride	ND		ug/kg	10	1.7	1
1,1-Dichloroethane	ND		ug/kg	1.6	0.28	1
Chloroform	ND		ug/kg	1.6	0.38	1
Carbon tetrachloride	ND		ug/kg	1.0	0.36	1
Tetrachloroethene	ND		ug/kg	1.0	0.31	1
Chlorobenzene	ND		ug/kg	1.0	0.36	1
1,2-Dichloroethane	ND		ug/kg	1.0	0.26	1
1,1,1-Trichloroethane	ND		ug/kg	1.0	0.36	1
Benzene	1.8		ug/kg	1.0	0.20	1
Toluene	2.0		ug/kg	1.6	0.20	1
Ethylbenzene	0.38	J	ug/kg	1.0	0.18	1
Vinyl chloride	ND		ug/kg	2.1	0.33	1
1,1-Dichloroethene	ND		ug/kg	1.0	0.38	1
trans-1,2-Dichloroethene	ND		ug/kg	1.6	0.25	1
Trichloroethene	ND		ug/kg	1.0	0.31	1
1,2-Dichlorobenzene	ND		ug/kg	5.2	0.19	1
1,3-Dichlorobenzene	ND		ug/kg	5.2	0.23	1
1,4-Dichlorobenzene	ND		ug/kg	5.2	0.19	1
Methyl tert butyl ether	ND		ug/kg	2.1	0.16	1
p/m-Xylene	0.98	J	ug/kg	2.1	0.36	1
o-Xylene	0.72	J	ug/kg	2.1	0.35	1
cis-1,2-Dichloroethene	ND		ug/kg	1.0	0.35	1
Acetone	39		ug/kg	10	2.4	1
2-Butanone	ND		ug/kg	10	0.72	1
n-Butylbenzene	ND		ug/kg	1.0	0.24	1
sec-Butylbenzene	ND		ug/kg	1.0	0.22	1
tert-Butylbenzene	ND		ug/kg	5.2	0.26	1
n-Propylbenzene	ND		ug/kg	1.0	0.22	1
1,3,5-Trimethylbenzene	0.77	J	ug/kg	5.2	0.17	1
1,2,4-Trimethylbenzene	1.3	J	ug/kg	5.2	0.19	1

Project Name: LAKEFRONT BOULEVARD **Lab Number:** L1743544

Project Number: E67.022.001 **Report Date:** 12/11/17

SAMPLE RESULTS

Lab ID: L1743544-02 Date Collected: 11/27/17 09:34

Client ID: B-1-14-15 FT Date Received: 11/28/17

Sample Location: 240-260 LAKEFRONT BLVD. Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
1,4-Dioxane	ND		ug/kg	41	15.	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	108		70-130
Toluene-d8	99		70-130
4-Bromofluorobenzene	101		70-130
Dibromofluoromethane	99		70-130

Project Name: LAKEFRONT BOULEVARD **Lab Number:** L1743544

Project Number: E67.022.001 **Report Date:** 12/11/17

SAMPLE RESULTS

Lab ID: L1743544-03
Client ID: B-2-6-9 FT
Sample Location: 240-260 LAKEFRONT BLVD.

Date Collected: 11/27/17 11:24
Date Received: 11/28/17
Field Prep: Not Specified

Matrix: Soil
Analytical Method: 1,8260C
Analytical Date: 12/05/17 18:02
Analyst: JC
Percent Solids: 88%

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
Methylene chloride	ND		ug/kg	9.6	1.6	1
1,1-Dichloroethane	ND		ug/kg	1.4	0.26	1
Chloroform	ND		ug/kg	1.4	0.36	1
Carbon tetrachloride	ND		ug/kg	0.96	0.33	1
Tetrachloroethene	ND		ug/kg	0.96	0.29	1
Chlorobenzene	ND		ug/kg	0.96	0.34	1
1,2-Dichloroethane	ND		ug/kg	0.96	0.24	1
1,1,1-Trichloroethane	ND		ug/kg	0.96	0.34	1
Benzene	ND		ug/kg	0.96	0.19	1
Toluene	0.34	J	ug/kg	1.4	0.19	1
Ethylbenzene	ND		ug/kg	0.96	0.16	1
Vinyl chloride	ND		ug/kg	1.9	0.30	1
1,1-Dichloroethene	ND		ug/kg	0.96	0.36	1
trans-1,2-Dichloroethene	ND		ug/kg	1.4	0.23	1
Trichloroethene	ND		ug/kg	0.96	0.29	1
1,2-Dichlorobenzene	ND		ug/kg	4.8	0.18	1
1,3-Dichlorobenzene	ND		ug/kg	4.8	0.21	1
1,4-Dichlorobenzene	ND		ug/kg	4.8	0.18	1
Methyl tert butyl ether	ND		ug/kg	1.9	0.15	1
p/m-Xylene	ND		ug/kg	1.9	0.34	1
o-Xylene	ND		ug/kg	1.9	0.32	1
cis-1,2-Dichloroethene	ND		ug/kg	0.96	0.33	1
Acetone	19		ug/kg	9.6	2.2	1
2-Butanone	2.3	J	ug/kg	9.6	0.66	1
n-Butylbenzene	ND		ug/kg	0.96	0.22	1
sec-Butylbenzene	ND		ug/kg	0.96	0.21	1
tert-Butylbenzene	ND		ug/kg	4.8	0.24	1
n-Propylbenzene	ND		ug/kg	0.96	0.21	1
1,3,5-Trimethylbenzene	ND		ug/kg	4.8	0.16	1
1,2,4-Trimethylbenzene	0.21	J	ug/kg	4.8	0.18	1

Project Name: LAKEFRONT BOULEVARD **Lab Number:** L1743544

Project Number: E67.022.001 **Report Date:** 12/11/17

SAMPLE RESULTS

Lab ID: L1743544-03 Date Collected: 11/27/17 11:24

Client ID: B-2-6-9 FT Date Received: 11/28/17

Sample Location: 240-260 LAKEFRONT BLVD. Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
1,4-Dioxane	ND		ug/kg	38	14.	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	108		70-130
Toluene-d8	104		70-130
4-Bromofluorobenzene	118		70-130
Dibromofluoromethane	98		70-130

Project Name: LAKEFRONT BOULEVARD **Lab Number:** L1743544

Project Number: E67.022.001 **Report Date:** 12/11/17

SAMPLE RESULTS

Lab ID: L1743544-04
Client ID: B-3-2-7 FT
Sample Location: 240-260 LAKEFRONT BLVD.

Date Collected: 11/27/17 14:00
Date Received: 11/28/17
Field Prep: Not Specified

Matrix: Soil
Analytical Method: 1,8260C
Analytical Date: 12/05/17 11:52
Analyst: JC
Percent Solids: 87%

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
Methylene chloride	ND		ug/kg	9.2	1.5	1
1,1-Dichloroethane	ND		ug/kg	1.4	0.25	1
Chloroform	ND		ug/kg	1.4	0.34	1
Carbon tetrachloride	ND		ug/kg	0.92	0.32	1
Tetrachloroethene	ND		ug/kg	0.92	0.28	1
Chlorobenzene	ND		ug/kg	0.92	0.32	1
1,2-Dichloroethane	ND		ug/kg	0.92	0.22	1
1,1,1-Trichloroethane	ND		ug/kg	0.92	0.32	1
Benzene	ND		ug/kg	0.92	0.18	1
Toluene	0.28	J	ug/kg	1.4	0.18	1
Ethylbenzene	ND		ug/kg	0.92	0.16	1
Vinyl chloride	ND		ug/kg	1.8	0.29	1
1,1-Dichloroethene	ND		ug/kg	0.92	0.34	1
trans-1,2-Dichloroethene	ND		ug/kg	1.4	0.22	1
Trichloroethene	ND		ug/kg	0.92	0.28	1
1,2-Dichlorobenzene	ND		ug/kg	4.6	0.17	1
1,3-Dichlorobenzene	ND		ug/kg	4.6	0.20	1
1,4-Dichlorobenzene	ND		ug/kg	4.6	0.17	1
Methyl tert butyl ether	ND		ug/kg	1.8	0.14	1
p/m-Xylene	ND		ug/kg	1.8	0.32	1
o-Xylene	ND		ug/kg	1.8	0.31	1
cis-1,2-Dichloroethene	ND		ug/kg	0.92	0.31	1
Acetone	16		ug/kg	9.2	2.1	1
2-Butanone	ND		ug/kg	9.2	0.63	1
n-Butylbenzene	ND		ug/kg	0.92	0.21	1
sec-Butylbenzene	ND		ug/kg	0.92	0.20	1
tert-Butylbenzene	ND		ug/kg	4.6	0.23	1
n-Propylbenzene	ND		ug/kg	0.92	0.20	1
1,3,5-Trimethylbenzene	ND		ug/kg	4.6	0.15	1
1,2,4-Trimethylbenzene	ND		ug/kg	4.6	0.17	1

Project Name: LAKEFRONT BOULEVARD **Lab Number:** L1743544

Project Number: E67.022.001 **Report Date:** 12/11/17

SAMPLE RESULTS

Lab ID: L1743544-04 Date Collected: 11/27/17 14:00

Client ID: B-3-2-7 FT Date Received: 11/28/17

Sample Location: 240-260 LAKEFRONT BLVD. Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
1,4-Dioxane	ND		ug/kg	37	13.	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	109		70-130
Toluene-d8	99		70-130
4-Bromofluorobenzene	102		70-130
Dibromofluoromethane	103		70-130

Project Name: LAKEFRONT BOULEVARD
Project Number: E67.022.001
Lab Number: L1743544
Report Date: 12/11/17

SAMPLE RESULTS

Lab ID: L1743544-05
Client ID: B-4-3-10 FT
Sample Location: 240-260 LAKEFRONT BLVD.

Date Collected: 11/28/17 09:30
Date Received: 11/28/17
Field Prep: Not Specified

Matrix: Soil
Analytical Method: 1,8260C
Analytical Date: 12/05/17 12:18
Analyst: JC
Percent Solids: 73%

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
Methylene chloride	ND		ug/kg	13	2.2	1
1,1-Dichloroethane	ND		ug/kg	2.0	0.35	1
Chloroform	ND		ug/kg	2.0	0.49	1
Carbon tetrachloride	ND		ug/kg	1.3	0.45	1
Tetrachloroethene	ND		ug/kg	1.3	0.40	1
Chlorobenzene	ND		ug/kg	1.3	0.46	1
1,2-Dichloroethane	ND		ug/kg	1.3	0.32	1
1,1,1-Trichloroethane	ND		ug/kg	1.3	0.46	1
Benzene	ND		ug/kg	1.3	0.25	1
Toluene	0.26	J	ug/kg	2.0	0.26	1
Ethylbenzene	ND		ug/kg	1.3	0.22	1
Vinyl chloride	ND		ug/kg	2.6	0.41	1
1,1-Dichloroethene	ND		ug/kg	1.3	0.49	1
trans-1,2-Dichloroethene	ND		ug/kg	2.0	0.32	1
Trichloroethene	ND		ug/kg	1.3	0.40	1
1,2-Dichlorobenzene	ND		ug/kg	6.6	0.24	1
1,3-Dichlorobenzene	ND		ug/kg	6.6	0.29	1
1,4-Dichlorobenzene	ND		ug/kg	6.6	0.24	1
Methyl tert butyl ether	ND		ug/kg	2.6	0.20	1
p/m-Xylene	ND		ug/kg	2.6	0.46	1
o-Xylene	ND		ug/kg	2.6	0.44	1
cis-1,2-Dichloroethene	ND		ug/kg	1.3	0.45	1
Acetone	52		ug/kg	13	3.0	1
2-Butanone	ND		ug/kg	13	0.91	1
n-Butylbenzene	ND		ug/kg	1.3	0.30	1
sec-Butylbenzene	ND		ug/kg	1.3	0.28	1
tert-Butylbenzene	ND		ug/kg	6.6	0.32	1
n-Propylbenzene	ND		ug/kg	1.3	0.28	1
1,3,5-Trimethylbenzene	ND		ug/kg	6.6	0.21	1
1,2,4-Trimethylbenzene	ND		ug/kg	6.6	0.24	1

Project Name: LAKEFRONT BOULEVARD **Lab Number:** L1743544

Project Number: E67.022.001 **Report Date:** 12/11/17

SAMPLE RESULTS

Lab ID: L1743544-05 Date Collected: 11/28/17 09:30

Client ID: B-4-3-10 FT Date Received: 11/28/17

Sample Location: 240-260 LAKEFRONT BLVD. Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
1,4-Dioxane	ND		ug/kg	52	19.	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	109		70-130
Toluene-d8	101		70-130
4-Bromofluorobenzene	102		70-130
Dibromofluoromethane	100		70-130

Project Name: LAKEFRONT BOULEVARD **Lab Number:** L1743544

Project Number: E67.022.001 **Report Date:** 12/11/17

SAMPLE RESULTS

Lab ID: L1743544-06 Date Collected: 11/28/17 11:34
Client ID: B-5-1-6 FT Date Received: 11/28/17
Sample Location: 240-260 LAKEFRONT BLVD. Field Prep: Not Specified

Matrix: Soil
Analytical Method: 1,8260C
Analytical Date: 12/05/17 12:45
Analyst: JC
Percent Solids: 87%

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
Methylene chloride	ND		ug/kg	11	1.8	1
1,1-Dichloroethane	ND		ug/kg	1.6	0.29	1
Chloroform	ND		ug/kg	1.6	0.40	1
Carbon tetrachloride	ND		ug/kg	1.1	0.37	1
Tetrachloroethene	ND		ug/kg	1.1	0.32	1
Chlorobenzene	ND		ug/kg	1.1	0.37	1
1,2-Dichloroethane	ND		ug/kg	1.1	0.26	1
1,1,1-Trichloroethane	ND		ug/kg	1.1	0.37	1
Benzene	ND		ug/kg	1.1	0.21	1
Toluene	ND		ug/kg	1.6	0.21	1
Ethylbenzene	ND		ug/kg	1.1	0.18	1
Vinyl chloride	ND		ug/kg	2.1	0.34	1
1,1-Dichloroethene	ND		ug/kg	1.1	0.40	1
trans-1,2-Dichloroethene	ND		ug/kg	1.6	0.26	1
Trichloroethene	ND		ug/kg	1.1	0.32	1
1,2-Dichlorobenzene	ND		ug/kg	5.3	0.19	1
1,3-Dichlorobenzene	ND		ug/kg	5.3	0.23	1
1,4-Dichlorobenzene	ND		ug/kg	5.3	0.19	1
Methyl tert butyl ether	ND		ug/kg	2.1	0.16	1
p/m-Xylene	ND		ug/kg	2.1	0.37	1
o-Xylene	ND		ug/kg	2.1	0.36	1
cis-1,2-Dichloroethene	ND		ug/kg	1.1	0.36	1
Acetone	2.5	J	ug/kg	11	2.4	1
2-Butanone	ND		ug/kg	11	0.74	1
n-Butylbenzene	ND		ug/kg	1.1	0.24	1
sec-Butylbenzene	ND		ug/kg	1.1	0.23	1
tert-Butylbenzene	ND		ug/kg	5.3	0.26	1
n-Propylbenzene	ND		ug/kg	1.1	0.23	1
1,3,5-Trimethylbenzene	ND		ug/kg	5.3	0.17	1
1,2,4-Trimethylbenzene	ND		ug/kg	5.3	0.20	1

Project Name: LAKEFRONT BOULEVARD **Lab Number:** L1743544

Project Number: E67.022.001 **Report Date:** 12/11/17

SAMPLE RESULTS

Lab ID: L1743544-06 Date Collected: 11/28/17 11:34

Client ID: B-5-1-6 FT Date Received: 11/28/17

Sample Location: 240-260 LAKEFRONT BLVD. Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
1,4-Dioxane	ND		ug/kg	43	15.	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	109		70-130
Toluene-d8	100		70-130
4-Bromofluorobenzene	103		70-130
Dibromofluoromethane	104		70-130

Project Name: LAKEFRONT BOULEVARD **Lab Number:** L1743544

Project Number: E67.022.001 **Report Date:** 12/11/17

SAMPLE RESULTS

Lab ID: L1743544-07
Client ID: B-6-2-4.5 FT
Sample Location: 240-260 LAKEFRONT BLVD.

Date Collected: 11/28/17 13:55
Date Received: 11/28/17
Field Prep: Not Specified

Matrix: Soil
Analytical Method: 1,8260C
Analytical Date: 12/05/17 13:11
Analyst: JC
Percent Solids: 83%

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
Methylene chloride	ND		ug/kg	10	1.7	1
1,1-Dichloroethane	ND		ug/kg	1.5	0.28	1
Chloroform	ND		ug/kg	1.5	0.38	1
Carbon tetrachloride	ND		ug/kg	1.0	0.35	1
Tetrachloroethene	ND		ug/kg	1.0	0.31	1
Chlorobenzene	ND		ug/kg	1.0	0.36	1
1,2-Dichloroethane	ND		ug/kg	1.0	0.25	1
1,1,1-Trichloroethane	ND		ug/kg	1.0	0.36	1
Benzene	ND		ug/kg	1.0	0.20	1
Toluene	ND		ug/kg	1.5	0.20	1
Ethylbenzene	ND		ug/kg	1.0	0.17	1
Vinyl chloride	ND		ug/kg	2.0	0.32	1
1,1-Dichloroethene	ND		ug/kg	1.0	0.38	1
trans-1,2-Dichloroethene	ND		ug/kg	1.5	0.25	1
Trichloroethene	ND		ug/kg	1.0	0.31	1
1,2-Dichlorobenzene	ND		ug/kg	5.1	0.19	1
1,3-Dichlorobenzene	ND		ug/kg	5.1	0.22	1
1,4-Dichlorobenzene	ND		ug/kg	5.1	0.19	1
Methyl tert butyl ether	ND		ug/kg	2.0	0.16	1
p/m-Xylene	ND		ug/kg	2.0	0.36	1
o-Xylene	ND		ug/kg	2.0	0.34	1
cis-1,2-Dichloroethene	ND		ug/kg	1.0	0.35	1
Acetone	ND		ug/kg	10	2.3	1
2-Butanone	ND		ug/kg	10	0.71	1
n-Butylbenzene	ND		ug/kg	1.0	0.23	1
sec-Butylbenzene	ND		ug/kg	1.0	0.22	1
tert-Butylbenzene	ND		ug/kg	5.1	0.25	1
n-Propylbenzene	ND		ug/kg	1.0	0.22	1
1,3,5-Trimethylbenzene	ND		ug/kg	5.1	0.16	1
1,2,4-Trimethylbenzene	ND		ug/kg	5.1	0.19	1

Project Name: LAKEFRONT BOULEVARD **Lab Number:** L1743544

Project Number: E67.022.001 **Report Date:** 12/11/17

SAMPLE RESULTS

Lab ID: L1743544-07 Date Collected: 11/28/17 13:55

Client ID: B-6-2-4.5 FT Date Received: 11/28/17

Sample Location: 240-260 LAKEFRONT BLVD. Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
1,4-Dioxane	ND		ug/kg	41	15.	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	107		70-130
Toluene-d8	103		70-130
4-Bromofluorobenzene	107		70-130
Dibromofluoromethane	104		70-130

Project Name: LAKEFRONT BOULEVARD **Lab Number:** L1743544

Project Number: E67.022.001 **Report Date:** 12/11/17

Method Blank Analysis
Batch Quality Control

Analytical Method: 1,8260C
Analytical Date: 12/05/17 08:56
Analyst: CBN

Parameter	Result	Qualifier	Units	RL	MDL
Volatile Organics by 8260/5035 - Westborough Lab for sample(s): 03 Batch: WG1069347-5					
Methylene chloride	ND		ug/kg	10	1.6
1,1-Dichloroethane	ND		ug/kg	1.5	0.27
Chloroform	ND		ug/kg	1.5	0.37
Carbon tetrachloride	ND		ug/kg	1.0	0.34
Tetrachloroethene	ND		ug/kg	1.0	0.30
Chlorobenzene	ND		ug/kg	1.0	0.35
1,2-Dichloroethane	ND		ug/kg	1.0	0.25
1,1,1-Trichloroethane	ND		ug/kg	1.0	0.35
Benzene	0.22	J	ug/kg	1.0	0.19
Toluene	ND		ug/kg	1.5	0.20
Ethylbenzene	ND		ug/kg	1.0	0.17
Vinyl chloride	ND		ug/kg	2.0	0.32
1,1-Dichloroethene	ND		ug/kg	1.0	0.37
trans-1,2-Dichloroethene	ND		ug/kg	1.5	0.24
Trichloroethene	ND		ug/kg	1.0	0.30
1,2-Dichlorobenzene	ND		ug/kg	5.0	0.18
1,3-Dichlorobenzene	ND		ug/kg	5.0	0.22
1,4-Dichlorobenzene	ND		ug/kg	5.0	0.18
Methyl tert butyl ether	ND		ug/kg	2.0	0.15
p/m-Xylene	ND		ug/kg	2.0	0.35
o-Xylene	ND		ug/kg	2.0	0.34
cis-1,2-Dichloroethene	ND		ug/kg	1.0	0.34
Acetone	ND		ug/kg	10	2.3
2-Butanone	ND		ug/kg	10	0.69
n-Butylbenzene	ND		ug/kg	1.0	0.23
sec-Butylbenzene	ND		ug/kg	1.0	0.22
tert-Butylbenzene	ND		ug/kg	5.0	0.25
n-Propylbenzene	ND		ug/kg	1.0	0.22
1,3,5-Trimethylbenzene	ND		ug/kg	5.0	0.16

Project Name: LAKEFRONT BOULEVARD
Project Number: E67.022.001
Lab Number: L1743544
Report Date: 12/11/17

Method Blank Analysis
Batch Quality Control

Analytical Method: 1,8260C
Analytical Date: 12/05/17 08:56
Analyst: CBN

Parameter	Result	Qualifier	Units	RL	MDL
Volatile Organics by 8260/5035 - Westborough Lab for sample(s): 03 Batch: WG1069347-5					
1,2,4-Trimethylbenzene	ND		ug/kg	5.0	0.19
1,4-Dioxane	ND		ug/kg	40	14.

Surrogate	%Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	107		70-130
Toluene-d8	100		70-130
4-Bromofluorobenzene	109		70-130
Dibromofluoromethane	98		70-130

Project Name: LAKEFRONT BOULEVARD
Project Number: E67.022.001
Lab Number: L1743544
Report Date: 12/11/17

Method Blank Analysis
Batch Quality Control

Analytical Method: 1,8260C
Analytical Date: 12/05/17 08:50
Analyst: CBN

Parameter	Result	Qualifier	Units	RL	MDL
Volatile Organics by GC/MS - Westborough Lab for sample(s): 02,04-07 Batch: WG1069356-5					
Methylene chloride	ND		ug/kg	10	1.6
1,1-Dichloroethane	ND		ug/kg	1.5	0.27
Chloroform	ND		ug/kg	1.5	0.37
Carbon tetrachloride	ND		ug/kg	1.0	0.34
Tetrachloroethene	ND		ug/kg	1.0	0.30
Chlorobenzene	ND		ug/kg	1.0	0.35
1,2-Dichloroethane	ND		ug/kg	1.0	0.25
1,1,1-Trichloroethane	ND		ug/kg	1.0	0.35
Benzene	ND		ug/kg	1.0	0.19
Toluene	ND		ug/kg	1.5	0.20
Ethylbenzene	ND		ug/kg	1.0	0.17
Vinyl chloride	ND		ug/kg	2.0	0.32
1,1-Dichloroethene	ND		ug/kg	1.0	0.37
trans-1,2-Dichloroethene	ND		ug/kg	1.5	0.24
Trichloroethene	ND		ug/kg	1.0	0.30
1,2-Dichlorobenzene	ND		ug/kg	5.0	0.18
1,3-Dichlorobenzene	ND		ug/kg	5.0	0.22
1,4-Dichlorobenzene	ND		ug/kg	5.0	0.18
Methyl tert butyl ether	ND		ug/kg	2.0	0.15
p/m-Xylene	ND		ug/kg	2.0	0.35
o-Xylene	ND		ug/kg	2.0	0.34
cis-1,2-Dichloroethene	ND		ug/kg	1.0	0.34
Acetone	ND		ug/kg	10	2.3
2-Butanone	ND		ug/kg	10	0.69
n-Butylbenzene	ND		ug/kg	1.0	0.23
sec-Butylbenzene	ND		ug/kg	1.0	0.22
tert-Butylbenzene	ND		ug/kg	5.0	0.25
n-Propylbenzene	ND		ug/kg	1.0	0.22
1,3,5-Trimethylbenzene	ND		ug/kg	5.0	0.16

Project Name: LAKEFRONT BOULEVARD
Project Number: E67.022.001
Lab Number: L1743544
Report Date: 12/11/17

Method Blank Analysis
Batch Quality Control

Analytical Method: 1,8260C
Analytical Date: 12/05/17 08:50
Analyst: CBN

Parameter	Result	Qualifier	Units	RL	MDL
Volatile Organics by GC/MS - Westborough Lab for sample(s): 02,04-07 Batch: WG1069356-5					
1,2,4-Trimethylbenzene	ND		ug/kg	5.0	0.19
1,4-Dioxane	ND		ug/kg	40	14.

Surrogate	%Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	107		70-130
Toluene-d8	100		70-130
4-Bromofluorobenzene	101		70-130
Dibromofluoromethane	102		70-130

Lab Control Sample Analysis

Batch Quality Control

Project Name: LAKEFRONT BOULEVARD

Project Number: E67.022.001

Lab Number: L1743544

Report Date: 12/11/17

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Volatile Organics by 8260/5035 - Westborough Lab Associated sample(s): 03 Batch: WG1069347-3 WG1069347-4								
Methylene chloride	97		99		70-130	2		30
1,1-Dichloroethane	108		110		70-130	2		30
Chloroform	98		99		70-130	1		30
Carbon tetrachloride	91		96		70-130	5		30
Tetrachloroethene	89		89		70-130	0		30
Chlorobenzene	92		93		70-130	1		30
1,2-Dichloroethane	100		103		70-130	3		30
1,1,1-Trichloroethane	100		101		70-130	1		30
Benzene	103		104		70-130	1		30
Toluene	98		99		70-130	1		30
Ethylbenzene	99		99		70-130	0		30
Vinyl chloride	119		118		67-130	1		30
1,1-Dichloroethene	101		101		65-135	0		30
trans-1,2-Dichloroethene	98		98		70-130	0		30
Trichloroethene	99		100		70-130	1		30
1,2-Dichlorobenzene	85		86		70-130	1		30
1,3-Dichlorobenzene	86		87		70-130	1		30
1,4-Dichlorobenzene	86		87		70-130	1		30
Methyl tert butyl ether	95		98		66-130	3		30
p/m-Xylene	91		93		70-130	2		30
o-Xylene	89		90		70-130	1		30
cis-1,2-Dichloroethene	96		98		70-130	2		30
Acetone	101		113		54-140	11		30

Lab Control Sample Analysis

Batch Quality Control

Project Name: LAKEFRONT BOULEVARD

Project Number: E67.022.001

Lab Number: L1743544

Report Date: 12/11/17

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Volatile Organics by 8260/5035 - Westborough Lab Associated sample(s): 03 Batch: WG1069347-3 WG1069347-4								
2-Butanone	110		116		70-130	5		30
n-Butylbenzene	100		102		70-130	2		30
sec-Butylbenzene	98		99		70-130	1		30
tert-Butylbenzene	92		95		70-130	3		30
n-Propylbenzene	100		102		70-130	2		30
1,3,5-Trimethylbenzene	94		97		70-130	3		30
1,2,4-Trimethylbenzene	94		96		70-130	2		30
1,4-Dioxane	100		107		65-136	7		30

Surrogate	LCS %Recovery	Qual	LCSD %Recovery	Qual	Acceptance Criteria
1,2-Dichloroethane-d4	103		105		70-130
Toluene-d8	101		101		70-130
4-Bromofluorobenzene	105		106		70-130
Dibromofluoromethane	96		97		70-130

Lab Control Sample Analysis

Batch Quality Control

Project Name: LAKEFRONT BOULEVARD

Project Number: E67.022.001

Lab Number: L1743544

Report Date: 12/11/17

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Volatile Organics by GC/MS - Westborough Lab Associated sample(s): 02,04-07 Batch: WG1069356-3 WG1069356-4								
Methylene chloride	75		77		70-130	3		30
1,1-Dichloroethane	108		108		70-130	0		30
Chloroform	96		97		70-130	1		30
Carbon tetrachloride	102		103		70-130	1		30
Tetrachloroethene	96		96		70-130	0		30
Chlorobenzene	92		92		70-130	0		30
1,2-Dichloroethane	107		109		70-130	2		30
1,1,1-Trichloroethane	99		101		70-130	2		30
Benzene	93		94		70-130	1		30
Toluene	86		87		70-130	1		30
Ethylbenzene	90		90		70-130	0		30
Vinyl chloride	89		87		67-130	2		30
1,1-Dichloroethene	93		94		65-135	1		30
trans-1,2-Dichloroethene	94		95		70-130	1		30
Trichloroethene	97		99		70-130	2		30
1,2-Dichlorobenzene	87		87		70-130	0		30
1,3-Dichlorobenzene	88		89		70-130	1		30
1,4-Dichlorobenzene	88		87		70-130	1		30
Methyl tert butyl ether	100		101		66-130	1		30
p/m-Xylene	93		93		70-130	0		30
o-Xylene	95		96		70-130	1		30
cis-1,2-Dichloroethene	95		96		70-130	1		30
Acetone	114		111		54-140	3		30

Lab Control Sample Analysis

Batch Quality Control

Project Name: LAKEFRONT BOULEVARD

Project Number: E67.022.001

Lab Number: L1743544

Report Date: 12/11/17

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Volatile Organics by GC/MS - Westborough Lab Associated sample(s): 02,04-07 Batch: WG1069356-3 WG1069356-4								
2-Butanone	103		104		70-130	1		30
n-Butylbenzene	86		86		70-130	0		30
sec-Butylbenzene	87		87		70-130	0		30
tert-Butylbenzene	86		86		70-130	0		30
n-Propylbenzene	86		86		70-130	0		30
1,3,5-Trimethylbenzene	87		87		70-130	0		30
1,2,4-Trimethylbenzene	87		87		70-130	0		30
1,4-Dioxane	107		112		65-136	5		30

Surrogate	LCS %Recovery	Qual	LCSD %Recovery	Qual	Acceptance Criteria
1,2-Dichloroethane-d4	106		106		70-130
Toluene-d8	101		100		70-130
4-Bromofluorobenzene	102		100		70-130
Dibromofluoromethane	105		106		70-130

SEMIVOLATILES

Project Name: LAKEFRONT BOULEVARD
Project Number: E67.022.001
Lab Number: L1743544
Report Date: 12/11/17

SAMPLE RESULTS

Lab ID: L1743544-01
Client ID: B-1-4-5 FT
Sample Location: 240-260 LAKEFRONT BLVD.

Matrix: Soil
Analytical Method: 1,8270D
Analytical Date: 12/04/17 14:51
Analyst: EK
Percent Solids: 87%

Date Collected: 11/27/17 08:50
Date Received: 11/28/17
Field Prep: Not Specified
Extraction Method: EPA 3546
Extraction Date: 12/03/17 12:48

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Semivolatile Organics by GC/MS - Westborough Lab						
Acenaphthene	29	J	ug/kg	150	20.	1
Hexachlorobenzene	ND		ug/kg	110	21.	1
Fluoranthene	360		ug/kg	110	22.	1
Naphthalene	43	J	ug/kg	190	23.	1
Benzo(a)anthracene	180		ug/kg	110	21.	1
Benzo(a)pyrene	190		ug/kg	150	46.	1
Benzo(b)fluoranthene	220		ug/kg	110	32.	1
Benzo(k)fluoranthene	77	J	ug/kg	110	30.	1
Chrysene	170		ug/kg	110	20.	1
Acenaphthylene	ND		ug/kg	150	29.	1
Anthracene	73	J	ug/kg	110	37.	1
Benzo(ghi)perylene	130	J	ug/kg	150	22.	1
Fluorene	38	J	ug/kg	190	18.	1
Phenanthrene	280		ug/kg	110	23.	1
Dibenzo(a,h)anthracene	44	J	ug/kg	110	22.	1
Indeno(1,2,3-cd)pyrene	110	J	ug/kg	150	26.	1
Pyrene	280		ug/kg	110	19.	1
Dibenzofuran	23	J	ug/kg	190	18.	1
Pentachlorophenol	ND		ug/kg	150	42.	1
Phenol	ND		ug/kg	190	29.	1
2-Methylphenol	ND		ug/kg	190	29.	1
3-Methylphenol/4-Methylphenol	ND		ug/kg	270	30.	1

Project Name: LAKEFRONT BOULEVARD **Lab Number:** L1743544

Project Number: E67.022.001 **Report Date:** 12/11/17

SAMPLE RESULTS

Lab ID: L1743544-01 Date Collected: 11/27/17 08:50

Client ID: B-1-4-5 FT Date Received: 11/28/17

Sample Location: 240-260 LAKEFRONT BLVD. Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor

Semivolatile Organics by GC/MS - Westborough Lab

Surrogate	% Recovery	Qualifier	Acceptance Criteria
2-Fluorophenol	74		25-120
Phenol-d6	78		10-120
Nitrobenzene-d5	79		23-120
2-Fluorobiphenyl	71		30-120
2,4,6-Tribromophenol	96		10-136
4-Terphenyl-d14	62		18-120

Project Name: LAKEFRONT BOULEVARD
Lab Number: L1743544
Project Number: E67.022.001
Report Date: 12/11/17

SAMPLE RESULTS

Lab ID: L1743544-02
Client ID: B-1-14-15 FT
Sample Location: 240-260 LAKEFRONT BLVD.

Matrix: Soil
Analytical Method: 1,8270D
Analytical Date: 12/04/17 15:17
Analyst: EK
Percent Solids: 85%

Date Collected: 11/27/17 09:34
Date Received: 11/28/17
Field Prep: Not Specified
Extraction Method: EPA 3546
Extraction Date: 12/03/17 12:48

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Semivolatile Organics by GC/MS - Westborough Lab						
Acenaphthene	110	J	ug/kg	150	20.	1
Hexachlorobenzene	ND		ug/kg	110	21.	1
Fluoranthene	960		ug/kg	110	22.	1
Naphthalene	61	J	ug/kg	190	23.	1
Benzo(a)anthracene	420		ug/kg	110	22.	1
Benzo(a)pyrene	360		ug/kg	150	47.	1
Benzo(b)fluoranthene	460		ug/kg	110	32.	1
Benzo(k)fluoranthene	150		ug/kg	110	31.	1
Chrysene	460		ug/kg	110	20.	1
Acenaphthylene	36	J	ug/kg	150	30.	1
Anthracene	200		ug/kg	110	37.	1
Benzo(ghi)perylene	200		ug/kg	150	22.	1
Fluorene	130	J	ug/kg	190	19.	1
Phenanthrene	800		ug/kg	110	23.	1
Dibenzo(a,h)anthracene	62	J	ug/kg	110	22.	1
Indeno(1,2,3-cd)pyrene	220		ug/kg	150	27.	1
Pyrene	800		ug/kg	110	19.	1
Dibenzofuran	73	J	ug/kg	190	18.	1
Pentachlorophenol	ND		ug/kg	150	42.	1
Phenol	ND		ug/kg	190	29.	1
2-Methylphenol	ND		ug/kg	190	30.	1
3-Methylphenol/4-Methylphenol	ND		ug/kg	280	30.	1

Project Name: LAKEFRONT BOULEVARD **Lab Number:** L1743544

Project Number: E67.022.001 **Report Date:** 12/11/17

SAMPLE RESULTS

Lab ID: L1743544-02 Date Collected: 11/27/17 09:34

Client ID: B-1-14-15 FT Date Received: 11/28/17

Sample Location: 240-260 LAKEFRONT BLVD. Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor

Semivolatile Organics by GC/MS - Westborough Lab

Surrogate	% Recovery	Qualifier	Acceptance Criteria
2-Fluorophenol	78		25-120
Phenol-d6	80		10-120
Nitrobenzene-d5	78		23-120
2-Fluorobiphenyl	75		30-120
2,4,6-Tribromophenol	85		10-136
4-Terphenyl-d14	65		18-120

Project Name: LAKEFRONT BOULEVARD
Project Number: E67.022.001
Lab Number: L1743544
Report Date: 12/11/17

SAMPLE RESULTS

Lab ID: L1743544-03
Client ID: B-2-6-9 FT
Sample Location: 240-260 LAKEFRONT BLVD.

Matrix: Soil
Analytical Method: 1,8270D
Analytical Date: 12/04/17 15:42
Analyst: EK
Percent Solids: 88%

Date Collected: 11/27/17 11:24
Date Received: 11/28/17
Field Prep: Not Specified
Extraction Method: EPA 3546
Extraction Date: 12/03/17 12:48

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Semivolatile Organics by GC/MS - Westborough Lab						
Acenaphthene	290		ug/kg	150	20.	1
Hexachlorobenzene	ND		ug/kg	110	21.	1
Fluoranthene	3000		ug/kg	110	22.	1
Naphthalene	230		ug/kg	190	23.	1
Benzo(a)anthracene	1500		ug/kg	110	21.	1
Benzo(a)pyrene	1300		ug/kg	150	46.	1
Benzo(b)fluoranthene	1700		ug/kg	110	32.	1
Benzo(k)fluoranthene	630		ug/kg	110	30.	1
Chrysene	1400		ug/kg	110	20.	1
Acenaphthylene	180		ug/kg	150	29.	1
Anthracene	740		ug/kg	110	37.	1
Benzo(ghi)perylene	730		ug/kg	150	22.	1
Fluorene	330		ug/kg	190	18.	1
Phenanthrene	2300		ug/kg	110	23.	1
Dibenzo(a,h)anthracene	220		ug/kg	110	22.	1
Indeno(1,2,3-cd)pyrene	860		ug/kg	150	26.	1
Pyrene	2400		ug/kg	110	19.	1
Dibenzofuran	210		ug/kg	190	18.	1
Pentachlorophenol	ND		ug/kg	150	42.	1
Phenol	ND		ug/kg	190	29.	1
2-Methylphenol	ND		ug/kg	190	29.	1
3-Methylphenol/4-Methylphenol	ND		ug/kg	270	30.	1

Project Name: LAKEFRONT BOULEVARD **Lab Number:** L1743544

Project Number: E67.022.001 **Report Date:** 12/11/17

SAMPLE RESULTS

Lab ID: L1743544-03 Date Collected: 11/27/17 11:24

Client ID: B-2-6-9 FT Date Received: 11/28/17

Sample Location: 240-260 LAKEFRONT BLVD. Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor

Semivolatile Organics by GC/MS - Westborough Lab

Surrogate	% Recovery	Qualifier	Acceptance Criteria
2-Fluorophenol	66		25-120
Phenol-d6	69		10-120
Nitrobenzene-d5	76		23-120
2-Fluorobiphenyl	67		30-120
2,4,6-Tribromophenol	81		10-136
4-Terphenyl-d14	56		18-120

Project Name: LAKEFRONT BOULEVARD
Project Number: E67.022.001
Lab Number: L1743544
Report Date: 12/11/17

SAMPLE RESULTS

Lab ID: L1743544-04
Client ID: B-3-2-7 FT
Sample Location: 240-260 LAKEFRONT BLVD.

Matrix: Soil
Analytical Method: 1,8270D
Analytical Date: 12/04/17 16:08
Analyst: EK
Percent Solids: 87%

Date Collected: 11/27/17 14:00
Date Received: 11/28/17
Field Prep: Not Specified
Extraction Method: EPA 3546
Extraction Date: 12/03/17 12:48

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Semivolatile Organics by GC/MS - Westborough Lab						
Acenaphthene	170		ug/kg	150	20.	1
Hexachlorobenzene	ND		ug/kg	110	21.	1
Fluoranthene	940		ug/kg	110	22.	1
Naphthalene	65	J	ug/kg	190	23.	1
Benzo(a)anthracene	420		ug/kg	110	21.	1
Benzo(a)pyrene	360		ug/kg	150	46.	1
Benzo(b)fluoranthene	460		ug/kg	110	32.	1
Benzo(k)fluoranthene	140		ug/kg	110	30.	1
Chrysene	400		ug/kg	110	20.	1
Acenaphthylene	ND		ug/kg	150	29.	1
Anthracene	300		ug/kg	110	37.	1
Benzo(ghi)perylene	200		ug/kg	150	22.	1
Fluorene	160	J	ug/kg	190	18.	1
Phenanthrene	1100		ug/kg	110	23.	1
Dibenzo(a,h)anthracene	66	J	ug/kg	110	22.	1
Indeno(1,2,3-cd)pyrene	230		ug/kg	150	26.	1
Pyrene	750		ug/kg	110	19.	1
Dibenzofuran	110	J	ug/kg	190	18.	1
Pentachlorophenol	ND		ug/kg	150	41.	1
Phenol	ND		ug/kg	190	28.	1
2-Methylphenol	ND		ug/kg	190	29.	1
3-Methylphenol/4-Methylphenol	ND		ug/kg	270	29.	1

Project Name: LAKEFRONT BOULEVARD **Lab Number:** L1743544

Project Number: E67.022.001 **Report Date:** 12/11/17

SAMPLE RESULTS

Lab ID: L1743544-04 Date Collected: 11/27/17 14:00

Client ID: B-3-2-7 FT Date Received: 11/28/17

Sample Location: 240-260 LAKEFRONT BLVD. Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor

Semivolatile Organics by GC/MS - Westborough Lab

Surrogate	% Recovery	Qualifier	Acceptance Criteria
2-Fluorophenol	68		25-120
Phenol-d6	68		10-120
Nitrobenzene-d5	68		23-120
2-Fluorobiphenyl	65		30-120
2,4,6-Tribromophenol	76		10-136
4-Terphenyl-d14	56		18-120

Project Name: LAKEFRONT BOULEVARD
Project Number: E67.022.001
Lab Number: L1743544
Report Date: 12/11/17

SAMPLE RESULTS

Lab ID: L1743544-05
Client ID: B-4-3-10 FT
Sample Location: 240-260 LAKEFRONT BLVD.

Matrix: Soil
Analytical Method: 1,8270D
Analytical Date: 12/04/17 16:33
Analyst: EK
Percent Solids: 73%

Date Collected: 11/28/17 09:30
Date Received: 11/28/17
Field Prep: Not Specified
Extraction Method: EPA 3546
Extraction Date: 12/03/17 12:48

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Semivolatile Organics by GC/MS - Westborough Lab						
Acenaphthene	280		ug/kg	180	23.	1
Hexachlorobenzene	ND		ug/kg	130	25.	1
Fluoranthene	3700		ug/kg	130	26.	1
Naphthalene	160	J	ug/kg	220	27.	1
Benzo(a)anthracene	1800		ug/kg	130	25.	1
Benzo(a)pyrene	1600		ug/kg	180	55.	1
Benzo(b)fluoranthene	2000		ug/kg	130	38.	1
Benzo(k)fluoranthene	750		ug/kg	130	36.	1
Chrysene	1700		ug/kg	130	23.	1
Acenaphthylene	150	J	ug/kg	180	35.	1
Anthracene	770		ug/kg	130	44.	1
Benzo(ghi)perylene	870		ug/kg	180	26.	1
Fluorene	340		ug/kg	220	22.	1
Phenanthrene	2900		ug/kg	130	27.	1
Dibenzo(a,h)anthracene	240		ug/kg	130	26.	1
Indeno(1,2,3-cd)pyrene	980		ug/kg	180	31.	1
Pyrene	3100		ug/kg	130	22.	1
Dibenzofuran	180	J	ug/kg	220	21.	1
Pentachlorophenol	ND		ug/kg	180	49.	1
Phenol	ND		ug/kg	220	34.	1
2-Methylphenol	ND		ug/kg	220	35.	1
3-Methylphenol/4-Methylphenol	ND		ug/kg	320	35.	1

Project Name: LAKEFRONT BOULEVARD **Lab Number:** L1743544

Project Number: E67.022.001 **Report Date:** 12/11/17

SAMPLE RESULTS

Lab ID: L1743544-05 Date Collected: 11/28/17 09:30

Client ID: B-4-3-10 FT Date Received: 11/28/17

Sample Location: 240-260 LAKEFRONT BLVD. Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor

Semivolatile Organics by GC/MS - Westborough Lab

Surrogate	% Recovery	Qualifier	Acceptance Criteria
2-Fluorophenol	68		25-120
Phenol-d6	71		10-120
Nitrobenzene-d5	76		23-120
2-Fluorobiphenyl	63		30-120
2,4,6-Tribromophenol	81		10-136
4-Terphenyl-d14	48		18-120

Project Name: LAKEFRONT BOULEVARD
Project Number: E67.022.001
Lab Number: L1743544
Report Date: 12/11/17

SAMPLE RESULTS

Lab ID: L1743544-06
Client ID: B-5-1-6 FT
Sample Location: 240-260 LAKEFRONT BLVD.

Matrix: Soil
Analytical Method: 1,8270D
Analytical Date: 12/04/17 16:59
Analyst: EK
Percent Solids: 87%

Date Collected: 11/28/17 11:34
Date Received: 11/28/17
Field Prep: Not Specified
Extraction Method: EPA 3546
Extraction Date: 12/03/17 12:48

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Semivolatile Organics by GC/MS - Westborough Lab						
Acenaphthene	390		ug/kg	150	20.	1
Hexachlorobenzene	ND		ug/kg	110	21.	1
Fluoranthene	3600		ug/kg	110	22.	1
Naphthalene	220		ug/kg	190	23.	1
Benzo(a)anthracene	1600		ug/kg	110	21.	1
Benzo(a)pyrene	1400		ug/kg	150	46.	1
Benzo(b)fluoranthene	1800		ug/kg	110	32.	1
Benzo(k)fluoranthene	630		ug/kg	110	30.	1
Chrysene	1600		ug/kg	110	20.	1
Acenaphthylene	130	J	ug/kg	150	29.	1
Anthracene	670		ug/kg	110	37.	1
Benzo(ghi)perylene	880		ug/kg	150	22.	1
Fluorene	330		ug/kg	190	18.	1
Phenanthrene	3200		ug/kg	110	23.	1
Dibenzo(a,h)anthracene	210		ug/kg	110	22.	1
Indeno(1,2,3-cd)pyrene	890		ug/kg	150	27.	1
Pyrene	3100		ug/kg	110	19.	1
Dibenzofuran	270		ug/kg	190	18.	1
Pentachlorophenol	ND		ug/kg	150	42.	1
Phenol	ND		ug/kg	190	29.	1
2-Methylphenol	ND		ug/kg	190	30.	1
3-Methylphenol/4-Methylphenol	ND		ug/kg	270	30.	1

Project Name: LAKEFRONT BOULEVARD **Lab Number:** L1743544

Project Number: E67.022.001 **Report Date:** 12/11/17

SAMPLE RESULTS

Lab ID: L1743544-06 Date Collected: 11/28/17 11:34

Client ID: B-5-1-6 FT Date Received: 11/28/17

Sample Location: 240-260 LAKEFRONT BLVD. Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor

Semivolatile Organics by GC/MS - Westborough Lab

Surrogate	% Recovery	Qualifier	Acceptance Criteria
2-Fluorophenol	71		25-120
Phenol-d6	76		10-120
Nitrobenzene-d5	78		23-120
2-Fluorobiphenyl	74		30-120
2,4,6-Tribromophenol	89		10-136
4-Terphenyl-d14	62		18-120

Project Name: LAKEFRONT BOULEVARD
Project Number: E67.022.001
Lab Number: L1743544
Report Date: 12/11/17

SAMPLE RESULTS

Lab ID: L1743544-07
Client ID: B-6-2-4.5 FT
Sample Location: 240-260 LAKEFRONT BLVD.

Matrix: Soil
Analytical Method: 1,8270D
Analytical Date: 12/04/17 17:24
Analyst: EK
Percent Solids: 83%

Date Collected: 11/28/17 13:55
Date Received: 11/28/17
Field Prep: Not Specified
Extraction Method: EPA 3546
Extraction Date: 12/03/17 12:48

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Semivolatile Organics by GC/MS - Westborough Lab						
Acenaphthene	240		ug/kg	160	20.	1
Hexachlorobenzene	ND		ug/kg	120	22.	1
Fluoranthene	2900		ug/kg	120	23.	1
Naphthalene	230		ug/kg	200	24.	1
Benzo(a)anthracene	1500		ug/kg	120	22.	1
Benzo(a)pyrene	1300		ug/kg	160	48.	1
Benzo(b)fluoranthene	1700		ug/kg	120	33.	1
Benzo(k)fluoranthene	610		ug/kg	120	32.	1
Chrysene	1400		ug/kg	120	20.	1
Acenaphthylene	120	J	ug/kg	160	30.	1
Anthracene	640		ug/kg	120	38.	1
Benzo(ghi)perylene	700		ug/kg	160	23.	1
Fluorene	280		ug/kg	200	19.	1
Phenanthrene	2300		ug/kg	120	24.	1
Dibenzo(a,h)anthracene	200		ug/kg	120	23.	1
Indeno(1,2,3-cd)pyrene	810		ug/kg	160	28.	1
Pyrene	2300		ug/kg	120	20.	1
Dibenzofuran	180	J	ug/kg	200	19.	1
Pentachlorophenol	ND		ug/kg	160	44.	1
Phenol	ND		ug/kg	200	30.	1
2-Methylphenol	ND		ug/kg	200	31.	1
3-Methylphenol/4-Methylphenol	ND		ug/kg	280	31.	1

Project Name: LAKEFRONT BOULEVARD **Lab Number:** L1743544

Project Number: E67.022.001 **Report Date:** 12/11/17

SAMPLE RESULTS

Lab ID: L1743544-07 Date Collected: 11/28/17 13:55

Client ID: B-6-2-4.5 FT Date Received: 11/28/17

Sample Location: 240-260 LAKEFRONT BLVD. Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor

Semivolatile Organics by GC/MS - Westborough Lab

Surrogate	% Recovery	Qualifier	Acceptance Criteria
2-Fluorophenol	67		25-120
Phenol-d6	70		10-120
Nitrobenzene-d5	76		23-120
2-Fluorobiphenyl	75		30-120
2,4,6-Tribromophenol	83		10-136
4-Terphenyl-d14	71		18-120

Project Name: LAKEFRONT BOULEVARD
Project Number: E67.022.001
Lab Number: L1743544
Report Date: 12/11/17

Method Blank Analysis
Batch Quality Control

Analytical Method: 1,8270D
Analytical Date: 12/03/17 21:25
Analyst: EK

Extraction Method: EPA 3546
Extraction Date: 12/02/17 18:54

Parameter	Result	Qualifier	Units	RL	MDL
Semivolatile Organics by GC/MS - Westborough Lab for sample(s): 01-07 Batch: WG1068480-1					
Acenaphthene	ND		ug/kg	130	17.
Hexachlorobenzene	ND		ug/kg	99	18.
Fluoranthene	ND		ug/kg	99	19.
Naphthalene	ND		ug/kg	160	20.
Benzo(a)anthracene	ND		ug/kg	99	19.
Benzo(a)pyrene	ND		ug/kg	130	40.
Benzo(b)fluoranthene	ND		ug/kg	99	28.
Benzo(k)fluoranthene	ND		ug/kg	99	26.
Chrysene	ND		ug/kg	99	17.
Acenaphthylene	ND		ug/kg	130	26.
Anthracene	ND		ug/kg	99	32.
Benzo(ghi)perylene	ND		ug/kg	130	19.
Fluorene	ND		ug/kg	160	16.
Phenanthrene	ND		ug/kg	99	20.
Dibenzo(a,h)anthracene	ND		ug/kg	99	19.
Indeno(1,2,3-cd)pyrene	ND		ug/kg	130	23.
Pyrene	ND		ug/kg	99	16.
Dibenzofuran	ND		ug/kg	160	16.
Pentachlorophenol	ND		ug/kg	130	36.
Phenol	ND		ug/kg	160	25.
2-Methylphenol	ND		ug/kg	160	26.
3-Methylphenol/4-Methylphenol	ND		ug/kg	240	26.

Tentatively Identified Compounds

No Tentatively Identified Compounds ND ug/kg

Project Name: LAKEFRONT BOULEVARD
Project Number: E67.022.001
Lab Number: L1743544
Report Date: 12/11/17

Method Blank Analysis
Batch Quality Control

Analytical Method: 1,8270D
Analytical Date: 12/03/17 21:25
Analyst: EK

Extraction Method: EPA 3546
Extraction Date: 12/02/17 18:54

Parameter	Result	Qualifier	Units	RL	MDL
Semivolatile Organics by GC/MS - Westborough Lab for sample(s): 01-07 Batch: WG1068480-1					

Surrogate	%Recovery	Qualifier	Acceptance Criteria
2-Fluorophenol	95		25-120
Phenol-d6	102		10-120
Nitrobenzene-d5	102		23-120
2-Fluorobiphenyl	99		30-120
2,4,6-Tribromophenol	100		10-136
4-Terphenyl-d14	105		18-120

Lab Control Sample Analysis

Batch Quality Control

Project Name: LAKEFRONT BOULEVARD

Project Number: E67.022.001

Lab Number: L1743544

Report Date: 12/11/17

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Semivolatile Organics by GC/MS - Westborough Lab Associated sample(s): 01-07 Batch: WG1068480-2 WG1068480-3								
Acenaphthene	89		102		31-137	14		50
Hexachlorobenzene	86		100		40-140	15		50
Fluoranthene	90		103		40-140	13		50
Naphthalene	84		95		40-140	12		50
Benzo(a)anthracene	90		104		40-140	14		50
Benzo(a)pyrene	87		100		40-140	14		50
Benzo(b)fluoranthene	86		101		40-140	16		50
Benzo(k)fluoranthene	89		98		40-140	10		50
Chrysene	87		101		40-140	15		50
Acenaphthylene	87		102		40-140	16		50
Anthracene	92		107		40-140	15		50
Benzo(ghi)perylene	91		103		40-140	12		50
Fluorene	90		103		40-140	13		50
Phenanthrene	91		104		40-140	13		50
Dibenzo(a,h)anthracene	92		106		40-140	14		50
Indeno(1,2,3-cd)pyrene	92		105		40-140	13		50
Pyrene	89		101		35-142	13		50
Dibenzofuran	87		100		40-140	14		50
Pentachlorophenol	61		72		17-109	17		50
Phenol	90		**106**	Q	26-90	16		50
2-Methylphenol	91		106		30-130.	15		50
3-Methylphenol/4-Methylphenol	91		107		30-130	16		50

Lab Control Sample Analysis

Batch Quality Control

Project Name: LAKEFRONT BOULEVARD

Project Number: E67.022.001

Lab Number: L1743544

Report Date: 12/11/17

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Semivolatile Organics by GC/MS - Westborough Lab Associated sample(s): 01-07 Batch: WG1068480-2 WG1068480-3								

Surrogate	LCS %Recovery	Qual	LCSD %Recovery	Qual	Acceptance Criteria
2-Fluorophenol	79		90		25-120
Phenol-d6	82		96		10-120
Nitrobenzene-d5	84		96		23-120
2-Fluorobiphenyl	78		90		30-120
2,4,6-Tribromophenol	78		90		10-136
4-Terphenyl-d14	79		90		18-120

PCBS

Project Name: LAKEFRONT BOULEVARD
Project Number: E67.022.001
Lab Number: L1743544
Report Date: 12/11/17

SAMPLE RESULTS

Lab ID: L1743544-03
Client ID: B-2-6-9 FT
Sample Location: 240-260 LAKEFRONT BLVD.

Matrix: Soil
Analytical Method: 1,8082A
Analytical Date: 12/08/17 19:03
Analyst: AF
Percent Solids: 88%

Date Collected: 11/27/17 11:24
Date Received: 11/28/17
Field Prep: Not Specified
Extraction Method: EPA 3546
Extraction Date: 12/02/17 12:08
Cleanup Method: EPA 3665A
Cleanup Date: 12/03/17
Cleanup Method: EPA 3660B
Cleanup Date: 12/03/17

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Column
Polychlorinated Biphenyls by GC - Westborough Lab							
Aroclor 1016	ND		ug/kg	37.2	4.22	1	A
Aroclor 1221	ND		ug/kg	37.2	5.66	1	A
Aroclor 1232	ND		ug/kg	37.2	3.66	1	A
Aroclor 1242	82.1		ug/kg	37.2	4.55	1	A
Aroclor 1248	ND		ug/kg	37.2	4.17	1	A
Aroclor 1254	87.5		ug/kg	37.2	3.04	1	B
Aroclor 1260	72.9		ug/kg	37.2	3.88	1	B
Aroclor 1262	ND		ug/kg	37.2	3.06	1	A
Aroclor 1268	ND		ug/kg	37.2	2.63	1	A
PCBs, Total	243		ug/kg	37.2	2.63	1	B

Surrogate	% Recovery	Qualifier	Acceptance Criteria	Column
2,4,5,6-Tetrachloro-m-xylene	72		30-150	A
Decachlorobiphenyl	53		30-150	A
2,4,5,6-Tetrachloro-m-xylene	64		30-150	B
Decachlorobiphenyl	67		30-150	B

Project Name: LAKEFRONT BOULEVARD
Project Number: E67.022.001
Lab Number: L1743544
Report Date: 12/11/17

SAMPLE RESULTS

Lab ID: L1743544-04
Client ID: B-3-2-7 FT
Sample Location: 240-260 LAKEFRONT BLVD.

Matrix: Soil
Analytical Method: 1,8082A
Analytical Date: 12/08/17 19:16
Analyst: AF
Percent Solids: 87%

Date Collected: 11/27/17 14:00
Date Received: 11/28/17
Field Prep: Not Specified
Extraction Method: EPA 3546
Extraction Date: 12/02/17 12:08
Cleanup Method: EPA 3665A
Cleanup Date: 12/03/17
Cleanup Method: EPA 3660B
Cleanup Date: 12/03/17

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Column
Polychlorinated Biphenyls by GC - Westborough Lab							
Aroclor 1016	ND		ug/kg	36.6	4.15	1	A
Aroclor 1221	ND		ug/kg	36.6	5.57	1	A
Aroclor 1232	ND		ug/kg	36.6	3.60	1	A
Aroclor 1242	18.1	J	ug/kg	36.6	4.48	1	A
Aroclor 1248	ND		ug/kg	36.6	4.11	1	A
Aroclor 1254	10.2	J	ug/kg	36.6	2.99	1	A
Aroclor 1260	6.32	J	ug/kg	36.6	3.82	1	B
Aroclor 1262	ND		ug/kg	36.6	3.01	1	A
Aroclor 1268	ND		ug/kg	36.6	2.59	1	A
PCBs, Total	34.6	J	ug/kg	36.6	2.59	1	B

Surrogate	% Recovery	Qualifier	Acceptance Criteria	Column
2,4,5,6-Tetrachloro-m-xylene	59		30-150	A
Decachlorobiphenyl	40		30-150	A
2,4,5,6-Tetrachloro-m-xylene	65		30-150	B
Decachlorobiphenyl	48		30-150	B

Project Name: LAKEFRONT BOULEVARD
Project Number: E67.022.001
Lab Number: L1743544
Report Date: 12/11/17

SAMPLE RESULTS

Lab ID: L1743544-05
Client ID: B-4-3-10 FT
Sample Location: 240-260 LAKEFRONT BLVD.

Matrix: Soil
Analytical Method: 1,8082A
Analytical Date: 12/08/17 19:28
Analyst: AF
Percent Solids: 73%

Date Collected: 11/28/17 09:30
Date Received: 11/28/17
Field Prep: Not Specified
Extraction Method: EPA 3546
Extraction Date: 12/02/17 12:08
Cleanup Method: EPA 3665A
Cleanup Date: 12/03/17
Cleanup Method: EPA 3660B
Cleanup Date: 12/03/17

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Column
Polychlorinated Biphenyls by GC - Westborough Lab							
Aroclor 1016	ND		ug/kg	43.2	4.90	1	A
Aroclor 1221	ND		ug/kg	43.2	6.57	1	A
Aroclor 1232	ND		ug/kg	43.2	4.25	1	A
Aroclor 1242	88.9	P	ug/kg	43.2	5.28	1	A
Aroclor 1248	ND		ug/kg	43.2	4.84	1	A
Aroclor 1254	34.4	J	ug/kg	43.2	3.52	1	B
Aroclor 1260	20.5	J	ug/kg	43.2	4.51	1	B
Aroclor 1262	ND		ug/kg	43.2	3.55	1	A
Aroclor 1268	ND		ug/kg	43.2	3.06	1	A
PCBs, Total	144	J	ug/kg	43.2	3.06	1	B

Surrogate	% Recovery	Qualifier	Acceptance Criteria	Column
2,4,5,6-Tetrachloro-m-xylene	60		30-150	A
Decachlorobiphenyl	44		30-150	A
2,4,5,6-Tetrachloro-m-xylene	56		30-150	B
Decachlorobiphenyl	54		30-150	B

Project Name: LAKEFRONT BOULEVARD
Project Number: E67.022.001
Lab Number: L1743544
Report Date: 12/11/17

SAMPLE RESULTS

Lab ID: L1743544-06
Client ID: B-5-1-6 FT
Sample Location: 240-260 LAKEFRONT BLVD.

Matrix: Soil
Analytical Method: 1,8082A
Analytical Date: 12/08/17 19:41
Analyst: AF
Percent Solids: 87%

Date Collected: 11/28/17 11:34
Date Received: 11/28/17
Field Prep: Not Specified
Extraction Method: EPA 3546
Extraction Date: 12/02/17 12:08
Cleanup Method: EPA 3665A
Cleanup Date: 12/03/17
Cleanup Method: EPA 3660B
Cleanup Date: 12/03/17

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Column
Polychlorinated Biphenyls by GC - Westborough Lab							
Aroclor 1016	ND		ug/kg	37.5	4.25	1	A
Aroclor 1221	ND		ug/kg	37.5	5.70	1	A
Aroclor 1232	ND		ug/kg	37.5	3.69	1	A
Aroclor 1242	332		ug/kg	37.5	4.59	1	A
Aroclor 1248	ND		ug/kg	37.5	4.20	1	A
Aroclor 1254	156		ug/kg	37.5	3.06	1	A
Aroclor 1260	61.6		ug/kg	37.5	3.91	1	B
Aroclor 1262	ND		ug/kg	37.5	3.08	1	A
Aroclor 1268	ND		ug/kg	37.5	2.65	1	A
PCBs, Total	550		ug/kg	37.5	2.65	1	B

Surrogate	% Recovery	Qualifier	Acceptance Criteria	Column
2,4,5,6-Tetrachloro-m-xylene	65		30-150	A
Decachlorobiphenyl	50		30-150	A
2,4,5,6-Tetrachloro-m-xylene	60		30-150	B
Decachlorobiphenyl	64		30-150	B

Project Name: LAKEFRONT BOULEVARD
Lab Number: L1743544
Project Number: E67.022.001
Report Date: 12/11/17

SAMPLE RESULTS

Lab ID: L1743544-07 D
Client ID: B-6-2-4.5 FT
Sample Location: 240-260 LAKEFRONT BLVD.

Matrix: Soil
Analytical Method: 1,8082A
Analytical Date: 12/10/17 21:18
Analyst: WR
Percent Solids: 83%

Date Collected: 11/28/17 13:55
Date Received: 11/28/17
Field Prep: Not Specified
Extraction Method: EPA 3546
Extraction Date: 12/02/17 12:08
Cleanup Method: EPA 3665A
Cleanup Date: 12/03/17
Cleanup Method: EPA 3660B
Cleanup Date: 12/03/17

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Column
Polychlorinated Biphenyls by GC - Westborough Lab							
Aroclor 1016	ND		ug/kg	384	43.6	10	A
Aroclor 1221	ND		ug/kg	384	58.5	10	A
Aroclor 1232	ND		ug/kg	384	37.8	10	A
Aroclor 1242	1350		ug/kg	384	47.0	10	A
Aroclor 1248	ND		ug/kg	384	43.1	10	A
Aroclor 1254	ND		ug/kg	384	31.4	10	A
Aroclor 1260	312	J	ug/kg	384	40.1	10	B
Aroclor 1262	ND		ug/kg	384	31.6	10	A
Aroclor 1268	ND		ug/kg	384	27.2	10	A
PCBs, Total	1660	J	ug/kg	384	27.2	10	B

Surrogate	% Recovery	Qualifier	Acceptance Criteria	Column
2,4,5,6-Tetrachloro-m-xylene	**0**	Q	30-150	A
Decachlorobiphenyl	**0**	Q	30-150	A
2,4,5,6-Tetrachloro-m-xylene	**0**	Q	30-150	B
Decachlorobiphenyl	**0**	Q	30-150	B

Project Name: LAKEFRONT BOULEVARD
Project Number: E67.022.001

Lab Number: L1743544
Report Date: 12/11/17

Method Blank Analysis
Batch Quality Control

Analytical Method: 1,8082A
Analytical Date: 12/03/17 23:21
Analyst: HT

Extraction Method: EPA 3546
Extraction Date: 12/02/17 00:10
Cleanup Method: EPA 3665A
Cleanup Date: 12/02/17
Cleanup Method: EPA 3660B
Cleanup Date: 12/02/17

Parameter	Result	Qualifier	Units	RL	MDL	Column
Polychlorinated Biphenyls by GC - Westborough Lab for sample(s): 03-07 Batch: WG1068318-1						
Aroclor 1016	ND		ug/kg	31.8	3.61	A
Aroclor 1221	ND		ug/kg	31.8	4.85	A
Aroclor 1232	ND		ug/kg	31.8	3.13	A
Aroclor 1242	ND		ug/kg	31.8	3.90	A
Aroclor 1248	ND		ug/kg	31.8	3.57	A
Aroclor 1254	ND		ug/kg	31.8	2.60	A
Aroclor 1260	ND		ug/kg	31.8	3.32	A
Aroclor 1262	ND		ug/kg	31.8	2.62	A
Aroclor 1268	ND		ug/kg	31.8	2.25	A
PCBs, Total	ND		ug/kg	31.8	2.25	A

Surrogate	%Recovery	Qualifier	Acceptance Criteria	Column
2,4,5,6-Tetrachloro-m-xylene	60		30-150	A
Decachlorobiphenyl	43		30-150	A
2,4,5,6-Tetrachloro-m-xylene	62		30-150	B
Decachlorobiphenyl	60		30-150	B

Lab Control Sample Analysis

Batch Quality Control

Project Name: LAKEFRONT BOULEVARD

Project Number: E67.022.001

Lab Number: L1743544

Report Date: 12/11/17

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits	Column
Polychlorinated Biphenyls by GC - Westborough Lab Associated sample(s): 03-07 Batch: WG1068318-2 WG1068318-3									
Aroclor 1016	57		55		40-140	4		50	A
Aroclor 1260	52		47		40-140	10		50	A

Surrogate	LCS %Recovery	Qual	LCSD %Recovery	Qual	Acceptance Criteria	Column
2,4,5,6-Tetrachloro-m-xylene	68		63		30-150	A
Decachlorobiphenyl	50		46		30-150	A
2,4,5,6-Tetrachloro-m-xylene	67		62		30-150	B
Decachlorobiphenyl	68		61		30-150	B

PESTICIDES

Project Name: LAKEFRONT BOULEVARD
Project Number: E67.022.001
Lab Number: L1743544
Report Date: 12/11/17

SAMPLE RESULTS

Lab ID: L1743544-03
Client ID: B-2-6-9 FT
Sample Location: 240-260 LAKEFRONT BLVD.

Matrix: Soil
Analytical Method: 1,8081B
Analytical Date: 12/09/17 02:14
Analyst: KEG
Percent Solids: 88%

Date Collected: 11/27/17 11:24
Date Received: 11/28/17
Field Prep: Not Specified
Extraction Method: EPA 3546
Extraction Date: 12/05/17 15:13
Cleanup Method: EPA 3620B
Cleanup Date: 12/06/17

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Column
Organochlorine Pesticides by GC - Westborough Lab							
Delta-BHC	ND		ug/kg	1.78	0.348	1	A
Lindane	ND		ug/kg	0.740	0.331	1	A
Alpha-BHC	ND		ug/kg	0.740	0.210	1	A
Beta-BHC	ND		ug/kg	1.78	0.674	1	A
Heptachlor	0.583	JPI	ug/kg	0.888	0.398	1	B
Aldrin	ND		ug/kg	1.78	0.625	1	A
Endrin	4.34		ug/kg	0.740	0.303	1	A
Dieldrin	3.60	P	ug/kg	1.11	0.555	1	A
4,4'-DDE	0.732	JPI	ug/kg	1.78	0.411	1	B
4,4'-DDD	1.31	JPI	ug/kg	1.78	0.634	1	B
4,4'-DDT	7.88		ug/kg	3.33	1.43	1	A
Endosulfan I	ND		ug/kg	1.78	0.420	1	A
Endosulfan II	ND		ug/kg	1.78	0.594	1	A
Endosulfan sulfate	1.16	PI	ug/kg	0.740	0.352	1	A
cis-Chlordane	4.02	PI	ug/kg	2.22	0.619	1	B

Surrogate	% Recovery	Qualifier	Acceptance Criteria	Column
2,4,5,6-Tetrachloro-m-xylene	**208**	Q	30-150	B
Decachlorobiphenyl	81		30-150	B
2,4,5,6-Tetrachloro-m-xylene	90		30-150	A
Decachlorobiphenyl	132		30-150	A

Project Name: LAKEFRONT BOULEVARD
Project Number: E67.022.001
Lab Number: L1743544
Report Date: 12/11/17

SAMPLE RESULTS

Lab ID: L1743544-04
Client ID: B-3-2-7 FT
Sample Location: 240-260 LAKEFRONT BLVD.

Matrix: Soil
Analytical Method: 1,8081B
Analytical Date: 12/07/17 07:38
Analyst: KEG
Percent Solids: 87%

Date Collected: 11/27/17 14:00
Date Received: 11/28/17
Field Prep: Not Specified
Extraction Method: EPA 3546
Extraction Date: 12/05/17 15:13
Cleanup Method: EPA 3620B
Cleanup Date: 12/06/17

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Column
Organochlorine Pesticides by GC - Westborough Lab							
Delta-BHC	ND		ug/kg	1.83	0.359	1	A
Lindane	ND		ug/kg	0.764	0.341	1	A
Alpha-BHC	ND		ug/kg	0.764	0.217	1	A
Beta-BHC	ND		ug/kg	1.83	0.695	1	A
Heptachlor	ND		ug/kg	0.917	0.411	1	A
Aldrin	ND		ug/kg	1.83	0.645	1	A
Endrin	0.757	J	ug/kg	0.764	0.313	1	A
Dieldrin	1.04	J	ug/kg	1.14	0.573	1	A
4,4'-DDE	ND		ug/kg	1.83	0.424	1	A
4,4'-DDD	1.00	J	ug/kg	1.83	0.654	1	A
4,4'-DDT	1.83	J	ug/kg	3.44	1.47	1	A
Endosulfan I	ND		ug/kg	1.83	0.433	1	A
Endosulfan II	ND		ug/kg	1.83	0.613	1	A
Endosulfan sulfate	ND		ug/kg	0.764	0.364	1	A
cis-Chlordane	0.907	J	ug/kg	2.29	0.638	1	B

Surrogate	% Recovery	Qualifier	Acceptance Criteria	Column
2,4,5,6-Tetrachloro-m-xylene	79		30-150	B
Decachlorobiphenyl	83		30-150	B
2,4,5,6-Tetrachloro-m-xylene	83		30-150	A
Decachlorobiphenyl	129		30-150	A

Project Name: LAKEFRONT BOULEVARD
Project Number: E67.022.001
Lab Number: L1743544
Report Date: 12/11/17

SAMPLE RESULTS

Lab ID: L1743544-05
Client ID: B-4-3-10 FT
Sample Location: 240-260 LAKEFRONT BLVD.

Matrix: Soil
Analytical Method: 1,8081B
Analytical Date: 12/09/17 01:49
Analyst: KEG
Percent Solids: 73%

Date Collected: 11/28/17 09:30
Date Received: 11/28/17
Field Prep: Not Specified
Extraction Method: EPA 3546
Extraction Date: 12/05/17 15:13
Cleanup Method: EPA 3620B
Cleanup Date: 12/06/17

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Column
Organochlorine Pesticides by GC - Westborough Lab							
Delta-BHC	1.40	J	ug/kg	2.08	0.408	1	A
Lindane	ND		ug/kg	0.867	0.388	1	A
Alpha-BHC	ND		ug/kg	0.867	0.246	1	A
Beta-BHC	ND		ug/kg	2.08	0.789	1	A
Heptachlor	ND		ug/kg	1.04	0.467	1	A
Aldrin	ND		ug/kg	2.08	0.733	1	A
Endrin	ND		ug/kg	0.867	0.356	1	A
Dieldrin	1.50	P	ug/kg	1.30	0.650	1	A
4,4'-DDE	5.79		ug/kg	2.08	0.481	1	B
4,4'-DDD	5.78		ug/kg	2.08	0.742	1	A
4,4'-DDT	2.11	J	ug/kg	3.90	1.67	1	B
Endosulfan I	ND		ug/kg	2.08	0.492	1	A
Endosulfan II	ND		ug/kg	2.08	0.696	1	A
Endosulfan sulfate	ND		ug/kg	0.867	0.413	1	A
cis-Chlordane	ND		ug/kg	2.60	0.725	1	A

Surrogate	% Recovery	Qualifier	Acceptance Criteria	Column
2,4,5,6-Tetrachloro-m-xylene	94		30-150	B
Decachlorobiphenyl	91		30-150	B
2,4,5,6-Tetrachloro-m-xylene	96		30-150	A
Decachlorobiphenyl	150		30-150	A

Project Name: LAKEFRONT BOULEVARD
Project Number: E67.022.001
Lab Number: L1743544
Report Date: 12/11/17

SAMPLE RESULTS

Lab ID: L1743544-06
Client ID: B-5-1-6 FT
Sample Location: 240-260 LAKEFRONT BLVD.

Matrix: Soil
Analytical Method: 1,8081B
Analytical Date: 12/09/17 02:01
Analyst: KEG
Percent Solids: 87%

Date Collected: 11/28/17 11:34
Date Received: 11/28/17
Field Prep: Not Specified
Extraction Method: EPA 3546
Extraction Date: 12/05/17 15:13
Cleanup Method: EPA 3620B
Cleanup Date: 12/06/17

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Column
Organochlorine Pesticides by GC - Westborough Lab							
Delta-BHC	3.66		ug/kg	1.77	0.346	1	A
Lindane	ND		ug/kg	0.736	0.329	1	A
Alpha-BHC	ND		ug/kg	0.736	0.209	1	A
Beta-BHC	ND		ug/kg	1.77	0.670	1	A
Heptachlor	ND		ug/kg	0.884	0.396	1	A
Aldrin	ND		ug/kg	1.77	0.622	1	A
Endrin	3.50		ug/kg	0.736	0.302	1	A
Dieldrin	2.77		ug/kg	1.10	0.552	1	B
4,4'-DDE	3.73		ug/kg	1.77	0.409	1	A
4,4'-DDD	7.15		ug/kg	1.77	0.630	1	A
4,4'-DDT	6.26		ug/kg	3.31	1.42	1	A
Endosulfan I	ND		ug/kg	1.77	0.418	1	A
Endosulfan II	ND		ug/kg	1.77	0.591	1	A
Endosulfan sulfate	ND		ug/kg	0.736	0.350	1	A
cis-Chlordane	ND		ug/kg	2.21	0.616	1	A

Surrogate	% Recovery	Qualifier	Acceptance Criteria	Column
2,4,5,6-Tetrachloro-m-xylene	111		30-150	B
Decachlorobiphenyl	100		30-150	B
2,4,5,6-Tetrachloro-m-xylene	91		30-150	A
Decachlorobiphenyl	**156**	Q	30-150	A

Project Name: LAKEFRONT BOULEVARD
Project Number: E67.022.001
Lab Number: L1743544
Report Date: 12/11/17

SAMPLE RESULTS

Lab ID: L1743544-07
Client ID: B-6-2-4.5 FT
Sample Location: 240-260 LAKEFRONT BLVD.

Matrix: Soil
Analytical Method: 1,8081B
Analytical Date: 12/09/17 01:36
Analyst: KEG
Percent Solids: 83%

Date Collected: 11/28/17 13:55
Date Received: 11/28/17
Field Prep: Not Specified
Extraction Method: EPA 3546
Extraction Date: 12/05/17 15:13
Cleanup Method: EPA 3620B
Cleanup Date: 12/06/17

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Column
Organochlorine Pesticides by GC - Westborough Lab							
Delta-BHC	0.795	JPI	ug/kg	1.88	0.369	1	B
Lindane	ND		ug/kg	0.785	0.351	1	A
Alpha-BHC	ND		ug/kg	0.785	0.223	1	A
Beta-BHC	ND		ug/kg	1.88	0.714	1	A
Heptachlor	ND		ug/kg	0.942	0.422	1	A
Aldrin	ND		ug/kg	1.88	0.663	1	A
Endrin	3.28		ug/kg	0.785	0.322	1	A
Dieldrin	2.43	P	ug/kg	1.18	0.588	1	A
4,4'-DDE	ND		ug/kg	1.88	0.436	1	A
4,4'-DDD	3.19		ug/kg	1.88	0.672	1	A
4,4'-DDT	5.32		ug/kg	3.53	1.51	1	A
Endosulfan I	ND		ug/kg	1.88	0.445	1	A
Endosulfan II	0.866	JPI	ug/kg	1.88	0.629	1	A
Endosulfan sulfate	ND		ug/kg	0.785	0.374	1	A
cis-Chlordane	1.64	J	ug/kg	2.35	0.656	1	B

Surrogate	% Recovery	Qualifier	Acceptance Criteria	Column
2,4,5,6-Tetrachloro-m-xylene	78		30-150	B
Decachlorobiphenyl	103		30-150	B
2,4,5,6-Tetrachloro-m-xylene	99		30-150	A
Decachlorobiphenyl	**173**	Q	30-150	A

Project Name: LAKEFRONT BOULEVARD
Project Number: E67.022.001
Lab Number: L1743544
Report Date: 12/11/17

Method Blank Analysis
Batch Quality Control

Analytical Method: 1,8081B
Analytical Date: 12/06/17 07:19
Analyst: KEG

Extraction Method: EPA 3546
Extraction Date: 12/05/17 15:13
Cleanup Method: EPA 3620B
Cleanup Date: 12/06/17

Parameter	Result	Qualifier	Units	RL	MDL	Column
Organochlorine Pesticides by GC - Westborough Lab for sample(s): 03-07 Batch: WG1069274-1						
Delta-BHC	ND		ug/kg	1.57	0.308	A
Lindane	ND		ug/kg	0.656	0.293	A
Alpha-BHC	ND		ug/kg	0.656	0.186	A
Beta-BHC	ND		ug/kg	1.57	0.597	A
Heptachlor	ND		ug/kg	0.787	0.353	A
Aldrin	ND		ug/kg	1.57	0.554	A
Endrin	ND		ug/kg	0.656	0.269	A
Dieldrin	ND		ug/kg	0.984	0.492	A
4,4'-DDE	ND		ug/kg	1.57	0.364	A
4,4'-DDD	ND		ug/kg	1.57	0.562	A
4,4'-DDT	ND		ug/kg	2.95	1.27	A
Endosulfan I	ND		ug/kg	1.57	0.372	A
Endosulfan II	ND		ug/kg	1.57	0.526	A
Endosulfan sulfate	ND		ug/kg	0.656	0.312	A
cis-Chlordane	ND		ug/kg	1.97	0.548	A

Surrogate	%Recovery	Qualifier	Acceptance Criteria	Column
2,4,5,6-Tetrachloro-m-xylene	75		30-150	B
Decachlorobiphenyl	122		30-150	B
2,4,5,6-Tetrachloro-m-xylene	94		30-150	A
Decachlorobiphenyl	114		30-150	A

Lab Control Sample Analysis

Batch Quality Control

Project Name: LAKEFRONT BOULEVARD

Project Number: E67.022.001

Lab Number: L1743544

Report Date: 12/11/17

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits	Column
Organochlorine Pesticides by GC - Westborough Lab Associated sample(s): 03-07 Batch: WG1069274-2 WG1069274-3									
Delta-BHC	84		81		30-150	4		30	A
Lindane	77		74		30-150	4		30	A
Alpha-BHC	85		81		30-150	5		30	A
Beta-BHC	93		86		30-150	8		30	A
Heptachlor	102		100		30-150	2		30	A
Aldrin	78		75		30-150	4		30	A
Endrin	90		86		30-150	5		30	A
Dieldrin	92		90		30-150	2		30	A
4,4'-DDE	81		78		30-150	4		30	A
4,4'-DDD	85		84		30-150	1		30	A
4,4'-DDT	93		92		30-150	1		30	A
Endosulfan I	98		95		30-150	3		30	A
Endosulfan II	84		86		30-150	2		30	A
Endosulfan sulfate	76		89		30-150	16		30	A
cis-Chlordane	75		73		30-150	3		30	A

Surrogate	LCS %Recovery	Qual	LCSD %Recovery	Qual	Acceptance Criteria	Column
2,4,5,6-Tetrachloro-m-xylene	80		76		30-150	B
Decachlorobiphenyl	123		122		30-150	B
2,4,5,6-Tetrachloro-m-xylene	96		91		30-150	A
Decachlorobiphenyl	118		116		30-150	A

METALS

Project Name: LAKEFRONT BOULEVARD
Project Number: E67.022.001
Lab Number: L1743544
Report Date: 12/11/17

SAMPLE RESULTS

Lab ID: L1743544-01
Client ID: B-1-4-5 FT
Sample Location: 240-260 LAKEFRONT BLVD.
Matrix: Soil
Percent Solids: 87%

Date Collected: 11/27/17 08:50
Date Received: 11/28/17
Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Prep Method	Analytical Method	Analyst
Total Metals - Mansfield Lab											
Arsenic, Total	4.41		mg/kg	0.896	0.186	2	12/01/17 19:40	12/06/17 11:49	EPA 3050B	1,6010C	BV
Barium, Total	64.2		mg/kg	0.896	0.156	2	12/01/17 19:40	12/06/17 11:49	EPA 3050B	1,6010C	BV
Beryllium, Total	0.484		mg/kg	0.448	0.030	2	12/01/17 19:40	12/06/17 11:49	EPA 3050B	1,6010C	BV
Cadmium, Total	ND		mg/kg	0.896	0.088	2	12/01/17 19:40	12/06/17 11:49	EPA 3050B	1,6010C	BV
Chromium, Total	17.1		mg/kg	0.896	0.086	2	12/01/17 19:40	12/06/17 11:49	EPA 3050B	1,6010C	BV
Copper, Total	17.5		mg/kg	0.896	0.231	2	12/01/17 19:40	12/06/17 11:49	EPA 3050B	1,6010C	BV
Lead, Total	34.9		mg/kg	4.48	0.240	2	12/01/17 19:40	12/06/17 11:49	EPA 3050B	1,6010C	BV
Manganese, Total	366		mg/kg	0.896	0.142	2	12/01/17 19:40	12/06/17 11:49	EPA 3050B	1,6010C	BV
Mercury, Total	0.24		mg/kg	0.07	0.02	1	11/30/17 09:00	11/30/17 20:18	EPA 7471B	1,7471B	EA
Nickel, Total	9.95		mg/kg	2.24	0.217	2	12/01/17 19:40	12/06/17 11:49	EPA 3050B	1,6010C	BV
Selenium, Total	ND		mg/kg	1.79	0.231	2	12/01/17 19:40	12/06/17 11:49	EPA 3050B	1,6010C	BV
Silver, Total	2.91		mg/kg	0.896	0.254	2	12/01/17 19:40	12/06/17 11:49	EPA 3050B	1,6010C	BV
Zinc, Total	72.4		mg/kg	4.48	0.262	2	12/01/17 19:40	12/06/17 11:49	EPA 3050B	1,6010C	BV

Project Name: LAKEFRONT BOULEVARD
Project Number: E67.022.001
Lab Number: L1743544
Report Date: 12/11/17

SAMPLE RESULTS

Lab ID: L1743544-02
Client ID: B-1-14-15 FT
Sample Location: 240-260 LAKEFRONT BLVD.
Matrix: Soil
Percent Solids: 85%

Date Collected: 11/27/17 09:34
Date Received: 11/28/17
Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Prep Method	Analytical Method	Analyst
Total Metals - Mansfield Lab											
Arsenic, Total	2.85		mg/kg	0.922	0.192	2	12/01/17 19:40	12/06/17 13:44	EPA 3050B	1,6010C	BV
Barium, Total	44.6		mg/kg	0.922	0.160	2	12/01/17 19:40	12/06/17 13:44	EPA 3050B	1,6010C	BV
Beryllium, Total	0.258	J	mg/kg	0.461	0.030	2	12/01/17 19:40	12/06/17 13:44	EPA 3050B	1,6010C	BV
Cadmium, Total	ND		mg/kg	0.922	0.090	2	12/01/17 19:40	12/06/17 13:44	EPA 3050B	1,6010C	BV
Chromium, Total	8.15		mg/kg	0.922	0.089	2	12/01/17 19:40	12/06/17 13:44	EPA 3050B	1,6010C	BV
Copper, Total	15.5		mg/kg	0.922	0.238	2	12/01/17 19:40	12/06/17 13:44	EPA 3050B	1,6010C	BV
Lead, Total	45.9		mg/kg	4.61	0.247	2	12/01/17 19:40	12/06/17 13:44	EPA 3050B	1,6010C	BV
Manganese, Total	304		mg/kg	0.922	0.147	2	12/01/17 19:40	12/06/17 13:44	EPA 3050B	1,6010C	BV
Mercury, Total	0.49		mg/kg	0.07	0.02	1	11/30/17 09:00	11/30/17 20:20	EPA 7471B	1,7471B	EA
Nickel, Total	5.40		mg/kg	2.30	0.223	2	12/01/17 19:40	12/06/17 13:44	EPA 3050B	1,6010C	BV
Selenium, Total	ND		mg/kg	1.84	0.238	2	12/01/17 19:40	12/06/17 13:44	EPA 3050B	1,6010C	BV
Silver, Total	ND		mg/kg	0.922	0.261	2	12/01/17 19:40	12/06/17 13:44	EPA 3050B	1,6010C	BV
Zinc, Total	81.8		mg/kg	4.61	0.270	2	12/01/17 19:40	12/06/17 13:44	EPA 3050B	1,6010C	BV

Project Name: LAKEFRONT BOULEVARD
Project Number: E67.022.001
Lab Number: L1743544
Report Date: 12/11/17

SAMPLE RESULTS

Lab ID: L1743544-03
Client ID: B-2-6-9 FT
Sample Location: 240-260 LAKEFRONT BLVD.
Matrix: Soil
Percent Solids: 88%

Date Collected: 11/27/17 11:24
Date Received: 11/28/17
Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Prep Method	Analytical Method	Analyst
Total Metals - Mansfield Lab											
Arsenic, Total	6.48		mg/kg	0.896	0.186	2	12/01/17 19:40	12/06/17 13:49	EPA 3050B	1,6010C	BV
Barium, Total	150		mg/kg	0.896	0.156	2	12/01/17 19:40	12/06/17 13:49	EPA 3050B	1,6010C	BV
Beryllium, Total	1.36		mg/kg	0.448	0.030	2	12/01/17 19:40	12/06/17 13:49	EPA 3050B	1,6010C	BV
Cadmium, Total	ND		mg/kg	0.896	0.088	2	12/01/17 19:40	12/06/17 13:49	EPA 3050B	1,6010C	BV
Chromium, Total	31.0		mg/kg	0.896	0.086	2	12/01/17 19:40	12/06/17 13:49	EPA 3050B	1,6010C	BV
Copper, Total	40.5		mg/kg	0.896	0.231	2	12/01/17 19:40	12/06/17 13:49	EPA 3050B	1,6010C	BV
Lead, Total	74.0		mg/kg	4.48	0.240	2	12/01/17 19:40	12/06/17 13:49	EPA 3050B	1,6010C	BV
Manganese, Total	716		mg/kg	0.896	0.142	2	12/01/17 19:40	12/06/17 13:49	EPA 3050B	1,6010C	BV
Mercury, Total	0.42		mg/kg	0.07	0.02	1	11/30/17 09:00	11/30/17 20:22	EPA 7471B	1,7471B	EA
Nickel, Total	56.0		mg/kg	2.24	0.217	2	12/01/17 19:40	12/06/17 13:49	EPA 3050B	1,6010C	BV
Selenium, Total	ND		mg/kg	1.79	0.231	2	12/01/17 19:40	12/06/17 13:49	EPA 3050B	1,6010C	BV
Silver, Total	0.323	J	mg/kg	0.896	0.254	2	12/01/17 19:40	12/06/17 13:49	EPA 3050B	1,6010C	BV
Zinc, Total	170		mg/kg	4.48	0.263	2	12/01/17 19:40	12/06/17 13:49	EPA 3050B	1,6010C	BV
General Chemistry - Mansfield Lab											
Chromium, Trivalent	31		mg/kg	0.91	0.91	1		12/06/17 13:49	NA	107,-	

Project Name: LAKEFRONT BOULEVARD
Lab Number: L1743544
Project Number: E67.022.001
Report Date: 12/11/17

SAMPLE RESULTS

Lab ID: L1743544-04
Client ID: B-3-2-7 FT
Sample Location: 240-260 LAKEFRONT BLVD.
Matrix: Soil
Percent Solids: 87%

Date Collected: 11/27/17 14:00
Date Received: 11/28/17
Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Prep Method	Analytical Method	Analyst
Total Metals - Mansfield Lab											
Arsenic, Total	2.10		mg/kg	0.905	0.188	2	12/01/17 19:40	12/06/17 13:54	EPA 3050B	1,6010C	BV
Barium, Total	37.3		mg/kg	0.905	0.158	2	12/01/17 19:40	12/06/17 13:54	EPA 3050B	1,6010C	BV
Beryllium, Total	0.199	J	mg/kg	0.453	0.030	2	12/01/17 19:40	12/06/17 13:54	EPA 3050B	1,6010C	BV
Cadmium, Total	ND		mg/kg	0.905	0.089	2	12/01/17 19:40	12/06/17 13:54	EPA 3050B	1,6010C	BV
Chromium, Total	9.21		mg/kg	0.905	0.087	2	12/01/17 19:40	12/06/17 13:54	EPA 3050B	1,6010C	BV
Copper, Total	10.7		mg/kg	0.905	0.234	2	12/01/17 19:40	12/06/17 13:54	EPA 3050B	1,6010C	BV
Lead, Total	16.3		mg/kg	4.53	0.243	2	12/01/17 19:40	12/06/17 13:54	EPA 3050B	1,6010C	BV
Manganese, Total	317		mg/kg	0.905	0.144	2	12/01/17 19:40	12/06/17 13:54	EPA 3050B	1,6010C	BV
Mercury, Total	0.067	J	mg/kg	0.072	0.015	1	11/30/17 09:00	11/30/17 20:24	EPA 7471B	1,7471B	EA
Nickel, Total	6.84		mg/kg	2.26	0.219	2	12/01/17 19:40	12/06/17 13:54	EPA 3050B	1,6010C	BV
Selenium, Total	ND		mg/kg	1.81	0.234	2	12/01/17 19:40	12/06/17 13:54	EPA 3050B	1,6010C	BV
Silver, Total	ND		mg/kg	0.905	0.256	2	12/01/17 19:40	12/06/17 13:54	EPA 3050B	1,6010C	BV
Zinc, Total	60.9		mg/kg	4.53	0.265	2	12/01/17 19:40	12/06/17 13:54	EPA 3050B	1,6010C	BV
General Chemistry - Mansfield Lab											
Chromium, Trivalent	9.2		mg/kg	0.92	0.92	1		12/06/17 13:54	NA	107,-	

Project Name: LAKEFRONT BOULEVARD
Project Number: E67.022.001
Lab Number: L1743544
Report Date: 12/11/17

SAMPLE RESULTS

Lab ID: L1743544-05
Client ID: B-4-3-10 FT
Sample Location: 240-260 LAKEFRONT BLVD.
Matrix: Soil
Percent Solids: 73%

Date Collected: 11/28/17 09:30
Date Received: 11/28/17
Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Prep Method	Analytical Method	Analyst
Total Metals - Mansfield Lab											
Arsenic, Total	6.50		mg/kg	1.08	0.226	2	12/01/17 19:40	12/06/17 13:58	EPA 3050B	1,6010C	BV
Barium, Total	92.9		mg/kg	1.08	0.189	2	12/01/17 19:40	12/06/17 13:58	EPA 3050B	1,6010C	BV
Beryllium, Total	0.412	J	mg/kg	0.542	0.036	2	12/01/17 19:40	12/06/17 13:58	EPA 3050B	1,6010C	BV
Cadmium, Total	3.16		mg/kg	1.08	0.106	2	12/01/17 19:40	12/06/17 13:58	EPA 3050B	1,6010C	BV
Chromium, Total	27.1		mg/kg	1.08	0.104	2	12/01/17 19:40	12/06/17 13:58	EPA 3050B	1,6010C	BV
Copper, Total	34.0		mg/kg	1.08	0.280	2	12/01/17 19:40	12/06/17 13:58	EPA 3050B	1,6010C	BV
Lead, Total	133		mg/kg	5.42	0.291	2	12/01/17 19:40	12/06/17 13:58	EPA 3050B	1,6010C	BV
Manganese, Total	410		mg/kg	1.08	0.172	2	12/01/17 19:40	12/06/17 13:58	EPA 3050B	1,6010C	BV
Mercury, Total	0.54		mg/kg	0.09	0.02	1	11/30/17 09:00	11/30/17 20:25	EPA 7471B	1,7471B	EA
Nickel, Total	15.9		mg/kg	2.71	0.262	2	12/01/17 19:40	12/06/17 13:58	EPA 3050B	1,6010C	BV
Selenium, Total	ND		mg/kg	2.17	0.280	2	12/01/17 19:40	12/06/17 13:58	EPA 3050B	1,6010C	BV
Silver, Total	0.347	J	mg/kg	1.08	0.307	2	12/01/17 19:40	12/06/17 13:58	EPA 3050B	1,6010C	BV
Zinc, Total	153		mg/kg	5.42	0.318	2	12/01/17 19:40	12/06/17 13:58	EPA 3050B	1,6010C	BV
General Chemistry - Mansfield Lab											
Chromium, Trivalent	27		mg/kg	1.1	1.1	1		12/06/17 13:58	NA	107,-	

Project Name: LAKEFRONT BOULEVARD
Lab Number: L1743544
Project Number: E67.022.001
Report Date: 12/11/17

SAMPLE RESULTS

Lab ID: L1743544-06
Client ID: B-5-1-6 FT
Sample Location: 240-260 LAKEFRONT BLVD.
Matrix: Soil
Percent Solids: 87%

Date Collected: 11/28/17 11:34
Date Received: 11/28/17
Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Prep Method	Analytical Method	Analyst
Total Metals - Mansfield Lab											
Arsenic, Total	6.94		mg/kg	0.891	0.185	2	12/01/17 19:40	12/06/17 14:03	EPA 3050B	1,6010C	BV
Barium, Total	73.8		mg/kg	0.891	0.155	2	12/01/17 19:40	12/06/17 14:03	EPA 3050B	1,6010C	BV
Beryllium, Total	0.454		mg/kg	0.446	0.029	2	12/01/17 19:40	12/06/17 14:03	EPA 3050B	1,6010C	BV
Cadmium, Total	1.17		mg/kg	0.891	0.087	2	12/01/17 19:40	12/06/17 14:03	EPA 3050B	1,6010C	BV
Chromium, Total	21.2		mg/kg	0.891	0.086	2	12/01/17 19:40	12/06/17 14:03	EPA 3050B	1,6010C	BV
Copper, Total	45.3		mg/kg	0.891	0.230	2	12/01/17 19:40	12/06/17 14:03	EPA 3050B	1,6010C	BV
Lead, Total	113		mg/kg	4.46	0.239	2	12/01/17 19:40	12/06/17 14:03	EPA 3050B	1,6010C	BV
Manganese, Total	388		mg/kg	0.891	0.142	2	12/01/17 19:40	12/06/17 14:03	EPA 3050B	1,6010C	BV
Mercury, Total	0.38		mg/kg	0.07	0.02	1	11/30/17 09:00	11/30/17 20:27	EPA 7471B	1,7471B	EA
Nickel, Total	14.5		mg/kg	2.23	0.216	2	12/01/17 19:40	12/06/17 14:03	EPA 3050B	1,6010C	BV
Selenium, Total	ND		mg/kg	1.78	0.230	2	12/01/17 19:40	12/06/17 14:03	EPA 3050B	1,6010C	BV
Silver, Total	0.544	J	mg/kg	0.891	0.252	2	12/01/17 19:40	12/06/17 14:03	EPA 3050B	1,6010C	BV
Zinc, Total	177		mg/kg	4.46	0.261	2	12/01/17 19:40	12/06/17 14:03	EPA 3050B	1,6010C	BV
General Chemistry - Mansfield Lab											
Chromium, Trivalent	21		mg/kg	0.92	0.92	1		12/06/17 14:03	NA	107,-	

Project Name: LAKEFRONT BOULEVARD
Project Number: E67.022.001
Lab Number: L1743544
Report Date: 12/11/17

SAMPLE RESULTS

Lab ID: L1743544-07
Client ID: B-6-2-4.5 FT
Sample Location: 240-260 LAKEFRONT BLVD.
Matrix: Soil
Percent Solids: 83%

Date Collected: 11/28/17 13:55
Date Received: 11/28/17
Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Prep Method	Analytical Method	Analyst
Total Metals - Mansfield Lab											
Arsenic, Total	7.36		mg/kg	0.915	0.190	2	12/01/17 19:40	12/06/17 14:08	EPA 3050B	1,6010C	BV
Barium, Total	154		mg/kg	0.915	0.159	2	12/01/17 19:40	12/06/17 14:08	EPA 3050B	1,6010C	BV
Beryllium, Total	0.338	J	mg/kg	0.457	0.030	2	12/01/17 19:40	12/06/17 14:08	EPA 3050B	1,6010C	BV
Cadmium, Total	0.293	J	mg/kg	0.915	0.090	2	12/01/17 19:40	12/06/17 14:08	EPA 3050B	1,6010C	BV
Chromium, Total	13.5		mg/kg	0.915	0.088	2	12/01/17 19:40	12/06/17 14:08	EPA 3050B	1,6010C	BV
Copper, Total	40.4		mg/kg	0.915	0.236	2	12/01/17 19:40	12/06/17 14:08	EPA 3050B	1,6010C	BV
Lead, Total	99.3		mg/kg	4.57	0.245	2	12/01/17 19:40	12/06/17 14:08	EPA 3050B	1,6010C	BV
Manganese, Total	350		mg/kg	0.915	0.145	2	12/01/17 19:40	12/06/17 14:08	EPA 3050B	1,6010C	BV
Mercury, Total	0.44		mg/kg	0.08	0.02	1	11/30/17 09:00	11/30/17 20:29	EPA 7471B	1,7471B	EA
Nickel, Total	14.6		mg/kg	2.29	0.221	2	12/01/17 19:40	12/06/17 14:08	EPA 3050B	1,6010C	BV
Selenium, Total	ND		mg/kg	1.83	0.236	2	12/01/17 19:40	12/06/17 14:08	EPA 3050B	1,6010C	BV
Silver, Total	0.284	J	mg/kg	0.915	0.259	2	12/01/17 19:40	12/06/17 14:08	EPA 3050B	1,6010C	BV
Zinc, Total	108		mg/kg	4.57	0.268	2	12/01/17 19:40	12/06/17 14:08	EPA 3050B	1,6010C	BV
General Chemistry - Mansfield Lab											
Chromium, Trivalent	14		mg/kg	0.97	0.97	1		12/06/17 14:08	NA	107,-	

Project Name: LAKEFRONT BOULEVARD **Lab Number:** L1743544

Project Number: E67.022.001 **Report Date:** 12/11/17

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): 01-07 Batch: WG1067461-1										
Mercury, Total	ND		mg/kg	0.08	0.02	1	11/30/17 09:00	11/30/17 19:51	1,7471B	EA

Prep Information

Digestion Method: EPA 7471B

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
Total Metals - Mansfield Lab for sample(s): 01-07 Batch: WG1068261-1										
Arsenic, Total	ND		mg/kg	0.400	0.083	1	12/01/17 19:40	12/06/17 11:26	1,6010C	BV
Barium, Total	ND		mg/kg	0.400	0.070	1	12/01/17 19:40	12/06/17 11:26	1,6010C	BV
Beryllium, Total	ND		mg/kg	0.200	0.013	1	12/01/17 19:40	12/06/17 11:26	1,6010C	BV
Cadmium, Total	ND		mg/kg	0.400	0.039	1	12/01/17 19:40	12/06/17 11:26	1,6010C	BV
Chromium, Total	ND		mg/kg	0.400	0.038	1	12/01/17 19:40	12/06/17 11:26	1,6010C	BV
Copper, Total	ND		mg/kg	0.400	0.103	1	12/01/17 19:40	12/06/17 11:26	1,6010C	BV
Lead, Total	ND		mg/kg	2.00	0.107	1	12/01/17 19:40	12/06/17 11:26	1,6010C	BV
Manganese, Total	ND		mg/kg	0.400	0.064	1	12/01/17 19:40	12/06/17 11:26	1,6010C	BV
Nickel, Total	ND		mg/kg	1.00	0.097	1	12/01/17 19:40	12/06/17 11:26	1,6010C	BV
Selenium, Total	ND		mg/kg	0.800	0.103	1	12/01/17 19:40	12/06/17 11:26	1,6010C	BV
Silver, Total	ND		mg/kg	0.400	0.113	1	12/01/17 19:40	12/06/17 11:26	1,6010C	BV
Zinc, Total	ND		mg/kg	2.00	0.117	1	12/01/17 19:40	12/06/17 11:26	1,6010C	BV

Prep Information

Digestion Method: EPA 3050B

Lab Control Sample Analysis

Batch Quality Control

Project Name: LAKEFRONT BOULEVARD

Project Number: E67.022.001

Lab Number: L1743544

Report Date: 12/11/17

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Total Metals - Mansfield Lab Associated sample(s): 01-07 Batch: WG1067461-2 SRM Lot Number: D098-540								
Mercury, Total	102		-		50-149	-		
Total Metals - Mansfield Lab Associated sample(s): 01-07 Batch: WG1068261-2 SRM Lot Number: D098-540								
Arsenic, Total	102		-		83-117	-		
Barium, Total	93		-		82-118	-		
Beryllium, Total	99		-		83-117	-		
Cadmium, Total	107		-		82-117	-		
Chromium, Total	101		-		83-119	-		
Copper, Total	95		-		84-116	-		
Lead, Total	95		-		82-117	-		
Manganese, Total	103		-		82-118	-		
Nickel, Total	105		-		82-117	-		
Selenium, Total	106		-		78-121	-		
Silver, Total	106		-		80-120	-		
Zinc, Total	101		-		81-119	-		

Matrix Spike Analysis
Batch Quality Control

Project Name: LAKEFRONT BOULEVARD
Project Number: E67.022.001

Lab Number: L1743544
Report Date: 12/11/17

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): 01-07 QC Batch ID: WG1067461-3 QC Sample: L1743577-03 Client ID: MS Sample												
Mercury, Total	1.9	0.155	2.6	**452**	Q	-	-		80-120	-		20
Total Metals - Mansfield Lab Associated sample(s): 01-07 QC Batch ID: WG1068261-3 QC Sample: L1743544-01 Client ID: B-1-4-5 FT												
Arsenic, Total	4.41	10.8	15.6	103		-	-		75-125	-		20
Barium, Total	64.2	181	217	84		-	-		75-125	-		20
Beryllium, Total	0.484	4.52	4.53	89		-	-		75-125	-		20
Cadmium, Total	ND	4.61	3.77	82		-	-		75-125	-		20
Chromium, Total	17.1	18.1	33.4	90		-	-		75-125	-		20
Copper, Total	17.5	22.6	37.5	88		-	-		75-125	-		20
Lead, Total	34.9	46.1	78.9	95		-	-		75-125	-		20
Manganese, Total	366.	45.2	386	**44**	Q	-	-		75-125	-		20
Nickel, Total	9.95	45.2	44.8	77		-	-		75-125	-		20
Selenium, Total	ND	10.8	9.02	83		-	-		75-125	-		20
Silver, Total	2.91	27.1	29.6	98		-	-		75-125	-		20
Zinc, Total	72.4	45.2	130	**127**	Q	-	-		75-125	-		20

Lab Duplicate Analysis
Batch Quality Control

Project Name: LAKEFRONT BOULEVARD
Project Number: E67.022.001

Lab Number: L1743544
Report Date: 12/11/17

Parameter	Native Sample	Duplicate Sample	Units	RPD	Qual	RPD Limits
Total Metals - Mansfield Lab Associated sample(s): 01-07 QC Batch ID: WG1067461-4 QC Sample: L1743577-03 Client ID: DUP Sample						
Mercury, Total	1.9	2.0	mg/kg	5		20
Total Metals - Mansfield Lab Associated sample(s): 01-07 QC Batch ID: WG1068261-4 QC Sample: L1743544-01 Client ID: B-1-4-5 FT						
Arsenic, Total	4.41	4.79	mg/kg	8		20
Barium, Total	64.2	66.8	mg/kg	4		20
Beryllium, Total	0.484	0.478	mg/kg	1		20
Cadmium, Total	ND	ND	mg/kg	NC		20
Chromium, Total	17.1	15.5	mg/kg	10		20
Copper, Total	17.5	18.0	mg/kg	3		20
Lead, Total	34.9	50.1	mg/kg	**36**	Q	20
Manganese, Total	366.	415	mg/kg	13		20
Nickel, Total	9.95	10.1	mg/kg	1		20
Selenium, Total	ND	ND	mg/kg	NC		20
Silver, Total	2.91	ND	mg/kg	NC		20
Zinc, Total	72.4	75.8	mg/kg	5		20

INORGANICS
&
MISCELLANEOUS

Project Name: LAKEFRONT BOULEVARD
Project Number: E67.022.001
Lab Number: L1743544
Report Date: 12/11/17

SAMPLE RESULTS

Lab ID: L1743544-01
Client ID: B-1-4-5 FT
Sample Location: 240-260 LAKEFRONT BLVD.
Matrix: Soil
Date Collected: 11/27/17 08:50
Date Received: 11/28/17
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	86.6		%	0.100	NA	1	-	12/02/17 14:57	121,2540G	RI

Project Name: LAKEFRONT BOULEVARD
Project Number: E67.022.001
Lab Number: L1743544
Report Date: 12/11/17

SAMPLE RESULTS

Lab ID: L1743544-02
Client ID: B-1-14-15 FT
Sample Location: 240-260 LAKEFRONT BLVD.
Matrix: Soil
Date Collected: 11/27/17 09:34
Date Received: 11/28/17
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	84.6		%	0.100	NA	1	-	12/02/17 14:57	121,2540G	RI

Project Name: LAKEFRONT BOULEVARD
Project Number: E67.022.001
Lab Number: L1743544
Report Date: 12/11/17

SAMPLE RESULTS

Lab ID: L1743544-03
Client ID: B-2-6-9 FT
Sample Location: 240-260 LAKEFRONT BLVD.
Matrix: Soil
Date Collected: 11/27/17 11:24
Date Received: 11/28/17
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	87.9		%	0.100	NA	1	-	12/02/17 14:57	121,2540G	RI
Cyanide, Total	1.4		mg/kg	1.1	0.23	1	11/29/17 22:18	11/30/17 10:26	1,9010C/9012B	LH
Chromium, Hexavalent	ND		mg/kg	0.91	0.18	1	11/30/17 19:01	12/01/17 12:01	1,7196A	NH

Project Name: LAKEFRONT BOULEVARD
Project Number: E67.022.001
Lab Number: L1743544
Report Date: 12/11/17

SAMPLE RESULTS

Lab ID: L1743544-04
Client ID: B-3-2-7 FT
Sample Location: 240-260 LAKEFRONT BLVD.
Matrix: Soil
Date Collected: 11/27/17 14:00
Date Received: 11/28/17
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	86.7		%	0.100	NA	1	-	12/02/17 14:57	121,2540G	RI
Cyanide, Total	ND		mg/kg	1.1	0.22	1	11/29/17 22:18	11/30/17 10:27	1,9010C/9012B	LH
Chromium, Hexavalent	ND		mg/kg	0.92	0.18	1	11/30/17 19:01	12/01/17 12:02	1,7196A	NH

Project Name: LAKEFRONT BOULEVARD
Project Number: E67.022.001
Lab Number: L1743544
Report Date: 12/11/17

SAMPLE RESULTS

Lab ID: L1743544-05
Client ID: B-4-3-10 FT
Sample Location: 240-260 LAKEFRONT BLVD.
Matrix: Soil
Date Collected: 11/28/17 09:30
Date Received: 11/28/17
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	73.2		%	0.100	NA	1	-	12/02/17 14:57	121,2540G	RI
Cyanide, Total	ND		mg/kg	1.3	0.28	1	11/29/17 22:18	11/30/17 10:28	1,9010C/9012B	LH
Chromium, Hexavalent	ND		mg/kg	1.1	0.22	1	11/30/17 19:01	12/01/17 12:02	1,7196A	NH

Project Name: LAKEFRONT BOULEVARD
Project Number: E67.022.001

Lab Number: L1743544
Report Date: 12/11/17

SAMPLE RESULTS

Lab ID: L1743544-06
Client ID: B-5-1-6 FT
Sample Location: 240-260 LAKEFRONT BLVD.
Matrix: Soil

Date Collected: 11/28/17 11:34
Date Received: 11/28/17
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	86.7		%	0.100	NA	1	-	12/02/17 14:57	121,2540G	RI
Cyanide, Total	0.49	J	mg/kg	1.1	0.22	1	11/29/17 22:18	11/30/17 10:29	1,9010C/9012B	LH
Chromium, Hexavalent	ND		mg/kg	0.92	0.18	1	11/30/17 19:01	12/01/17 12:02	1,7196A	NH

Project Name: LAKEFRONT BOULEVARD
Project Number: E67.022.001
Lab Number: L1743544
Report Date: 12/11/17

SAMPLE RESULTS

Lab ID: L1743544-07
Client ID: B-6-2-4.5 FT
Sample Location: 240-260 LAKEFRONT BLVD.
Matrix: Soil
Date Collected: 11/28/17 13:55
Date Received: 11/28/17
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	82.8		%	0.100	NA	1	-	12/02/17 14:57	121,2540G	RI
Cyanide, Total	3.2		mg/kg	1.1	0.24	1	11/29/17 22:18	11/30/17 10:30	1,9010C/9012B	LH
Chromium, Hexavalent	ND		mg/kg	0.97	0.19	1	11/30/17 19:01	12/01/17 12:04	1,7196A	NH

Project Name: LAKEFRONT BOULEVARD
Project Number: E67.022.001
Lab Number: L1743544
Report Date: 12/11/17

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): 03-07 Batch: WG1067404-1										
Cyanide, Total	ND		mg/kg	0.98	0.21	1	11/29/17 22:18	11/30/17 10:13	1,9010C/9012B	LH
General Chemistry - Westborough Lab for sample(s): 03-07 Batch: WG1067835-1										
Chromium, Hexavalent	ND		mg/kg	0.80	0.16	1	11/30/17 19:01	12/01/17 11:46	1,7196A	NH

Lab Control Sample Analysis

Batch Quality Control

Project Name: LAKEFRONT BOULEVARD

Project Number: E67.022.001

Lab Number: L1743544

Report Date: 12/11/17

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
General Chemistry - Westborough Lab Associated sample(s): 03-07 Batch: WG1067404-2 WG1067404-3								
Cyanide, Total	**66**	Q	**72**	Q	80-120	13		35
General Chemistry - Westborough Lab Associated sample(s): 03-07 Batch: WG1067835-2								
Chromium, Hexavalent	88		-		80-120	-		20

Matrix Spike Analysis
Batch Quality Control

Project Name: LAKEFRONT BOULEVARD
Project Number: E67.022.001

Lab Number: L1743544
Report Date: 12/11/17

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): 03-07 QC Batch ID: WG1067404-4 WG1067404-5 QC Sample: L1743524-02 Client ID: MS Sample												
Cyanide, Total	ND	10	9.3	93		9.8	94		75-125	5		35
General Chemistry - Westborough Lab Associated sample(s): 03-07 QC Batch ID: WG1067835-4 QC Sample: L1743544-05 Client ID: B-4-3-10 FT												
Chromium, Hexavalent	ND	997	760	76		-	-		75-125	-		20

Lab Duplicate Analysis
Batch Quality Control

Project Name: LAKEFRONT BOULEVARD
Project Number: E67.022.001

Lab Number: L1743544
Report Date: 12/11/17

Parameter	Native Sample	Duplicate Sample	Units	RPD	Qual	RPD Limits
General Chemistry - Westborough Lab Associated sample(s): 03-07 QC Batch ID: WG1067835-6 QC Sample: L1743544-05 Client ID: B-4-3-10 FT						
Chromium, Hexavalent	ND	ND	mg/kg	NC		20
General Chemistry - Westborough Lab Associated sample(s): 01-07 QC Batch ID: WG1068444-1 QC Sample: L1743544-01 Client ID: B-1-4-5 FT						
Solids, Total	86.6	85.6	%	1		20

Project Name: LAKEFRONT BOULEVARD
Project Number: E67.022.001

Lab Number: L1743544
Report Date: 12/11/17

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(*)
L1743544-01A	Glass 60ml unpreserved split	A	NA		2.7	Y	Absent		BE-TI(180),AS-TI(180),BA-TI(180),AG-TI(180),CR-TI(180),NI-TI(180),CU-TI(180),PB-TI(180),SE-TI(180),ZN-TI(180),HG-T(28),MN-TI(180),CD-TI(180)
L1743544-01B	Glass 250ml/8oz unpreserved	A	NA		2.7	Y	Absent		NYTCL-8270(14),TS(7)
L1743544-02A	Vial Large Septa unpreserved (4oz)	A	NA		2.7	Y	Absent		NYTCL-8260-R2(14)
L1743544-02B	Glass 250ml/8oz unpreserved	A	NA		2.7	Y	Absent		NYTCL-8270(14),TS(7)
L1743544-02C	Glass 60ml unpreserved split	A	NA		2.7	Y	Absent		BE-TI(180),AS-TI(180),BA-TI(180),AG-TI(180),CR-TI(180),NI-TI(180),CU-TI(180),PB-TI(180),SE-TI(180),ZN-TI(180),HG-T(28),MN-TI(180),CD-TI(180)
L1743544-02X	Vial MeOH preserved split	A	NA		2.7	Y	Absent		NYTCL-8260-R2(14)
L1743544-02Y	Vial Water preserved split	A	NA		2.7	Y	Absent	**05-DEC-17 08:38**	NYTCL-8260-R2(14)
L1743544-02Z	Vial Water preserved split	A	NA		2.7	Y	Absent	**05-DEC-17 08:38**	NYTCL-8260-R2(14)
L1743544-03A	Metals Only-Glass 60mL/2oz unpreserved	A	NA		2.7	Y	Absent		BE-TI(180),AS-TI(180),BA-TI(180),AG-TI(180),CR-TI(180),NI-TI(180),CU-TI(180),PB-TI(180),SE-TI(180),ZN-TI(180),HG-T(28),MN-TI(180),CD-TI(180)
L1743544-03B	Vial Large Septa unpreserved (4oz)	A	NA		2.7	Y	Absent		NYTCL-8260-R2(14)
L1743544-03C	Glass 120ml/4oz unpreserved	A	NA		2.7	Y	Absent		HEXCR-7196(30)
L1743544-03D	Glass 250ml/8oz unpreserved	A	NA		2.7	Y	Absent		NYTCL-8270(14),TCN-9010(14),TS(7),NYTCL-8081(14),NYTCL-8082(14)
L1743544-03X	Vial MeOH preserved split	A	NA		2.7	Y	Absent		NYTCL-8260-R2(14)
L1743544-03Y	Vial Water preserved split	A	NA		2.7	Y	Absent	**01-DEC-17 09:07**	NYTCL-8260-R2(14)
L1743544-03Z	Vial Water preserved split	A	NA		2.7	Y	Absent	**01-DEC-17 09:07**	NYTCL-8260-R2(14)
L1743544-04A	Metals Only-Glass 60mL/2oz unpreserved	A	NA		2.7	Y	Absent		BE-TI(180),AS-TI(180),BA-TI(180),AG-TI(180),CR-TI(180),NI-TI(180),CU-TI(180),PB-TI(180),SE-TI(180),ZN-TI(180),HG-T(28),MN-TI(180),CD-TI(180)
L1743544-04B	Vial Large Septa unpreserved (4oz)	A	NA		2.7	Y	Absent		NYTCL-8260-R2(14)

*Values in parentheses indicate holding time in days

Project Name: LAKEFRONT BOULEVARD
Project Number: E67.022.001

Lab Number: L1743544
Report Date: 12/11/17

Container Information

Container ID	Container Type	Cooler	Initial pH	Final pH	Temp deg C	Pres	Seal	Frozen Date/Time	Analysis(*)
L1743544-04C	Glass 120ml/4oz unpreserved	A	NA		2.7	Y	Absent		HEXCR-7196(30)
L1743544-04D	Glass 250ml/8oz unpreserved	A	NA		2.7	Y	Absent		NYTCL-8270(14),TCN-9010(14),TS(7),NYTCL-8081(14),NYTCL-8082(14)
L1743544-04X	Vial MeOH preserved split	A	NA		2.7	Y	Absent		NYTCL-8260-R2(14)
L1743544-04Y	Vial Water preserved split	A	NA		2.7	Y	Absent	**01-DEC-17 09:07**	NYTCL-8260-R2(14)
L1743544-04Z	Vial Water preserved split	A	NA		2.7	Y	Absent	**01-DEC-17 09:07**	NYTCL-8260-R2(14)
L1743544-05A	Metals Only-Glass 60mL/2oz unpreserved	A	NA		2.7	Y	Absent		BE-TI(180),AS-TI(180),BA-TI(180),AG-TI(180),CR-TI(180),NI-TI(180),CU-TI(180),PB-TI(180),SE-TI(180),ZN-TI(180),HG-T(28),MN-TI(180),CD-TI(180)
L1743544-05B	Vial Large Septa unpreserved (4oz)	A	NA		2.7	Y	Absent		NYTCL-8260-R2(14)
L1743544-05C	Glass 120ml/4oz unpreserved	A	NA		2.7	Y	Absent		HEXCR-7196(30)
L1743544-05D	Glass 250ml/8oz unpreserved	A	NA		2.7	Y	Absent		NYTCL-8270(14),TCN-9010(14),TS(7),NYTCL-8081(14),NYTCL-8082(14)
L1743544-05X	Vial MeOH preserved split	A	NA		2.7	Y	Absent		NYTCL-8260-R2(14)
L1743544-05Y	Vial Water preserved split	A	NA		2.7	Y	Absent	**01-DEC-17 09:07**	NYTCL-8260-R2(14)
L1743544-05Z	Vial Water preserved split	A	NA		2.7	Y	Absent	**01-DEC-17 09:07**	NYTCL-8260-R2(14)
L1743544-06A	Metals Only-Glass 60mL/2oz unpreserved	A	NA		2.7	Y	Absent		BE-TI(180),AS-TI(180),BA-TI(180),AG-TI(180),CR-TI(180),NI-TI(180),CU-TI(180),PB-TI(180),SE-TI(180),ZN-TI(180),HG-T(28),MN-TI(180),CD-TI(180)
L1743544-06B	Vial Large Septa unpreserved (4oz)	A	NA		2.7	Y	Absent		NYTCL-8260-R2(14)
L1743544-06C	Glass 120ml/4oz unpreserved	A	NA		2.7	Y	Absent		HEXCR-7196(30)
L1743544-06D	Glass 250ml/8oz unpreserved	A	NA		2.7	Y	Absent		NYTCL-8270(14),TCN-9010(14),TS(7),NYTCL-8081(14),NYTCL-8082(14)
L1743544-06X	Vial MeOH preserved split	A	NA		2.7	Y	Absent		NYTCL-8260-R2(14)
L1743544-06Y	Vial Water preserved split	A	NA		2.7	Y	Absent	**01-DEC-17 09:07**	NYTCL-8260-R2(14)
L1743544-06Z	Vial Water preserved split	A	NA		2.7	Y	Absent	**01-DEC-17 09:07**	NYTCL-8260-R2(14)
L1743544-07A	Metals Only-Glass 60mL/2oz unpreserved	A	NA		2.7	Y	Absent		BE-TI(180),AS-TI(180),BA-TI(180),AG-TI(180),CR-TI(180),NI-TI(180),CU-TI(180),PB-TI(180),SE-TI(180),ZN-TI(180),HG-T(28),MN-TI(180),CD-TI(180)
L1743544-07B	Vial Large Septa unpreserved (4oz)	A	NA		2.7	Y	Absent		NYTCL-8260-R2(14)
L1743544-07C	Glass 120ml/4oz unpreserved	A	NA		2.7	Y	Absent		HEXCR-7196(30)
L1743544-07D	Glass 250ml/8oz unpreserved	A	NA		2.7	Y	Absent		NYTCL-8270(14),TCN-9010(14),TS(7),NYTCL-8081(14),NYTCL-8082(14)

*Values in parentheses indicate holding time in days

Project Name: LAKEFRONT BOULEVARD
Project Number: E67.022.001

Lab Number: L1743544
Report Date: 12/11/17

Container Information

Container ID	Container Type	Cooler	Initial pH	Final pH	Temp deg C	Pres	Seal	Frozen Date/Time	Analysis(*)
L1743544-07X	Vial MeOH preserved split	A	NA		2.7	Y	Absent		NYTCL-8260-R2(14)
L1743544-07Y	Vial Water preserved split	A	NA		2.7	Y	Absent	**01-DEC-17 09:07**	NYTCL-8260-R2(14)
L1743544-07Z	Vial Water preserved split	A	NA		2.7	Y	Absent	**01-DEC-17 09:07**	NYTCL-8260-R2(14)

*Values in parentheses indicate holding time in days

Project Name:	LAKEFRONT BOULEVARD	**Lab Number:**	L1743544
Project Number:	E67.022.001	**Report Date:**	12/11/17

GLOSSARY

Acronyms

EDL	- Estimated Detection Limit: This value represents the level to which target analyte concentrations are reported as estimated values, when those target analyte concentrations are quantified below the reporting limit (RL). The EDL includes any adjustments from dilutions, concentrations or moisture content, where applicable. The use of EDLs is specific to the analysis of PAHs using Solid-Phase Microextraction (SPME).
EPA	- Environmental Protection Agency.
LCS	- Laboratory Control Sample: A sample matrix, free from the analytes of interest, spiked with verified known amounts of analytes or a material containing known and verified amounts of analytes.
LCSD	- Laboratory Control Sample Duplicate: Refer to LCS.
LFB	- Laboratory Fortified Blank: A sample matrix, free from the analytes of interest, spiked with verified known amounts of analytes or a material containing known and verified amounts of analytes.
MDL	- Method Detection Limit: This value represents the level to which target analyte concentrations are reported as estimated values, when those target analyte concentrations are quantified below the reporting limit (RL). The MDL includes any adjustments from dilutions, concentrations or moisture content, where applicable.
MS	- Matrix Spike Sample: A sample prepared by adding a known mass of target analyte to a specified amount of matrix sample for which an independent estimate of target analyte concentration is available.
MSD	- Matrix Spike Sample Duplicate: Refer to MS.
NA	- Not Applicable.
NC	- Not Calculated: Term is utilized when one or more of the results utilized in the calculation are non-detect at the parameter's reporting unit.
NDPA/DPA	- N-Nitrosodiphenylamine/Diphenylamine.
NI	- Not Ignitable.
NP	- Non-Plastic: Term is utilized for the analysis of Atterberg Limits in soil.
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.
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.

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.

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.

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 Condensation Product".
B	- The analyte was detected above the reporting limit in the associated method blank. Flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank. For MCP-related

Report Format: DU Report with 'J' Qualifiers

Project Name:	LAKEFRONT BOULEVARD	**Lab Number:**	L1743544
Project Number:	E67.022.001	**Report Date:**	12/11/17

Data Qualifiers

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.

G - The concentration may be biased high due to matrix interferences (i.e, co-elution) with non-target compound(s). The result should be considered estimated.

H - The analysis of pH was performed beyond the regulatory-required holding time of 15 minutes from the time of sample collection.

I - The lower value for the two columns has been reported due to obvious interference.

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

NJ - Presumptive evidence of compound. This represents an estimated concentration for Tentatively Identified Compounds (TICs), where the identification is based on a mass spectral library search.

P - The RPD between the results for the two columns exceeds the method-specified criteria.

Q - The quality control sample exceeds the associated acceptance criteria. For DOD-related projects, LCS and/or Continuing Calibration Standard exceedences are also qualified on all associated sample results. Note: This flag is not applicable for matrix spike recoveries when the sample concentration is greater than 4x the spike added or for batch duplicate RPD when the sample concentrations are less than 5x the RL. (Metals only.)

R - Analytical results are from sample re-analysis.

RE - Analytical results are from sample re-extraction.

S - Analytical results are from modified screening analysis.

J - Estimated value. The Target analyte concentration is below the quantitation limit (RL), but above the Method Detection Limit (MDL) or Estimated Detection Limit (EDL) for SPME-related analyses. This represents an estimated concentration for Tentatively Identified Compounds (TICs).

ND - Not detected at the method detection limit (MDL) for the sample, or estimated detection limit (EDL) for SPME-related analyses.

Report Format: DU Report with 'J' Qualifiers

Project Name:	LAKEFRONT BOULEVARD	**Lab Number:**	L1743544
Project Number:	E67.022.001	**Report Date:**	12/11/17

REFERENCES

1 Test Methods for Evaluating Solid Waste: Physical/Chemical Methods. EPA SW-846. Third Edition. Updates I - IV, 2007.

107 Alpha Analytical - In-house calculation method.

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: m/p-xylene, o-xylene
EPA 8260C: NPW: 1,2,4,5-Tetramethylbenzene; 4-Ethyltoluene, Azobenzene; SCM: Iodomethane (methyl iodide), Methyl methacrylate, 1,2,4,5-Tetramethylbenzene; 4-Ethyltoluene.
EPA 8270D: NPW: Dimethylnaphthalene,1,4-Diphenylhydrazine; SCM: Dimethylnaphthalene,1,4-Diphenylhydrazine.
EPA 300: DW: Bromide
EPA 6860: NPW and SCM: Perchlorate
EPA 9010: NPW and SCM: Amenable Cyanide Distillation
EPA 9012B: NPW: Total Cyanide
EPA 9050A: NPW: Specific Conductance
SM3500: NPW: Ferrous Iron
SM4500: NPW: Amenable Cyanide, Dissolved Oxygen; SCM: Total Phosphorus, TKN, NO2, NO3.
SM5310C: DW: Dissolved Organic Carbon

Mansfield Facility
SM 2540D: TSS
EPA 3005A NPW
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: 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**
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, **EPA 350.1**: Ammonia-N, **LACHAT 10-107-06-1-B**: Ammonia-N, **SM4500NO3-F, EPA 353.2**: Nitrate-N**, EPA 351.1, 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 624: Volatile Halocarbons & Aromatics,
EPA 608: Chlordane, Toxaphene, Aldrin, alpha-BHC, beta-BHC, gamma-BHC, delta-BHC, Dieldrin, DDD, DDE, DDT, Endosulfan I, Endosulfan II, Endosulfan sulfate, Endrin, Endrin Aldehyde, Heptachlor, Heptachlor Epoxide, PCBs
EPA 625: SVOC (Acid/Base/Neutral Extractables), **EPA 600/4-81-045**: PCB-Oil.
Microbiology: **SM9223B-Colilert-QT; Enterolert-QT, SM9221E.**

Mansfield Facility:

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

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, Pb, Mn, Ni, Se, Ag, TL, Zn.
EPA 245.1 Hg.
SM2340B

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

NEW YORK CHAIN OF CUSTODY

ALPHA

Westborough, MA 01581
8 Walkup Dr.
TEL: 508-898-9220
FAX: 508-898-9193

Mansfield, MA 02048
320 Forbes Blvd
TEL: 508-822-9300
FAX: 508-822-3288

Service Centers
Mahwah, NJ 07430: 35 Whitney Rd, Suite 5
Albany, NY 12205: 14 Walker Way
Tonawanda, NY 14150: 275 Cooper Ave, Suite 105

Page of

Date Rec'd in Lab: 11/29/17

ALPHA Job #: L1743544

Client Information
Client: C&S Engineers, Inc.
Address: 141 Elm Street, Buffalo, NY 14203
Phone: (716) 847-1630
Fax: (716) 847-1454
Email: cmartin@cscos.com

Project Information
Project Name: [redacted] Lakefront Boulevard
Project Location: 240-260 Lakefront Blvd
Project #: E67.62.2.001
(Use Project name as Project #) ☐
Project Manager: Cody Martin
ALPHAQuote #: (253487 Bottle Order #)

Turn-Around Time
Standard ☒ Due Date:
Rush (only if pre approved) ☐ # of Days:

Deliverables
☐ ASP-A ☒ ASP-B
☐ EQuIS (1 File) ☐ EQuIS (4 File)
☐ Other

Regulatory Requirement
☐ NY TOGS ☒ NY Part 375
☐ AWQ Standards ☐ NY CP-51
☐ NY Restricted Use ☐ Other
☐ NY Unrestricted Use
☐ NYC Sewer Discharge

Billing Information
☒ Same as Client Info
PO #

Disposal Site Information
Please identify below location of applicable disposal facilities.
Disposal Facility:
☐ NJ ☐ NY
☐ Other:

These samples have been previously analyzed by Alpha ☐

Other project specific requirements/comments:

Please specify Metals or TAL.

Sample Filtration
☐ Done
☐ Lab to do
Preservation
☐ Lab to do
(Please Specify below)

ALPHA Lab ID (Lab Use Only)	Sample ID	Collection Date	Collection Time	Sample Matrix	Sampler's Initials	Total Solids	NYTCL SVOCs	TCL Pesticides	Total Cyanide/Div. Chem.	TCL PCBs	Part 375 Metals	TCL VOCs	Hex Chrom	Sample Specific Comments	Total Bottle
43544-01	B-1-4-5 FT	11/27/17	8:50am	SO	AS		X				X				1
-02	B-1-14-15 FT	11/27/17	9:34am	SO	AS		X				X	X			2
-03	B-2-6-9 FT	11/27/17	11:26am	SO	AS	X	X	X	X	X	X	X	X		4
-04	B-3-2-7 FT	11/27/17	2:00pm	SO	AS	X	X	X	X	X	X	X	X		4
-05	B-4-3-10 FT	11/28/17	9:30am	SO	AS	X	X	X	X	X	X	X	X		4
-06	B-5-1-6 FT	11/28/17	11:34am	SO	AS	X	X	X	X	X	X	X	X		4
-07	B-6-2-4.5 FT	11/28/17	1:55pm	SO	AS	X	X	X	X	X	X	X	X		4

Container Type: A A A A A A A A
Preservative: A →

Preservative Code:
A = None
B = HCl
C = HNO_3
D = H_2SO_4
E = NaOH
F = MeOH
G = $NaHSO_4$
H = $Na_2S_2O_3$
K/E = Zn Ac/NaOH
O = Other

Container Code
P = Plastic
A = Amber Glass
V = Vial
G = Glass
B = Bacteria Cup
C = Cube
O = Other
E = Encore
D = BOD Bottle

Westboro: Certification No: MA935
Mansfield: Certification No: MA015

Relinquished By:	Date/Time	Received By:	Date/Time
[signature]	11/28/17 4:40pm	[signature]	11/28/17 16:40
[signature]	11.28.17 1840	[signature]	11/29/17 0130

Please print clearly, legibly and completely. Samples can not be logged in and turnaround time clock will not start until any ambiguities are resolved. BY EXECUTING THIS COC, THE CLIENT HAS READ AND AGREES TO BE BOUND BY ALPHA'S TERMS & CONDITIONS. (See reverse side.)

Form No: 01-25 HC (rev. 30-Sept-2013)

ANALYTICAL REPORT

Lab Number:	L1743880
Client:	C&S Companies 141 Elm Street, Suite 100 Buffalo, NY 14203
ATTN:	Cody Martin
Phone:	(716) 847-1630
Project Name:	LAKEFRONT BOULEVARD
Project Number:	E67.022.001
Report Date:	12/11/17

Certifications & Approvals: MA (M-MA086), NH NELAP (2064), NJ NELAP (MA935), CT (PH-0574), IL (200077), ME (MA00086), MD (348), NY (11148), NC (25700/666), PA (68-03671), RI (LAO00065), TX (T104704476), VT (VT-0935), VA (460195), USDA (Permit #P330-14-00197).

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

Project Name: LAKEFRONT BOULEVARD
Project Number: E67.022.001

Lab Number: L1743880
Report Date: 12/11/17

Alpha Sample ID	Client ID	Matrix	Sample Location	Collection Date/Time	Receive Date
L1743880-01	B-7-0.5-4.5 FT	SOIL	240-260 LAKEFRONT BLVD.	11/29/17 09:10	11/30/17
L1743880-02	MW-1-1.5-6 FT	SOIL	240-260 LAKEFRONT BLVD.	11/29/17 11:05	11/30/17
L1743880-03	MW-2-2-8 FT	SOIL	240-260 LAKEFRONT BLVD.	11/29/17 13:20	11/30/17
L1743880-04	MW-3-2-6 FT	SOIL	240-260 LAKEFRONT BLVD.	11/30/17 09:40	11/30/17
L1743880-05	MW-3-16-20 FT	SOIL	240-260 LAKEFRONT BLVD.	11/30/17 10:25	11/30/17
L1743880-06	MW-1-25-26 FT	SOIL	240-260 LAKEFRONT BLVD.	11/29/17 11:50	11/30/17

Project Name: LAKEFRONT BOULEVARD **Lab Number:** L1743880
Project Number: E67.022.001 **Report Date:** 12/11/17

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. All specific QC information is also incorporated in the Data Usability format of our Data Merger tool where it can be reviewed along with any associated usability implications. Soil/sediments, solids and tissues are reported on a dry weight basis unless otherwise noted. Definitions of all data qualifiers and acronyms used in this report are provided in the Glossary located at the back of the report.

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

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

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

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

Project Name: LAKEFRONT BOULEVARD **Lab Number:** L1743880
Project Number: E67.022.001 **Report Date:** 12/11/17

Case Narrative (continued)

Report Submission

All non-detect (ND) or estimated concentrations (J-qualified) have been quantitated to the limit noted in the MDL column.

Sample Receipt

L1743880-01 through -06: The sample was received in inappropriate containers for the TCL Volatiles - EPA 8260C analysis.

Volatile Organics

Any reported concentrations that are below 200 ug/kg may be biased low due to the sample not being collected according to 5035-L/5035A-L low-level specifications.

L1743880-06: The analysis of Volatile Organics was performed from a methanol extract due to the elevated concentrations of non-target compounds in the sample.

Cyanide, Total

The WG1068437-2/-3 LCS/LCSD recoveries (49%/70%), associated with L1743880-01,-02,-03, and -05, are outside our in-house acceptance criteria, but within the vendor-certified acceptance limits. The results of the original analyses are reported.

Hexavalent Chromium

The WG1068295-2 LCS recovery (67%), associated with L1743880-01 and -03, is outside our in-house acceptance criteria, but within the vendor-certified acceptance limits. The results of the original analyses are reported.

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

Authorized Signature: Kara Soroko

Title: Technical Director/Representative Date: 12/11/17

ORGANICS

VOLATILES

Project Name: LAKEFRONT BOULEVARD **Lab Number:** L1743880

Project Number: E67.022.001 **Report Date:** 12/11/17

SAMPLE RESULTS

Lab ID: L1743880-01
Client ID: B-7-0.5-4.5 FT
Sample Location: 240-260 LAKEFRONT BLVD.

Date Collected: 11/29/17 09:10
Date Received: 11/30/17
Field Prep: Not Specified

Matrix: Soil
Analytical Method: 1,8260C
Analytical Date: 12/07/17 16:10
Analyst: PK
Percent Solids: 75%

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
Methylene chloride	ND		ug/kg	11	1.8	1
1,1-Dichloroethane	ND		ug/kg	1.7	0.30	1
Chloroform	ND		ug/kg	1.7	0.41	1
Carbon tetrachloride	ND		ug/kg	1.1	0.38	1
Tetrachloroethene	ND		ug/kg	1.1	0.34	1
Chlorobenzene	ND		ug/kg	1.1	0.39	1
1,2-Dichloroethane	ND		ug/kg	1.1	0.27	1
1,1,1-Trichloroethane	ND		ug/kg	1.1	0.39	1
Benzene	ND		ug/kg	1.1	0.21	1
Toluene	ND		ug/kg	1.7	0.22	1
Ethylbenzene	ND		ug/kg	1.1	0.19	1
Vinyl chloride	ND		ug/kg	2.2	0.35	1
1,1-Dichloroethene	ND		ug/kg	1.1	0.41	1
trans-1,2-Dichloroethene	ND		ug/kg	1.7	0.27	1
Trichloroethene	ND		ug/kg	1.1	0.34	1
1,2-Dichlorobenzene	ND		ug/kg	5.6	0.20	1
1,3-Dichlorobenzene	ND		ug/kg	5.6	0.24	1
1,4-Dichlorobenzene	ND		ug/kg	5.6	0.20	1
Methyl tert butyl ether	ND		ug/kg	2.2	0.17	1
p/m-Xylene	ND		ug/kg	2.2	0.39	1
o-Xylene	ND		ug/kg	2.2	0.38	1
cis-1,2-Dichloroethene	ND		ug/kg	1.1	0.38	1
Acetone	ND		ug/kg	11	2.5	1
2-Butanone	ND		ug/kg	11	0.77	1
n-Butylbenzene	ND		ug/kg	1.1	0.25	1
sec-Butylbenzene	ND		ug/kg	1.1	0.24	1
tert-Butylbenzene	ND		ug/kg	5.6	0.27	1
n-Propylbenzene	ND		ug/kg	1.1	0.24	1
1,3,5-Trimethylbenzene	ND		ug/kg	5.6	0.18	1
1,2,4-Trimethylbenzene	ND		ug/kg	5.6	0.21	1

Project Name: LAKEFRONT BOULEVARD **Lab Number:** L1743880

Project Number: E67.022.001 **Report Date:** 12/11/17

SAMPLE RESULTS

Lab ID: L1743880-01 Date Collected: 11/29/17 09:10

Client ID: B-7-0.5-4.5 FT Date Received: 11/30/17

Sample Location: 240-260 LAKEFRONT BLVD. Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
1,4-Dioxane	ND		ug/kg	44	16.	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	110		70-130
Toluene-d8	100		70-130
4-Bromofluorobenzene	100		70-130
Dibromofluoromethane	106		70-130

Project Name: LAKEFRONT BOULEVARD **Lab Number:** L1743880

Project Number: E67.022.001 **Report Date:** 12/11/17

SAMPLE RESULTS

Lab ID: L1743880-02
Client ID: MW-1-1.5-6 FT
Sample Location: 240-260 LAKEFRONT BLVD.

Date Collected: 11/29/17 11:05
Date Received: 11/30/17
Field Prep: Not Specified

Matrix: Soil
Analytical Method: 1,8260C
Analytical Date: 12/07/17 13:01
Analyst: JC
Percent Solids: 84%

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
Methylene chloride	ND		ug/kg	11	1.7	1
1,1-Dichloroethane	ND		ug/kg	1.6	0.29	1
Chloroform	ND		ug/kg	1.6	0.39	1
Carbon tetrachloride	ND		ug/kg	1.1	0.36	1
Tetrachloroethene	ND		ug/kg	1.1	0.32	1
Chlorobenzene	ND		ug/kg	1.1	0.37	1
1,2-Dichloroethane	ND		ug/kg	1.1	0.26	1
1,1,1-Trichloroethane	ND		ug/kg	1.1	0.37	1
Benzene	ND		ug/kg	1.1	0.20	1
Toluene	ND		ug/kg	1.6	0.21	1
Ethylbenzene	ND		ug/kg	1.1	0.18	1
Vinyl chloride	ND		ug/kg	2.1	0.33	1
1,1-Dichloroethene	ND		ug/kg	1.1	0.39	1
trans-1,2-Dichloroethene	ND		ug/kg	1.6	0.26	1
Trichloroethene	ND		ug/kg	1.1	0.32	1
1,2-Dichlorobenzene	ND		ug/kg	5.3	0.19	1
1,3-Dichlorobenzene	ND		ug/kg	5.3	0.23	1
1,4-Dichlorobenzene	ND		ug/kg	5.3	0.19	1
Methyl tert butyl ether	ND		ug/kg	2.1	0.16	1
p/m-Xylene	ND		ug/kg	2.1	0.37	1
o-Xylene	ND		ug/kg	2.1	0.36	1
cis-1,2-Dichloroethene	ND		ug/kg	1.1	0.36	1
Acetone	2.5	J	ug/kg	11	2.4	1
2-Butanone	ND		ug/kg	11	0.73	1
n-Butylbenzene	ND		ug/kg	1.1	0.24	1
sec-Butylbenzene	ND		ug/kg	1.1	0.23	1
tert-Butylbenzene	ND		ug/kg	5.3	0.26	1
n-Propylbenzene	ND		ug/kg	1.1	0.23	1
1,3,5-Trimethylbenzene	ND		ug/kg	5.3	0.17	1
1,2,4-Trimethylbenzene	0.24	J	ug/kg	5.3	0.20	1

Project Name: LAKEFRONT BOULEVARD **Lab Number:** L1743880

Project Number: E67.022.001 **Report Date:** 12/11/17

SAMPLE RESULTS

Lab ID: L1743880-02 Date Collected: 11/29/17 11:05

Client ID: MW-1-1.5-6 FT Date Received: 11/30/17

Sample Location: 240-260 LAKEFRONT BLVD. Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
1,4-Dioxane	ND		ug/kg	42	15.	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	99		70-130
Toluene-d8	97		70-130
4-Bromofluorobenzene	106		70-130
Dibromofluoromethane	92		70-130

Project Name: LAKEFRONT BOULEVARD **Lab Number:** L1743880

Project Number: E67.022.001 **Report Date:** 12/11/17

SAMPLE RESULTS

Lab ID: L1743880-03
Client ID: MW-2-2-8 FT
Sample Location: 240-260 LAKEFRONT BLVD.

Date Collected: 11/29/17 13:20
Date Received: 11/30/17
Field Prep: Not Specified

Matrix: Soil
Analytical Method: 1,8260C
Analytical Date: 12/08/17 15:51
Analyst: MKS
Percent Solids: 91%

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
Methylene chloride	ND		ug/kg	10	1.7	1
1,1-Dichloroethane	ND		ug/kg	1.6	0.28	1
Chloroform	ND		ug/kg	1.6	0.39	1
Carbon tetrachloride	ND		ug/kg	1.0	0.36	1
Tetrachloroethene	ND		ug/kg	1.0	0.32	1
Chlorobenzene	ND		ug/kg	1.0	0.37	1
1,2-Dichloroethane	ND		ug/kg	1.0	0.26	1
1,1,1-Trichloroethane	ND		ug/kg	1.0	0.37	1
Benzene	ND		ug/kg	1.0	0.20	1
Toluene	0.47	J	ug/kg	1.6	0.21	1
Ethylbenzene	ND		ug/kg	1.0	0.18	1
Vinyl chloride	ND		ug/kg	2.1	0.33	1
1,1-Dichloroethene	ND		ug/kg	1.0	0.39	1
trans-1,2-Dichloroethene	ND		ug/kg	1.6	0.25	1
Trichloroethene	ND		ug/kg	1.0	0.32	1
1,2-Dichlorobenzene	ND		ug/kg	5.3	0.19	1
1,3-Dichlorobenzene	ND		ug/kg	5.3	0.23	1
1,4-Dichlorobenzene	ND		ug/kg	5.3	0.19	1
Methyl tert butyl ether	ND		ug/kg	2.1	0.16	1
p/m-Xylene	0.57	J	ug/kg	2.1	0.37	1
o-Xylene	0.62	J	ug/kg	2.1	0.36	1
cis-1,2-Dichloroethene	ND		ug/kg	1.0	0.36	1
Acetone	8.7	J	ug/kg	10	2.4	1
2-Butanone	ND		ug/kg	10	0.73	1
n-Butylbenzene	0.49	J	ug/kg	1.0	0.24	1
sec-Butylbenzene	0.24	J	ug/kg	1.0	0.23	1
tert-Butylbenzene	ND		ug/kg	5.3	0.26	1
n-Propylbenzene	ND		ug/kg	1.0	0.23	1
1,3,5-Trimethylbenzene	0.46	J	ug/kg	5.3	0.17	1
1,2,4-Trimethylbenzene	3.1	J	ug/kg	5.3	0.20	1

Project Name: LAKEFRONT BOULEVARD **Lab Number:** L1743880

Project Number: E67.022.001 **Report Date:** 12/11/17

SAMPLE RESULTS

Lab ID: L1743880-03 Date Collected: 11/29/17 13:20

Client ID: MW-2-2-8 FT Date Received: 11/30/17

Sample Location: 240-260 LAKEFRONT BLVD. Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
1,4-Dioxane	ND		ug/kg	42	15.	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	106		70-130
Toluene-d8	106		70-130
4-Bromofluorobenzene	107		70-130
Dibromofluoromethane	98		70-130

Project Name: LAKEFRONT BOULEVARD **Lab Number:** L1743880

Project Number: E67.022.001 **Report Date:** 12/11/17

SAMPLE RESULTS

Lab ID: L1743880-05
Client ID: MW-3-16-20 FT
Sample Location: 240-260 LAKEFRONT BLVD.

Date Collected: 11/30/17 10:25
Date Received: 11/30/17
Field Prep: Not Specified

Matrix: Soil
Analytical Method: 1,8260C
Analytical Date: 12/07/17 10:20
Analyst: JC
Percent Solids: 85%

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
Methylene chloride	ND		ug/kg	480	80.	1
1,1-Dichloroethane	ND		ug/kg	72	13.	1
Chloroform	ND		ug/kg	72	18.	1
Carbon tetrachloride	ND		ug/kg	48	17.	1
Tetrachloroethene	ND		ug/kg	48	15.	1
Chlorobenzene	ND		ug/kg	48	17.	1
1,2-Dichloroethane	ND		ug/kg	48	12.	1
1,1,1-Trichloroethane	ND		ug/kg	48	17.	1
Benzene	ND		ug/kg	48	9.3	1
Toluene	ND		ug/kg	72	9.4	1
Ethylbenzene	ND		ug/kg	48	8.2	1
Vinyl chloride	ND		ug/kg	97	15.	1
1,1-Dichloroethene	ND		ug/kg	48	18.	1
trans-1,2-Dichloroethene	ND		ug/kg	72	12.	1
Trichloroethene	ND		ug/kg	48	15.	1
1,2-Dichlorobenzene	ND		ug/kg	240	8.8	1
1,3-Dichlorobenzene	ND		ug/kg	240	10.	1
1,4-Dichlorobenzene	ND		ug/kg	240	8.8	1
Methyl tert butyl ether	ND		ug/kg	97	7.4	1
p/m-Xylene	19	J	ug/kg	97	17.	1
o-Xylene	ND		ug/kg	97	16.	1
cis-1,2-Dichloroethene	ND		ug/kg	48	16.	1
Acetone	ND		ug/kg	480	110	1
2-Butanone	ND		ug/kg	480	33.	1
n-Butylbenzene	220		ug/kg	48	11.	1
sec-Butylbenzene	26	J	ug/kg	48	10.	1
tert-Butylbenzene	ND		ug/kg	240	12.	1
n-Propylbenzene	13	J	ug/kg	48	10.	1
1,3,5-Trimethylbenzene	57	J	ug/kg	240	7.8	1
1,2,4-Trimethylbenzene	340		ug/kg	240	9.0	1

Project Name: LAKEFRONT BOULEVARD **Lab Number:** L1743880

Project Number: E67.022.001 **Report Date:** 12/11/17

SAMPLE RESULTS

Lab ID: L1743880-05 Date Collected: 11/30/17 10:25

Client ID: MW-3-16-20 FT Date Received: 11/30/17

Sample Location: 240-260 LAKEFRONT BLVD. Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
1,4-Dioxane	ND		ug/kg	1900	700	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	97		70-130
Toluene-d8	96		70-130
4-Bromofluorobenzene	108		70-130
Dibromofluoromethane	90		70-130

Project Name: LAKEFRONT BOULEVARD **Lab Number:** L1743880

Project Number: E67.022.001 **Report Date:** 12/11/17

SAMPLE RESULTS

Lab ID: L1743880-06
Client ID: MW-1-25-26 FT
Sample Location: 240-260 LAKEFRONT BLVD.

Date Collected: 11/29/17 11:50
Date Received: 11/30/17
Field Prep: Not Specified

Matrix: Soil
Analytical Method: 1,8260C
Analytical Date: 12/07/17 10:47
Analyst: JC
Percent Solids: 72%

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
Methylene chloride	ND		ug/kg	780	130	1
1,1-Dichloroethane	ND		ug/kg	120	21.	1
Chloroform	ND		ug/kg	120	29.	1
Carbon tetrachloride	ND		ug/kg	78	27.	1
Tetrachloroethene	ND		ug/kg	78	24.	1
Chlorobenzene	160		ug/kg	78	27.	1
1,2-Dichloroethane	ND		ug/kg	78	19.	1
1,1,1-Trichloroethane	ND		ug/kg	78	27.	1
Benzene	ND		ug/kg	78	15.	1
Toluene	28	J	ug/kg	120	15.	1
Ethylbenzene	ND		ug/kg	78	13.	1
Vinyl chloride	ND		ug/kg	160	25.	1
1,1-Dichloroethene	ND		ug/kg	78	29.	1
trans-1,2-Dichloroethene	ND		ug/kg	120	19.	1
Trichloroethene	ND		ug/kg	78	24.	1
1,2-Dichlorobenzene	43	J	ug/kg	390	14.	1
1,3-Dichlorobenzene	29	J	ug/kg	390	17.	1
1,4-Dichlorobenzene	240	J	ug/kg	390	14.	1
Methyl tert butyl ether	ND		ug/kg	160	12.	1
p/m-Xylene	32	J	ug/kg	160	28.	1
o-Xylene	37	J	ug/kg	160	26.	1
cis-1,2-Dichloroethene	ND		ug/kg	78	27.	1
Acetone	ND		ug/kg	780	180	1
2-Butanone	ND		ug/kg	780	54.	1
n-Butylbenzene	63	J	ug/kg	78	18.	1
sec-Butylbenzene	70	J	ug/kg	78	17.	1
tert-Butylbenzene	ND		ug/kg	390	19.	1
n-Propylbenzene	ND		ug/kg	78	17.	1
1,3,5-Trimethylbenzene	ND		ug/kg	390	13.	1
1,2,4-Trimethylbenzene	26	J	ug/kg	390	14.	1

Project Name: LAKEFRONT BOULEVARD **Lab Number:** L1743880

Project Number: E67.022.001 **Report Date:** 12/11/17

SAMPLE RESULTS

Lab ID: L1743880-06 Date Collected: 11/29/17 11:50

Client ID: MW-1-25-26 FT Date Received: 11/30/17

Sample Location: 240-260 LAKEFRONT BLVD. Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
1,4-Dioxane	ND		ug/kg	3100	1100	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	96		70-130
Toluene-d8	99		70-130
4-Bromofluorobenzene	114		70-130
Dibromofluoromethane	89		70-130

Project Name: LAKEFRONT BOULEVARD **Lab Number:** L1743880

Project Number: E67.022.001 **Report Date:** 12/11/17

Method Blank Analysis
Batch Quality Control

Analytical Method: 1,8260C
Analytical Date: 12/07/17 09:12
Analyst: JC

Parameter	Result	Qualifier	Units	RL	MDL
Volatile Organics by 8260/5035 - Westborough Lab for sample(s): 01 Batch: WG1070066-5					
Methylene chloride	ND		ug/kg	10	1.6
1,1-Dichloroethane	ND		ug/kg	1.5	0.27
Chloroform	ND		ug/kg	1.5	0.37
Carbon tetrachloride	ND		ug/kg	1.0	0.34
Tetrachloroethene	ND		ug/kg	1.0	0.30
Chlorobenzene	ND		ug/kg	1.0	0.35
1,2-Dichloroethane	ND		ug/kg	1.0	0.25
1,1,1-Trichloroethane	ND		ug/kg	1.0	0.35
Benzene	ND		ug/kg	1.0	0.19
Toluene	ND		ug/kg	1.5	0.20
Ethylbenzene	ND		ug/kg	1.0	0.17
Vinyl chloride	ND		ug/kg	2.0	0.32
1,1-Dichloroethene	ND		ug/kg	1.0	0.37
trans-1,2-Dichloroethene	ND		ug/kg	1.5	0.24
Trichloroethene	ND		ug/kg	1.0	0.30
1,2-Dichlorobenzene	ND		ug/kg	5.0	0.18
1,3-Dichlorobenzene	ND		ug/kg	5.0	0.22
1,4-Dichlorobenzene	ND		ug/kg	5.0	0.18
Methyl tert butyl ether	ND		ug/kg	2.0	0.15
p/m-Xylene	ND		ug/kg	2.0	0.35
o-Xylene	ND		ug/kg	2.0	0.34
cis-1,2-Dichloroethene	ND		ug/kg	1.0	0.34
Acetone	ND		ug/kg	10	2.3
2-Butanone	ND		ug/kg	10	0.69
n-Butylbenzene	ND		ug/kg	1.0	0.23
sec-Butylbenzene	ND		ug/kg	1.0	0.22
tert-Butylbenzene	ND		ug/kg	5.0	0.25
n-Propylbenzene	ND		ug/kg	1.0	0.22
1,3,5-Trimethylbenzene	ND		ug/kg	5.0	0.16

Project Name: LAKEFRONT BOULEVARD
Project Number: E67.022.001
Lab Number: L1743880
Report Date: 12/11/17

Method Blank Analysis
Batch Quality Control

Analytical Method: 1,8260C
Analytical Date: 12/07/17 09:12
Analyst: JC

Parameter	Result	Qualifier	Units	RL	MDL
Volatile Organics by 8260/5035 - Westborough Lab for sample(s): 01 Batch: WG1070066-5					
1,2,4-Trimethylbenzene	ND		ug/kg	5.0	0.19
1,4-Dioxane	ND		ug/kg	40	14.
Tentatively Identified Compounds					
No Tentatively Identified Compounds	ND		ug/kg		

Surrogate	%Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	106		70-130
Toluene-d8	99		70-130
4-Bromofluorobenzene	101		70-130
Dibromofluoromethane	101		70-130

Project Name: LAKEFRONT BOULEVARD **Lab Number:** L1743880

Project Number: E67.022.001 **Report Date:** 12/11/17

Method Blank Analysis
Batch Quality Control

Analytical Method: 1,8260C
Analytical Date: 12/07/17 09:26
Analyst: JC

Parameter	Result	Qualifier	Units	RL	MDL
Volatile Organics by GC/MS - Westborough Lab for sample(s): 05-06 Batch: WG1070087-5					
Methylene chloride	ND		ug/kg	500	82.
1,1-Dichloroethane	ND		ug/kg	75	14.
Chloroform	ND		ug/kg	75	18.
Carbon tetrachloride	ND		ug/kg	50	17.
Tetrachloroethene	ND		ug/kg	50	15.
Chlorobenzene	ND		ug/kg	50	17.
1,2-Dichloroethane	ND		ug/kg	50	12.
1,1,1-Trichloroethane	ND		ug/kg	50	18.
Benzene	ND		ug/kg	50	9.6
Toluene	ND		ug/kg	75	9.8
Ethylbenzene	ND		ug/kg	50	8.5
Vinyl chloride	ND		ug/kg	100	16.
1,1-Dichloroethene	ND		ug/kg	50	19.
trans-1,2-Dichloroethene	ND		ug/kg	75	12.
Trichloroethene	ND		ug/kg	50	15.
1,2-Dichlorobenzene	ND		ug/kg	250	9.1
1,3-Dichlorobenzene	ND		ug/kg	250	11.
1,4-Dichlorobenzene	ND		ug/kg	250	9.1
Methyl tert butyl ether	ND		ug/kg	100	7.6
p/m-Xylene	ND		ug/kg	100	18.
o-Xylene	ND		ug/kg	100	17.
cis-1,2-Dichloroethene	ND		ug/kg	50	17.
Acetone	ND		ug/kg	500	110
2-Butanone	ND		ug/kg	500	34.
n-Butylbenzene	ND		ug/kg	50	11.
sec-Butylbenzene	ND		ug/kg	50	11.
tert-Butylbenzene	ND		ug/kg	250	12.
n-Propylbenzene	ND		ug/kg	50	11.
1,3,5-Trimethylbenzene	ND		ug/kg	250	8.0

Project Name: LAKEFRONT BOULEVARD
Project Number: E67.022.001
Lab Number: L1743880
Report Date: 12/11/17

Method Blank Analysis
Batch Quality Control

Analytical Method: 1,8260C
Analytical Date: 12/07/17 09:26
Analyst: JC

Parameter	Result	Qualifier	Units	RL	MDL
Volatile Organics by GC/MS - Westborough Lab for sample(s): 05-06 Batch: WG1070087-5					
1,2,4-Trimethylbenzene	ND		ug/kg	250	9.3
1,4-Dioxane	ND		ug/kg	2000	720
Tentatively Identified Compounds					
No Tentatively Identified Compounds	ND		ug/kg		

Surrogate	%Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	100		70-130
Toluene-d8	96		70-130
4-Bromofluorobenzene	102		70-130
Dibromofluoromethane	89		70-130

Project Name: LAKEFRONT BOULEVARD **Lab Number:** L1743880

Project Number: E67.022.001 **Report Date:** 12/11/17

Method Blank Analysis
Batch Quality Control

Analytical Method: 1,8260C
Analytical Date: 12/07/17 09:26
Analyst: JC

Parameter	Result	Qualifier	Units	RL	MDL
Volatile Organics by GC/MS - Westborough Lab for sample(s): 02 Batch: WG1070220-5					
Methylene chloride	ND		ug/kg	10	1.6
1,1-Dichloroethane	ND		ug/kg	1.5	0.27
Chloroform	ND		ug/kg	1.5	0.37
Carbon tetrachloride	ND		ug/kg	1.0	0.34
Tetrachloroethene	ND		ug/kg	1.0	0.30
Chlorobenzene	ND		ug/kg	1.0	0.35
1,2-Dichloroethane	ND		ug/kg	1.0	0.25
1,1,1-Trichloroethane	ND		ug/kg	1.0	0.35
Benzene	ND		ug/kg	1.0	0.19
Toluene	ND		ug/kg	1.5	0.20
Ethylbenzene	ND		ug/kg	1.0	0.17
Vinyl chloride	ND		ug/kg	2.0	0.32
1,1-Dichloroethene	ND		ug/kg	1.0	0.37
trans-1,2-Dichloroethene	ND		ug/kg	1.5	0.24
Trichloroethene	ND		ug/kg	1.0	0.30
1,2-Dichlorobenzene	ND		ug/kg	5.0	0.18
1,3-Dichlorobenzene	ND		ug/kg	5.0	0.22
1,4-Dichlorobenzene	ND		ug/kg	5.0	0.18
Methyl tert butyl ether	ND		ug/kg	2.0	0.15
p/m-Xylene	ND		ug/kg	2.0	0.35
o-Xylene	ND		ug/kg	2.0	0.34
cis-1,2-Dichloroethene	ND		ug/kg	1.0	0.34
Acetone	ND		ug/kg	10	2.3
2-Butanone	ND		ug/kg	10	0.69
n-Butylbenzene	ND		ug/kg	1.0	0.23
sec-Butylbenzene	ND		ug/kg	1.0	0.22
tert-Butylbenzene	ND		ug/kg	5.0	0.25
n-Propylbenzene	ND		ug/kg	1.0	0.22
1,3,5-Trimethylbenzene	ND		ug/kg	5.0	0.16

Project Name: LAKEFRONT BOULEVARD
Project Number: E67.022.001
Lab Number: L1743880
Report Date: 12/11/17

Method Blank Analysis
Batch Quality Control

Analytical Method: 1,8260C
Analytical Date: 12/07/17 09:26
Analyst: JC

Parameter	Result	Qualifier	Units	RL	MDL
Volatile Organics by GC/MS - Westborough Lab for sample(s): 02 Batch: WG1070220-5					
1,2,4-Trimethylbenzene	ND		ug/kg	5.0	0.19
1,4-Dioxane	ND		ug/kg	40	14.
Tentatively Identified Compounds					
No Tentatively Identified Compounds	ND		ug/kg		

Surrogate	%Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	100		70-130
Toluene-d8	96		70-130
4-Bromofluorobenzene	103		70-130
Dibromofluoromethane	89		70-130

Project Name: LAKEFRONT BOULEVARD
Project Number: E67.022.001
Lab Number: L1743880
Report Date: 12/11/17

Method Blank Analysis
Batch Quality Control

Analytical Method: 1,8260C
Analytical Date: 12/08/17 11:04
Analyst: PK

Parameter	Result	Qualifier	Units	RL	MDL
Volatile Organics by GC/MS - Westborough Lab for sample(s): 03 Batch: WG1070779-5					
Methylene chloride	ND		ug/kg	10	1.6
1,1-Dichloroethane	ND		ug/kg	1.5	0.27
Chloroform	ND		ug/kg	1.5	0.37
Carbon tetrachloride	ND		ug/kg	1.0	0.34
Tetrachloroethene	ND		ug/kg	1.0	0.30
Chlorobenzene	ND		ug/kg	1.0	0.35
1,2-Dichloroethane	ND		ug/kg	1.0	0.25
1,1,1-Trichloroethane	ND		ug/kg	1.0	0.35
Benzene	ND		ug/kg	1.0	0.19
Toluene	ND		ug/kg	1.5	0.20
Ethylbenzene	ND		ug/kg	1.0	0.17
Vinyl chloride	ND		ug/kg	2.0	0.32
1,1-Dichloroethene	ND		ug/kg	1.0	0.37
trans-1,2-Dichloroethene	ND		ug/kg	1.5	0.24
Trichloroethene	ND		ug/kg	1.0	0.30
1,2-Dichlorobenzene	ND		ug/kg	5.0	0.18
1,3-Dichlorobenzene	ND		ug/kg	5.0	0.22
1,4-Dichlorobenzene	ND		ug/kg	5.0	0.18
Methyl tert butyl ether	ND		ug/kg	2.0	0.15
p/m-Xylene	ND		ug/kg	2.0	0.35
o-Xylene	ND		ug/kg	2.0	0.34
cis-1,2-Dichloroethene	ND		ug/kg	1.0	0.34
Acetone	ND		ug/kg	10	2.3
2-Butanone	ND		ug/kg	10	0.69
n-Butylbenzene	ND		ug/kg	1.0	0.23
sec-Butylbenzene	ND		ug/kg	1.0	0.22
tert-Butylbenzene	ND		ug/kg	5.0	0.25
n-Propylbenzene	ND		ug/kg	1.0	0.22
1,3,5-Trimethylbenzene	ND		ug/kg	5.0	0.16

Project Name: LAKEFRONT BOULEVARD
Project Number: E67.022.001
Lab Number: L1743880
Report Date: 12/11/17

Method Blank Analysis
Batch Quality Control

Analytical Method: 1,8260C
Analytical Date: 12/08/17 11:04
Analyst: PK

Parameter	Result	Qualifier	Units	RL	MDL
Volatile Organics by GC/MS - Westborough Lab for sample(s): 03 Batch: WG1070779-5					
1,2,4-Trimethylbenzene	ND		ug/kg	5.0	0.19
1,4-Dioxane	ND		ug/kg	40	14.

Surrogate	%Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	103		70-130
Toluene-d8	108		70-130
4-Bromofluorobenzene	104		70-130
Dibromofluoromethane	89		70-130

Lab Control Sample Analysis

Batch Quality Control

Project Name: LAKEFRONT BOULEVARD

Project Number: E67.022.001

Lab Number: L1743880

Report Date: 12/11/17

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Volatile Organics by 8260/5035 - Westborough Lab Associated sample(s): 01 Batch: WG1070066-3 WG1070066-4								
Methylene chloride	74		77		70-130	4		30
1,1-Dichloroethane	107		106		70-130	1		30
Chloroform	95		91		70-130	4		30
Carbon tetrachloride	101		100		70-130	1		30
Tetrachloroethene	97		94		70-130	3		30
Chlorobenzene	90		91		70-130	1		30
1,2-Dichloroethane	104		108		70-130	4		30
1,1,1-Trichloroethane	99		98		70-130	1		30
Benzene	93		93		70-130	0		30
Toluene	86		84		70-130	2		30
Ethylbenzene	89		88		70-130	1		30
Vinyl chloride	89		86		67-130	3		30
1,1-Dichloroethene	93		92		65-135	1		30
trans-1,2-Dichloroethene	96		94		70-130	2		30
Trichloroethene	97		96		70-130	1		30
1,2-Dichlorobenzene	84		86		70-130	2		30
1,3-Dichlorobenzene	86		86		70-130	0		30
1,4-Dichlorobenzene	85		85		70-130	0		30
Methyl tert butyl ether	97		106		66-130	9		30
p/m-Xylene	91		90		70-130	1		30
o-Xylene	93		93		70-130	0		30
cis-1,2-Dichloroethene	96		96		70-130	0		30
Acetone	107		124		54-140	15		30

Lab Control Sample Analysis

Batch Quality Control

Project Name: LAKEFRONT BOULEVARD

Project Number: E67.022.001

Lab Number: L1743880

Report Date: 12/11/17

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Volatile Organics by 8260/5035 - Westborough Lab Associated sample(s): 01 Batch: WG1070066-3 WG1070066-4								
2-Butanone	96		121		70-130	23		30
n-Butylbenzene	84		82		70-130	2		30
sec-Butylbenzene	85		83		70-130	2		30
tert-Butylbenzene	84		82		70-130	2		30
n-Propylbenzene	84		82		70-130	2		30
1,3,5-Trimethylbenzene	86		84		70-130	2		30
1,2,4-Trimethylbenzene	85		84		70-130	1		30
1,4-Dioxane	103		132		65-136	25		30

Surrogate	LCS %Recovery	Qual	LCSD %Recovery	Qual	Acceptance Criteria
1,2-Dichloroethane-d4	105		108		70-130
Toluene-d8	101		100		70-130
4-Bromofluorobenzene	100		99		70-130
Dibromofluoromethane	104		106		70-130

Lab Control Sample Analysis

Batch Quality Control

Project Name: LAKEFRONT BOULEVARD

Project Number: E67.022.001

Lab Number: L1743880

Report Date: 12/11/17

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Volatile Organics by GC/MS - Westborough Lab Associated sample(s): 05-06 Batch: WG1070087-3 WG1070087-4								
Methylene chloride	94		94		70-130	0		30
1,1-Dichloroethane	106		107		70-130	1		30
Chloroform	110		111		70-130	1		30
Carbon tetrachloride	109		111		70-130	2		30
Tetrachloroethene	101		101		70-130	0		30
Chlorobenzene	101		101		70-130	0		30
1,2-Dichloroethane	102		106		70-130	4		30
1,1,1-Trichloroethane	113		114		70-130	1		30
Benzene	112		114		70-130	2		30
Toluene	108		106		70-130	2		30
Ethylbenzene	110		109		70-130	1		30
Vinyl chloride	96		96		67-130	0		30
1,1-Dichloroethene	102		97		65-135	5		30
trans-1,2-Dichloroethene	111		113		70-130	2		30
Trichloroethene	110		110		70-130	0		30
1,2-Dichlorobenzene	93		97		70-130	4		30
1,3-Dichlorobenzene	97		100		70-130	3		30
1,4-Dichlorobenzene	96		97		70-130	1		30
Methyl tert butyl ether	114		115		66-130	1		30
p/m-Xylene	111		111		70-130	0		30
o-Xylene	112		113		70-130	1		30
cis-1,2-Dichloroethene	109		109		70-130	0		30
Acetone	88		92		54-140	4		30

Lab Control Sample Analysis

Batch Quality Control

Project Name: LAKEFRONT BOULEVARD

Project Number: E67.022.001

Lab Number: L1743880

Report Date: 12/11/17

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Volatile Organics by GC/MS - Westborough Lab Associated sample(s): 05-06 Batch: WG1070087-3 WG1070087-4								
2-Butanone	84		94		70-130	11		30
n-Butylbenzene	113		114		70-130	1		30
sec-Butylbenzene	109		110		70-130	1		30
tert-Butylbenzene	104		105		70-130	1		30
n-Propylbenzene	110		111		70-130	1		30
1,3,5-Trimethylbenzene	106		106		70-130	0		30
1,2,4-Trimethylbenzene	107		108		70-130	1		30
1,4-Dioxane	94		99		65-136	5		30

Surrogate	LCS %Recovery	Qual	LCSD %Recovery	Qual	Acceptance Criteria
1,2-Dichloroethane-d4	96		99		70-130
Toluene-d8	98		97		70-130
4-Bromofluorobenzene	105		105		70-130
Dibromofluoromethane	91		94		70-130

Lab Control Sample Analysis

Batch Quality Control

Project Name: LAKEFRONT BOULEVARD

Project Number: E67.022.001

Lab Number: L1743880

Report Date: 12/11/17

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Volatile Organics by GC/MS - Westborough Lab Associated sample(s): 02 Batch: WG1070220-3 WG1070220-4								
Methylene chloride	94		94		70-130	0		30
1,1-Dichloroethane	106		107		70-130	1		30
Chloroform	110		111		70-130	1		30
Carbon tetrachloride	109		111		70-130	2		30
Tetrachloroethene	101		101		70-130	0		30
Chlorobenzene	101		101		70-130	0		30
1,2-Dichloroethane	102		106		70-130	4		30
1,1,1-Trichloroethane	113		114		70-130	1		30
Benzene	112		114		70-130	2		30
Toluene	108		106		70-130	2		30
Ethylbenzene	110		109		70-130	1		30
Vinyl chloride	96		96		67-130	0		30
1,1-Dichloroethene	102		97		65-135	5		30
trans-1,2-Dichloroethene	111		113		70-130	2		30
Trichloroethene	110		110		70-130	0		30
1,2-Dichlorobenzene	93		97		70-130	4		30
1,3-Dichlorobenzene	97		100		70-130	3		30
1,4-Dichlorobenzene	96		97		70-130	1		30
Methyl tert butyl ether	114		115		66-130	1		30
p/m-Xylene	111		111		70-130	0		30
o-Xylene	112		113		70-130	1		30
cis-1,2-Dichloroethene	109		109		70-130	0		30
Acetone	88		92		54-140	4		30

Lab Control Sample Analysis

Batch Quality Control

Project Name: LAKEFRONT BOULEVARD

Project Number: E67.022.001

Lab Number: L1743880

Report Date: 12/11/17

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Volatile Organics by GC/MS - Westborough Lab Associated sample(s): 02 Batch: WG1070220-3 WG1070220-4								
2-Butanone	84		94		70-130	11		30
n-Butylbenzene	113		114		70-130	1		30
sec-Butylbenzene	109		110		70-130	1		30
tert-Butylbenzene	104		105		70-130	1		30
n-Propylbenzene	110		111		70-130	1		30
1,3,5-Trimethylbenzene	106		106		70-130	0		30
1,2,4-Trimethylbenzene	107		108		70-130	1		30
1,4-Dioxane	94		99		65-136	5		30

Surrogate	LCS %Recovery	Qual	LCSD %Recovery	Qual	Acceptance Criteria
1,2-Dichloroethane-d4	96		99		70-130
Toluene-d8	98		97		70-130
4-Bromofluorobenzene	105		105		70-130
Dibromofluoromethane	91		94		70-130

Lab Control Sample Analysis

Batch Quality Control

Project Name: LAKEFRONT BOULEVARD

Project Number: E67.022.001

Lab Number: L1743880

Report Date: 12/11/17

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Volatile Organics by GC/MS - Westborough Lab Associated sample(s): 03 Batch: WG1070779-3 WG1070779-4								
Methylene chloride	78		76		70-130	3		30
1,1-Dichloroethane	84		83		70-130	1		30
Chloroform	80		79		70-130	1		30
Carbon tetrachloride	79		79		70-130	0		30
Tetrachloroethene	87		88		70-130	1		30
Chlorobenzene	89		90		70-130	1		30
1,2-Dichloroethane	83		81		70-130	2		30
1,1,1-Trichloroethane	82		82		70-130	0		30
Benzene	79		79		70-130	0		30
Toluene	89		91		70-130	2		30
Ethylbenzene	91		92		70-130	1		30
Vinyl chloride	84		81		67-130	4		30
1,1-Dichloroethene	82		83		65-135	1		30
trans-1,2-Dichloroethene	80		79		70-130	1		30
Trichloroethene	79		79		70-130	0		30
1,2-Dichlorobenzene	96		95		70-130	1		30
1,3-Dichlorobenzene	96		95		70-130	1		30
1,4-Dichlorobenzene	95		94		70-130	1		30
Methyl tert butyl ether	83		81		66-130	2		30
p/m-Xylene	90		91		70-130	1		30
o-Xylene	90		92		70-130	2		30
cis-1,2-Dichloroethene	79		78		70-130	1		30
Acetone	85		79		54-140	7		30

Lab Control Sample Analysis

Batch Quality Control

Project Name: LAKEFRONT BOULEVARD

Project Number: E67.022.001

Lab Number: L1743880

Report Date: 12/11/17

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Volatile Organics by GC/MS - Westborough Lab Associated sample(s): 03 Batch: WG1070779-3 WG1070779-4								
2-Butanone	87		82		70-130	6		30
n-Butylbenzene	102		103		70-130	1		30
sec-Butylbenzene	101		100		70-130	1		30
tert-Butylbenzene	99		98		70-130	1		30
n-Propylbenzene	100		99		70-130	1		30
1,3,5-Trimethylbenzene	99		97		70-130	2		30
1,2,4-Trimethylbenzene	99		99		70-130	0		30
1,4-Dioxane	74		72		65-136	3		30

Surrogate	LCS %Recovery	Qual	LCSD %Recovery	Qual	Acceptance Criteria
1,2-Dichloroethane-d4	102		101		70-130
Toluene-d8	108		109		70-130
4-Bromofluorobenzene	106		105		70-130
Dibromofluoromethane	97		96		70-130

SEMIVOLATILES

Project Name: LAKEFRONT BOULEVARD
Lab Number: L1743880
Project Number: E67.022.001
Report Date: 12/11/17

SAMPLE RESULTS

Lab ID: L1743880-01
Client ID: B-7-0.5-4.5 FT
Sample Location: 240-260 LAKEFRONT BLVD.

Matrix: Soil
Analytical Method: 1,8270D
Analytical Date: 12/08/17 14:27
Analyst: CB
Percent Solids: 75%

Date Collected: 11/29/17 09:10
Date Received: 11/30/17
Field Prep: Not Specified
Extraction Method: EPA 3546
Extraction Date: 12/07/17 18:29

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Semivolatile Organics by GC/MS - Westborough Lab						
Acenaphthene	73	J	ug/kg	180	23.	1
Hexachlorobenzene	ND		ug/kg	130	25.	1
Fluoranthene	1300		ug/kg	130	25.	1
Naphthalene	160	J	ug/kg	220	27.	1
Benzo(a)anthracene	580		ug/kg	130	25.	1
Benzo(a)pyrene	480		ug/kg	180	54.	1
Benzo(b)fluoranthene	630		ug/kg	130	37.	1
Benzo(k)fluoranthene	240		ug/kg	130	35.	1
Chrysene	550		ug/kg	130	23.	1
Acenaphthylene	180		ug/kg	180	34.	1
Anthracene	280		ug/kg	130	43.	1
Benzo(ghi)perylene	260		ug/kg	180	26.	1
Fluorene	190	J	ug/kg	220	21.	1
Phenanthrene	1300		ug/kg	130	27.	1
Dibenzo(a,h)anthracene	72	J	ug/kg	130	26.	1
Indeno(1,2,3-cd)pyrene	290		ug/kg	180	31.	1
Pyrene	1000		ug/kg	130	22.	1
Dibenzofuran	120	J	ug/kg	220	21.	1
Pentachlorophenol	ND		ug/kg	180	48.	1
Phenol	ND		ug/kg	220	33.	1
2-Methylphenol	ND		ug/kg	220	34.	1
3-Methylphenol/4-Methylphenol	ND		ug/kg	320	34.	1

Project Name: LAKEFRONT BOULEVARD **Lab Number:** L1743880

Project Number: E67.022.001 **Report Date:** 12/11/17

SAMPLE RESULTS

Lab ID: L1743880-01 Date Collected: 11/29/17 09:10

Client ID: B-7-0.5-4.5 FT Date Received: 11/30/17

Sample Location: 240-260 LAKEFRONT BLVD. Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor

Semivolatile Organics by GC/MS - Westborough Lab

Surrogate	% Recovery	Qualifier	Acceptance Criteria
2-Fluorophenol	64		25-120
Phenol-d6	67		10-120
Nitrobenzene-d5	74		23-120
2-Fluorobiphenyl	80		30-120
2,4,6-Tribromophenol	92		10-136
4-Terphenyl-d14	80		18-120

Project Name: LAKEFRONT BOULEVARD
Project Number: E67.022.001
Lab Number: L1743880
Report Date: 12/11/17

SAMPLE RESULTS

Lab ID: L1743880-02
Client ID: MW-1-1.5-6 FT
Sample Location: 240-260 LAKEFRONT BLVD.

Matrix: Soil
Analytical Method: 1,8270D
Analytical Date: 12/10/17 18:57
Analyst: SZ
Percent Solids: 84%

Date Collected: 11/29/17 11:05
Date Received: 11/30/17
Field Prep: Not Specified
Extraction Method: EPA 3546
Extraction Date: 12/08/17 08:07

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Semivolatile Organics by GC/MS - Westborough Lab						
Acenaphthene	ND		ug/kg	160	20.	1
Hexachlorobenzene	ND		ug/kg	120	22.	1
Fluoranthene	ND		ug/kg	120	22.	1
Naphthalene	36	J	ug/kg	200	24.	1
Benzo(a)anthracene	ND		ug/kg	120	22.	1
Benzo(a)pyrene	ND		ug/kg	160	48.	1
Benzo(b)fluoranthene	ND		ug/kg	120	33.	1
Benzo(k)fluoranthene	ND		ug/kg	120	31.	1
Chrysene	ND		ug/kg	120	20.	1
Acenaphthylene	ND		ug/kg	160	30.	1
Anthracene	ND		ug/kg	120	38.	1
Benzo(ghi)perylene	ND		ug/kg	160	23.	1
Fluorene	ND		ug/kg	200	19.	1
Phenanthrene	ND		ug/kg	120	24.	1
Dibenzo(a,h)anthracene	ND		ug/kg	120	22.	1
Indeno(1,2,3-cd)pyrene	ND		ug/kg	160	27.	1
Pyrene	ND		ug/kg	120	19.	1
Dibenzofuran	ND		ug/kg	200	18.	1
Pentachlorophenol	ND		ug/kg	160	43.	1
Phenol	ND		ug/kg	200	30.	1
2-Methylphenol	ND		ug/kg	200	30.	1
3-Methylphenol/4-Methylphenol	ND		ug/kg	280	31.	1

Project Name: LAKEFRONT BOULEVARD **Lab Number:** L1743880

Project Number: E67.022.001 **Report Date:** 12/11/17

SAMPLE RESULTS

Lab ID: L1743880-02 Date Collected: 11/29/17 11:05

Client ID: MW-1-1.5-6 FT Date Received: 11/30/17

Sample Location: 240-260 LAKEFRONT BLVD. Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor

Semivolatile Organics by GC/MS - Westborough Lab

Surrogate	% Recovery	Qualifier	Acceptance Criteria
2-Fluorophenol	84		25-120
Phenol-d6	84		10-120
Nitrobenzene-d5	75		23-120
2-Fluorobiphenyl	76		30-120
2,4,6-Tribromophenol	85		10-136
4-Terphenyl-d14	73		18-120

Project Name: LAKEFRONT BOULEVARD
Project Number: E67.022.001
Lab Number: L1743880
Report Date: 12/11/17

SAMPLE RESULTS

Lab ID: L1743880-03
Client ID: MW-2-2-8 FT
Sample Location: 240-260 LAKEFRONT BLVD.

Matrix: Soil
Analytical Method: 1,8270D
Analytical Date: 12/10/17 19:25
Analyst: SZ
Percent Solids: 91%

Date Collected: 11/29/17 13:20
Date Received: 11/30/17
Field Prep: Not Specified
Extraction Method: EPA 3546
Extraction Date: 12/08/17 08:07

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Semivolatile Organics by GC/MS - Westborough Lab						
Acenaphthene	ND		ug/kg	140	19.	1
Hexachlorobenzene	ND		ug/kg	110	20.	1
Fluoranthene	ND		ug/kg	110	21.	1
Naphthalene	ND		ug/kg	180	22.	1
Benzo(a)anthracene	ND		ug/kg	110	20.	1
Benzo(a)pyrene	ND		ug/kg	140	44.	1
Benzo(b)fluoranthene	ND		ug/kg	110	31.	1
Benzo(k)fluoranthene	ND		ug/kg	110	29.	1
Chrysene	ND		ug/kg	110	19.	1
Acenaphthylene	ND		ug/kg	140	28.	1
Anthracene	ND		ug/kg	110	35.	1
Benzo(ghi)perylene	ND		ug/kg	140	21.	1
Fluorene	ND		ug/kg	180	18.	1
Phenanthrene	ND		ug/kg	110	22.	1
Dibenzo(a,h)anthracene	ND		ug/kg	110	21.	1
Indeno(1,2,3-cd)pyrene	ND		ug/kg	140	25.	1
Pyrene	ND		ug/kg	110	18.	1
Dibenzofuran	ND		ug/kg	180	17.	1
Pentachlorophenol	ND		ug/kg	140	40.	1
Phenol	ND		ug/kg	180	27.	1
2-Methylphenol	ND		ug/kg	180	28.	1
3-Methylphenol/4-Methylphenol	ND		ug/kg	260	28.	1

Project Name: LAKEFRONT BOULEVARD **Lab Number:** L1743880

Project Number: E67.022.001 **Report Date:** 12/11/17

SAMPLE RESULTS

Lab ID: L1743880-03 Date Collected: 11/29/17 13:20

Client ID: MW-2-2-8 FT Date Received: 11/30/17

Sample Location: 240-260 LAKEFRONT BLVD. Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor

Semivolatile Organics by GC/MS - Westborough Lab

Surrogate	% Recovery	Qualifier	Acceptance Criteria
2-Fluorophenol	88		25-120
Phenol-d6	91		10-120
Nitrobenzene-d5	82		23-120
2-Fluorobiphenyl	83		30-120
2,4,6-Tribromophenol	77		10-136
4-Terphenyl-d14	87		18-120

Project Name: LAKEFRONT BOULEVARD
Project Number: E67.022.001
Lab Number: L1743880
Report Date: 12/11/17

SAMPLE RESULTS

Lab ID: L1743880-04
Client ID: MW-3-2-6 FT
Sample Location: 240-260 LAKEFRONT BLVD.

Matrix: Soil
Analytical Method: 1,8270D
Analytical Date: 12/10/17 19:54
Analyst: SZ
Percent Solids: 72%

Date Collected: 11/30/17 09:40
Date Received: 11/30/17
Field Prep: Not Specified
Extraction Method: EPA 3546
Extraction Date: 12/08/17 08:07

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Semivolatile Organics by GC/MS - Westborough Lab						
Acenaphthene	13000	E	ug/kg	180	23.	1
Hexachlorobenzene	ND		ug/kg	140	25.	1
Fluoranthene	48000	E	ug/kg	140	26.	1
Naphthalene	3600		ug/kg	220	27.	1
Benzo(a)anthracene	30000	E	ug/kg	140	25.	1
Benzo(a)pyrene	26000	E	ug/kg	180	55.	1
Benzo(b)fluoranthene	33000	E	ug/kg	140	38.	1
Benzo(k)fluoranthene	8700		ug/kg	140	36.	1
Chrysene	23000	E	ug/kg	140	23.	1
Acenaphthylene	150	J	ug/kg	180	35.	1
Anthracene	25000	E	ug/kg	140	44.	1
Benzo(ghi)perylene	13000	E	ug/kg	180	26.	1
Fluorene	16000	E	ug/kg	220	22.	1
Phenanthrene	51000	E	ug/kg	140	27.	1
Dibenzo(a,h)anthracene	3900		ug/kg	140	26.	1
Indeno(1,2,3-cd)pyrene	16000	E	ug/kg	180	31.	1
Pyrene	41000	E	ug/kg	140	22.	1
Dibenzofuran	10000	E	ug/kg	220	21.	1
Pentachlorophenol	ND		ug/kg	180	50.	1
Phenol	ND		ug/kg	220	34.	1
2-Methylphenol	ND		ug/kg	220	35.	1
3-Methylphenol/4-Methylphenol	74	J	ug/kg	320	35.	1

Project Name: LAKEFRONT BOULEVARD **Lab Number:** L1743880

Project Number: E67.022.001 **Report Date:** 12/11/17

SAMPLE RESULTS

Lab ID: L1743880-04 Date Collected: 11/30/17 09:40

Client ID: MW-3-2-6 FT Date Received: 11/30/17

Sample Location: 240-260 LAKEFRONT BLVD. Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor

Semivolatile Organics by GC/MS - Westborough Lab

Surrogate	% Recovery	Qualifier	Acceptance Criteria
2-Fluorophenol	77		25-120
Phenol-d6	79		10-120
Nitrobenzene-d5	77		23-120
2-Fluorobiphenyl	68		30-120
2,4,6-Tribromophenol	89		10-136
4-Terphenyl-d14	69		18-120

Project Name: LAKEFRONT BOULEVARD
Project Number: E67.022.001
Lab Number: L1743880
Report Date: 12/11/17

SAMPLE RESULTS

Lab ID: L1743880-04 D
Client ID: MW-3-2-6 FT
Sample Location: 240-260 LAKEFRONT BLVD.

Matrix: Soil
Analytical Method: 1,8270D
Analytical Date: 12/11/17 14:54
Analyst: SZ
Percent Solids: 72%

Date Collected: 11/30/17 09:40
Date Received: 11/30/17
Field Prep: Not Specified
Extraction Method: EPA 3546
Extraction Date: 12/08/17 08:07

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Semivolatile Organics by GC/MS - Westborough Lab						
Acenaphthene	12000		ug/kg	1800	230	10
Fluoranthene	66000		ug/kg	1400	260	10
Benzo(a)anthracene	27000		ug/kg	1400	250	10
Benzo(a)pyrene	20000		ug/kg	1800	550	10
Benzo(b)fluoranthene	26000		ug/kg	1400	380	10
Chrysene	23000		ug/kg	1400	230	10
Anthracene	24000		ug/kg	1400	440	10
Benzo(ghi)perylene	10000		ug/kg	1800	260	10
Fluorene	14000		ug/kg	2200	220	10
Phenanthrene	83000		ug/kg	1400	270	10
Indeno(1,2,3-cd)pyrene	12000		ug/kg	1800	310	10
Pyrene	49000		ug/kg	1400	220	10
Dibenzofuran	8900		ug/kg	2200	210	10

Project Name: LAKEFRONT BOULEVARD
Lab Number: L1743880
Project Number: E67.022.001
Report Date: 12/11/17

SAMPLE RESULTS

Lab ID: L1743880-05
Client ID: MW-3-16-20 FT
Sample Location: 240-260 LAKEFRONT BLVD.

Matrix: Soil
Analytical Method: 1,8270D
Analytical Date: 12/08/17 13:57
Analyst: CB
Percent Solids: 85%

Date Collected: 11/30/17 10:25
Date Received: 11/30/17
Field Prep: Not Specified
Extraction Method: EPA 3546
Extraction Date: 12/07/17 18:29

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Semivolatile Organics by GC/MS - Westborough Lab						
Acenaphthene	280		ug/kg	150	20.	1
Hexachlorobenzene	ND		ug/kg	120	22.	1
Fluoranthene	1900		ug/kg	120	22.	1
Naphthalene	640		ug/kg	190	24.	1
Benzo(a)anthracene	880		ug/kg	120	22.	1
Benzo(a)pyrene	740		ug/kg	150	47.	1
Benzo(b)fluoranthene	950		ug/kg	120	33.	1
Benzo(k)fluoranthene	360		ug/kg	120	31.	1
Chrysene	800		ug/kg	120	20.	1
Acenaphthylene	48	J	ug/kg	150	30.	1
Anthracene	480		ug/kg	120	38.	1
Benzo(ghi)perylene	360		ug/kg	150	23.	1
Fluorene	290		ug/kg	190	19.	1
Phenanthrene	1900		ug/kg	120	24.	1
Dibenzo(a,h)anthracene	100	J	ug/kg	120	22.	1
Indeno(1,2,3-cd)pyrene	430		ug/kg	150	27.	1
Pyrene	1500		ug/kg	120	19.	1
Dibenzofuran	230		ug/kg	190	18.	1
Pentachlorophenol	ND		ug/kg	150	42.	1
Phenol	100	J	ug/kg	190	29.	1
2-Methylphenol	33	J	ug/kg	190	30.	1
3-Methylphenol/4-Methylphenol	86	J	ug/kg	280	30.	1

Project Name: LAKEFRONT BOULEVARD **Lab Number:** L1743880

Project Number: E67.022.001 **Report Date:** 12/11/17

SAMPLE RESULTS

Lab ID: L1743880-05 Date Collected: 11/30/17 10:25

Client ID: MW-3-16-20 FT Date Received: 11/30/17

Sample Location: 240-260 LAKEFRONT BLVD. Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor

Semivolatile Organics by GC/MS - Westborough Lab

Surrogate	% Recovery	Qualifier	Acceptance Criteria
2-Fluorophenol	33		25-120
Phenol-d6	67		10-120
Nitrobenzene-d5	77		23-120
2-Fluorobiphenyl	77		30-120
2,4,6-Tribromophenol	29		10-136
4-Terphenyl-d14	77		18-120

Project Name: LAKEFRONT BOULEVARD
Project Number: E67.022.001
Lab Number: L1743880
Report Date: 12/11/17

Method Blank Analysis
Batch Quality Control

Analytical Method: 1,8270D
Analytical Date: 12/08/17 10:18
Analyst: CB

Extraction Method: EPA 3546
Extraction Date: 12/07/17 18:29

Parameter	Result	Qualifier	Units	RL	MDL
Semivolatile Organics by GC/MS - Westborough Lab for sample(s): 01,05 Batch: WG1070286-1					
Acenaphthene	ND		ug/kg	130	17.
Hexachlorobenzene	ND		ug/kg	98	18.
Fluoranthene	ND		ug/kg	98	19.
Naphthalene	ND		ug/kg	160	20.
Benzo(a)anthracene	ND		ug/kg	98	18.
Benzo(a)pyrene	ND		ug/kg	130	40.
Benzo(b)fluoranthene	ND		ug/kg	98	28.
Benzo(k)fluoranthene	ND		ug/kg	98	26.
Chrysene	ND		ug/kg	98	17.
Acenaphthylene	ND		ug/kg	130	25.
Anthracene	ND		ug/kg	98	32.
Benzo(ghi)perylene	ND		ug/kg	130	19.
Fluorene	ND		ug/kg	160	16.
Phenanthrene	ND		ug/kg	98	20.
Dibenzo(a,h)anthracene	ND		ug/kg	98	19.
Indeno(1,2,3-cd)pyrene	ND		ug/kg	130	23.
Pyrene	ND		ug/kg	98	16.
Dibenzofuran	ND		ug/kg	160	16.
Pentachlorophenol	ND		ug/kg	130	36.
Phenol	ND		ug/kg	160	25.
2-Methylphenol	ND		ug/kg	160	25.
3-Methylphenol/4-Methylphenol	ND		ug/kg	240	26.
Tentatively Identified Compounds					
No Tentatively Identified Compounds	ND		ug/kg		

Project Name: LAKEFRONT BOULEVARD
Project Number: E67.022.001
Lab Number: L1743880
Report Date: 12/11/17

Method Blank Analysis
Batch Quality Control

Analytical Method: 1,8270D
Analytical Date: 12/08/17 10:18
Analyst: CB

Extraction Method: EPA 3546
Extraction Date: 12/07/17 18:29

Parameter	Result	Qualifier	Units	RL	MDL
Semivolatile Organics by GC/MS - Westborough Lab for sample(s): 01,05 Batch: WG1070286-1					

Surrogate	%Recovery	Qualifier	Acceptance Criteria
2-Fluorophenol	83		25-120
Phenol-d6	90		10-120
Nitrobenzene-d5	87		23-120
2-Fluorobiphenyl	79		30-120
2,4,6-Tribromophenol	64		10-136
4-Terphenyl-d14	84		18-120

Project Name: LAKEFRONT BOULEVARD
Project Number: E67.022.001
Lab Number: L1743880
Report Date: 12/11/17

Method Blank Analysis
Batch Quality Control

Analytical Method: 1,8270D
Analytical Date: 12/10/17 17:32
Analyst: SZ

Extraction Method: EPA 3546
Extraction Date: 12/08/17 08:07

Parameter	Result	Qualifier	Units	RL	MDL
Semivolatile Organics by GC/MS - Westborough Lab for sample(s): 02-04 Batch: WG1070493-1					
Acenaphthene	ND		ug/kg	130	17.
Hexachlorobenzene	ND		ug/kg	98	18.
Fluoranthene	ND		ug/kg	98	19.
Naphthalene	ND		ug/kg	160	20.
Benzo(a)anthracene	ND		ug/kg	98	18.
Benzo(a)pyrene	ND		ug/kg	130	40.
Benzo(b)fluoranthene	ND		ug/kg	98	28.
Benzo(k)fluoranthene	ND		ug/kg	98	26.
Chrysene	ND		ug/kg	98	17.
Acenaphthylene	ND		ug/kg	130	25.
Anthracene	ND		ug/kg	98	32.
Benzo(ghi)perylene	ND		ug/kg	130	19.
Fluorene	ND		ug/kg	160	16.
Phenanthrene	ND		ug/kg	98	20.
Dibenzo(a,h)anthracene	ND		ug/kg	98	19.
Indeno(1,2,3-cd)pyrene	ND		ug/kg	130	23.
Pyrene	ND		ug/kg	98	16.
Dibenzofuran	ND		ug/kg	160	16.
Pentachlorophenol	ND		ug/kg	130	36.
Phenol	ND		ug/kg	160	25.
2-Methylphenol	ND		ug/kg	160	25.
3-Methylphenol/4-Methylphenol	ND		ug/kg	240	26.
Tentatively Identified Compounds					
No Tentatively Identified Compounds	ND		ug/kg		

Project Name: LAKEFRONT BOULEVARD
Project Number: E67.022.001
Lab Number: L1743880
Report Date: 12/11/17

Method Blank Analysis
Batch Quality Control

Analytical Method: 1,8270D
Analytical Date: 12/10/17 17:32
Analyst: SZ

Extraction Method: EPA 3546
Extraction Date: 12/08/17 08:07

Parameter	Result	Qualifier	Units	RL	MDL
Semivolatile Organics by GC/MS - Westborough Lab for sample(s): 02-04 Batch: WG1070493-1					

Surrogate	%Recovery	Qualifier	Acceptance Criteria
2-Fluorophenol	94		25-120
Phenol-d6	96		10-120
Nitrobenzene-d5	86		23-120
2-Fluorobiphenyl	85		30-120
2,4,6-Tribromophenol	83		10-136
4-Terphenyl-d14	89		18-120

Lab Control Sample Analysis

Batch Quality Control

Project Name: LAKEFRONT BOULEVARD

Project Number: E67.022.001

Lab Number: L1743880

Report Date: 12/11/17

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Semivolatile Organics by GC/MS - Westborough Lab Associated sample(s): 01,05 Batch: WG1070286-2 WG1070286-3								
Acenaphthene	67		71		31-137	6		50
Hexachlorobenzene	70		74		40-140	6		50
Fluoranthene	75		79		40-140	5		50
Naphthalene	65		69		40-140	6		50
Benzo(a)anthracene	72		78		40-140	8		50
Benzo(a)pyrene	80		88		40-140	10		50
Benzo(b)fluoranthene	77		83		40-140	8		50
Benzo(k)fluoranthene	78		85		40-140	9		50
Chrysene	71		75		40-140	5		50
Acenaphthylene	66		71		40-140	7		50
Anthracene	72		76		40-140	5		50
Benzo(ghi)perylene	75		81		40-140	8		50
Fluorene	70		74		40-140	6		50
Phenanthrene	70		74		40-140	6		50
Dibenzo(a,h)anthracene	75		81		40-140	8		50
Indeno(1,2,3-cd)pyrene	77		82		40-140	6		50
Pyrene	71		76		35-142	7		50
Dibenzofuran	70		74		40-140	6		50
Pentachlorophenol	63		71		17-109	12		50
Phenol	77		81		26-90	5		50
2-Methylphenol	74		80		30-130.	8		50
3-Methylphenol/4-Methylphenol	78		80		30-130	3		50

Lab Control Sample Analysis

Batch Quality Control

Project Name: LAKEFRONT BOULEVARD

Project Number: E67.022.001

Lab Number: L1743880

Report Date: 12/11/17

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Semivolatile Organics by GC/MS - Westborough Lab Associated sample(s): 01,05 Batch: WG1070286-2 WG1070286-3								

Surrogate	LCS %Recovery	Qual	LCSD %Recovery	Qual	Acceptance Criteria
2-Fluorophenol	83		86		25-120
Phenol-d6	83		88		10-120
Nitrobenzene-d5	76		78		23-120
2-Fluorobiphenyl	69		73		30-120
2,4,6-Tribromophenol	80		88		10-136
4-Terphenyl-d14	77		82		18-120

Lab Control Sample Analysis

Batch Quality Control

Project Name: LAKEFRONT BOULEVARD

Project Number: E67.022.001

Lab Number: L1743880

Report Date: 12/11/17

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Semivolatile Organics by GC/MS - Westborough Lab Associated sample(s): 02-04 Batch: WG1070493-2 WG1070493-3								
Acenaphthene	65		56		31-137	15		50
Hexachlorobenzene	66		57		40-140	15		50
Fluoranthene	69		61		40-140	12		50
Naphthalene	62		55		40-140	12		50
Benzo(a)anthracene	69		62		40-140	11		50
Benzo(a)pyrene	77		67		40-140	14		50
Benzo(b)fluoranthene	75		65		40-140	14		50
Benzo(k)fluoranthene	73		65		40-140	12		50
Chrysene	69		62		40-140	11		50
Acenaphthylene	64		56		40-140	13		50
Anthracene	68		60		40-140	13		50
Benzo(ghi)perylene	70		63		40-140	11		50
Fluorene	67		59		40-140	13		50
Phenanthrene	66		59		40-140	11		50
Dibenzo(a,h)anthracene	69		60		40-140	14		50
Indeno(1,2,3-cd)pyrene	71		62		40-140	14		50
Pyrene	67		61		35-142	9		50
Dibenzofuran	66		59		40-140	11		50
Pentachlorophenol	53		46		17-109	14		50
Phenol	73		63		26-90	15		50
2-Methylphenol	71		62		30-130.	14		50
3-Methylphenol/4-Methylphenol	73		63		30-130	15		50

Lab Control Sample Analysis

Batch Quality Control

Project Name: LAKEFRONT BOULEVARD

Project Number: E67.022.001

Lab Number: L1743880

Report Date: 12/11/17

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Semivolatile Organics by GC/MS - Westborough Lab Associated sample(s): 02-04 Batch: WG1070493-2 WG1070493-3								

Surrogate	LCS %Recovery	Qual	LCSD %Recovery	Qual	Acceptance Criteria
2-Fluorophenol	74		64		25-120
Phenol-d6	74		64		10-120
Nitrobenzene-d5	68		58		23-120
2-Fluorobiphenyl	63		55		30-120
2,4,6-Tribromophenol	72		62		10-136
4-Terphenyl-d14	65		59		18-120

PCBS

Project Name: LAKEFRONT BOULEVARD
Lab Number: L1743880
Project Number: E67.022.001
Report Date: 12/11/17

SAMPLE RESULTS

Lab ID: L1743880-01
Client ID: B-7-0.5-4.5 FT
Sample Location: 240-260 LAKEFRONT BLVD.

Matrix: Soil
Analytical Method: 1,8082A
Analytical Date: 12/10/17 14:29
Analyst: WR
Percent Solids: 75%

Date Collected: 11/29/17 09:10
Date Received: 11/30/17
Field Prep: Not Specified
Extraction Method: EPA 3546
Extraction Date: 12/06/17 19:11
Cleanup Method: EPA 3665A
Cleanup Date: 12/07/17
Cleanup Method: EPA 3660B
Cleanup Date: 12/07/17

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Column
Polychlorinated Biphenyls by GC - Westborough Lab							
Aroclor 1016	ND		ug/kg	42.3	4.79	1	A
Aroclor 1221	ND		ug/kg	42.3	6.43	1	A
Aroclor 1232	ND		ug/kg	42.3	4.16	1	A
Aroclor 1242	74.0		ug/kg	42.3	5.17	1	A
Aroclor 1248	ND		ug/kg	42.3	4.74	1	A
Aroclor 1254	33.0	J	ug/kg	42.3	3.45	1	A
Aroclor 1260	20.9	J	ug/kg	42.3	4.41	1	B
Aroclor 1262	ND		ug/kg	42.3	3.47	1	A
Aroclor 1268	ND		ug/kg	42.3	2.99	1	A
PCBs, Total	128	J	ug/kg	42.3	2.99	1	B

Surrogate	% Recovery	Qualifier	Acceptance Criteria	Column
2,4,5,6-Tetrachloro-m-xylene	66		30-150	A
Decachlorobiphenyl	57		30-150	A
2,4,5,6-Tetrachloro-m-xylene	65		30-150	B
Decachlorobiphenyl	71		30-150	B

Project Name: LAKEFRONT BOULEVARD
Lab Number: L1743880
Project Number: E67.022.001
Report Date: 12/11/17

SAMPLE RESULTS

Lab ID: L1743880-02
Client ID: MW-1-1.5-6 FT
Sample Location: 240-260 LAKEFRONT BLVD.

Matrix: Soil
Analytical Method: 1,8082A
Analytical Date: 12/10/17 14:44
Analyst: WR
Percent Solids: 84%

Date Collected: 11/29/17 11:05
Date Received: 11/30/17
Field Prep: Not Specified
Extraction Method: EPA 3546
Extraction Date: 12/06/17 19:11
Cleanup Method: EPA 3665A
Cleanup Date: 12/07/17
Cleanup Method: EPA 3660B
Cleanup Date: 12/07/17

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Column
Polychlorinated Biphenyls by GC - Westborough Lab							
Aroclor 1016	ND		ug/kg	38.0	4.31	1	A
Aroclor 1221	ND		ug/kg	38.0	5.78	1	A
Aroclor 1232	ND		ug/kg	38.0	3.74	1	A
Aroclor 1242	143		ug/kg	38.0	4.65	1	B
Aroclor 1248	ND		ug/kg	38.0	4.26	1	A
Aroclor 1254	27.2	J	ug/kg	38.0	3.10	1	A
Aroclor 1260	9.18	J	ug/kg	38.0	3.97	1	A
Aroclor 1262	ND		ug/kg	38.0	3.12	1	A
Aroclor 1268	ND		ug/kg	38.0	2.69	1	A
PCBs, Total	179	J	ug/kg	38.0	2.69	1	B

Surrogate	% Recovery	Qualifier	Acceptance Criteria	Column
2,4,5,6-Tetrachloro-m-xylene	68		30-150	A
Decachlorobiphenyl	52		30-150	A
2,4,5,6-Tetrachloro-m-xylene	64		30-150	B
Decachlorobiphenyl	62		30-150	B

Project Name: LAKEFRONT BOULEVARD
Lab Number: L1743880
Project Number: E67.022.001
Report Date: 12/11/17

SAMPLE RESULTS

Lab ID: L1743880-03
Client ID: MW-2-2-8 FT
Sample Location: 240-260 LAKEFRONT BLVD.

Matrix: Soil
Analytical Method: 1,8082A
Analytical Date: 12/10/17 14:59
Analyst: WR
Percent Solids: 91%

Date Collected: 11/29/17 13:20
Date Received: 11/30/17
Field Prep: Not Specified
Extraction Method: EPA 3546
Extraction Date: 12/06/17 19:11
Cleanup Method: EPA 3665A
Cleanup Date: 12/07/17
Cleanup Method: EPA 3660B
Cleanup Date: 12/07/17

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Column
Polychlorinated Biphenyls by GC - Westborough Lab							
Aroclor 1016	ND		ug/kg	34.8	3.94	1	A
Aroclor 1221	ND		ug/kg	34.8	5.29	1	A
Aroclor 1232	ND		ug/kg	34.8	3.42	1	A
Aroclor 1242	ND		ug/kg	34.8	4.26	1	A
Aroclor 1248	ND		ug/kg	34.8	3.90	1	A
Aroclor 1254	ND		ug/kg	34.8	2.84	1	A
Aroclor 1260	ND		ug/kg	34.8	3.63	1	A
Aroclor 1262	ND		ug/kg	34.8	2.86	1	A
Aroclor 1268	ND		ug/kg	34.8	2.46	1	A
PCBs, Total	ND		ug/kg	34.8	2.46	1	A

Surrogate	% Recovery	Qualifier	Acceptance Criteria	Column
2,4,5,6-Tetrachloro-m-xylene	77		30-150	A
Decachlorobiphenyl	61		30-150	A
2,4,5,6-Tetrachloro-m-xylene	73		30-150	B
Decachlorobiphenyl	70		30-150	B

Project Name: LAKEFRONT BOULEVARD
Lab Number: L1743880
Project Number: E67.022.001
Report Date: 12/11/17

SAMPLE RESULTS

Lab ID: L1743880-05
Client ID: MW-3-16-20 FT
Sample Location: 240-260 LAKEFRONT BLVD.

Matrix: Soil
Analytical Method: 1,8082A
Analytical Date: 12/10/17 15:14
Analyst: WR
Percent Solids: 85%

Date Collected: 11/30/17 10:25
Date Received: 11/30/17
Field Prep: Not Specified
Extraction Method: EPA 3546
Extraction Date: 12/06/17 19:11
Cleanup Method: EPA 3665A
Cleanup Date: 12/07/17
Cleanup Method: EPA 3660B
Cleanup Date: 12/07/17

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Column
Polychlorinated Biphenyls by GC - Westborough Lab							
Aroclor 1016	ND		ug/kg	38.3	4.34	1	A
Aroclor 1221	ND		ug/kg	38.3	5.83	1	A
Aroclor 1232	ND		ug/kg	38.3	3.77	1	A
Aroclor 1242	ND		ug/kg	38.3	4.69	1	A
Aroclor 1248	ND		ug/kg	38.3	4.30	1	A
Aroclor 1254	15.5	J	ug/kg	38.3	3.12	1	A
Aroclor 1260	4.40	J	ug/kg	38.3	4.00	1	B
Aroclor 1262	ND		ug/kg	38.3	3.15	1	A
Aroclor 1268	ND		ug/kg	38.3	2.71	1	A
PCBs, Total	19.9	J	ug/kg	38.3	2.71	1	B

Surrogate	% Recovery	Qualifier	Acceptance Criteria	Column
2,4,5,6-Tetrachloro-m-xylene	74		30-150	A
Decachlorobiphenyl	74		30-150	A
2,4,5,6-Tetrachloro-m-xylene	67		30-150	B
Decachlorobiphenyl	83		30-150	B

Project Name: LAKEFRONT BOULEVARD
Project Number: E67.022.001
Lab Number: L1743880
Report Date: 12/11/17

Method Blank Analysis
Batch Quality Control

Analytical Method: 1,8082A
Analytical Date: 12/08/17 01:02
Analyst: HT

Extraction Method: EPA 3546
Extraction Date: 12/06/17 19:11
Cleanup Method: EPA 3665A
Cleanup Date: 12/07/17
Cleanup Method: EPA 3660B
Cleanup Date: 12/07/17

Parameter	Result	Qualifier	Units	RL	MDL	Column
Polychlorinated Biphenyls by GC - Westborough Lab for sample(s): 01-03,05 Batch: WG1069824-1						
Aroclor 1016	ND		ug/kg	32.3	3.66	A
Aroclor 1221	ND		ug/kg	32.3	4.92	A
Aroclor 1232	ND		ug/kg	32.3	3.18	A
Aroclor 1242	ND		ug/kg	32.3	3.96	A
Aroclor 1248	ND		ug/kg	32.3	3.63	A
Aroclor 1254	ND		ug/kg	32.3	2.64	A
Aroclor 1260	ND		ug/kg	32.3	3.37	A
Aroclor 1262	ND		ug/kg	32.3	2.66	A
Aroclor 1268	ND		ug/kg	32.3	2.29	A
PCBs, Total	ND		ug/kg	32.3	2.29	A

Surrogate	%Recovery	Qualifier	Acceptance Criteria	Column
2,4,5,6-Tetrachloro-m-xylene	80		30-150	A
Decachlorobiphenyl	62		30-150	A
2,4,5,6-Tetrachloro-m-xylene	77		30-150	B
Decachlorobiphenyl	69		30-150	B

Lab Control Sample Analysis

Batch Quality Control

Project Name: LAKEFRONT BOULEVARD

Project Number: E67.022.001

Lab Number: L1743880

Report Date: 12/11/17

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits	Column
Polychlorinated Biphenyls by GC - Westborough Lab Associated sample(s): 01-03,05 Batch: WG1069824-2 WG1069824-3									
Aroclor 1016	71		74		40-140	4		50	A
Aroclor 1260	72		80		40-140	11		50	A

Surrogate	LCS %Recovery	Qual	LCSD %Recovery	Qual	Acceptance Criteria	Column
2,4,5,6-Tetrachloro-m-xylene	78		87		30-150	A
Decachlorobiphenyl	82		91		30-150	A
2,4,5,6-Tetrachloro-m-xylene	76		83		30-150	B
Decachlorobiphenyl	82		90		30-150	B

PESTICIDES

Project Name: LAKEFRONT BOULEVARD
Lab Number: L1743880
Project Number: E67.022.001
Report Date: 12/11/17

SAMPLE RESULTS

Lab ID: L1743880-01
Client ID: B-7-0.5-4.5 FT
Sample Location: 240-260 LAKEFRONT BLVD.

Matrix: Soil
Analytical Method: 1,8081B
Analytical Date: 12/08/17 15:47
Analyst: KEG
Percent Solids: 75%

Date Collected: 11/29/17 09:10
Date Received: 11/30/17
Field Prep: Not Specified
Extraction Method: EPA 3546
Extraction Date: 12/06/17 21:27
Cleanup Method: EPA 3620B
Cleanup Date: 12/07/17

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Column
Organochlorine Pesticides by GC - Westborough Lab							
Delta-BHC	2.81	P	ug/kg	2.02	0.396	1	A
Lindane	ND		ug/kg	0.843	0.377	1	A
Alpha-BHC	ND		ug/kg	0.843	0.239	1	A
Beta-BHC	ND		ug/kg	2.02	0.767	1	A
Heptachlor	ND		ug/kg	1.01	0.453	1	A
Aldrin	ND		ug/kg	2.02	0.712	1	A
Endrin	ND		ug/kg	0.843	0.346	1	A
Dieldrin	ND		ug/kg	1.26	0.632	1	A
4,4'-DDE	1.65	J	ug/kg	2.02	0.468	1	A
4,4'-DDD	2.01	J	ug/kg	2.02	0.721	1	A
4,4'-DDT	ND		ug/kg	3.79	1.63	1	A
Endosulfan I	ND		ug/kg	2.02	0.478	1	A
Endosulfan II	ND		ug/kg	2.02	0.676	1	A
Endosulfan sulfate	ND		ug/kg	0.843	0.401	1	A
cis-Chlordane	0.811	J	ug/kg	2.53	0.704	1	A

Surrogate	% Recovery	Qualifier	Acceptance Criteria	Column
2,4,5,6-Tetrachloro-m-xylene	101		30-150	B
Decachlorobiphenyl	104		30-150	B
2,4,5,6-Tetrachloro-m-xylene	90		30-150	A
Decachlorobiphenyl	83		30-150	A

Project Name: LAKEFRONT BOULEVARD
Lab Number: L1743880
Project Number: E67.022.001
Report Date: 12/11/17

SAMPLE RESULTS

Lab ID: L1743880-02
Client ID: MW-1-1.5-6 FT
Sample Location: 240-260 LAKEFRONT BLVD.

Matrix: Soil
Analytical Method: 1,8081B
Analytical Date: 12/08/17 16:00
Analyst: KEG
Percent Solids: 84%

Date Collected: 11/29/17 11:05
Date Received: 11/30/17
Field Prep: Not Specified
Extraction Method: EPA 3546
Extraction Date: 12/06/17 21:27
Cleanup Method: EPA 3620B
Cleanup Date: 12/07/17

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Column
Organochlorine Pesticides by GC - Westborough Lab							
Delta-BHC	0.537	JPI	ug/kg	1.88	0.368	1	B
Lindane	ND		ug/kg	0.783	0.350	1	A
Alpha-BHC	ND		ug/kg	0.783	0.222	1	A
Beta-BHC	ND		ug/kg	1.88	0.713	1	A
Heptachlor	ND		ug/kg	0.940	0.421	1	A
Aldrin	ND		ug/kg	1.88	0.662	1	A
Endrin	ND		ug/kg	0.783	0.321	1	A
Dieldrin	ND		ug/kg	1.18	0.588	1	A
4,4'-DDE	ND		ug/kg	1.88	0.435	1	A
4,4'-DDD	ND		ug/kg	1.88	0.670	1	A
4,4'-DDT	ND		ug/kg	3.52	1.51	1	A
Endosulfan I	ND		ug/kg	1.88	0.444	1	A
Endosulfan II	ND		ug/kg	1.88	0.628	1	A
Endosulfan sulfate	ND		ug/kg	0.783	0.373	1	A
cis-Chlordane	ND		ug/kg	2.35	0.655	1	A

Surrogate	% Recovery	Qualifier	Acceptance Criteria	Column
2,4,5,6-Tetrachloro-m-xylene	105		30-150	B
Decachlorobiphenyl	87		30-150	B
2,4,5,6-Tetrachloro-m-xylene	97		30-150	A
Decachlorobiphenyl	74		30-150	A

Project Name: LAKEFRONT BOULEVARD
Lab Number: L1743880
Project Number: E67.022.001
Report Date: 12/11/17

SAMPLE RESULTS

Lab ID: L1743880-03
Client ID: MW-2-2-8 FT
Sample Location: 240-260 LAKEFRONT BLVD.

Matrix: Soil
Analytical Method: 1,8081B
Analytical Date: 12/08/17 16:12
Analyst: KEG
Percent Solids: 91%

Date Collected: 11/29/17 13:20
Date Received: 11/30/17
Field Prep: Not Specified
Extraction Method: EPA 3546
Extraction Date: 12/06/17 21:27
Cleanup Method: EPA 3620B
Cleanup Date: 12/07/17

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Column
Organochlorine Pesticides by GC - Westborough Lab							
Delta-BHC	1.58	J	ug/kg	1.70	0.334	1	B
Lindane	ND		ug/kg	0.710	0.318	1	A
Alpha-BHC	ND		ug/kg	0.710	0.202	1	A
Beta-BHC	ND		ug/kg	1.70	0.646	1	A
Heptachlor	ND		ug/kg	0.852	0.382	1	A
Aldrin	ND		ug/kg	1.70	0.600	1	A
Endrin	ND		ug/kg	0.710	0.291	1	A
Dieldrin	ND		ug/kg	1.06	0.533	1	A
4,4'-DDE	ND		ug/kg	1.70	0.394	1	A
4,4'-DDD	ND		ug/kg	1.70	0.608	1	A
4,4'-DDT	ND		ug/kg	3.20	1.37	1	A
Endosulfan I	ND		ug/kg	1.70	0.403	1	A
Endosulfan II	ND		ug/kg	1.70	0.570	1	A
Endosulfan sulfate	ND		ug/kg	0.710	0.338	1	A
cis-Chlordane	ND		ug/kg	2.13	0.594	1	A

Surrogate	% Recovery	Qualifier	Acceptance Criteria	Column
2,4,5,6-Tetrachloro-m-xylene	113		30-150	B
Decachlorobiphenyl	85		30-150	B
2,4,5,6-Tetrachloro-m-xylene	107		30-150	A
Decachlorobiphenyl	74		30-150	A

Project Name: LAKEFRONT BOULEVARD
Project Number: E67.022.001
Lab Number: L1743880
Report Date: 12/11/17

SAMPLE RESULTS

Lab ID: L1743880-05
Client ID: MW-3-16-20 FT
Sample Location: 240-260 LAKEFRONT BLVD.

Matrix: Soil
Analytical Method: 1,8081B
Analytical Date: 12/08/17 16:25
Analyst: KEG
Percent Solids: 85%

Date Collected: 11/30/17 10:25
Date Received: 11/30/17
Field Prep: Not Specified
Extraction Method: EPA 3546
Extraction Date: 12/06/17 21:27
Cleanup Method: EPA 3620B
Cleanup Date: 12/07/17

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Column
Organochlorine Pesticides by GC - Westborough Lab							
Delta-BHC	8.81		ug/kg	1.82	0.356	1	B
Lindane	ND		ug/kg	0.757	0.338	1	A
Alpha-BHC	ND		ug/kg	0.757	0.215	1	A
Beta-BHC	ND		ug/kg	1.82	0.689	1	A
Heptachlor	ND		ug/kg	0.909	0.407	1	A
Aldrin	ND		ug/kg	1.82	0.640	1	A
Endrin	ND		ug/kg	0.757	0.310	1	A
Dieldrin	ND		ug/kg	1.14	0.568	1	A
4,4'-DDE	5.87		ug/kg	1.82	0.420	1	A
4,4'-DDD	ND		ug/kg	1.82	0.648	1	A
4,4'-DDT	ND		ug/kg	3.41	1.46	1	A
Endosulfan I	ND		ug/kg	1.82	0.429	1	A
Endosulfan II	ND		ug/kg	1.82	0.607	1	A
Endosulfan sulfate	ND		ug/kg	0.757	0.360	1	A
cis-Chlordane	0.953	JPI	ug/kg	2.27	0.633	1	B

Surrogate	% Recovery	Qualifier	Acceptance Criteria	Column
2,4,5,6-Tetrachloro-m-xylene	109		30-150	B
Decachlorobiphenyl	107		30-150	B
2,4,5,6-Tetrachloro-m-xylene	**2710**	Q	30-150	A
Decachlorobiphenyl	70		30-150	A

Project Name: LAKEFRONT BOULEVARD
Project Number: E67.022.001
Lab Number: L1743880
Report Date: 12/11/17

Method Blank Analysis
Batch Quality Control

Analytical Method: 1,8081B
Analytical Date: 12/07/17 11:38
Analyst: KEG

Extraction Method: EPA 3546
Extraction Date: 12/06/17 21:27
Cleanup Method: EPA 3620B
Cleanup Date: 12/07/17

Parameter	Result	Qualifier	Units	RL	MDL	Column
Organochlorine Pesticides by GC - Westborough Lab for sample(s): 01-03,05 Batch: WG1069849-1						
Delta-BHC	ND		ug/kg	1.55	0.303	A
Lindane	ND		ug/kg	0.645	0.288	A
Alpha-BHC	ND		ug/kg	0.645	0.183	A
Beta-BHC	ND		ug/kg	1.55	0.587	A
Heptachlor	ND		ug/kg	0.774	0.347	A
Aldrin	ND		ug/kg	1.55	0.545	A
Endrin	ND		ug/kg	0.645	0.264	A
Dieldrin	ND		ug/kg	0.967	0.484	A
4,4'-DDE	ND		ug/kg	1.55	0.358	A
4,4'-DDD	ND		ug/kg	1.55	0.552	A
4,4'-DDT	ND		ug/kg	2.90	1.24	A
Endosulfan I	ND		ug/kg	1.55	0.366	A
Endosulfan II	ND		ug/kg	1.55	0.517	A
Endosulfan sulfate	ND		ug/kg	0.645	0.307	A
cis-Chlordane	ND		ug/kg	1.93	0.539	A

Surrogate	%Recovery	Qualifier	Acceptance Criteria	Column
2,4,5,6-Tetrachloro-m-xylene	83		30-150	B
Decachlorobiphenyl	130		30-150	B
2,4,5,6-Tetrachloro-m-xylene	110		30-150	A
Decachlorobiphenyl	109		30-150	A

Lab Control Sample Analysis

Batch Quality Control

Project Name: LAKEFRONT BOULEVARD

Project Number: E67.022.001

Lab Number: L1743880

Report Date: 12/11/17

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits	Column
Organochlorine Pesticides by GC - Westborough Lab Associated sample(s): 01-03,05 Batch: WG1069849-2 WG1069849-3									
Delta-BHC	105		105		30-150	0		30	A
Lindane	100		96		30-150	4		30	A
Alpha-BHC	109		105		30-150	4		30	A
Beta-BHC	119		118		30-150	1		30	A
Heptachlor	129		130		30-150	1		30	A
Aldrin	100		97		30-150	3		30	A
Endrin	111		108		30-150	3		30	A
Dieldrin	119		117		30-150	2		30	A
4,4'-DDE	102		98		30-150	4		30	A
4,4'-DDD	109		99		30-150	10		30	A
4,4'-DDT	116		115		30-150	1		30	A
Endosulfan I	126		121		30-150	4		30	A
Endosulfan II	113		115		30-150	2		30	A
Endosulfan sulfate	123		127		30-150	3		30	A
cis-Chlordane	101		98		30-150	3		30	A

Surrogate	LCS %Recovery	Qual	LCSD %Recovery	Qual	Acceptance Criteria	Column
2,4,5,6-Tetrachloro-m-xylene	99		86		30-150	B
Decachlorobiphenyl	**157**	Q	140		30-150	B
2,4,5,6-Tetrachloro-m-xylene	122		108		30-150	A
Decachlorobiphenyl	141		131		30-150	A

METALS

Project Name: LAKEFRONT BOULEVARD
Lab Number: L1743880
Project Number: E67.022.001
Report Date: 12/11/17

SAMPLE RESULTS

Lab ID: L1743880-01
Client ID: B-7-0.5-4.5 FT
Sample Location: 240-260 LAKEFRONT BLVD.
Matrix: Soil
Percent Solids: 75%

Date Collected: 11/29/17 09:10
Date Received: 11/30/17
Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Prep Method	Analytical Method	Analyst
Total Metals - Mansfield Lab											
Arsenic, Total	3.47		mg/kg	0.532	0.110	1	12/01/17 22:50	12/06/17 22:48	EPA 3050B	1,6010C	AB
Barium, Total	34.1		mg/kg	0.532	0.093	1	12/01/17 22:50	12/06/17 22:48	EPA 3050B	1,6010C	AB
Beryllium, Total	0.181	J	mg/kg	0.266	0.018	1	12/01/17 22:50	12/06/17 22:48	EPA 3050B	1,6010C	AB
Cadmium, Total	0.154	J	mg/kg	0.532	0.052	1	12/01/17 22:50	12/06/17 22:48	EPA 3050B	1,6010C	AB
Chromium, Total	6.90		mg/kg	0.532	0.051	1	12/01/17 22:50	12/06/17 22:48	EPA 3050B	1,6010C	AB
Copper, Total	23.7		mg/kg	0.532	0.137	1	12/01/17 22:50	12/06/17 22:48	EPA 3050B	1,6010C	AB
Lead, Total	35.9		mg/kg	2.66	0.142	1	12/01/17 22:50	12/06/17 22:48	EPA 3050B	1,6010C	AB
Manganese, Total	272		mg/kg	0.532	0.085	1	12/01/17 22:50	12/06/17 22:48	EPA 3050B	1,6010C	AB
Mercury, Total	0.39		mg/kg	0.08	0.02	1	12/02/17 12:00	12/04/17 18:57	EPA 7471B	1,7471B	EA
Nickel, Total	7.72		mg/kg	1.33	0.129	1	12/01/17 22:50	12/06/17 22:48	EPA 3050B	1,6010C	AB
Selenium, Total	ND		mg/kg	1.06	0.137	1	12/01/17 22:50	12/06/17 22:48	EPA 3050B	1,6010C	AB
Silver, Total	ND		mg/kg	0.532	0.150	1	12/01/17 22:50	12/06/17 22:48	EPA 3050B	1,6010C	AB
Zinc, Total	62.1		mg/kg	2.66	0.156	1	12/01/17 22:50	12/06/17 22:48	EPA 3050B	1,6010C	AB
General Chemistry - Mansfield Lab											
Chromium, Trivalent	6.9		mg/kg	1.1	1.1	1		12/06/17 22:48	NA	107,-	

Project Name: LAKEFRONT BOULEVARD
Lab Number: L1743880
Project Number: E67.022.001
Report Date: 12/11/17

SAMPLE RESULTS

Lab ID: L1743880-02
Client ID: MW-1-1.5-6 FT
Sample Location: 240-260 LAKEFRONT BLVD.
Matrix: Soil
Percent Solids: 84%

Date Collected: 11/29/17 11:05
Date Received: 11/30/17
Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Prep Method	Analytical Method	Analyst
Total Metals - Mansfield Lab											
Arsenic, Total	5.25		mg/kg	0.462	0.096	1	12/01/17 22:50	12/06/17 22:53	EPA 3050B	1,6010C	AB
Barium, Total	61.0		mg/kg	0.462	0.080	1	12/01/17 22:50	12/06/17 22:53	EPA 3050B	1,6010C	AB
Beryllium, Total	0.444		mg/kg	0.231	0.015	1	12/01/17 22:50	12/06/17 22:53	EPA 3050B	1,6010C	AB
Cadmium, Total	0.055	J	mg/kg	0.462	0.045	1	12/01/17 22:50	12/06/17 22:53	EPA 3050B	1,6010C	AB
Chromium, Total	10.3		mg/kg	0.462	0.044	1	12/01/17 22:50	12/06/17 22:53	EPA 3050B	1,6010C	AB
Copper, Total	29.1		mg/kg	0.462	0.119	1	12/01/17 22:50	12/06/17 22:53	EPA 3050B	1,6010C	AB
Lead, Total	48.4		mg/kg	2.31	0.124	1	12/01/17 22:50	12/06/17 22:53	EPA 3050B	1,6010C	AB
Manganese, Total	379		mg/kg	0.462	0.074	1	12/01/17 22:50	12/06/17 22:53	EPA 3050B	1,6010C	AB
Mercury, Total	0.33		mg/kg	0.07	0.02	1	12/02/17 12:00	12/04/17 18:58	EPA 7471B	1,7471B	EA
Nickel, Total	8.51		mg/kg	1.16	0.112	1	12/01/17 22:50	12/06/17 22:53	EPA 3050B	1,6010C	AB
Selenium, Total	ND		mg/kg	0.924	0.119	1	12/01/17 22:50	12/06/17 22:53	EPA 3050B	1,6010C	AB
Silver, Total	0.157	J	mg/kg	0.462	0.131	1	12/01/17 22:50	12/06/17 22:53	EPA 3050B	1,6010C	AB
Zinc, Total	58.6		mg/kg	2.31	0.135	1	12/01/17 22:50	12/06/17 22:53	EPA 3050B	1,6010C	AB

Project Name: LAKEFRONT BOULEVARD
Project Number: E67.022.001
Lab Number: L1743880
Report Date: 12/11/17

SAMPLE RESULTS

Lab ID: L1743880-03
Client ID: MW-2-2-8 FT
Sample Location: 240-260 LAKEFRONT BLVD.
Matrix: Soil
Percent Solids: 91%

Date Collected: 11/29/17 13:20
Date Received: 11/30/17
Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Prep Method	Analytical Method	Analyst
Total Metals - Mansfield Lab											
Arsenic, Total	5.36		mg/kg	0.427	0.089	1	12/01/17 22:50	12/06/17 22:58	EPA 3050B	1,6010C	AB
Barium, Total	43.9		mg/kg	0.427	0.074	1	12/01/17 22:50	12/06/17 22:58	EPA 3050B	1,6010C	AB
Beryllium, Total	0.303		mg/kg	0.213	0.014	1	12/01/17 22:50	12/06/17 22:58	EPA 3050B	1,6010C	AB
Cadmium, Total	0.252	J	mg/kg	0.427	0.042	1	12/01/17 22:50	12/06/17 22:58	EPA 3050B	1,6010C	AB
Chromium, Total	11.5		mg/kg	0.427	0.041	1	12/01/17 22:50	12/06/17 22:58	EPA 3050B	1,6010C	AB
Copper, Total	25.2		mg/kg	0.427	0.110	1	12/01/17 22:50	12/06/17 22:58	EPA 3050B	1,6010C	AB
Lead, Total	46.2		mg/kg	2.13	0.114	1	12/01/17 22:50	12/06/17 22:58	EPA 3050B	1,6010C	AB
Manganese, Total	288		mg/kg	0.427	0.068	1	12/01/17 22:50	12/06/17 22:58	EPA 3050B	1,6010C	AB
Mercury, Total	0.15		mg/kg	0.07	0.01	1	12/02/17 12:00	12/04/17 19:00	EPA 7471B	1,7471B	EA
Nickel, Total	12.4		mg/kg	1.07	0.103	1	12/01/17 22:50	12/06/17 22:58	EPA 3050B	1,6010C	AB
Selenium, Total	ND		mg/kg	0.854	0.110	1	12/01/17 22:50	12/06/17 22:58	EPA 3050B	1,6010C	AB
Silver, Total	0.243	J	mg/kg	0.427	0.121	1	12/01/17 22:50	12/06/17 22:58	EPA 3050B	1,6010C	AB
Zinc, Total	72.4		mg/kg	2.13	0.125	1	12/01/17 22:50	12/06/17 22:58	EPA 3050B	1,6010C	AB
General Chemistry - Mansfield Lab											
Chromium, Trivalent	12		mg/kg	0.88	0.88	1		12/06/17 22:58	NA	107,-	

Project Name: LAKEFRONT BOULEVARD
Project Number: E67.022.001
Lab Number: L1743880
Report Date: 12/11/17

SAMPLE RESULTS

Lab ID: L1743880-04
Client ID: MW-3-2-6 FT
Sample Location: 240-260 LAKEFRONT BLVD.
Matrix: Soil
Percent Solids: 72%

Date Collected: 11/30/17 09:40
Date Received: 11/30/17
Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Prep Method	Analytical Method	Analyst
Total Metals - Mansfield Lab											
Arsenic, Total	7.62		mg/kg	0.540	0.112	1	12/01/17 22:50	12/06/17 23:44	EPA 3050B	1,6010C	AB
Barium, Total	152		mg/kg	0.540	0.094	1	12/01/17 22:50	12/06/17 23:44	EPA 3050B	1,6010C	AB
Beryllium, Total	1.28		mg/kg	0.270	0.018	1	12/01/17 22:50	12/06/17 23:44	EPA 3050B	1,6010C	AB
Cadmium, Total	0.270	J	mg/kg	0.540	0.053	1	12/01/17 22:50	12/06/17 23:44	EPA 3050B	1,6010C	AB
Chromium, Total	35.7		mg/kg	0.540	0.052	1	12/01/17 22:50	12/06/17 23:44	EPA 3050B	1,6010C	AB
Copper, Total	50.1		mg/kg	0.540	0.139	1	12/01/17 22:50	12/06/17 23:44	EPA 3050B	1,6010C	AB
Lead, Total	148		mg/kg	2.70	0.145	1	12/01/17 22:50	12/06/17 23:44	EPA 3050B	1,6010C	AB
Manganese, Total	796		mg/kg	0.540	0.086	1	12/01/17 22:50	12/06/17 23:44	EPA 3050B	1,6010C	AB
Mercury, Total	1.4		mg/kg	0.09	0.02	1	12/02/17 12:00	12/04/17 19:02	EPA 7471B	1,7471B	EA
Nickel, Total	11.3		mg/kg	1.35	0.130	1	12/01/17 22:50	12/06/17 23:44	EPA 3050B	1,6010C	AB
Selenium, Total	0.432	J	mg/kg	1.08	0.139	1	12/01/17 22:50	12/06/17 23:44	EPA 3050B	1,6010C	AB
Silver, Total	0.696		mg/kg	0.540	0.153	1	12/01/17 22:50	12/06/17 23:44	EPA 3050B	1,6010C	AB
Zinc, Total	148		mg/kg	2.70	0.158	1	12/01/17 22:50	12/06/17 23:44	EPA 3050B	1,6010C	AB

Project Name: LAKEFRONT BOULEVARD
Project Number: E67.022.001
Lab Number: L1743880
Report Date: 12/11/17

SAMPLE RESULTS

Lab ID: L1743880-05
Client ID: MW-3-16-20 FT
Sample Location: 240-260 LAKEFRONT BLVD.
Matrix: Soil
Percent Solids: 85%

Date Collected: 11/30/17 10:25
Date Received: 11/30/17
Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Prep Method	Analytical Method	Analyst
Total Metals - Mansfield Lab											
Arsenic, Total	3.30		mg/kg	0.459	0.095	1	12/01/17 22:50	12/06/17 23:49	EPA 3050B	1,6010C	AB
Barium, Total	70.6		mg/kg	0.459	0.080	1	12/01/17 22:50	12/06/17 23:49	EPA 3050B	1,6010C	AB
Beryllium, Total	0.615		mg/kg	0.229	0.015	1	12/01/17 22:50	12/06/17 23:49	EPA 3050B	1,6010C	AB
Cadmium, Total	ND		mg/kg	0.459	0.045	1	12/01/17 22:50	12/06/17 23:49	EPA 3050B	1,6010C	AB
Chromium, Total	11.4		mg/kg	0.459	0.044	1	12/01/17 22:50	12/06/17 23:49	EPA 3050B	1,6010C	AB
Copper, Total	13.8		mg/kg	0.459	0.118	1	12/01/17 22:50	12/06/17 23:49	EPA 3050B	1,6010C	AB
Lead, Total	21.0		mg/kg	2.29	0.123	1	12/01/17 22:50	12/06/17 23:49	EPA 3050B	1,6010C	AB
Manganese, Total	716		mg/kg	0.459	0.073	1	12/01/17 22:50	12/06/17 23:49	EPA 3050B	1,6010C	AB
Mercury, Total	0.22		mg/kg	0.07	0.02	1	12/02/17 12:00	12/04/17 19:08	EPA 7471B	1,7471B	EA
Nickel, Total	10.2		mg/kg	1.15	0.111	1	12/01/17 22:50	12/06/17 23:49	EPA 3050B	1,6010C	AB
Selenium, Total	ND		mg/kg	0.917	0.118	1	12/01/17 22:50	12/06/17 23:49	EPA 3050B	1,6010C	AB
Silver, Total	0.160	J	mg/kg	0.459	0.130	1	12/01/17 22:50	12/06/17 23:49	EPA 3050B	1,6010C	AB
Zinc, Total	47.7		mg/kg	2.29	0.134	1	12/01/17 22:50	12/06/17 23:49	EPA 3050B	1,6010C	AB

Project Name: LAKEFRONT BOULEVARD **Lab Number:** L1743880

Project Number: E67.022.001 **Report Date:** 12/11/17

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): 01-05 Batch: WG1068300-1										
Arsenic, Total	0.104	J	mg/kg	0.400	0.083	1	12/01/17 22:50	12/06/17 20:59	1,6010C	AB
Barium, Total	ND		mg/kg	0.400	0.070	1	12/01/17 22:50	12/06/17 20:59	1,6010C	AB
Beryllium, Total	ND		mg/kg	0.200	0.013	1	12/01/17 22:50	12/06/17 20:59	1,6010C	AB
Cadmium, Total	ND		mg/kg	0.400	0.039	1	12/01/17 22:50	12/06/17 20:59	1,6010C	AB
Chromium, Total	ND		mg/kg	0.400	0.038	1	12/01/17 22:50	12/06/17 20:59	1,6010C	AB
Copper, Total	ND		mg/kg	0.400	0.103	1	12/01/17 22:50	12/06/17 20:59	1,6010C	AB
Lead, Total	ND		mg/kg	2.00	0.107	1	12/01/17 22:50	12/06/17 20:59	1,6010C	AB
Manganese, Total	ND		mg/kg	0.400	0.064	1	12/01/17 22:50	12/06/17 20:59	1,6010C	AB
Nickel, Total	ND		mg/kg	1.00	0.097	1	12/01/17 22:50	12/06/17 20:59	1,6010C	AB
Selenium, Total	ND		mg/kg	0.800	0.103	1	12/01/17 22:50	12/06/17 20:59	1,6010C	AB
Silver, Total	ND		mg/kg	0.400	0.113	1	12/01/17 22:50	12/06/17 20:59	1,6010C	AB
Zinc, Total	ND		mg/kg	2.00	0.117	1	12/01/17 22:50	12/06/17 20:59	1,6010C	AB

Prep Information

Digestion Method: EPA 3050B

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
Total Metals - Mansfield Lab for sample(s): 01-05 Batch: WG1068350-1										
Mercury, Total	0.07	J	mg/kg	0.08	0.02	1	12/02/17 12:00	12/04/17 18:50	1,7471B	EA

Prep Information

Digestion Method: EPA 7471B

Lab Control Sample Analysis

Batch Quality Control

Project Name: LAKEFRONT BOULEVARD

Project Number: E67.022.001

Lab Number: L1743880

Report Date: 12/11/17

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Total Metals - Mansfield Lab Associated sample(s): 01-05 Batch: WG1068300-2 SRM Lot Number: D098-540								
Arsenic, Total	96		-		83-117	-		
Barium, Total	92		-		82-118	-		
Beryllium, Total	95		-		83-117	-		
Cadmium, Total	106		-		82-117	-		
Chromium, Total	93		-		83-119	-		
Copper, Total	94		-		84-116	-		
Lead, Total	92		-		82-117	-		
Manganese, Total	98		-		82-118	-		
Nickel, Total	105		-		82-117	-		
Selenium, Total	97		-		78-121	-		
Silver, Total	94		-		80-120	-		
Zinc, Total	98		-		81-119	-		
Total Metals - Mansfield Lab Associated sample(s): 01-05 Batch: WG1068350-2 SRM Lot Number: D098-540								
Mercury, Total	109		-		50-149	-		

Matrix Spike Analysis
Batch Quality Control

Project Name: LAKEFRONT BOULEVARD
Project Number: E67.022.001

Lab Number: L1743880
Report Date: 12/11/17

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): 01-05 QC Batch ID: WG1068300-3 QC Sample: L1743935-01 Client ID: MS Sample												
Arsenic, Total	3.29	10.6	13.3	94		-	-		75-125	-		20
Barium, Total	98.1	176	247	84		-	-		75-125	-		20
Beryllium, Total	0.307J	4.41	4.27	97		-	-		75-125	-		20
Cadmium, Total	ND	4.5	3.96	88		-	-		75-125	-		20
Chromium, Total	12.2	17.6	29.0	95		-	-		75-125	-		20
Copper, Total	16.2	22.1	35.4	87		-	-		75-125	-		20
Lead, Total	38.4	45	88.2	111		-	-		75-125	-		20
Manganese, Total	153.	44.1	216	**143**	Q	-	-		75-125	-		20
Nickel, Total	11.6	44.1	50.3	88		-	-		75-125	-		20
Selenium, Total	ND	10.6	9.50	90		-	-		75-125	-		20
Silver, Total	ND	26.5	26.0	98		-	-		75-125	-		20
Zinc, Total	57.6	44.1	93.3	81		-	-		75-125	-		20
Total Metals - Mansfield Lab Associated sample(s): 01-05 QC Batch ID: WG1068350-3 QC Sample: L1744251-01 Client ID: MS Sample												
Mercury, Total	4.0	0.137	4.8	**582**	Q	-	-		80-120	-		20

Lab Duplicate Analysis
Batch Quality Control

Project Name: LAKEFRONT BOULEVARD
Project Number: E67.022.001

Lab Number: L1743880
Report Date: 12/11/17

Parameter	Native Sample	Duplicate Sample	Units	RPD	Qual	RPD Limits
Total Metals - Mansfield Lab Associated sample(s): 01-05 QC Batch ID: WG1068300-4 QC Sample: L1743935-01 Client ID: DUP Sample						
Arsenic, Total	3.29	3.88	mg/kg	16		20
Barium, Total	98.1	112	mg/kg	13		20
Beryllium, Total	0.307J	0.345J	mg/kg	NC		20
Cadmium, Total	ND	ND	mg/kg	NC		20
Chromium, Total	12.2	13.5	mg/kg	10		20
Copper, Total	16.2	15.8	mg/kg	2		20
Lead, Total	38.4	62.0	mg/kg	**47**	Q	20
Manganese, Total	153.	218	mg/kg	**35**	Q	20
Nickel, Total	11.6	11.9	mg/kg	3		20
Selenium, Total	ND	ND	mg/kg	NC		20
Silver, Total	ND	ND	mg/kg	NC		20
Zinc, Total	57.6	70.7	mg/kg	20		20
Total Metals - Mansfield Lab Associated sample(s): 01-05 QC Batch ID: WG1068350-4 QC Sample: L1744251-01 Client ID: DUP Sample						
Mercury, Total	4.0	4.9	mg/kg	20		20

INORGANICS
&
MISCELLANEOUS

Project Name: LAKEFRONT BOULEVARD
Project Number: E67.022.001
Lab Number: L1743880
Report Date: 12/11/17

SAMPLE RESULTS

Lab ID: L1743880-01
Client ID: B-7-0.5-4.5 FT
Sample Location: 240-260 LAKEFRONT BLVD.
Matrix: Soil
Date Collected: 11/29/17 09:10
Date Received: 11/30/17
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	75.0		%	0.100	NA	1	-	12/06/17 16:05	121,2540G	RI
Cyanide, Total	ND		mg/kg	1.3	0.28	1	12/02/17 14:38	12/04/17 10:27	1,9010C/9012B	LH
Chromium, Hexavalent	ND		mg/kg	1.1	0.21	1	12/01/17 19:41	12/04/17 19:05	1,7196A	AJ

Project Name: LAKEFRONT BOULEVARD
Project Number: E67.022.001
Lab Number: L1743880
Report Date: 12/11/17

SAMPLE RESULTS

Lab ID: L1743880-02
Client ID: MW-1-1.5-6 FT
Sample Location: 240-260 LAKEFRONT BLVD.
Matrix: Soil
Date Collected: 11/29/17 11:05
Date Received: 11/30/17
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	84.2		%	0.100	NA	1	-	12/06/17 16:05	121,2540G	RI
Cyanide, Total	ND		mg/kg	1.1	0.23	1	12/02/17 14:38	12/04/17 10:28	1,9010C/9012B	LH

Project Name: LAKEFRONT BOULEVARD
Project Number: E67.022.001
Lab Number: L1743880
Report Date: 12/11/17

SAMPLE RESULTS

Lab ID: L1743880-03
Client ID: MW-2-2-8 FT
Sample Location: 240-260 LAKEFRONT BLVD.
Matrix: Soil
Date Collected: 11/29/17 13:20
Date Received: 11/30/17
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	91.0		%	0.100	NA	1	-	12/06/17 16:05	121,2540G	RI
Cyanide, Total	ND		mg/kg	1.1	0.23	1	12/02/17 14:38	12/04/17 10:29	1,9010C/9012B	LH
Chromium, Hexavalent	ND		mg/kg	0.88	0.18	1	12/01/17 19:41	12/04/17 19:05	1,7196A	AJ

Project Name: LAKEFRONT BOULEVARD
Project Number: E67.022.001

Lab Number: L1743880
Report Date: 12/11/17

SAMPLE RESULTS

Lab ID: L1743880-04
Client ID: MW-3-2-6 FT
Sample Location: 240-260 LAKEFRONT BLVD.
Matrix: Soil

Date Collected: 11/30/17 09:40
Date Received: 11/30/17
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	71.5		%	0.100	NA	1	-	12/06/17 16:05	121,2540G	RI

Project Name: LAKEFRONT BOULEVARD
Project Number: E67.022.001
Lab Number: L1743880
Report Date: 12/11/17

SAMPLE RESULTS

Lab ID: L1743880-05
Client ID: MW-3-16-20 FT
Sample Location: 240-260 LAKEFRONT BLVD.
Matrix: Soil
Date Collected: 11/30/17 10:25
Date Received: 11/30/17
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	84.7		%	0.100	NA	1	-	12/06/17 16:05	121,2540G	RI
Cyanide, Total	ND		mg/kg	1.1	0.23	1	12/02/17 14:38	12/04/17 10:30	1,9010C/9012B	LH

Project Name: LAKEFRONT BOULEVARD
Project Number: E67.022.001

Lab Number: L1743880
Report Date: 12/11/17

SAMPLE RESULTS

Lab ID: L1743880-06
Client ID: MW-1-25-26 FT
Sample Location: 240-260 LAKEFRONT BLVD.
Matrix: Soil

Date Collected: 11/29/17 11:50
Date Received: 11/30/17
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	71.9		%	0.100	NA	1	-	12/06/17 16:05	121,2540G	RI

Project Name: LAKEFRONT BOULEVARD **Lab Number:** L1743880

Project Number: E67.022.001 **Report Date:** 12/11/17

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): 01,03 Batch: WG1068295-1										
Chromium, Hexavalent	ND		mg/kg	0.80	0.16	1	12/01/17 19:41	12/04/17 18:56	1,7196A	AJ
General Chemistry - Westborough Lab for sample(s): 01-03,05 Batch: WG1068437-1										
Cyanide, Total	0.36	J	mg/kg	0.92	0.20	1	12/02/17 14:38	12/04/17 10:17	1,9010C/9012B	LH

Lab Control Sample Analysis

Batch Quality Control

Project Name: LAKEFRONT BOULEVARD

Project Number: E67.022.001

Lab Number: L1743880

Report Date: 12/11/17

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
General Chemistry - Westborough Lab Associated sample(s): 01,03 Batch: WG1068295-2								
Chromium, Hexavalent	**67**	Q	-		80-120	-		20
General Chemistry - Westborough Lab Associated sample(s): 01-03,05 Batch: WG1068437-2 WG1068437-3								
Cyanide, Total	**49**	Q	**70**	Q	80-120	35		35

Matrix Spike Analysis
Batch Quality Control

Project Name: LAKEFRONT BOULEVARD
Project Number: E67.022.001

Lab Number: L1743880
Report Date: 12/11/17

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): 01,03 QC Batch ID: WG1068295-4 QC Sample: L1743880-03 Client ID: MW-2-2-8 FT												
Chromium, Hexavalent	ND	754	800	110		-	-		75-125	-		20
General Chemistry - Westborough Lab Associated sample(s): 01-03,05 QC Batch ID: WG1068437-4 WG1068437-5 QC Sample: L1744214-01 Client ID: MS Sample												
Cyanide, Total	ND	10	10	96		10	96		75-125	0		35

Lab Duplicate Analysis
Batch Quality Control

Project Name: LAKEFRONT BOULEVARD
Project Number: E67.022.001

Lab Number: L1743880
Report Date: 12/11/17

Parameter	Native Sample	Duplicate Sample	Units	RPD	Qual	RPD Limits
General Chemistry - Westborough Lab Associated sample(s): 01,03 QC Batch ID: WG1068295-6 QC Sample: L1743880-03 Client ID: MW-2-2-8 FT						
Chromium, Hexavalent	ND	ND	mg/kg	NC		20
General Chemistry - Westborough Lab Associated sample(s): 01-06 QC Batch ID: WG1069740-1 QC Sample: L1744297-01 Client ID: DUP Sample						
Solids, Total	63.3	64.2	%	1		20

Project Name: LAKEFRONT BOULEVARD
Project Number: E67.022.001

Lab Number: L1743880
Report Date: 12/11/17

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(*)
L1743880-01A	Glass 60mL/2oz unpreserved	A	NA		2.2	Y	Absent		BE-TI(180),AS-TI(180),BA-TI(180),AG-TI(180),CR-TI(180),NI-TI(180),TRICR-CALC(30),CU-TI(180),PB-TI(180),SE-TI(180),ZN-TI(180),HG-T(28),MN-TI(180),CD-TI(180)
L1743880-01B	Vial Large Septa unpreserved (4oz)	A	NA		2.2	Y	Absent		NYTCL-8260-R2(14)
L1743880-01C	Glass 120ml/4oz unpreserved	A	NA		2.2	Y	Absent		HEXCR-7196(30)
L1743880-01D	Glass 250ml/8oz unpreserved	A	NA		2.2	Y	Absent		NYTCL-8270(14),TCN-9010(14),TS(7),NYTCL-8081(14),NYTCL-8082(14)
L1743880-01X	Vial MeOH preserved split	A	NA		2.2	Y	Absent		NYTCL-8260-R2(14)
L1743880-01Y	Vial Water preserved split	A	NA		2.2	Y	Absent	**03-DEC-17 23:26**	NYTCL-8260-R2(14)
L1743880-01Z	Vial Water preserved split	A	NA		2.2	Y	Absent	**03-DEC-17 23:26**	NYTCL-8260-R2(14)
L1743880-02A	Glass 60mL/2oz unpreserved	A	NA		2.2	Y	Absent		BE-TI(180),AS-TI(180),BA-TI(180),AG-TI(180),CR-TI(180),NI-TI(180),CU-TI(180),PB-TI(180),SE-TI(180),ZN-TI(180),HG-T(28),MN-TI(180),CD-TI(180)
L1743880-02B	Vial Large Septa unpreserved (4oz)	A	NA		2.2	Y	Absent		NYTCL-8260-R2(14)
L1743880-02C	Glass 250ml/8oz unpreserved	A	NA		2.2	Y	Absent		NYTCL-8270(14),TCN-9010(14),TS(7),NYTCL-8081(14),NYTCL-8082(14)
L1743880-02X	Vial MeOH preserved split	A	NA		2.2	Y	Absent		NYTCL-8260-R2(14)
L1743880-02Y	Vial Water preserved split	A	NA		2.2	Y	Absent	**03-DEC-17 23:26**	NYTCL-8260-R2(14)
L1743880-02Z	Vial Water preserved split	A	NA		2.2	Y	Absent	**03-DEC-17 23:26**	NYTCL-8260-R2(14)
L1743880-03A	Glass 60mL/2oz unpreserved	A	NA		2.2	Y	Absent		BE-TI(180),AS-TI(180),BA-TI(180),AG-TI(180),CR-TI(180),NI-TI(180),TRICR-CALC(30),CU-TI(180),PB-TI(180),SE-TI(180),ZN-TI(180),HG-T(28),MN-TI(180),CD-TI(180)
L1743880-03B	Vial Large Septa unpreserved (4oz)	A	NA		2.2	Y	Absent		NYTCL-8260-R2(14)
L1743880-03C	Glass 120ml/4oz unpreserved	A	NA		2.2	Y	Absent		HEXCR-7196(30)
L1743880-03D	Glass 250ml/8oz unpreserved	A	NA		2.2	Y	Absent		NYTCL-8270(14),TCN-9010(14),TS(7),NYTCL-8081(14),NYTCL-8082(14)

*Values in parentheses indicate holding time in days

Project Name: LAKEFRONT BOULEVARD
Project Number: E67.022.001

Lab Number: L1743880
Report Date: 12/11/17

Container Information

Container ID	Container Type	Cooler	Initial pH	Final pH	Temp deg C	Pres	Seal	Frozen Date/Time	Analysis(*)
L1743880-03X	Vial MeOH preserved split	A	NA		2.2	Y	Absent		NYTCL-8260-R2(14)
L1743880-03Y	Vial Water preserved split	A	NA		2.2	Y	Absent	**03-DEC-17 23:26**	NYTCL-8260-R2(14)
L1743880-03Z	Vial Water preserved split	A	NA		2.2	Y	Absent	**03-DEC-17 23:26**	NYTCL-8260-R2(14)
L1743880-04A	Glass 60mL/2oz unpreserved	A	NA		2.2	Y	Absent		BE-TI(180),AS-TI(180),BA-TI(180),AG-TI(180),CR-TI(180),NI-TI(180),CU-TI(180),PB-TI(180),SE-TI(180),ZN-TI(180),HG-T(28),MN-TI(180),CD-TI(180)
L1743880-04B	Glass 250ml/8oz unpreserved	A	NA		2.2	Y	Absent		NYTCL-8270(14),TS(7)
L1743880-05A	Glass 60mL/2oz unpreserved	A	NA		2.2	Y	Absent		BE-TI(180),AS-TI(180),BA-TI(180),AG-TI(180),CR-TI(180),NI-TI(180),CU-TI(180),PB-TI(180),SE-TI(180),ZN-TI(180),HG-T(28),MN-TI(180),CD-TI(180)
L1743880-05B	Glass 120ml/4oz unpreserved	A	NA		2.2	Y	Absent		NYTCL-8260-R2(14)
L1743880-05C	Glass 250ml/8oz unpreserved	A	NA		2.2	Y	Absent		NYTCL-8270(14),TCN-9010(14),TS(7),NYTCL-8081(14),NYTCL-8082(14)
L1743880-05X	Vial MeOH preserved split	A	NA		2.2	Y	Absent		NYTCL-8260-R2(14)
L1743880-05Y	Vial Water preserved split	A	NA		2.2	Y	Absent	**03-DEC-17 23:26**	NYTCL-8260-R2(14)
L1743880-05Z	Vial Water preserved split	A	NA		2.2	Y	Absent	**03-DEC-17 23:26**	NYTCL-8260-R2(14)
L1743880-06A	Glass 250ml/8oz unpreserved	A	NA		2.2	Y	Absent		NYTCL-8260-R2(14),TS(7)
L1743880-06X	Vial MeOH preserved split	A	NA		2.2	Y	Absent		NYTCL-8260-R2(14)
L1743880-06Y	Vial Water preserved split	A	NA		2.2	Y	Absent	**03-DEC-17 23:26**	NYTCL-8260-R2(14)
L1743880-06Z	Vial Water preserved split	A	NA		2.2	Y	Absent	**03-DEC-17 23:26**	NYTCL-8260-R2(14)

*Values in parentheses indicate holding time in days

Project Name:	LAKEFRONT BOULEVARD	**Lab Number:**	L1743880
Project Number:	E67.022.001	**Report Date:**	12/11/17

GLOSSARY

Acronyms

EDL	- Estimated Detection Limit: This value represents the level to which target analyte concentrations are reported as estimated values, when those target analyte concentrations are quantified below the reporting limit (RL). The EDL includes any adjustments from dilutions, concentrations or moisture content, where applicable. The use of EDLs is specific to the analysis of PAHs using Solid-Phase Microextraction (SPME).
EPA	- Environmental Protection Agency.
LCS	- Laboratory Control Sample: A sample matrix, free from the analytes of interest, spiked with verified known amounts of analytes or a material containing known and verified amounts of analytes.
LCSD	- Laboratory Control Sample Duplicate: Refer to LCS.
LFB	- Laboratory Fortified Blank: A sample matrix, free from the analytes of interest, spiked with verified known amounts of analytes or a material containing known and verified amounts of analytes.
MDL	- Method Detection Limit: This value represents the level to which target analyte concentrations are reported as estimated values, when those target analyte concentrations are quantified below the reporting limit (RL). The MDL includes any adjustments from dilutions, concentrations or moisture content, where applicable.
MS	- Matrix Spike Sample: A sample prepared by adding a known mass of target analyte to a specified amount of matrix sample for which an independent estimate of target analyte concentration is available.
MSD	- Matrix Spike Sample Duplicate: Refer to MS.
NA	- Not Applicable.
NC	- Not Calculated: Term is utilized when one or more of the results utilized in the calculation are non-detect at the parameter's reporting unit.
NDPA/DPA	- N-Nitrosodiphenylamine/Diphenylamine.
NI	- Not Ignitable.
NP	- Non-Plastic: Term is utilized for the analysis of Atterberg Limits in soil.
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.
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.

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.

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.

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 Condensation Product".
B	- The analyte was detected above the reporting limit in the associated method blank. Flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank. For MCP-related

Report Format: DU Report with 'J' Qualifiers

Project Name:	LAKEFRONT BOULEVARD	**Lab Number:**	L1743880
Project Number:	E67.022.001	**Report Date:**	12/11/17

Data Qualifiers

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.

G - The concentration may be biased high due to matrix interferences (i.e, co-elution) with non-target compound(s). The result should be considered estimated.

H - The analysis of pH was performed beyond the regulatory-required holding time of 15 minutes from the time of sample collection.

I - The lower value for the two columns has been reported due to obvious interference.

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

NJ - Presumptive evidence of compound. This represents an estimated concentration for Tentatively Identified Compounds (TICs), where the identification is based on a mass spectral library search.

P - The RPD between the results for the two columns exceeds the method-specified criteria.

Q - The quality control sample exceeds the associated acceptance criteria. For DOD-related projects, LCS and/or Continuing Calibration Standard exceedences are also qualified on all associated sample results. Note: This flag is not applicable for matrix spike recoveries when the sample concentration is greater than 4x the spike added or for batch duplicate RPD when the sample concentrations are less than 5x the RL. (Metals only.)

R - Analytical results are from sample re-analysis.

RE - Analytical results are from sample re-extraction.

S - Analytical results are from modified screening analysis.

J - Estimated value. The Target analyte concentration is below the quantitation limit (RL), but above the Method Detection Limit (MDL) or Estimated Detection Limit (EDL) for SPME-related analyses. This represents an estimated concentration for Tentatively Identified Compounds (TICs).

ND - Not detected at the method detection limit (MDL) for the sample, or estimated detection limit (EDL) for SPME-related analyses.

Report Format: DU Report with 'J' Qualifiers

Project Name:	LAKEFRONT BOULEVARD	**Lab Number:**	L1743880
Project Number:	E67.022.001	**Report Date:**	12/11/17

REFERENCES

1 Test Methods for Evaluating Solid Waste: Physical/Chemical Methods. EPA SW-846. Third Edition. Updates I - IV, 2007.

107 Alpha Analytical - In-house calculation method.

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: m/p-xylene, o-xylene
EPA 8260C: NPW: 1,2,4,5-Tetramethylbenzene; 4-Ethyltoluene, Azobenzene; SCM: Iodomethane (methyl iodide), Methyl methacrylate, 1,2,4,5-Tetramethylbenzene; 4-Ethyltoluene.
EPA 8270D: NPW: Dimethylnaphthalene,1,4-Diphenylhydrazine; SCM: Dimethylnaphthalene,1,4-Diphenylhydrazine.
EPA 300: DW: Bromide
EPA 6860: NPW and SCM: Perchlorate
EPA 9010: NPW and SCM: Amenable Cyanide Distillation
EPA 9012B: NPW: Total Cyanide
EPA 9050A: NPW: Specific Conductance
SM3500: NPW: Ferrous Iron
SM4500: NPW: Amenable Cyanide, Dissolved Oxygen; SCM: Total Phosphorus, TKN, NO2, NO3.
SM5310C: DW: Dissolved Organic Carbon

Mansfield Facility
SM 2540D: TSS
EPA 3005A NPW
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: 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**
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, **EPA 350.1**: Ammonia-N, **LACHAT 10-107-06-1-B**: Ammonia-N, **SM4500NO3-F, EPA 353.2**: Nitrate-N**, EPA 351.1, 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 624: Volatile Halocarbons & Aromatics,
EPA 608: Chlordane, Toxaphene, Aldrin, alpha-BHC, beta-BHC, gamma-BHC, delta-BHC, Dieldrin, DDD, DDE, DDT, Endosulfan I, Endosulfan II, Endosulfan sulfate, Endrin, Endrin Aldehyde, Heptachlor, Heptachlor Epoxide, PCBs
EPA 625: SVOC (Acid/Base/Neutral Extractables), **EPA 600/4-81-045**: PCB-Oil.
Microbiology: **SM9223B-Colilert-QT; Enterolert-QT, SM9221E.**

Mansfield Facility:

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

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, Pb, Mn, Ni, Se, Ag, TL, Zn.
EPA 245.1 Hg.
SM2340B

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

ALPHA

Westborough, MA 01581
8 Walkup Dr.
TEL: 508-898-9220
FAX: 508-898-9193

Mansfield, MA 02048
320 Forbes Blvd
TEL: 508-822-9300
FAX: 508-822-3288

NEW YORK CHAIN OF CUSTODY

Service Centers
Mahwah, NJ 07430: 35 Whitney Rd, Suite 5
Albany, NY 12205: 14 Walker Way
Tonawanda, NY 14150: 275 Cooper Ave, Suite 105

Page of

Date Rec'd in Lab: 12/1/17

ALPHA Job #: L1743880

Client Information
Client: C&S Engineers, Inc.
Address: 141 Elm Street Buffalo, NY 14203
Phone: (716)847-1630
Fax: (716)847-1454
Email: cmartin@cscos.com

Project Information
Project Name: Lakefront Boulevard
Project Location: 240-260 Lakefront Blvd
Project # E67.022.001
(Use Project name as Project #) ☐
Project Manager: Cody Martin
ALPHAQuote #: (253487 Bottle Order #)

Turn-Around Time
Standard ☒ Due Date:
Rush (only if pre approved) ☐ # of Days:

Deliverables
☐ ASP-A ☒ ASP-B
☐ EQuIS (1 File) ☐ EQuIS (4 File)
☐ Other

Billing Information
☐ Same as Client Info
PO #

Regulatory Requirement
☐ NY TOGS ☒ NY Part 375
☐ AWQ Standards ☐ NY CP-51
☐ NY Restricted Use ☐ Other
☐ NY Unrestricted Use
☐ NYC Sewer Discharge

Disposal Site Information
Please identify below location of applicable disposal facilities.
Disposal Facility:
☐ NJ ☐ NY
☐ Other:

These samples have been previously analyzed by Alpha ☐

Other project specific requirements/comments:

Please specify Metals or TAL.

Sample Filtration
☐ Done
☐ Lab to do
Preservation
☐ Lab to do
(Please Specify below)

ALPHA Lab ID (Lab Use Only)	Sample ID	Collection Date	Collection Time	Sample Matrix	Sampler's Initials	NY TCL VOCs	TCL SVOCs	TCL Pesticides	Total Cyanide/Trivalent Chromium	TCL PCBs	Part 375 Metals	Hex Chrom	Sample Specific Comments	Total Bottle
43880 – 01	B-7-0.5-4.5 FT	11/29/17	9:10 AM	SO	AS	X	X	X	X	X	X	X		4
02	MW-1-1.5-6 FT	11/29/17	11:05 AM	SO	AS	X	X	X	X	X	X			3
03	MW-2-2-8 FT	11/29/17	1:20 PM	SO	AS	X	X	X	X	X	X	X		4
04	MW-3-2-6 FT	11/30/17	9:40 AM	SO	AS		X				X			2
05	MW-3-16-20 FT	11/30/17	10:25 AM	SO	AS	X	X	X	X	X	X			3
06	MW-1-25-26 FT	11/29/17	11:50 AM	SO	AS	X								1

Preservative Code:
A = None
B = HCl
C = HNO_3
D = H_2SO_4
E = NaOH
F = MeOH
G = $NaHSO_4$
H = $Na_2S_2O_3$
K/E = Zn Ac/NaOH
O = Other

Container Code
P = Plastic
A = Amber Glass
V = Vial
G = Glass
B = Bacteria Cup
C = Cube
O = Other
E = Encore
D = BOD Bottle

Westboro: Certification No: MA935
Mansfield: Certification No: MA015

Container Type: A
Preservative: A

Relinquished By:	Date/Time	Received By:	Date/Time
	11/30/17 13:20		11/30/17 13:20
	11/30/17 13:24		12/1/17 0625

Please print clearly, legibly and completely. Samples can not be logged in and turnaround time clock will not start until any ambiguities are resolved. BY EXECUTING THIS COC, THE CLIENT HAS READ AND AGREES TO BE BOUND BY ALPHA'S TERMS & CONDITIONS. (See reverse side.)

Form No: 01-25 HC (rev. 30-Sept-2013)

APPENDIX D

Laboratory Analytical Report – Groundwater

ANALYTICAL REPORT

Lab Number:	L1744782
Client:	C&S Companies 141 Elm Street, Suite 100 Buffalo, NY 14203
ATTN:	Cody Martin
Phone:	(716) 847-1630
Project Name:	LAKEFRONT BOULEVARD
Project Number:	E67.022.001
Report Date:	12/15/17

Certifications & Approvals: MA (M-MA086), NH NELAP (2064), NJ NELAP (MA935), CT (PH-0574), IL (200077), ME (MA00086), MD (348), NY (11148), NC (25700/666), PA (68-03671), RI (LAO00065), TX (T104704476), VT (VT-0935), VA (460195), USDA (Permit #P330-14-00197).

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

Project Name: LAKEFRONT BOULEVARD
Project Number: E67.022.001

Lab Number: L1744782
Report Date: 12/15/17

Alpha Sample ID	Client ID	Matrix	Sample Location	Collection Date/Time	Receive Date
L1744782-01	MW-2	WATER	240-260 LAKEFRONT BLVD.	12/06/17 10:50	12/06/17
L1744782-02	MW-3	WATER	240-260 LAKEFRONT BLVD.	12/06/17 11:45	12/06/17
L1744782-03	MW-1	WATER	240-260 LAKEFRONT BLVD.	12/06/17 12:39	12/06/17
L1744782-04	TRIP BLANK	WATER	240-260 LAKEFRONT BLVD.	12/06/17 00:00	12/06/17

Project Name: LAKEFRONT BOULEVARD
Project Number: E67.022.001
Lab Number: L1744782
Report Date: 12/15/17

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. All specific QC information is also incorporated in the Data Usability format of our Data Merger tool where it can be reviewed along with any associated usability implications. Soil/sediments, solids and tissues are reported on a dry weight basis unless otherwise noted. Definitions of all data qualifiers and acronyms used in this report are provided in the Glossary located at the back of the report.

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

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

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

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

Project Name:	LAKEFRONT BOULEVARD	**Lab Number:**	L1744782
Project Number:	E67.022.001	**Report Date:**	12/15/17

Case Narrative (continued)

Report Submission

All non-detect (ND) or estimated concentrations (J-qualified) have been quantitated to the limit noted in the MDL column.

Sample Receipt

L1744782-04: A sample identified as "TRIP BLANK" was received but not listed on the Chain of Custody. At the client's request, this sample was not analyzed.

Volatile Organics

L1744782-03 was received in the proper acid-preserved containers; however, upon analysis, the pH was determined to be greater than 2, and thus the method required holding time was exceeded.

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:  Amita Naik

Title: Technical Director/Representative Date: 12/15/17

ORGANICS

VOLATILES

Project Name: LAKEFRONT BOULEVARD **Lab Number:** L1744782

Project Number: E67.022.001 **Report Date:** 12/15/17

SAMPLE RESULTS

Lab ID: L1744782-01
Client ID: MW-2
Sample Location: 240-260 LAKEFRONT BLVD.

Date Collected: 12/06/17 10:50
Date Received: 12/06/17
Field Prep: Not Specified

Matrix: Water
Analytical Method: 1,8260C
Analytical Date: 12/14/17 11:16
Analyst: MKS

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
Methylene chloride	ND		ug/l	2.5	0.70	1
1,1-Dichloroethane	ND		ug/l	2.5	0.70	1
Chloroform	ND		ug/l	2.5	0.70	1
Carbon tetrachloride	ND		ug/l	0.50	0.13	1
Tetrachloroethene	ND		ug/l	0.50	0.18	1
Chlorobenzene	ND		ug/l	2.5	0.70	1
1,2-Dichloroethane	ND		ug/l	0.50	0.13	1
1,1,1-Trichloroethane	ND		ug/l	2.5	0.70	1
Benzene	ND		ug/l	0.50	0.16	1
Toluene	ND		ug/l	2.5	0.70	1
Ethylbenzene	ND		ug/l	2.5	0.70	1
Vinyl chloride	ND		ug/l	1.0	0.07	1
1,1-Dichloroethene	ND		ug/l	0.50	0.17	1
trans-1,2-Dichloroethene	ND		ug/l	2.5	0.70	1
Trichloroethene	ND		ug/l	0.50	0.18	1
1,2-Dichlorobenzene	ND		ug/l	2.5	0.70	1
1,3-Dichlorobenzene	ND		ug/l	2.5	0.70	1
1,4-Dichlorobenzene	ND		ug/l	2.5	0.70	1
Methyl tert butyl ether	ND		ug/l	2.5	0.70	1
p/m-Xylene	ND		ug/l	2.5	0.70	1
o-Xylene	ND		ug/l	2.5	0.70	1
cis-1,2-Dichloroethene	ND		ug/l	2.5	0.70	1
Acetone	1.5	J	ug/l	5.0	1.5	1
2-Butanone	ND		ug/l	5.0	1.9	1
n-Butylbenzene	ND		ug/l	2.5	0.70	1
sec-Butylbenzene	ND		ug/l	2.5	0.70	1
tert-Butylbenzene	ND		ug/l	2.5	0.70	1
n-Propylbenzene	ND		ug/l	2.5	0.70	1
1,3,5-Trimethylbenzene	ND		ug/l	2.5	0.70	1
1,2,4-Trimethylbenzene	ND		ug/l	2.5	0.70	1

Project Name: LAKEFRONT BOULEVARD **Lab Number:** L1744782

Project Number: E67.022.001 **Report Date:** 12/15/17

SAMPLE RESULTS

Lab ID: L1744782-01 Date Collected: 12/06/17 10:50

Client ID: MW-2 Date Received: 12/06/17

Sample Location: 240-260 LAKEFRONT BLVD. Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
1,4-Dioxane	ND		ug/l	250	61.	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	105		70-130
Toluene-d8	90		70-130
4-Bromofluorobenzene	93		70-130
Dibromofluoromethane	105		70-130

Project Name: LAKEFRONT BOULEVARD **Lab Number:** L1744782

Project Number: E67.022.001 **Report Date:** 12/15/17

SAMPLE RESULTS

Lab ID: L1744782-02 Date Collected: 12/06/17 11:45
Client ID: MW-3 Date Received: 12/06/17
Sample Location: 240-260 LAKEFRONT BLVD. Field Prep: Not Specified

Matrix: Water
Analytical Method: 1,8260C
Analytical Date: 12/14/17 11:41
Analyst: MKS

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
Methylene chloride	ND		ug/l	2.5	0.70	1
1,1-Dichloroethane	ND		ug/l	2.5	0.70	1
Chloroform	ND		ug/l	2.5	0.70	1
Carbon tetrachloride	ND		ug/l	0.50	0.13	1
Tetrachloroethene	0.42	J	ug/l	0.50	0.18	1
Chlorobenzene	ND		ug/l	2.5	0.70	1
1,2-Dichloroethane	ND		ug/l	0.50	0.13	1
1,1,1-Trichloroethane	ND		ug/l	2.5	0.70	1
Benzene	1.8		ug/l	0.50	0.16	1
Toluene	1.2	J	ug/l	2.5	0.70	1
Ethylbenzene	ND		ug/l	2.5	0.70	1
Vinyl chloride	ND		ug/l	1.0	0.07	1
1,1-Dichloroethene	ND		ug/l	0.50	0.17	1
trans-1,2-Dichloroethene	ND		ug/l	2.5	0.70	1
Trichloroethene	0.25	J	ug/l	0.50	0.18	1
1,2-Dichlorobenzene	ND		ug/l	2.5	0.70	1
1,3-Dichlorobenzene	ND		ug/l	2.5	0.70	1
1,4-Dichlorobenzene	ND		ug/l	2.5	0.70	1
Methyl tert butyl ether	ND		ug/l	2.5	0.70	1
p/m-Xylene	1.5	J	ug/l	2.5	0.70	1
o-Xylene	1.2	J	ug/l	2.5	0.70	1
cis-1,2-Dichloroethene	ND		ug/l	2.5	0.70	1
Acetone	8.9		ug/l	5.0	1.5	1
2-Butanone	ND		ug/l	5.0	1.9	1
n-Butylbenzene	ND		ug/l	2.5	0.70	1
sec-Butylbenzene	ND		ug/l	2.5	0.70	1
tert-Butylbenzene	ND		ug/l	2.5	0.70	1
n-Propylbenzene	ND		ug/l	2.5	0.70	1
1,3,5-Trimethylbenzene	0.74	J	ug/l	2.5	0.70	1
1,2,4-Trimethylbenzene	2.3	J	ug/l	2.5	0.70	1

Project Name: LAKEFRONT BOULEVARD **Lab Number:** L1744782

Project Number: E67.022.001 **Report Date:** 12/15/17

SAMPLE RESULTS

Lab ID: L1744782-02 Date Collected: 12/06/17 11:45

Client ID: MW-3 Date Received: 12/06/17

Sample Location: 240-260 LAKEFRONT BLVD. Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
1,4-Dioxane	ND		ug/l	250	61.	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	98		70-130
Toluene-d8	96		70-130
4-Bromofluorobenzene	100		70-130
Dibromofluoromethane	97		70-130

Project Name: LAKEFRONT BOULEVARD **Lab Number:** L1744782

Project Number: E67.022.001 **Report Date:** 12/15/17

SAMPLE RESULTS

Lab ID: L1744782-03 Date Collected: 12/06/17 12:39
Client ID: MW-1 Date Received: 12/06/17
Sample Location: 240-260 LAKEFRONT BLVD. Field Prep: Not Specified

Matrix: Water
Analytical Method: 1,8260C
Analytical Date: 12/14/17 12:06
Analyst: MKS

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
Methylene chloride	ND		ug/l	2.5	0.70	1
1,1-Dichloroethane	ND		ug/l	2.5	0.70	1
Chloroform	ND		ug/l	2.5	0.70	1
Carbon tetrachloride	ND		ug/l	0.50	0.13	1
Tetrachloroethene	ND		ug/l	0.50	0.18	1
Chlorobenzene	ND		ug/l	2.5	0.70	1
1,2-Dichloroethane	ND		ug/l	0.50	0.13	1
1,1,1-Trichloroethane	ND		ug/l	2.5	0.70	1
Benzene	1.6		ug/l	0.50	0.16	1
Toluene	0.92	J	ug/l	2.5	0.70	1
Ethylbenzene	ND		ug/l	2.5	0.70	1
Vinyl chloride	ND		ug/l	1.0	0.07	1
1,1-Dichloroethene	ND		ug/l	0.50	0.17	1
trans-1,2-Dichloroethene	ND		ug/l	2.5	0.70	1
Trichloroethene	0.66		ug/l	0.50	0.18	1
1,2-Dichlorobenzene	ND		ug/l	2.5	0.70	1
1,3-Dichlorobenzene	ND		ug/l	2.5	0.70	1
1,4-Dichlorobenzene	ND		ug/l	2.5	0.70	1
Methyl tert butyl ether	ND		ug/l	2.5	0.70	1
p/m-Xylene	ND		ug/l	2.5	0.70	1
o-Xylene	0.77	J	ug/l	2.5	0.70	1
cis-1,2-Dichloroethene	ND		ug/l	2.5	0.70	1
Acetone	140		ug/l	5.0	1.5	1
2-Butanone	6.9		ug/l	5.0	1.9	1
n-Butylbenzene	ND		ug/l	2.5	0.70	1
sec-Butylbenzene	ND		ug/l	2.5	0.70	1
tert-Butylbenzene	ND		ug/l	2.5	0.70	1
n-Propylbenzene	ND		ug/l	2.5	0.70	1
1,3,5-Trimethylbenzene	ND		ug/l	2.5	0.70	1
1,2,4-Trimethylbenzene	1.0	J	ug/l	2.5	0.70	1

Project Name: LAKEFRONT BOULEVARD **Lab Number:** L1744782

Project Number: E67.022.001 **Report Date:** 12/15/17

SAMPLE RESULTS

Lab ID: L1744782-03 Date Collected: 12/06/17 12:39

Client ID: MW-1 Date Received: 12/06/17

Sample Location: 240-260 LAKEFRONT BLVD. Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
1,4-Dioxane	ND		ug/l	250	61.	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	96		70-130
Toluene-d8	96		70-130
4-Bromofluorobenzene	105		70-130
Dibromofluoromethane	96		70-130

Project Name: LAKEFRONT BOULEVARD **Lab Number:** L1744782

Project Number: E67.022.001 **Report Date:** 12/15/17

Method Blank Analysis
Batch Quality Control

Analytical Method: 1,8260C
Analytical Date: 12/14/17 09:34
Analyst: PD

Parameter	Result	Qualifier	Units	RL	MDL
Volatile Organics by GC/MS - Westborough Lab for sample(s): 01-03 Batch: WG1072690-5					
Methylene chloride	ND		ug/l	2.5	0.70
1,1-Dichloroethane	ND		ug/l	2.5	0.70
Chloroform	ND		ug/l	2.5	0.70
Carbon tetrachloride	ND		ug/l	0.50	0.13
Tetrachloroethene	ND		ug/l	0.50	0.18
Chlorobenzene	ND		ug/l	2.5	0.70
1,2-Dichloroethane	ND		ug/l	0.50	0.13
1,1,1-Trichloroethane	ND		ug/l	2.5	0.70
Benzene	ND		ug/l	0.50	0.16
Toluene	ND		ug/l	2.5	0.70
Ethylbenzene	ND		ug/l	2.5	0.70
Vinyl chloride	ND		ug/l	1.0	0.07
1,1-Dichloroethene	ND		ug/l	0.50	0.17
trans-1,2-Dichloroethene	ND		ug/l	2.5	0.70
Trichloroethene	ND		ug/l	0.50	0.18
1,2-Dichlorobenzene	ND		ug/l	2.5	0.70
1,3-Dichlorobenzene	ND		ug/l	2.5	0.70
1,4-Dichlorobenzene	ND		ug/l	2.5	0.70
Methyl tert butyl ether	ND		ug/l	2.5	0.70
p/m-Xylene	ND		ug/l	2.5	0.70
o-Xylene	ND		ug/l	2.5	0.70
cis-1,2-Dichloroethene	ND		ug/l	2.5	0.70
Acetone	ND		ug/l	5.0	1.5
2-Butanone	ND		ug/l	5.0	1.9
n-Butylbenzene	ND		ug/l	2.5	0.70
sec-Butylbenzene	ND		ug/l	2.5	0.70
tert-Butylbenzene	ND		ug/l	2.5	0.70
n-Propylbenzene	ND		ug/l	2.5	0.70
1,3,5-Trimethylbenzene	ND		ug/l	2.5	0.70

Project Name: LAKEFRONT BOULEVARD
Project Number: E67.022.001
Lab Number: L1744782
Report Date: 12/15/17

Method Blank Analysis
Batch Quality Control

Analytical Method: 1,8260C
Analytical Date: 12/14/17 09:34
Analyst: PD

Parameter	Result	Qualifier	Units	RL	MDL
Volatile Organics by GC/MS - Westborough Lab for sample(s): 01-03 Batch: WG1072690-5					
1,2,4-Trimethylbenzene	ND		ug/l	2.5	0.70
1,4-Dioxane	ND		ug/l	250	61.
Tentatively Identified Compounds					
Total TIC Compounds	1.14	J	ug/l		
Sulfur Dioxide	1.14	NJ	ug/l		

Surrogate	%Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	92		70-130
Toluene-d8	98		70-130
4-Bromofluorobenzene	107		70-130
Dibromofluoromethane	94		70-130

Lab Control Sample Analysis

Batch Quality Control

Project Name: LAKEFRONT BOULEVARD

Project Number: E67.022.001

Lab Number: L1744782

Report Date: 12/15/17

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Volatile Organics by GC/MS - Westborough Lab Associated sample(s): 01-03 Batch: WG1072690-3 WG1072690-4								
Methylene chloride	110		110		70-130	0		20
1,1-Dichloroethane	110		110		70-130	0		20
Chloroform	97		95		70-130	2		20
Carbon tetrachloride	81		78		63-132	4		20
Tetrachloroethene	81		80		70-130	1		20
Chlorobenzene	98		98		75-130	0		20
1,2-Dichloroethane	96		95		70-130	1		20
1,1,1-Trichloroethane	87		85		67-130	2		20
Benzene	110		110		70-130	0		20
Toluene	100		100		70-130	0		20
Ethylbenzene	100		100		70-130	0		20
Vinyl chloride	140		**150**	Q	55-140	7		20
1,1-Dichloroethene	110		110		61-145	0		20
trans-1,2-Dichloroethene	100		100		70-130	0		20
Trichloroethene	95		94		70-130	1		20
1,2-Dichlorobenzene	95		94		70-130	1		20
1,3-Dichlorobenzene	95		95		70-130	0		20
1,4-Dichlorobenzene	94		94		70-130	0		20
Methyl tert butyl ether	99		98		63-130	1		20
p/m-Xylene	105		105		70-130	0		20
o-Xylene	100		95		70-130	5		20
cis-1,2-Dichloroethene	100		98		70-130	2		20
Acetone	94		99		58-148	5		20

Lab Control Sample Analysis

Batch Quality Control

Project Name: LAKEFRONT BOULEVARD
Project Number: E67.022.001

Lab Number: L1744782
Report Date: 12/15/17

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Volatile Organics by GC/MS - Westborough Lab Associated sample(s): 01-03 Batch: WG1072690-3 WG1072690-4								
2-Butanone	100		100		63-138	0		20
n-Butylbenzene	97		96		53-136	1		20
sec-Butylbenzene	88		88		70-130	0		20
tert-Butylbenzene	87		86		70-130	1		20
n-Propylbenzene	100		100		69-130	0		20
1,3,5-Trimethylbenzene	100		100		64-130	0		20
1,2,4-Trimethylbenzene	95		94		70-130	1		20
1,4-Dioxane	106		104		56-162	2		20

Surrogate	LCS %Recovery	Qual	LCSD %Recovery	Qual	Acceptance Criteria
1,2-Dichloroethane-d4	93		93		70-130
Toluene-d8	99		100		70-130
4-Bromofluorobenzene	107		107		70-130
Dibromofluoromethane	92		91		70-130

SEMIVOLATILES

Project Name: LAKEFRONT BOULEVARD
Lab Number: L1744782
Project Number: E67.022.001
Report Date: 12/15/17

SAMPLE RESULTS

Lab ID: L1744782-01
Client ID: MW-2
Sample Location: 240-260 LAKEFRONT BLVD.

Matrix: Water
Analytical Method: 1,8270D
Analytical Date: 12/14/17 03:40
Analyst: SZ

Date Collected: 12/06/17 10:50
Date Received: 12/06/17
Field Prep: Not Specified
Extraction Method: EPA 3510C
Extraction Date: 12/11/17 21:46

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Semivolatile Organics by GC/MS - Westborough Lab						
Dibenzofuran	ND		ug/l	2.0	0.66	1
Phenol	ND		ug/l	5.0	1.9	1
2-Methylphenol	ND		ug/l	5.0	1.0	1
3-Methylphenol/4-Methylphenol	ND		ug/l	5.0	1.1	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
2-Fluorophenol	43		21-120
Phenol-d6	29		10-120
Nitrobenzene-d5	73		23-120
2-Fluorobiphenyl	91		15-120
2,4,6-Tribromophenol	103		10-120
4-Terphenyl-d14	90		41-149

Project Name: LAKEFRONT BOULEVARD
Lab Number: L1744782
Project Number: E67.022.001
Report Date: 12/15/17

SAMPLE RESULTS

Lab ID: L1744782-01
Client ID: MW-2
Sample Location: 240-260 LAKEFRONT BLVD.

Matrix: Water
Analytical Method: 1,8270D-SIM
Analytical Date: 12/14/17 20:49
Analyst: DV

Date Collected: 12/06/17 10:50
Date Received: 12/06/17
Field Prep: Not Specified
Extraction Method: EPA 3510C
Extraction Date: 12/11/17 21:50

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Semivolatile Organics by GC/MS-SIM - Westborough Lab						
Acenaphthene	0.23		ug/l	0.10	0.04	1
Fluoranthene	0.05	J	ug/l	0.10	0.04	1
Naphthalene	ND		ug/l	0.10	0.04	1
Benzo(a)anthracene	ND		ug/l	0.10	0.02	1
Benzo(a)pyrene	ND		ug/l	0.10	0.04	1
Benzo(b)fluoranthene	ND		ug/l	0.10	0.02	1
Benzo(k)fluoranthene	ND		ug/l	0.10	0.04	1
Chrysene	ND		ug/l	0.10	0.04	1
Acenaphthylene	ND		ug/l	0.10	0.04	1
Anthracene	ND		ug/l	0.10	0.04	1
Benzo(ghi)perylene	ND		ug/l	0.10	0.04	1
Fluorene	ND		ug/l	0.10	0.04	1
Phenanthrene	0.05	J	ug/l	0.10	0.02	1
Dibenzo(a,h)anthracene	ND		ug/l	0.10	0.04	1
Indeno(1,2,3-cd)pyrene	ND		ug/l	0.10	0.04	1
Pyrene	0.04	J	ug/l	0.10	0.04	1
Pentachlorophenol	ND		ug/l	0.80	0.22	1
Hexachlorobenzene	ND		ug/l	0.80	0.03	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
2-Fluorophenol	49		21-120
Phenol-d6	34		10-120
Nitrobenzene-d5	84		23-120
2-Fluorobiphenyl	83		15-120
2,4,6-Tribromophenol	96		10-120
4-Terphenyl-d14	84		41-149

Project Name: LAKEFRONT BOULEVARD
Project Number: E67.022.001
Lab Number: L1744782
Report Date: 12/15/17

SAMPLE RESULTS

Lab ID: L1744782-02
Client ID: MW-3
Sample Location: 240-260 LAKEFRONT BLVD.

Matrix: Water
Analytical Method: 1,8270D
Analytical Date: 12/14/17 05:57
Analyst: SZ

Date Collected: 12/06/17 11:45
Date Received: 12/06/17
Field Prep: Not Specified
Extraction Method: EPA 3510C
Extraction Date: 12/11/17 21:46

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Semivolatile Organics by GC/MS - Westborough Lab						
Dibenzofuran	13.		ug/l	2.0	0.66	1
Phenol	ND		ug/l	5.0	1.9	1
2-Methylphenol	2.0	J	ug/l	5.0	1.0	1
3-Methylphenol/4-Methylphenol	8.1		ug/l	5.0	1.1	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
2-Fluorophenol	53		21-120
Phenol-d6	41		10-120
Nitrobenzene-d5	78		23-120
2-Fluorobiphenyl	90		15-120
2,4,6-Tribromophenol	103		10-120
4-Terphenyl-d14	87		41-149

Project Name: LAKEFRONT BOULEVARD
Lab Number: L1744782
Project Number: E67.022.001
Report Date: 12/15/17

SAMPLE RESULTS

Lab ID: L1744782-02
Client ID: MW-3
Sample Location: 240-260 LAKEFRONT BLVD.

Matrix: Water
Analytical Method: 1,8270D-SIM
Analytical Date: 12/14/17 21:16
Analyst: DV

Date Collected: 12/06/17 11:45
Date Received: 12/06/17
Field Prep: Not Specified
Extraction Method: EPA 3510C
Extraction Date: 12/11/17 21:50

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Semivolatile Organics by GC/MS-SIM - Westborough Lab						
Acenaphthene	24		ug/l	0.10	0.04	1
Fluoranthene	1.7		ug/l	0.10	0.04	1
Naphthalene	51		ug/l	0.10	0.04	1
Benzo(a)anthracene	0.19		ug/l	0.10	0.02	1
Benzo(a)pyrene	0.13		ug/l	0.10	0.04	1
Benzo(b)fluoranthene	0.16		ug/l	0.10	0.02	1
Benzo(k)fluoranthene	0.06	J	ug/l	0.10	0.04	1
Chrysene	0.16		ug/l	0.10	0.04	1
Acenaphthylene	0.26		ug/l	0.10	0.04	1
Anthracene	3.7		ug/l	0.10	0.04	1
Benzo(ghi)perylene	0.07	J	ug/l	0.10	0.04	1
Fluorene	16		ug/l	0.10	0.04	1
Phenanthrene	19		ug/l	0.10	0.02	1
Dibenzo(a,h)anthracene	ND		ug/l	0.10	0.04	1
Indeno(1,2,3-cd)pyrene	0.08	J	ug/l	0.10	0.04	1
Pyrene	0.95		ug/l	0.10	0.04	1
Pentachlorophenol	1.7		ug/l	0.80	0.22	1
Hexachlorobenzene	ND		ug/l	0.80	0.03	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
2-Fluorophenol	56		21-120
Phenol-d6	41		10-120
Nitrobenzene-d5	83		23-120
2-Fluorobiphenyl	79		15-120
2,4,6-Tribromophenol	97		10-120
4-Terphenyl-d14	83		41-149

Project Name: LAKEFRONT BOULEVARD
Project Number: E67.022.001
Lab Number: L1744782
Report Date: 12/15/17

Method Blank Analysis
Batch Quality Control

Analytical Method: 1,8270D
Analytical Date: 12/12/17 11:34
Analyst: SZ

Extraction Method: EPA 3510C
Extraction Date: 12/11/17 21:46

Parameter	Result	Qualifier	Units	RL	MDL
Semivolatile Organics by GC/MS - Westborough Lab for sample(s): 01-02 Batch: WG1071448-1					
Dibenzofuran	ND		ug/l	2.0	0.66
Phenol	ND		ug/l	5.0	1.9
2-Methylphenol	ND		ug/l	5.0	1.0
3-Methylphenol/4-Methylphenol	ND		ug/l	5.0	1.1
Tentatively Identified Compounds					
Total TIC Compounds	5.27	J	ug/l		
Unknown	5.27	J	ug/l		

Surrogate	%Recovery	Qualifier	Acceptance Criteria
2-Fluorophenol	46		21-120
Phenol-d6	31		10-120
Nitrobenzene-d5	71		23-120
2-Fluorobiphenyl	78		15-120
2,4,6-Tribromophenol	86		10-120
4-Terphenyl-d14	80		41-149

Project Name: LAKEFRONT BOULEVARD
Project Number: E67.022.001
Lab Number: L1744782
Report Date: 12/15/17

Method Blank Analysis
Batch Quality Control

Analytical Method: 1,8270D-SIM
Analytical Date: 12/12/17 19:44
Analyst: DV

Extraction Method: EPA 3510C
Extraction Date: 12/11/17 21:50

Parameter	Result	Qualifier	Units	RL	MDL
Semivolatile Organics by GC/MS-SIM - Westborough Lab for sample(s): 01-02 Batch: WG1071455-1					
Acenaphthene	ND		ug/l	0.10	0.04
Fluoranthene	ND		ug/l	0.10	0.04
Naphthalene	ND		ug/l	0.10	0.04
Benzo(a)anthracene	ND		ug/l	0.10	0.02
Benzo(a)pyrene	ND		ug/l	0.10	0.04
Benzo(b)fluoranthene	ND		ug/l	0.10	0.02
Benzo(k)fluoranthene	ND		ug/l	0.10	0.04
Chrysene	ND		ug/l	0.10	0.04
Acenaphthylene	ND		ug/l	0.10	0.04
Anthracene	ND		ug/l	0.10	0.04
Benzo(ghi)perylene	ND		ug/l	0.10	0.04
Fluorene	ND		ug/l	0.10	0.04
Phenanthrene	ND		ug/l	0.10	0.02
Dibenzo(a,h)anthracene	ND		ug/l	0.10	0.04
Indeno(1,2,3-cd)pyrene	ND		ug/l	0.10	0.04
Pyrene	ND		ug/l	0.10	0.04
Pentachlorophenol	ND		ug/l	0.80	0.22
Hexachlorobenzene	ND		ug/l	0.80	0.03

Surrogate	%Recovery	Qualifier	Acceptance Criteria
2-Fluorophenol	51		21-120
Phenol-d6	35		10-120
Nitrobenzene-d5	86		23-120
2-Fluorobiphenyl	76		15-120
2,4,6-Tribromophenol	78		10-120
4-Terphenyl-d14	74		41-149

Lab Control Sample Analysis

Batch Quality Control

Project Name: LAKEFRONT BOULEVARD

Project Number: E67.022.001

Lab Number: L1744782

Report Date: 12/15/17

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Semivolatile Organics by GC/MS - Westborough Lab Associated sample(s): 01-02 Batch: WG1071448-2 WG1071448-3								
Dibenzofuran	66		70		40-140	6		30
Phenol	33		32		12-110	3		30
2-Methylphenol	61		60		30-130	2		30
3-Methylphenol/4-Methylphenol	57		57		30-130	0		30

Surrogate	LCS %Recovery	Qual	LCSD %Recovery	Qual	Acceptance Criteria
2-Fluorophenol	47		47		21-120
Phenol-d6	33		32		10-120
Nitrobenzene-d5	67		65		23-120
2-Fluorobiphenyl	74		75		15-120
2,4,6-Tribromophenol	80		85		10-120
4-Terphenyl-d14	73		77		41-149

Lab Control Sample Analysis
Batch Quality Control

Project Name: LAKEFRONT BOULEVARD
Project Number: E67.022.001

Lab Number: L1744782
Report Date: 12/15/17

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Semivolatile Organics by GC/MS-SIM - Westborough Lab Associated sample(s): 01-02 Batch: WG1071455-2 WG1071455-3								
Acenaphthene	72		78		40-140	8		40
Fluoranthene	70		80		40-140	13		40
Naphthalene	71		71		40-140	0		40
Benzo(a)anthracene	78		87		40-140	11		40
Benzo(a)pyrene	73		82		40-140	12		40
Benzo(b)fluoranthene	77		83		40-140	8		40
Benzo(k)fluoranthene	76		83		40-140	9		40
Chrysene	74		83		40-140	11		40
Acenaphthylene	83		88		40-140	6		40
Anthracene	79		87		40-140	10		40
Benzo(ghi)perylene	82		92		40-140	11		40
Fluorene	73		80		40-140	9		40
Phenanthrene	73		81		40-140	10		40
Dibenzo(a,h)anthracene	84		95		40-140	12		40
Indeno(1,2,3-cd)pyrene	87		97		40-140	11		40
Pyrene	68		78		40-140	14		40
Pentachlorophenol	75		85		40-140	13		40
Hexachlorobenzene	71		80		40-140	12		40

Lab Control Sample Analysis

Batch Quality Control

Project Name: LAKEFRONT BOULEVARD

Project Number: E67.022.001

Lab Number: L1744782

Report Date: 12/15/17

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Semivolatile Organics by GC/MS-SIM - Westborough Lab Associated sample(s): 01-02 Batch: WG1071455-2 WG1071455-3								

Surrogate	LCS %Recovery	Qual	LCSD %Recovery	Qual	Acceptance Criteria
2-Fluorophenol	49		46		21-120
Phenol-d6	35		34		10-120
Nitrobenzene-d5	80		79		23-120
2-Fluorobiphenyl	72		75		15-120
2,4,6-Tribromophenol	71		76		10-120
4-Terphenyl-d14	66		76		41-149

PCBS

Project Name: LAKEFRONT BOULEVARD
Project Number: E67.022.001
Lab Number: L1744782
Report Date: 12/15/17

SAMPLE RESULTS

Lab ID: L1744782-01
Client ID: MW-2
Sample Location: 240-260 LAKEFRONT BLVD.

Matrix: Water
Analytical Method: 1,8082A
Analytical Date: 12/12/17 15:02
Analyst: WR

Date Collected: 12/06/17 10:50
Date Received: 12/06/17
Field Prep: Not Specified
Extraction Method: EPA 3510C
Extraction Date: 12/12/17 01:07
Cleanup Method: EPA 3665A
Cleanup Date: 12/12/17
Cleanup Method: EPA 3660B
Cleanup Date: 12/12/17

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Column
Polychlorinated Biphenyls by GC - Westborough Lab							
Aroclor 1016	ND		ug/l	0.083	0.020	1	A
Aroclor 1221	ND		ug/l	0.083	0.032	1	A
Aroclor 1232	ND		ug/l	0.083	0.027	1	A
Aroclor 1242	ND		ug/l	0.083	0.030	1	A
Aroclor 1248	ND		ug/l	0.083	0.023	1	A
Aroclor 1254	ND		ug/l	0.083	0.035	1	A
Aroclor 1260	ND		ug/l	0.083	0.020	1	A
Aroclor 1262	ND		ug/l	0.083	0.017	1	A
Aroclor 1268	ND		ug/l	0.083	0.027	1	A
PCBs, Total	ND		ug/l	0.083	0.017	1	A

Surrogate	% Recovery	Qualifier	Acceptance Criteria	Column
2,4,5,6-Tetrachloro-m-xylene	79		30-150	A
Decachlorobiphenyl	66		30-150	A
2,4,5,6-Tetrachloro-m-xylene	78		30-150	B
Decachlorobiphenyl	66		30-150	B

Project Name: LAKEFRONT BOULEVARD
Project Number: E67.022.001
Lab Number: L1744782
Report Date: 12/15/17

SAMPLE RESULTS

Lab ID: L1744782-02
Client ID: MW-3
Sample Location: 240-260 LAKEFRONT BLVD.

Matrix: Water
Analytical Method: 1,8082A
Analytical Date: 12/12/17 15:17
Analyst: WR

Date Collected: 12/06/17 11:45
Date Received: 12/06/17
Field Prep: Not Specified
Extraction Method: EPA 3510C
Extraction Date: 12/12/17 01:07
Cleanup Method: EPA 3665A
Cleanup Date: 12/12/17
Cleanup Method: EPA 3660B
Cleanup Date: 12/12/17

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Column
Polychlorinated Biphenyls by GC - Westborough Lab							
Aroclor 1016	ND		ug/l	0.083	0.020	1	A
Aroclor 1221	ND		ug/l	0.083	0.032	1	A
Aroclor 1232	ND		ug/l	0.083	0.027	1	A
Aroclor 1242	ND		ug/l	0.083	0.030	1	A
Aroclor 1248	1.51		ug/l	0.083	0.023	1	B
Aroclor 1254	ND		ug/l	0.083	0.035	1	A
Aroclor 1260	ND		ug/l	0.083	0.020	1	A
Aroclor 1262	ND		ug/l	0.083	0.017	1	A
Aroclor 1268	ND		ug/l	0.083	0.027	1	A
PCBs, Total	1.51		ug/l	0.083	0.017	1	B

Surrogate	% Recovery	Qualifier	Acceptance Criteria	Column
2,4,5,6-Tetrachloro-m-xylene	77		30-150	A
Decachlorobiphenyl	39		30-150	A
2,4,5,6-Tetrachloro-m-xylene	84		30-150	B
Decachlorobiphenyl	47		30-150	B

Project Name: LAKEFRONT BOULEVARD
Project Number: E67.022.001

Lab Number: L1744782
Report Date: 12/15/17

Method Blank Analysis
Batch Quality Control

Analytical Method: 1,8082A
Analytical Date: 12/12/17 11:33
Analyst: WR

Extraction Method: EPA 3510C
Extraction Date: 12/12/17 01:07
Cleanup Method: EPA 3665A
Cleanup Date: 12/12/17
Cleanup Method: EPA 3660B
Cleanup Date: 12/12/17

Parameter	Result	Qualifier	Units	RL	MDL	Column
Polychlorinated Biphenyls by GC - Westborough Lab for sample(s): 01-02 Batch: WG1071481-1						
Aroclor 1016	ND		ug/l	0.083	0.020	A
Aroclor 1221	ND		ug/l	0.083	0.032	A
Aroclor 1232	ND		ug/l	0.083	0.027	A
Aroclor 1242	ND		ug/l	0.083	0.030	A
Aroclor 1248	ND		ug/l	0.083	0.023	A
Aroclor 1254	ND		ug/l	0.083	0.035	A
Aroclor 1260	ND		ug/l	0.083	0.020	A
Aroclor 1262	ND		ug/l	0.083	0.017	A
Aroclor 1268	ND		ug/l	0.083	0.027	A
PCBs, Total	ND		ug/l	0.083	0.017	A

Surrogate	%Recovery	Qualifier	Acceptance Criteria	Column
2,4,5,6-Tetrachloro-m-xylene	63		30-150	A
Decachlorobiphenyl	62		30-150	A
2,4,5,6-Tetrachloro-m-xylene	66		30-150	B
Decachlorobiphenyl	71		30-150	B

Lab Control Sample Analysis

Batch Quality Control

Project Name: LAKEFRONT BOULEVARD

Project Number: E67.022.001

Lab Number: L1744782

Report Date: 12/15/17

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits	Column
Polychlorinated Biphenyls by GC - Westborough Lab Associated sample(s): 01-02 Batch: WG1071481-2 WG1071481-3									
Aroclor 1016	61		58		40-140	5		50	A
Aroclor 1260	61		56		40-140	8		50	A

Surrogate	LCS %Recovery	Qual	LCSD %Recovery	Qual	Acceptance Criteria	Column
2,4,5,6-Tetrachloro-m-xylene	58		58		30-150	A
Decachlorobiphenyl	67		59		30-150	A
2,4,5,6-Tetrachloro-m-xylene	58		59		30-150	B
Decachlorobiphenyl	74		69		30-150	B

PESTICIDES

Project Name: LAKEFRONT BOULEVARD
Project Number: E67.022.001
Lab Number: L1744782
Report Date: 12/15/17

SAMPLE RESULTS

Lab ID: L1744782-01
Client ID: MW-2
Sample Location: 240-260 LAKEFRONT BLVD.

Matrix: Water
Analytical Method: 1,8081B
Analytical Date: 12/14/17 01:19
Analyst: JW

Date Collected: 12/06/17 10:50
Date Received: 12/06/17
Field Prep: Not Specified
Extraction Method: EPA 3510C
Extraction Date: 12/12/17 01:10

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Column
Organochlorine Pesticides by GC - Westborough Lab							
Delta-BHC	ND		ug/l	0.020	0.005	1	A
Lindane	ND		ug/l	0.020	0.004	1	A
Alpha-BHC	ND		ug/l	0.020	0.004	1	A
Beta-BHC	ND		ug/l	0.020	0.006	1	A
Heptachlor	ND		ug/l	0.020	0.003	1	A
Aldrin	ND		ug/l	0.020	0.002	1	A
Endrin	ND		ug/l	0.040	0.004	1	A
Dieldrin	ND		ug/l	0.040	0.004	1	A
4,4'-DDE	ND		ug/l	0.040	0.004	1	A
4,4'-DDD	ND		ug/l	0.040	0.005	1	A
4,4'-DDT	ND		ug/l	0.040	0.004	1	A
Endosulfan I	ND		ug/l	0.020	0.003	1	A
Endosulfan II	ND		ug/l	0.040	0.005	1	A
Endosulfan sulfate	ND		ug/l	0.040	0.005	1	A
cis-Chlordane	ND		ug/l	0.020	0.007	1	A

Surrogate	% Recovery	Qualifier	Acceptance Criteria	Column
2,4,5,6-Tetrachloro-m-xylene	79		30-150	A
Decachlorobiphenyl	44		30-150	A
2,4,5,6-Tetrachloro-m-xylene	86		30-150	B
Decachlorobiphenyl	49		30-150	B

Project Name: LAKEFRONT BOULEVARD
Project Number: E67.022.001
Lab Number: L1744782
Report Date: 12/15/17

SAMPLE RESULTS

Lab ID: L1744782-02
Client ID: MW-3
Sample Location: 240-260 LAKEFRONT BLVD.

Matrix: Water
Analytical Method: 1,8081B
Analytical Date: 12/14/17 01:32
Analyst: CD

Date Collected: 12/06/17 11:45
Date Received: 12/06/17
Field Prep: Not Specified
Extraction Method: EPA 3510C
Extraction Date: 12/12/17 01:10

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Column
Organochlorine Pesticides by GC - Westborough Lab							
Delta-BHC	ND		ug/l	0.020	0.005	1	A
Lindane	ND		ug/l	0.020	0.004	1	A
Alpha-BHC	ND		ug/l	0.020	0.004	1	A
Beta-BHC	ND		ug/l	0.020	0.006	1	A
Heptachlor	ND		ug/l	0.020	0.003	1	A
Aldrin	ND		ug/l	0.020	0.002	1	A
Endrin	ND		ug/l	0.040	0.004	1	A
Dieldrin	ND		ug/l	0.040	0.004	1	A
4,4'-DDE	ND		ug/l	0.040	0.004	1	A
4,4'-DDD	ND		ug/l	0.040	0.005	1	A
4,4'-DDT	0.041		ug/l	0.040	0.004	1	A
Endosulfan I	ND		ug/l	0.020	0.003	1	A
Endosulfan II	ND		ug/l	0.040	0.005	1	A
Endosulfan sulfate	ND		ug/l	0.040	0.005	1	A
cis-Chlordane	ND		ug/l	0.020	0.007	1	A

Surrogate	% Recovery	Qualifier	Acceptance Criteria	Column
2,4,5,6-Tetrachloro-m-xylene	101		30-150	A
Decachlorobiphenyl	45		30-150	A
2,4,5,6-Tetrachloro-m-xylene	86		30-150	B
Decachlorobiphenyl	45		30-150	B

Project Name: LAKEFRONT BOULEVARD
Project Number: E67.022.001
Lab Number: L1744782
Report Date: 12/15/17

Method Blank Analysis
Batch Quality Control

Analytical Method: 1,8081B
Analytical Date: 12/12/17 12:24
Analyst: CD

Extraction Method: EPA 3510C
Extraction Date: 12/12/17 01:10

Parameter	Result	Qualifier	Units	RL	MDL	Column
Organochlorine Pesticides by GC - Westborough Lab for sample(s): 01-02 Batch: WG1071482-1						
Delta-BHC	ND		ug/l	0.020	0.005	A
Lindane	ND		ug/l	0.020	0.004	A
Alpha-BHC	ND		ug/l	0.020	0.004	A
Beta-BHC	ND		ug/l	0.020	0.006	A
Heptachlor	ND		ug/l	0.020	0.003	A
Aldrin	ND		ug/l	0.020	0.002	A
Endrin	ND		ug/l	0.040	0.004	A
Dieldrin	ND		ug/l	0.040	0.004	A
4,4'-DDE	ND		ug/l	0.040	0.004	A
4,4'-DDD	ND		ug/l	0.040	0.005	A
4,4'-DDT	ND		ug/l	0.040	0.004	A
Endosulfan I	ND		ug/l	0.020	0.003	A
Endosulfan II	ND		ug/l	0.040	0.005	A
Endosulfan sulfate	ND		ug/l	0.040	0.005	A
cis-Chlordane	ND		ug/l	0.020	0.007	A

Surrogate	%Recovery	Qualifier	Acceptance Criteria	Column
2,4,5,6-Tetrachloro-m-xylene	86		30-150	A
Decachlorobiphenyl	86		30-150	A
2,4,5,6-Tetrachloro-m-xylene	85		30-150	B
Decachlorobiphenyl	100		30-150	B

Lab Control Sample Analysis

Batch Quality Control

Project Name: LAKEFRONT BOULEVARD

Project Number: E67.022.001

Lab Number: L1744782

Report Date: 12/15/17

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits	Column
Organochlorine Pesticides by GC - Westborough Lab Associated sample(s): 01-02 Batch: WG1071482-2 WG1071482-3									
Delta-BHC	122		116		30-150	5		20	A
Lindane	109		105		30-150	4		20	A
Alpha-BHC	114		109		30-150	4		20	A
Beta-BHC	118		112		30-150	5		20	A
Heptachlor	107		101		30-150	6		20	A
Aldrin	108		102		30-150	6		20	A
Endrin	121		115		30-150	5		20	A
Dieldrin	119		113		30-150	5		20	A
4,4'-DDE	116		109		30-150	6		20	A
4,4'-DDD	116		111		30-150	4		20	A
4,4'-DDT	116		110		30-150	5		20	A
Endosulfan I	120		114		30-150	5		20	A
Endosulfan II	122		116		30-150	5		20	A
Endosulfan sulfate	127		120		30-150	6		20	A
cis-Chlordane	115		108		30-150	6		20	A

Surrogate	LCS %Recovery	Qual	LCSD %Recovery	Qual	Acceptance Criteria	Column
2,4,5,6-Tetrachloro-m-xylene	107		99		30-150	A
Decachlorobiphenyl	119		109		30-150	A
2,4,5,6-Tetrachloro-m-xylene	106		99		30-150	B
Decachlorobiphenyl	118		111		30-150	B

METALS

Project Name: LAKEFRONT BOULEVARD
Lab Number: L1744782
Project Number: E67.022.001
Report Date: 12/15/17

SAMPLE RESULTS

Lab ID: L1744782-01
Client ID: MW-2
Sample Location: 240-260 LAKEFRONT BLVD.
Matrix: Water
Date Collected: 12/06/17 10:50
Date Received: 12/06/17
Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Prep Method	Analytical Method	Analyst
Total Metals - Mansfield Lab											
Arsenic, Total	0.01431		mg/l	0.00050	0.00016	1	12/09/17 11:45	12/12/17 13:44	EPA 3005A	1,6020A	AM
Barium, Total	0.2454		mg/l	0.00050	0.00017	1	12/09/17 11:45	12/12/17 13:44	EPA 3005A	1,6020A	AM
Beryllium, Total	0.00058		mg/l	0.00050	0.00010	1	12/09/17 11:45	12/12/17 13:44	EPA 3005A	1,6020A	AM
Cadmium, Total	0.00095		mg/l	0.00020	0.00005	1	12/09/17 11:45	12/12/17 13:44	EPA 3005A	1,6020A	AM
Chromium, Total	0.02926		mg/l	0.00100	0.00017	1	12/09/17 11:45	12/12/17 13:44	EPA 3005A	1,6020A	AM
Copper, Total	0.05630		mg/l	0.00100	0.00038	1	12/09/17 11:45	12/12/17 13:44	EPA 3005A	1,6020A	AM
Lead, Total	0.2816		mg/l	0.00100	0.00034	1	12/09/17 11:45	12/12/17 13:44	EPA 3005A	1,6020A	AM
Manganese, Total	0.6015		mg/l	0.00100	0.00044	1	12/09/17 11:45	12/12/17 13:44	EPA 3005A	1,6020A	AM
Mercury, Total	0.00196		mg/l	0.00020	0.00006	1	12/08/17 12:33	12/11/17 17:18	EPA 7470A	1,7470A	MG
Nickel, Total	0.02499		mg/l	0.00200	0.00055	1	12/09/17 11:45	12/12/17 13:44	EPA 3005A	1,6020A	AM
Selenium, Total	0.00558		mg/l	0.00500	0.00173	1	12/09/17 11:45	12/12/17 13:44	EPA 3005A	1,6020A	AM
Silver, Total	0.00064		mg/l	0.00040	0.00016	1	12/09/17 11:45	12/12/17 13:44	EPA 3005A	1,6020A	AM
Zinc, Total	0.2791		mg/l	0.01000	0.00341	1	12/09/17 11:45	12/12/17 13:44	EPA 3005A	1,6020A	AM
General Chemistry - Mansfield Lab											
Chromium, Trivalent	0.029		mg/l	0.010	0.010	1		12/12/17 13:44	NA	107,-	

Project Name: LAKEFRONT BOULEVARD
Lab Number: L1744782
Project Number: E67.022.001
Report Date: 12/15/17

SAMPLE RESULTS

Lab ID: L1744782-02
Client ID: MW-3
Sample Location: 240-260 LAKEFRONT BLVD.
Matrix: Water
Date Collected: 12/06/17 11:45
Date Received: 12/06/17
Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Prep Method	Analytical Method	Analyst
Total Metals - Mansfield Lab											
Arsenic, Total	0.00093		mg/l	0.00050	0.00016	1	12/09/17 11:45	12/12/17 13:48	EPA 3005A	1,6020A	AM
Barium, Total	0.1509		mg/l	0.00050	0.00017	1	12/09/17 11:45	12/12/17 13:48	EPA 3005A	1,6020A	AM
Beryllium, Total	ND		mg/l	0.00050	0.00010	1	12/09/17 11:45	12/12/17 13:48	EPA 3005A	1,6020A	AM
Cadmium, Total	ND		mg/l	0.00020	0.00005	1	12/09/17 11:45	12/12/17 13:48	EPA 3005A	1,6020A	AM
Chromium, Total	0.00188		mg/l	0.00100	0.00017	1	12/09/17 11:45	12/12/17 13:48	EPA 3005A	1,6020A	AM
Copper, Total	0.00248		mg/l	0.00100	0.00038	1	12/09/17 11:45	12/12/17 13:48	EPA 3005A	1,6020A	AM
Lead, Total	0.00625		mg/l	0.00100	0.00034	1	12/09/17 11:45	12/12/17 13:48	EPA 3005A	1,6020A	AM
Manganese, Total	0.5379		mg/l	0.00100	0.00044	1	12/09/17 11:45	12/12/17 13:48	EPA 3005A	1,6020A	AM
Mercury, Total	ND		mg/l	0.00020	0.00006	1	12/08/17 12:33	12/11/17 17:19	EPA 7470A	1,7470A	MG
Nickel, Total	0.00131	J	mg/l	0.00200	0.00055	1	12/09/17 11:45	12/12/17 13:48	EPA 3005A	1,6020A	AM
Selenium, Total	ND		mg/l	0.00500	0.00173	1	12/09/17 11:45	12/12/17 13:48	EPA 3005A	1,6020A	AM
Silver, Total	ND		mg/l	0.00040	0.00016	1	12/09/17 11:45	12/12/17 13:48	EPA 3005A	1,6020A	AM
Zinc, Total	0.01489		mg/l	0.01000	0.00341	1	12/09/17 11:45	12/12/17 13:48	EPA 3005A	1,6020A	AM
General Chemistry - Mansfield Lab											
Chromium, Trivalent	ND		mg/l	0.010	0.010	1		12/12/17 13:48	NA	107,-	

Project Name: LAKEFRONT BOULEVARD **Lab Number:** L1744782

Project Number: E67.022.001 **Report Date:** 12/15/17

Method Blank Analysis
Batch Quality Control

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
Total Metals - Mansfield Lab for sample(s): 01-02 Batch: WG1070615-1										
Mercury, Total	ND		mg/l	0.00020	0.00006	1	12/08/17 12:33	12/11/17 16:57	1,7470A	MG

Prep Information

Digestion Method: EPA 7470A

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
Total Metals - Mansfield Lab for sample(s): 01-02 Batch: WG1070931-1										
Arsenic, Total	ND		mg/l	0.00050	0.00016	1	12/09/17 11:45	12/12/17 11:39	1,6020A	AM
Barium, Total	ND		mg/l	0.00050	0.00017	1	12/09/17 11:45	12/12/17 11:39	1,6020A	AM
Beryllium, Total	ND		mg/l	0.00050	0.00010	1	12/09/17 11:45	12/12/17 11:39	1,6020A	AM
Cadmium, Total	ND		mg/l	0.00020	0.00005	1	12/09/17 11:45	12/12/17 11:39	1,6020A	AM
Chromium, Total	ND		mg/l	0.00100	0.00017	1	12/09/17 11:45	12/12/17 11:39	1,6020A	AM
Copper, Total	ND		mg/l	0.00100	0.00038	1	12/09/17 11:45	12/12/17 11:39	1,6020A	AM
Lead, Total	ND		mg/l	0.00100	0.00034	1	12/09/17 11:45	12/12/17 11:39	1,6020A	AM
Manganese, Total	ND		mg/l	0.00100	0.00044	1	12/09/17 11:45	12/12/17 11:39	1,6020A	AM
Nickel, Total	ND		mg/l	0.00200	0.00055	1	12/09/17 11:45	12/12/17 11:39	1,6020A	AM
Selenium, Total	ND		mg/l	0.00500	0.00173	1	12/09/17 11:45	12/12/17 11:39	1,6020A	AM
Silver, Total	ND		mg/l	0.00040	0.00016	1	12/09/17 11:45	12/12/17 11:39	1,6020A	AM
Zinc, Total	ND		mg/l	0.01000	0.00341	1	12/09/17 11:45	12/12/17 11:39	1,6020A	AM

Prep Information

Digestion Method: EPA 3005A

Lab Control Sample Analysis

Batch Quality Control

Project Name: LAKEFRONT BOULEVARD

Project Number: E67.022.001

Lab Number: L1744782

Report Date: 12/15/17

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Total Metals - Mansfield Lab Associated sample(s): 01-02 Batch: WG1070615-2								
Mercury, Total	98		-		80-120	-		
Total Metals - Mansfield Lab Associated sample(s): 01-02 Batch: WG1070931-2								
Arsenic, Total	99		-		80-120	-		
Barium, Total	102		-		80-120	-		
Beryllium, Total	96		-		80-120	-		
Cadmium, Total	98		-		80-120	-		
Chromium, Total	101		-		80-120	-		
Copper, Total	100		-		80-120	-		
Lead, Total	110		-		80-120	-		
Manganese, Total	104		-		80-120	-		
Nickel, Total	98		-		80-120	-		
Selenium, Total	105		-		80-120	-		
Silver, Total	103		-		80-120	-		
Zinc, Total	99		-		80-120	-		

Matrix Spike Analysis
Batch Quality Control

Project Name: LAKEFRONT BOULEVARD
Project Number: E67.022.001

Lab Number: L1744782
Report Date: 12/15/17

Parameter	Native Sample	MS Added	MS Found	MS %Recovery	Qual	MSD Found	MSD %Recovery	Qual	Recovery Limits	RPD	Qual	RPD Limits
Total Metals - Mansfield Lab Associated sample(s): 01-02 QC Batch ID: WG1070615-3 WG1070615-4 QC Sample: L1744644-03 Client ID: MS Sample												
Mercury, Total	ND	0.005	0.00550	110		0.00426	85		75-125	**25**	Q	20
Total Metals - Mansfield Lab Associated sample(s): 01-02 QC Batch ID: WG1070931-3 WG1070931-4 QC Sample: L1744944-02 Client ID: MS Sample												
Arsenic, Total	0.00258	0.12	0.1283	105		0.1278	104		75-125	0		20
Barium, Total	0.1351	2	2.203	103		2.190	103		75-125	1		20
Beryllium, Total	ND	0.05	0.04982	100		0.04897	98		75-125	2		20
Cadmium, Total	0.00036	0.051	0.05300	103		0.05229	102		75-125	1		20
Chromium, Total	0.01449	0.2	0.2171	101		0.2147	100		75-125	1		20
Copper, Total	0.00220	0.25	0.2590	103		0.2596	103		75-125	0		20
Lead, Total	ND	0.51	0.5717	112		0.5604	110		75-125	2		20
Manganese, Total	0.01476	0.5	0.5271	102		0.5289	103		75-125	0		20
Nickel, Total	0.00486	0.5	0.5153	102		0.5068	100		75-125	2		20
Selenium, Total	0.00223J	0.12	0.131	109		0.131	109		75-125	0		20
Silver, Total	ND	0.05	0.05062	101		0.04995	100		75-125	1		20
Zinc, Total	0.06976	0.5	0.5778	102		0.5711	100		75-125	1		20

INORGANICS
&
MISCELLANEOUS

Project Name: LAKEFRONT BOULEVARD
Project Number: E67.022.001

Lab Number: L1744782
Report Date: 12/15/17

SAMPLE RESULTS

Lab ID: L1744782-01
Client ID: MW-2
Sample Location: 240-260 LAKEFRONT BLVD.
Matrix: Water

Date Collected: 12/06/17 10:50
Date Received: 12/06/17
Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Westborough Lab										
Cyanide, Total	ND		mg/l	0.005	0.001	1	12/07/17 12:55	12/07/17 15:47	1,9010C/9012B	LH
Chromium, Hexavalent	ND		mg/l	0.010	0.003	1	12/07/17 06:00	12/07/17 06:31	1,7196A	UN

Project Name: LAKEFRONT BOULEVARD
Project Number: E67.022.001

Lab Number: L1744782
Report Date: 12/15/17

SAMPLE RESULTS

Lab ID: L1744782-02
Client ID: MW-3
Sample Location: 240-260 LAKEFRONT BLVD.
Matrix: Water

Date Collected: 12/06/17 11:45
Date Received: 12/06/17
Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Westborough Lab										
Cyanide, Total	0.008		mg/l	0.005	0.001	1	12/07/17 12:55	12/07/17 16:05	1,9010C/9012B	LH
Chromium, Hexavalent	0.003	J	mg/l	0.010	0.003	1	12/07/17 06:00	12/07/17 06:31	1,7196A	UN

Project Name: LAKEFRONT BOULEVARD
Project Number: E67.022.001
Lab Number: L1744782
Report Date: 12/15/17

Method Blank Analysis
Batch Quality Control

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Westborough Lab for sample(s): 01-02 Batch: WG1069940-1										
Chromium, Hexavalent	ND		mg/l	0.010	0.003	1	12/07/17 06:00	12/07/17 06:27	1,7196A	UN
General Chemistry - Westborough Lab for sample(s): 01-02 Batch: WG1070119-1										
Cyanide, Total	ND		mg/l	0.005	0.001	1	12/07/17 12:55	12/07/17 15:31	1,9010C/9012B	LH

Lab Control Sample Analysis

Batch Quality Control

Project Name: LAKEFRONT BOULEVARD

Project Number: E67.022.001

Lab Number: L1744782

Report Date: 12/15/17

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
General Chemistry - Westborough Lab Associated sample(s): 01-02 Batch: WG1069940-2								
Chromium, Hexavalent	94		-		85-115	-		20
General Chemistry - Westborough Lab Associated sample(s): 01-02 Batch: WG1070119-2 WG1070119-3								
Cyanide, Total	111		109		85-115	2		20

Matrix Spike Analysis
Batch Quality Control

Project Name: LAKEFRONT BOULEVARD
Project Number: E67.022.001

Lab Number: L1744782
Report Date: 12/15/17

Parameter	Native Sample	MS Added	MS Found	MS %Recovery	Qual	MSD Found	MSD %Recovery	Qual	Recovery Limits	RPD	Qual	RPD Limits
General Chemistry - Westborough Lab Associated sample(s): 01-02 QC Batch ID: WG1069940-4 QC Sample: L1744782-01 Client ID: MW-2												
Chromium, Hexavalent	ND	0.1	0.095	95		-	-		85-115	-		20
General Chemistry - Westborough Lab Associated sample(s): 01-02 QC Batch ID: WG1070119-4 WG1070119-5 QC Sample: L1744944-02 Client ID: MS Sample												
Cyanide, Total	ND	0.2	0.178	89		0.174	87		80-120	2		20

Lab Duplicate Analysis
Batch Quality Control

Project Name: LAKEFRONT BOULEVARD
Project Number: E67.022.001

Lab Number: L1744782
Report Date: 12/15/17

Parameter	Native Sample	Duplicate Sample	Units	RPD	Qual	RPD Limits
General Chemistry - Westborough Lab Associated sample(s): 01-02 QC Batch ID: WG1069940-3 QC Sample: L1744782-01 Client ID: MW-2						
Chromium, Hexavalent	ND	ND	mg/l	NC		20

Project Name: LAKEFRONT BOULEVARD
Project Number: E67.022.001

Lab Number: L1744782
Report Date: 12/15/17

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(*)
L1744782-01A	Vial HCl preserved	A	NA		3.0	Y	Absent		NYTCL-8260-R2(14)
L1744782-01B	Vial HCl preserved	A	NA		3.0	Y	Absent		NYTCL-8260-R2(14)
L1744782-01C	Vial HCl preserved	A	NA		3.0	Y	Absent		NYTCL-8260-R2(14)
L1744782-01D	Plastic 250ml unpreserved	A	7	7	3.0	Y	Absent		HEXCR-7196(1)
L1744782-01E	Plastic 250ml NaOH preserved	A	>12	>12	3.0	Y	Absent		TCN-9010(14)
L1744782-01F	Plastic 250ml HNO3 preserved	A	<2	<2	3.0	Y	Absent		BA-6020T(180),SE-6020T(180),CR-6020T(180),NI-6020T(180),CU-6020T(180),ZN-6020T(180),PB-6020T(180),BE-6020T(180),MN-6020T(180),AS-6020T(180),AG-6020T(180),CD-6020T(180),HG-T(28)
L1744782-01G	Amber 500ml unpreserved	A	7	7	3.0	Y	Absent		NYTCL-8081(7)
L1744782-01H	Amber 500ml unpreserved	A	7	7	3.0	Y	Absent		NYTCL-8081(7)
L1744782-01I	Amber 1000ml unpreserved	A	7	7	3.0	Y	Absent		NYTCL-8270(7),NYTCL-8270-SIM(7)
L1744782-01J	Amber 1000ml unpreserved	A	7	7	3.0	Y	Absent		NYTCL-8270(7),NYTCL-8270-SIM(7)
L1744782-01K	Amber 1000ml unpreserved	A	7	7	3.0	Y	Absent		NYTCL-8082-1200ML(7)
L1744782-01L	Amber 1000ml unpreserved	A	7	7	3.0	Y	Absent		NYTCL-8082-1200ML(7)
L1744782-02A	Vial HCl preserved	A	NA		3.0	Y	Absent		NYTCL-8260-R2(14)
L1744782-02B	Vial HCl preserved	A	NA		3.0	Y	Absent		NYTCL-8260-R2(14)
L1744782-02C	Vial HCl preserved	A	NA		3.0	Y	Absent		NYTCL-8260-R2(14)
L1744782-02D	Plastic 250ml unpreserved	A	11	11	3.0	Y	Absent		HEXCR-7196(1)
L1744782-02E	Plastic 250ml NaOH preserved	A	>12	>12	3.0	Y	Absent		TCN-9010(14)
L1744782-02F	Plastic 250ml HNO3 preserved	A	<2	<2	3.0	Y	Absent		BA-6020T(180),SE-6020T(180),CR-6020T(180),NI-6020T(180),CU-6020T(180),ZN-6020T(180),PB-6020T(180),BE-6020T(180),MN-6020T(180),AS-6020T(180),AG-6020T(180),CD-6020T(180),HG-T(28)

*Values in parentheses indicate holding time in days

Project Name: LAKEFRONT BOULEVARD
Project Number: E67.022.001

Lab Number: L1744782
Report Date: 12/15/17

Container Information

Container ID	Container Type	Cooler	Initial pH	Final pH	Temp deg C	Pres	Seal	Frozen Date/Time	Analysis(*)
L1744782-02G	Amber 500ml unpreserved	A	11	11	3.0	Y	Absent		NYTCL-8081(7)
L1744782-02H	Amber 500ml unpreserved	A	11	11	3.0	Y	Absent		NYTCL-8081(7)
L1744782-02I	Amber 1000ml unpreserved	A	11	11	3.0	Y	Absent		NYTCL-8270(7),NYTCL-8270-SIM(7)
L1744782-02J	Amber 1000ml unpreserved	A	11	11	3.0	Y	Absent		NYTCL-8270(7),NYTCL-8270-SIM(7)
L1744782-02K	Amber 1000ml unpreserved	A	11	11	3.0	Y	Absent		NYTCL-8082-1200ML(7)
L1744782-02L	Amber 1000ml unpreserved	A	11	11	3.0	Y	Absent		NYTCL-8082-1200ML(7)
L1744782-03A	Vial HCl preserved	A	NA		3.0	Y	Absent		NYTCL-8260-R2(14)
L1744782-03B	Vial HCl preserved	A	NA		3.0	Y	Absent		NYTCL-8260-R2(14)
L1744782-03C	Vial HCl preserved	A	NA		3.0	Y	Absent		NYTCL-8260-R2(14)
L1744782-04A	Vial HCl preserved	A	NA		3.0	Y	Absent		ARCHIVE()
L1744782-04B	Vial HCl preserved	A	NA		3.0	Y	Absent		ARCHIVE()

*Values in parentheses indicate holding time in days

Project Name:	LAKEFRONT BOULEVARD	**Lab Number:**	L1744782
Project Number:	E67.022.001	**Report Date:**	12/15/17

GLOSSARY

Acronyms

EDL	- Estimated Detection Limit: This value represents the level to which target analyte concentrations are reported as estimated values, when those target analyte concentrations are quantified below the reporting limit (RL). The EDL includes any adjustments from dilutions, concentrations or moisture content, where applicable. The use of EDLs is specific to the analysis of PAHs using Solid-Phase Microextraction (SPME).
EPA	- Environmental Protection Agency.
LCS	- Laboratory Control Sample: A sample matrix, free from the analytes of interest, spiked with verified known amounts of analytes or a material containing known and verified amounts of analytes.
LCSD	- Laboratory Control Sample Duplicate: Refer to LCS.
LFB	- Laboratory Fortified Blank: A sample matrix, free from the analytes of interest, spiked with verified known amounts of analytes or a material containing known and verified amounts of analytes.
MDL	- Method Detection Limit: This value represents the level to which target analyte concentrations are reported as estimated values, when those target analyte concentrations are quantified below the reporting limit (RL). The MDL includes any adjustments from dilutions, concentrations or moisture content, where applicable.
MS	- Matrix Spike Sample: A sample prepared by adding a known mass of target analyte to a specified amount of matrix sample for which an independent estimate of target analyte concentration is available.
MSD	- Matrix Spike Sample Duplicate: Refer to MS.
NA	- Not Applicable.
NC	- Not Calculated: Term is utilized when one or more of the results utilized in the calculation are non-detect at the parameter's reporting unit.
NDPA/DPA	- N-Nitrosodiphenylamine/Diphenylamine.
NI	- Not Ignitable.
NP	- Non-Plastic: Term is utilized for the analysis of Atterberg Limits in soil.
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.
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.

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.

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.

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 Condensation Product".
B	- The analyte was detected above the reporting limit in the associated method blank. Flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank. For MCP-related

Report Format: DU Report with 'J' Qualifiers

Project Name:	LAKEFRONT BOULEVARD	**Lab Number:**	L1744782
Project Number:	E67.022.001	**Report Date:**	12/15/17

Data Qualifiers

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.

G - The concentration may be biased high due to matrix interferences (i.e, co-elution) with non-target compound(s). The result should be considered estimated.

H - The analysis of pH was performed beyond the regulatory-required holding time of 15 minutes from the time of sample collection.

I - The lower value for the two columns has been reported due to obvious interference.

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

NJ - Presumptive evidence of compound. This represents an estimated concentration for Tentatively Identified Compounds (TICs), where the identification is based on a mass spectral library search.

P - The RPD between the results for the two columns exceeds the method-specified criteria.

Q - The quality control sample exceeds the associated acceptance criteria. For DOD-related projects, LCS and/or Continuing Calibration Standard exceedences are also qualified on all associated sample results. Note: This flag is not applicable for matrix spike recoveries when the sample concentration is greater than 4x the spike added or for batch duplicate RPD when the sample concentrations are less than 5x the RL. (Metals only.)

R - Analytical results are from sample re-analysis.

RE - Analytical results are from sample re-extraction.

S - Analytical results are from modified screening analysis.

J - Estimated value. The Target analyte concentration is below the quantitation limit (RL), but above the Method Detection Limit (MDL) or Estimated Detection Limit (EDL) for SPME-related analyses. This represents an estimated concentration for Tentatively Identified Compounds (TICs).

ND - Not detected at the method detection limit (MDL) for the sample, or estimated detection limit (EDL) for SPME-related analyses.

Report Format: DU Report with 'J' Qualifiers

Project Name:	LAKEFRONT BOULEVARD	**Lab Number:**	L1744782
Project Number:	E67.022.001	**Report Date:**	12/15/17

REFERENCES

1 Test Methods for Evaluating Solid Waste: Physical/Chemical Methods. EPA SW-846. Third Edition. Updates I - IV, 2007.

107 Alpha Analytical - In-house calculation method.

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: m/p-xylene, o-xylene
EPA 8260C: NPW: 1,2,4,5-Tetramethylbenzene; 4-Ethyltoluene, Azobenzene; SCM: Iodomethane (methyl iodide), Methyl methacrylate, 1,2,4,5-Tetramethylbenzene; 4-Ethyltoluene.
EPA 8270D: NPW: Dimethylnaphthalene,1,4-Diphenylhydrazine; SCM: Dimethylnaphthalene,1,4-Diphenylhydrazine.
EPA 300: DW: Bromide
EPA 6860: NPW and SCM: Perchlorate
EPA 9010: NPW and SCM: Amenable Cyanide Distillation
EPA 9012B: NPW: Total Cyanide
EPA 9050A: NPW: Specific Conductance
SM3500: NPW: Ferrous Iron
SM4500: NPW: Amenable Cyanide, Dissolved Oxygen; SCM: Total Phosphorus, TKN, NO2, NO3.
SM5310C: DW: Dissolved Organic Carbon

Mansfield Facility
SM 2540D: TSS
EPA 3005A NPW
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: 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**
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, **EPA 350.1**: Ammonia-N, **LACHAT 10-107-06-1-B**: Ammonia-N, **SM4500NO3-F, EPA 353.2**: Nitrate-N**, EPA 351.1, 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 624: Volatile Halocarbons & Aromatics,
EPA 608: Chlordane, Toxaphene, Aldrin, alpha-BHC, beta-BHC, gamma-BHC, delta-BHC, Dieldrin, DDD, DDE, DDT, Endosulfan I, Endosulfan II, Endosulfan sulfate, Endrin, Endrin Aldehyde, Heptachlor, Heptachlor Epoxide, PCBs
EPA 625: SVOC (Acid/Base/Neutral Extractables), **EPA 600/4-81-045**: PCB-Oil.
Microbiology: **SM9223B-Colilert-QT; Enterolert-QT, SM9221E.**

Mansfield Facility:

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

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, Pb, Mn, Ni, Se, Ag, TL, Zn.
EPA 245.1 Hg.
SM2340B

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

NEW YORK CHAIN OF CUSTODY

ALPHA ANALYTICAL

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Mansfield, MA 02048 — 320 Forbes Blvd — TEL: 508-822-9300 — FAX: 508-822-3288

Service Centers
Mahwah, NJ 07430: 35 Whitney Rd, Suite 5
Albany, NY 12205: 14 Walker Way
Tonawanda, NY 14150: 275 Cooper Ave, Suite 105

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Date Rec'd in Lab: 12/7/17

ALPHA Job #: L1744782

Client Information
Client: C&S Engineers, Inc.
Address: 141 Elm Street Buffalo, NY 14203
Phone: (716)847-1630
Fax: (716)847-1454
Email: cmartin@CSCOS.com

Project Information
Project Name: Lakefront Boulevard
Project Location: 240-260 Lakefront Blvd
Project #: E67.022.001
(Use Project name as Project #) ☐
Project Manager: Cody Martin
ALPHAQuote #: (253487 Bottle order #)

Turn-Around Time
Standard ☐ Due Date:
Rush (only if pre approved) ☐ # of Days:

Deliverables
☐ ASP-A ☒ ASP-B
☐ EQuIS (1 File) ☐ EQuIS (4 File)
☐ Other

Billing Information
☒ Same as Client Info
PO #

Regulatory Requirement
☒ NY TOGS ☒ NY Part 375
☐ AWQ Standards ☐ NY CP-51
☐ NY Restricted Use ☐ Other
☐ NY Unrestricted Use
☐ NYC Sewer Discharge

Disposal Site Information
Please identify below location of applicable disposal facilities.
Disposal Facility:
☐ NJ ☒ NY
☐ Other:

These samples have been previously analyzed by Alpha ☐

Other project specific requirements/comments:

Please specify Metals or TAL.

ANALYSIS

Sample Filtration
☐ Done
☐ Lab to do
Preservation
☐ Lab to do
(Please Specify below)

ALPHA Lab ID (Lab Use Only)	Sample ID	Collection Date	Collection Time	Sample Matrix	Sampler's Initials	NY TCL-8081	NY TCL-8270	NYTCL-8082	Hex Chrom	Part 375 metals	TCN	NY TCL-8260	Sample Specific Comments	Total Bottle
L1744782-01	MW-2	12/6/17	10:50	GW	AS	X	X	X	X	X	X	X		12
-02	MW-3	12/6/17	11:45	GW	AS	X	X	X	X	X	X	X		12
-03	MW-1	12/6/17	12:39	GW	AS							X		3
Container Type						A	A	A	P	P	P	V		
Preservative						A	A	A	A	C	E	B		

Preservative Code:
A = None
B = HCl
C = HNO_3
D = H_2SO_4
E = NaOH
F = MeOH
G = $NaHSO_4$
H = $Na_2S_2O_3$
K/E = Zn Ac/NaOH
O = Other

Container Code
P = Plastic
A = Amber Glass
V = Vial
G = Glass
B = Bacteria Cup
C = Cube
O = Other
E = Encore
D = BOD Bottle

Westboro: Certification No: MA935
Mansfield: Certification No: MA015

Relinquished By:	Date/Time	Received By:	Date/Time
[signature]	12/6 2:39 pm	[signature] ADL	12/6/17 14:39
[signature] ADL	12/6/17 14:39	[signature]	12/7/17 0225

Please print clearly, legibly and completely. Samples can not be logged in and turnaround time clock will not start until any ambiguities are resolved. BY EXECUTING THIS COC, THE CLIENT HAS READ AND AGREES TO BE BOUND BY ALPHA'S TERMS & CONDITIONS. (See reverse side.)

Form No: 01-25 HC (rev. 30-Sept-2013)