

Ltd. Phase II Environmental Site Investigation Report

*1 Howell Street Site
Buffalo, New York*

March 2022

0258-022-002

Prepared For:

Howell Street Venture, LLC



Prepared By:



LIMITED PHASE II ENVIRONMENTAL INVESTIGATION REPORT

1 Howell Street Site
Buffalo, New York

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Prepared by:



TurnKey Environmental Restoration, LLC
2558 Hamburg Turnpike, Suite 300
Buffalo, New York 14218

LTD. PHASE II ENVIRONMENTAL INVESTIGATION REPORT

1 Howell Street Site
Buffalo, New York

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LTD. PHASE II ENVIRONMENTAL INVESTIGATION REPORT

1 Howell Street Site Buffalo, New York

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1.0 INTRODUCTION

1.1 Background and Site Description

TurnKey Environmental Restoration, LLC (TurnKey) completed a Limited Phase II Environmental Investigation for Howell Street Venture, LLC at the property addressed at 1 Howell Street, City of Buffalo, Erie County, New York (Site; see Figure 1).

The Site consists of a single 0.73-acre tax parcel (SBL No. 88.36-2-6), addressed at 1 Howell Street, Buffalo, New York (see Figures 1 and 2). The Site is located in a highly developed mixed use residential and commercial area of the City of Buffalo and is currently vacant. The Site includes the existing building, asphalt and gravel covered parking areas, and grass covered areas.

The Site was used as a robe manufacturing facility including dye house operations and has a history of petroleum storage and distribution as early as 1915. Historic records indicate robe production including animal hide robe manufacturing. A petroleum service station was located on-Site in the early 1930s, and petroleum terminal bulk storage and distribution operated on-Site from the late 1930s through the 1970s. Multiple commercial operations including window and door repair and manufacturing, roofing contractor, and construction operations have occupied the site.

A portion of the Site, and surrounding off-Site areas, were previously remediated under NYS Spill No. 9507939. NYSDEC Spill documents indicate that gross petroleum contaminated soils remain around the existing building, and in select areas along the property boundary. Records indicated the presence of remaining gross contamination along the property boundary in several locations, as well as surrounding and beneath the existing building.

Additionally, remedial measures were completed related to elevated polychlorinated biphenyls (PCBs) in sludges that were improperly handled from on-Site aboveground storage tank (AST) removal in accordance with the Resource Conservation and Recovery Act (RCRA) listing 915173.

The recognized environmental conditions (RECs) identified for the Site included the following:

- Historic operations including robe manufacturing with dye house operations, petroleum bulk storage and distribution, window manufacturing, and other commercial

operations. Multiple underground storage tanks (USTs) and aboveground storage tanks (ASTs) were once present on Site, including distribution piping.

- Historic records indicate potential tanks beneath a portion of the building – removal records are not available. Records also indicate subgrade petroleum piping assumed to exist below the southern, eastern, and northern portions of the building.
- NYSDEC Spill No. 950939 indicates grossly contaminated petroleum soils (GCPS) remain on Site post-Spill closure activities. Gross contamination is present along the Site boundary in two (2) locations, including Howell Street, post-Spill closure.
- PCB contamination associated with former AST sludge removal (915173) completed in 2001.

The purpose of this investigation was to further assess RECs identified for the Site, including residual GCPS identified in NYSDEC records.

2.0 SITE INVESTIGATION ACTIVITIES

2.1 Subsurface Investigation

On February 15, 2022, TurnKey mobilized an excavator to the Site to complete test pits and assess the subsurface conditions. Eleven (11) test pits, identified as TP-1 through TP-11 were completed on-Site (see Figure 2). TPs ranged in depth from 4 to 8 feet below ground surface (fbgs).

TurnKey field staff inspected the test pits and excavated spoils for field characterization of the subsurface, screening of the soil/fill using a photoionization detector (PID) and documenting visual and/or olfactory observations. Details of the field findings are provided on Table 1. Findings of the investigation are described in Section 3.

Based on the field evidence, including the presence of Grossly Contaminated Petroleum Soils (GCPS), the NYS Spill hotline was notified, and Spill No. 2109702 was assigned to the Site.

2.2 Laboratory Analysis

A total of six (6) TP locations were selected for laboratory analysis based on the field findings of investigation. Certain soil samples were analyzed for NYSDEC CP-51 List volatile organic compounds (VOCs) and polycyclic aromatic hydrocarbons (PAHs), and Resource Conservation and Recovery Act (RCRA) list metals. Laboratory analytical results are presented below.

3.0 INVESTIGATION FINDINGS

3.1 Qualitative Soil Screening

GCPS was identified in all 11 TP locations, including stained black soils, strong odors, elevated PID readings as high as 400 ppm, product in soils, and product sheen on water in the TP(s).

The overburden material observed during the investigation is generally described as fill materials overlying sand and clay to at least eight (8) fbgs. Fill materials consisted of ash, cinders/black fines, brick and glass fragments, sand, gravel, and household debris (e.g., glass, metal, roofing, siding, wood etc). Fill was encountered across the Site at all TP locations at depths up to 5-8 fbgs. It should be noted that petroleum impacts were identified in the apparent backfill material. Elevated PID readings from the TPs ranged from 200-400 ppm, with the highest readings found at TP-6 and TP-7.

Assumed native clays were identified beneath the fill unit, and showed evidence of black staining, suspected product, and odors. Details of the investigation are provided on Table 1 and on the attached photolog (Appendix A).

3.2 Soil Analytical Results

Laboratory analytical results are summarized on Table 2 with comparison to applicable 6NYCRR Part 375 Soil Cleanup Objectives (SCOs). The laboratory report is provided in Appendix B.

Elevated VOCs, including benzene, ethylbenzene, toluene, and xylene (BTEX compounds) were detected exceeding their CP-51 Soil Cleanup Levels, and associated Part 375 Unrestricted SCOs (USCOs). Elevated chlorinated VOCs, including tetrachloroethene (PCE), trichloroethene (TCE), cis-1,2-dichloroethene (DCE), and vinyl chloride (VC) were detected exceeding their Protection of Water SCO (PWSCO), and Restricted Residential Use SCOs (RRSCOs).

Elevated PAHs were detected exceeding their Industrial Use SCOs (ISCOs), RRSCOs, and USCOs, selectively.

Elevated metals, including arsenic and lead were detected exceeding their ISCO and RRSCO, respectively.

4.0 CONCLUSIONS AND RECOMMENDATIONS

Based on the results of the Ltd. Phase II investigation at the Site, TurnKey offers the following conclusions and recommendations:

- Grossly Contaminated Petroleum Soils (GCPS) were identified at all 11 TP locations surrounding the building. Visual, olfactory, and elevated PID readings as high as 400 ppm were detected.
- Based on the field evidence NYSDEC Spill 2109702 was issued for the Site.
- Elevated PAHs exceeding RRSCOs and ISCOs were detected.
- Elevated metals, arsenic and lead, were detected above ISCOs and RRSCOs respectively.
- Based on the findings of this investigation, additional Site investigation and remediation would be required to address the Spill and associated elevated fill materials prior to Site redevelopment. We understand that Howell Street Venture, LLC, or related entity, is considering redeveloping the property for residential use, and based on the environmental impacts noted above, the Site may be eligible for the NYS Brownfield Cleanup Program.

5.0 LIMITATIONS

This report has been prepared for the exclusive use of Howell Street Venture, LLC. The contents of this report are limited to information available at the time of the Site investigation activities and to data referenced herein and assume all referenced historic information sources to be true and accurate. The findings herein may be relied upon only at the discretion of Howell Street Venture, LLC. Use of or reliance on this report or its findings by any other person or entity is prohibited without written permission of TurnKey Environmental Restoration, LLC.

TABLES



TABLE 1
SUMMARY OF SUBSURFACE FIELD OBSERVATIONS
LIMITED PHASE II ENVIRONMENTAL INVESTIGATION
1 HOWELL STREET SITE
BUFFALO, NEW YORK

Location	Date	Urban Fill Present	Odors	Water Present	Depth of Test Pit (fbgs)	Length of Test Pits (ft)	Test Pit Width (ft)	PID Measurements	Sample Depth (ft)	Depth (fbgs) and Soil Description
TP-1	02/15/22	Yes	Yes	Yes	6	7	3	0 ppm		0-2 ft: Gray, crusher run limestone (parking lot subbase)
								150-200 ppm		2-3 ft: Black, ashy fill, oily residue, strong odor.
								150-200 ppm	3-4 ft	3-6 ft: Red/brown lean, sandy clay. Black staining, strong odor, oil like residue.
TP-2	02/15/22	Yes	Yes	Yes	7	6	3	0 ppm		0-1 ft: Gray, crusher run limestone (parking lot subbase)
								50-150 ppm		1-3 ft: Black, gravelly fill. Cinders/ash strewn throughout. Oil like residue coating fill. Definite odor and staining.
								10-20 ppm		3-7 ft: Red/brown lean, sandy clay. Black staining evident in the 3-4 ft range. Strong odor. All of the noted observations of fill come from the north side of the test pit (building side). South side of test pit wall consists of crusher run limestone backfill.
TP-3	02/15/22	Yes	Yes	Yes	8	15	3	0 ppm		0-1 ft: Gray, crusher run limestone (parking lot subbase)
								150-200 ppm	1-2 ft	1-2 ft: Black, gravelly fill mixed with sandy clay. Strong odor.
								50-100 ppm		2-4 ft: Red/brown lean, sandy clay. Moist, strong odors, black staining.
TP-4	2/15/2022	Yes	Yes	No	7	6	3	50 ppm		4-8 ft: Red/ brown lean, sandy clay. Less impacted than above, impacts decrease with increasing depth.
								0 ppm		0-1 ft: Gray, crusher run limestone (parking lot subbase)
								20 ppm		1-1.5 ft: Black, gravelly fill with ash strewn throughout. Some sand, slight odor, staining.
TP-5	02/15/22	Yes	Yes	Yes	6	8	3	20 ppm		1.5-2 ft: Gray, ashy fill. Cinders strewn throughout.
								50 ppm		2-7 ft: Red/brown clay. Mild staining/odor. PID signature from 2-3 ft range.
								100-200 ppm		2-2.5 ft: Red/brown clay. Slight odor, black staining.
TP-5	02/15/22	Yes	Yes	Yes	6	8	3	0 ppm		0-2 ft: Brown, gravelly soil below grass. Fabric encountered at 2 ft.
								50 ppm		2-2.5 ft: Red/brown clay. Slight odor, black staining.
								100-200 ppm		2-6 ft: Black stained gravel with silt and sand strewn throughout. Contains wood, ash, cinders. Clay encountered at appx. 6 fbgs. Strong odor, black staining, oil like residue coating all gravel fill. Black sheen develops atop groundwater from gravel unit.



TABLE 1
SUMMARY OF SUBSURFACE FIELD OBSERVATIONS
LIMITED PHASE II ENVIRONMENTAL INVESTIGATION
1 HOWELL STREET SITE
BUFFALO, NEW YORK

Location	Date	Urban Fill Present	Odors	Water Present	Depth of Test Pit (fbgs)	Length of Test Pits (ft)	Test Pit Width (ft)	PID Measurements	Sample Depth (ft)	Depth (fbgs) and Soil Description
TP-6	02/15/22	Yes	Yes	No	8	8	3	0 ppm		0-1 ft: Brown, gravelly soil below grass.
								150 ppm		1-3 ft: Red/brown ashy fill. Evidence of cinders, some slag, gravel strewn throughout. Oil like residue seeping from western sidewall (building side).
								320 ppm	3-4 ft	3-4 ft: Black stained fill. Oil like residue coating material. Oil like liquid seeping from west side of test pit (building side). Strong odors and evidence of gross contamination.
								50 ppm		4-8 ft: Red/brown clay. Highly impacted (staining/odor) in shallower range. Impacts decrease with depth.
TP-7	02/15/22	Yes	Yes	No	5	8	3	0 ppm		0-0.5 ft: Brown, gravelly soil below grass.
								0 ppm		0.5-1 ft: Gray/brown sandy silt. Some clay.
								250-300 ppm		1-3 ft: Red/brown clay. Wood, brick, gravel strewn throughout. Black staining, odor.
								400 ppm	3-5 ft	3-5 ft: Black, oily gravel followed immediately by heavily impacted clay (black staining, strong odor) Impacts decrease with depth. High PID signature in 3-4 ft range.
TP-8	02/15/22	Yes	Yes	Yes	4	6	3	0 ppm		0-1 ft: Brown, gravelly soil below grass.
								50 ppm		1-3 ft: Black stained gravelly fill, strong odor. Immediate groundwater intrusion at appx. 2 fbgs.
								150 ppm	3-4 ft	3-4 ft: Black stained clay, strong odor. Above noted water develops black sheen due to the impacted fill.
TP-9	02/15/22	Yes	Yes	No	6	6	3	0 ppm		0-0.5 ft: Brown, gravelly soil
								20 ppm		0.5-1.5 ft: Red/brown clay with fill material strewn throughout.
								50-100 ppm		1.5-3 ft: Gravelly fill with sand, wood, brick strewn throughout. Oil like residue coating material, strong odor.
								50 ppm		3-6 ft: Red/brown clay. Black staining evident in the 3-4 ft range. Impacts decrease with depth.
TP-10	02/15/22	Yes	Yes	Yes	5	6	3	0 ppm		0-1 ft: Gray/brown gravelly soil.
								150 ppm	1-3 ft	1-3 ft: Red/brown clay on eastern side of TP. Black stained fill on west, oil like residue (Photo).
								30-50 ppm		3-5 ft: Gray/brown clay. Some black staining.
TP-11	02/15/22	Yes	Yes	Yes	5	6	3	0 ppm		0-1 ft: Gray/brown gravelly soil.
								150 ppm		1-3 ft: Red/brown sandy soil. Some gravel. Thin unit of oil impacted fill at 3 fbgs.
								100 ppm		3-5 ft: Red/brown clay. Black staining and strong odors. Groundwater developing black sheen from above impacts.

Notes:

- Urban Fill: varying combinations of concrete, orange brick, and cinders.
- Ground surface elevation data based on survey information by Millard, MacKay & Delles Land Surveyors, LLP dated 2/20/20 utilizing GPS datum: NAD83 (2011) Epoch 2010.0 datum.

Definitions:

fbgs = feet below ground surface
 PID = photoionization detector
 ppm = parts per million
 DTW = Depth to water.
 N/A = Non applicable



TABLE 2
SUMMARY OF SUBSURFACE SOIL-FILL ANALYTICAL RESULTS
LIMITED PHASE II ENVIRONMENTAL INVESTIGATION
1 HOWELL STREET SITE
BUFFALO, NEW YORK

Parameter ¹	Unrestricted Use SCOs ²	Protection of GW SCOs ²	Restricted- Residential Use SCOs ²	Commerical Use SCOs ²	Industrial Use SCOs ²	Sample Location					
						TP-1 (3-4')	TP-3 (1-2')	TP-6 (3-4')	TP-7 (3-5')	TP-8 (3-4')	TP-10 (1-3')
						2/15/2022	2/15/2022	2/15/2022	2/15/2022	2/15/2022	2/15/2022
Volatile Organic Compounds (VOCs) - mg/kg ³											
Benzene	0.06	--	4.8	44	89	ND	ND	ND	ND	0.810	0.130 J
cis-1,2-Dichloroethene	0.25	0.25	100	500	1,000	ND	ND	56	ND	ND	ND
Cyclohexane	--	--	--	--	--	ND	ND	1.0 J	ND	ND	2.3
Isopropylbenzene (Cumene)	100	--	100	100	100	ND	ND	2.8	0.620 J	ND	0.150 J
Tetrachloroethene	1.3	1.3	19	150	300	ND	ND	27	ND	ND	ND
Trichloroethene	0.47	0.47	21	200	400	ND	ND	2	ND	ND	ND
Vinyl chloride	0.02	0.02	0.9	13	27	ND	ND	9.8	ND	ND	ND
Total Xylene	0.26	--	100	500	1,000	ND	ND	12	ND	ND	0.800 J
Toluene	0.7	--	100	500	1,000	ND	ND	6.2	ND	ND	ND
Ethylbenzene	1	--	41	390	780	ND	ND	6.8	ND	ND	ND
Semi-Volatile Organic Compounds (SVOCs) - mg/kg ³											
Acenaphthene	20	--	100	500	1,000	0.39	0.500 J	0.190 J	0.28	0.960 J	0.520 J
Acenaphthylene	100	--	100	500	1,000	0.35	0.540 J	ND	ND	ND	0.290 J
Anthracene	100	--	100	500	1,000	0.46	1.1	0.170 J	0.29	0.650 J	0.810 J
Benzo(a)anthracene	1	--	1	5.6	11	1.10	3.30	0.30	0.49	0.710 J	2.3
Benzo(a)pyrene	1	--	1	1	1.1	1.10	3.10	0.25	0.51	0.470 J	2.4
Benzo(b)fluoranthene	1	--	1	5.6	11	1.30	3.90	0.39	0.96	0.750 J	2.9
Benzo(g,h,i)perylene	100	--	100	500	1,000	0.56	1.90	0.170 J F2	0.170 J	0.260 J	1.6
Benzo(k)fluoranthene	0.8	--	3.9	56	110	0.55	1.7	0.150 J	ND	0.170 J	1.2
Chrysene	1	--	3.9	56	110	1.20	3.5	0.44	0.65	0.720 J	2.5
Dibenzo(a,h)anthracene	0.33	--	0.33	0.56	1.1	0.150 J	0.570 J	0.069 J F2	0.740 J	ND	0.430 J
Fluoranthene	100	--	100	500	1,000	2.7	7.5	0.76	1.3	2.1	4.7
Fluorene	30	--	100	500	1,000	0.67	0.950 J	0.43	0.39	1.3	0.740 J
Indeno(1,2,3-cd)pyrene	0.5	--	0.5	5.6	11	0.52	1.8	0.150 J F2	0.18	0.250 J	ND
Phenanthrene	100	--	100	500	1,000	1.1	4.1	0.63	0.44	1.8	2.9
Pyrene	100	--	100	500	1,000	2.1	6.0	0.63	0.91	1.7	4.0
Naphthalene	12	--	100	500	1,000	0.23	0.41	0.46	0.23	0.260 J	0.93
Total PAHs	--	--	100	500	--	14.480	40.87 J	5.189 J	7.54	6.9 J	24.5 J
Metals - mg/kg											
Arsenic	13	--	16	16	16	5.70	10.2	7.9	9.7	5.9	16.1
Barium	350	--	400	400	10,000	123.0 F1	349	131	107	122	97.1
Cadmium	2.5	--	4.3	9.3	60.0	0.260	1.5	0.84	0.28	0.26	0.53
Chromium ⁴	30	--	180	1,500	6,800	14.90	17.5	18.6	18.7	24.3	17.9
Lead	63	--	400	1,000	3,900	63.7 F1	320	197	83.2	40.0	726
Mercury	0.18	--	0.81	2.8	5.7	0.048	0.13	0.06	0.063	0.062	0.076

Notes:

- Only those parameters detected at a minimum of one sample location are presented in this table; all other compounds were reported as non-detect.
- Values per 6NYCRR Part 375 Soil Cleanup Objectives (SCOs).
- Sample results were reported by the laboratory in micrograms per kilogram (ug/kg) and converted to milligram per kilogram (mg/kg) for comparison to SCOs.
- SCOs provided for trivalent chromium

Definitions:

mg/kg = milligrams per kilogram

ND = Parameter not detected above laboratory detection limit

-- = No SCO available, or parameter not tested for.

J = Result is less than the RL but greater or equal to the MDL and the concentration is an approximate value, indicates estimated value for TICs.

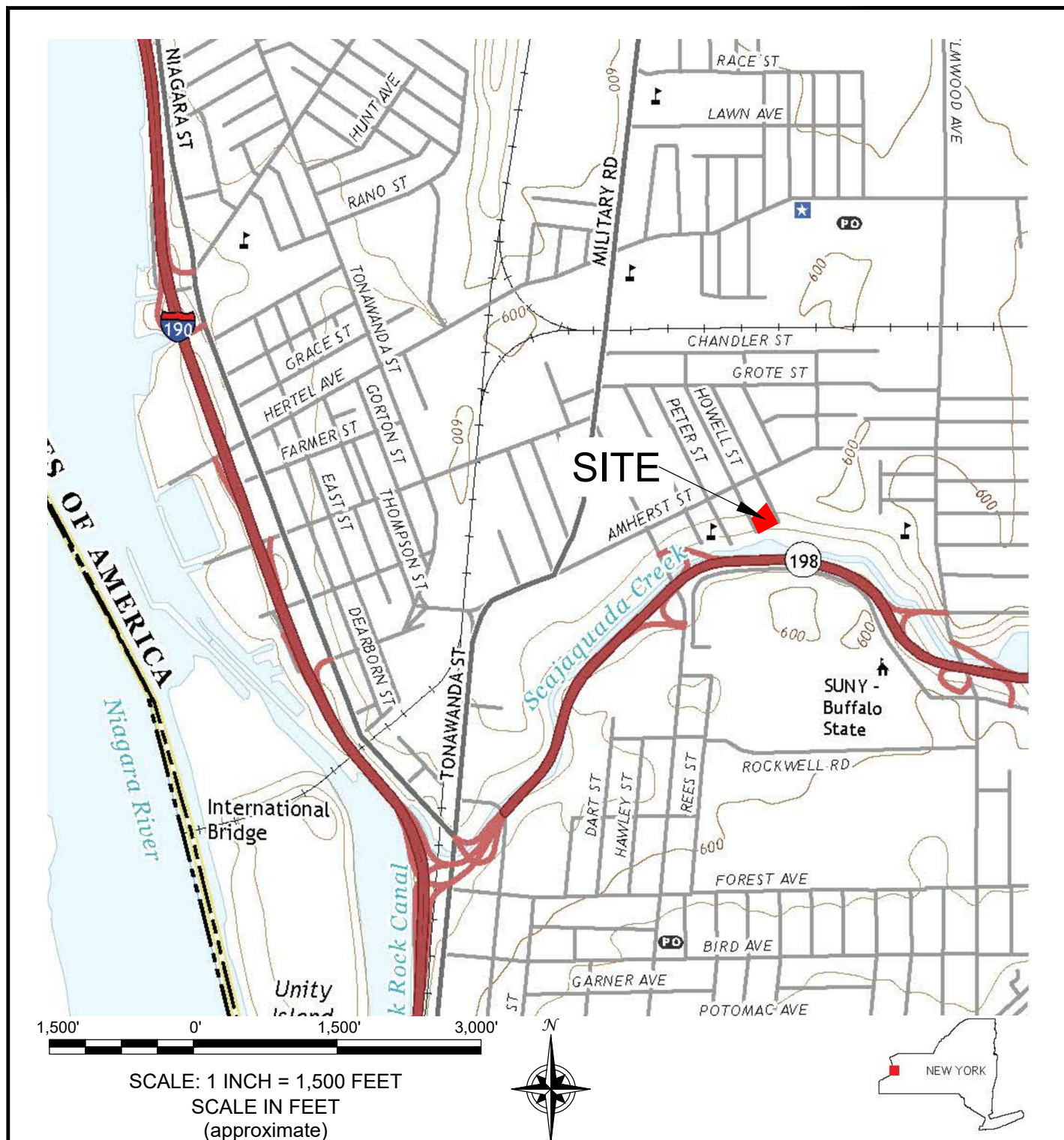
F1= MS and/or MSD Recovery is outside acceptance limits.

F2= MS/MSD RPD exceeds control limits.

BOLD	= Result exceeds Residential Use SCOs
BOLD	= Result exceeds Restricted Residential Use SCOs
BOLD	= Result exceeds Commercial Use SCOs
BOLD	= Result exceeds Industrial Use SCOs

FIGURES

FIGURE 1



2558 HAMBURG TURNPIKE, SUITE 300, BUFFALO, NY 14218, (716) 856-0599

PROJECT NO.: T0258-022-002

DATE: MARCH 2022

DRAFTED BY: TJM

SITE LOCATION AND VICINITY MAP

LIMITED PHASE II INVESTIGATION

1 HOWELL STREET
BUFFALO, NEW YORK

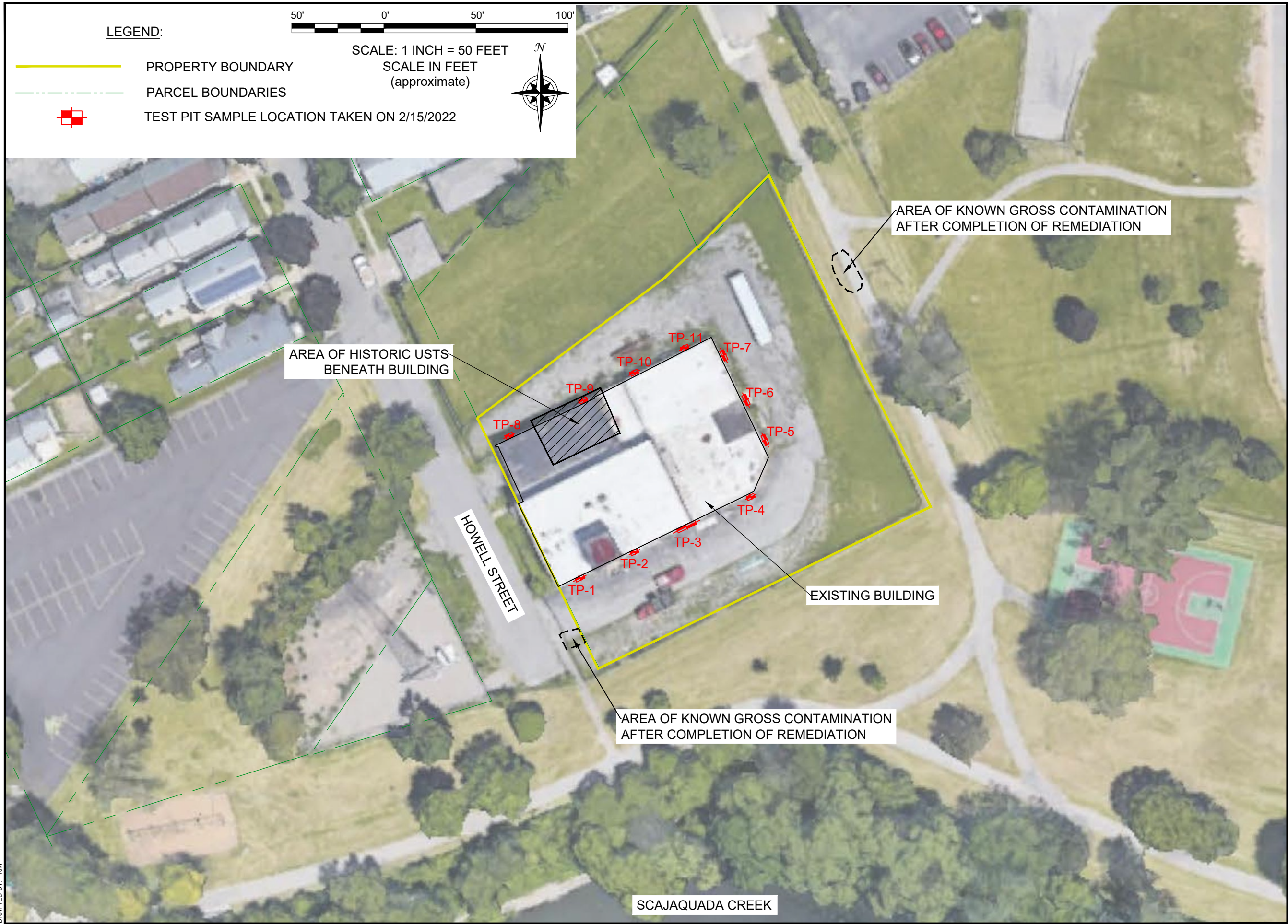
PREPARED FOR

HOWELL STREET VENTURE, LLC

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F:\CAD\TurnKey\Savarino\1 Howell Street\Limited Phase II\Figure 2, Investigation Locations.dwg, 3/28/2022 3:51:08 PM, DWG To PDF.pc

DATE: MARCH 2022
DRAFTED BY: TJM



INVESTIGATION LOCATIONS

LIMITED PHASE II INVESTIGATION
1 HOWELL STREET
BUFFALO, NEW YORK

PREPARED FOR
HOWELL STREET VENTURE, LLC



2558 HAMBURG TURNPIKE, SUITE 300, BUFFALO, NY 14218,
(716) 856-0599

JOB NO.: T0258-022-002

FIGURE 2

DISCLAIMER: PROPERTY OF TURNKEY ENVIRONMENTAL RESTORATION, LLC. IMPORTANT: THIS DRAWING PRINT IS LOANED FOR MUTUAL ASSISTANCE AND AS SUCH IS SUBJECT TO RECALL AT ANY TIME. INFORMATION CONTAINED HEREON IS NOT TO BE DISCLOSED OR REPRODUCED IN ANY FORM FOR THE BENEFIT OF PARTIES OTHER THAN NECESSARY SUBCONTRACTORS & SUPPLIERS WITHOUT THE WRITTEN CONSENT OF TURNKEY ENVIRONMENTAL RESTORATION, LLC.

APPENDIX A

PHOTO LOG

SITE PHOTOGRAPHS

Photo 1:



Photo 2:



Photo 3:



Photo 4:



- Photo 1: View of heavily impacted gravel backfill at TP-5. The gravel, found below fabric, is coated in an oil like residue.
- Photo 2: View of the groundwater intrusion at TP-5, and a black sheen developing atop the water looking north.
- Photo 3: View of product seeping from the western sidewall (building side) of TP-6.
- Photo 4: View of the black stained fill material present within TP-7. Note the black stained wood within the fill.

1 Howell Street, Buffalo, NY 14207

Photo Date: February 15, 2022



SITE PHOTOGRAPHS

Photo 5:



Photo 6:



Photo 7:



Photo 8:



- Photo 5: View of the groundwater intrusion at TP-8 due, most likely, to perched water within backfill. Note the black sheen developing atop the water from impacted fill that is coated in product.
- Photo 6: View of the impacted clay found within TP-8. Note the black product coating the material.
- Photo 7: View of the black stained fill found within TP-10. Note the fill is coated with product and a sheen is beginning to develop atop the groundwater.
- Photo 8: View of the black stained clay within TP-11 and the fill material coated in product. Note the coated fill on the south side of the test pit (building side) creating a sheen atop the groundwater.

1 Howell Street, Buffalo, NY 14207

Photo Date: February 15, 2022



APPENDIX B

LABORATORY ANALYTICAL DATA SUMMARY PACKAGE

ANALYTICAL REPORT

Eurofins Buffalo
10 Hazelwood Drive
Amherst, NY 14228-2298
Tel: (716)691-2600

Laboratory Job ID: 480-195030-1

Client Project/Site: Benchmark - Howell Street

For:

Benchmark Env. Eng. & Science, PLLC
2558 Hamburg Turnpike
Lackawanna, New York 14218

Attn: Bryan Mayback



Authorized for release by:

2/22/2022 4:45:38 PM

Rebecca Jones, Project Management Assistant I

Rebecca.Jones@Eurofinset.com

Designee for

Brian Fischer, Manager of Project Management
(716)504-9835

Brian.Fischer@Eurofinset.com

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The test results in this report meet all 2003 NELAC, 2009 TNI, and 2016 TNI requirements for accredited parameters, exceptions are noted in this report. This report may not be reproduced except in full, and with written approval from the laboratory. For questions please contact the Project Manager at the e-mail address or telephone number listed on this page.

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

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

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Definitions/Glossary

Client: Benchmark Env. Eng. & Science, PLLC
Project/Site: Benchmark - Howell Street

Job ID: 480-195030-1

Qualifiers

GC/MS VOA

Qualifier	Qualifier Description
*+	LCS and/or LCSD is outside acceptance limits, high biased.
*1	LCS/LCSD RPD exceeds control limits.
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

GC/MS Semi VOA

Qualifier	Qualifier Description
F2	MS/MSD RPD exceeds control limits
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.
S1+	Surrogate recovery exceeds control limits, high biased.

Metals

Qualifier	Qualifier Description
F1	MS and/or MSD recovery exceeds control limits.

Glossary

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

Case Narrative

Client: Benchmark Env. Eng. & Science, PLLC
Project/Site: Benchmark - Howell Street

Job ID: 480-195030-1

Job ID: 480-195030-1

Laboratory: Eurofins Buffalo

Narrative

Job Narrative 480-195030-1

Comments

No additional comments.

Receipt

The samples were received on 2/15/2022 5:05 PM. Unless otherwise noted below, the samples arrived in good condition, and where required, properly preserved and on ice. The temperature of the cooler at receipt was 5.2° C.

GC/MS VOA

Method 8260C: The laboratory control sample duplicate (LCSD) for preparation batch 480-615092 and analytical batch 480-615137 recovered outside control limits for the following analyte: Acetone. This analyte was biased high in the LCSD and were not detected in the associated samples; therefore, the data have been reported. The associated samples are impacted: TP-1 3-4' (480-195030-1), TP-3 1-2' (480-195030-2), TP-6 3-4' (480-195030-3), TP-7 3-5' (480-195030-4), TP-8 3-4' (480-195030-5) and TP-10 1-3' (480-195030-6).

Method 8260C: The RPD of the laboratory control sample duplicate (LCSD) for preparation batch 480-615092 and analytical batch 480-615137 recovered outside control limits for the following analytes: Chloroethane, 2-Butanone (MEK) and Acetone. The associated samples are impacted: TP-1 3-4' (480-195030-1), TP-3 1-2' (480-195030-2), TP-6 3-4' (480-195030-3), TP-7 3-5' (480-195030-4), TP-8 3-4' (480-195030-5) and TP-10 1-3' (480-195030-6).

Method 8260C: The following sample was analyzed using medium level soil analysis and diluted to bring the concentration of target analytes within the calibration range: TP-6 3-4' (480-195030-3). Elevated reporting limits (RLs) are provided.

Method 8260C: The following samples were analyzed using medium level soil analysis and diluted due to the nature of the sample matrix: TP-1 3-4' (480-195030-1), TP-3 1-2' (480-195030-2), TP-7 3-5' (480-195030-4), TP-8 3-4' (480-195030-5) and TP-10 1-3' (480-195030-6). Elevated reporting limits (RLs) are provided.

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

GC/MS Semi VOA

Method 8270D: The following samples were diluted due to color and appearance: TP-3 1-2' (480-195030-2) and TP-8 3-4' (480-195030-5). Elevated reporting limits (RL) are provided.

Method 8270D: Surrogate recovery was outside acceptance limits for the following matrix spike/matrix spike duplicate (MS/MSD) samples: (480-195030-A-3-A MS) and (480-195030-A-3-B MSD). The parent sample's surrogate recovery was within limits. The MS/MSD sample has been qualified and reported.

Method 8270D: The laboratory control sample (LCS) and laboratory control sample duplicate (LCSD) for preparation batch 480-615141 and analytical batch 480-615423 recovered outside control limits for the following surrogate: 2,4,6-Tribromophenol. This surrogate is biased high and no detections were found for associated analytes in the following affected samples: TP-1 3-4' (480-195030-1), TP-3 1-2' (480-195030-2), TP-6 3-4' (480-195030-3) and TP-8 3-4' (480-195030-5). Therefore, the data has been reported.

Method 8270D: The following sample was diluted due to color and appearance: TP-10 1-3' (480-195030-6). Elevated reporting limits (RL) are provided.

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

Metals

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

Organic Prep

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

Detection Summary

Client: Benchmark Env. Eng. & Science, PLLC
Project/Site: Benchmark - Howell Street

Job ID: 480-195030-1

Client Sample ID: TP-1 3-4'

Lab Sample ID: 480-195030-1

Analyte	Result	Qualifier	RL	MDL	Unit	Dil	Fac	D	Method	Prep Type
Acenaphthene	390		200	29	ug/Kg	1		✱	8270D	Total/NA
Acenaphthylene	350		200	26	ug/Kg	1		✱	8270D	Total/NA
Anthracene	460		200	49	ug/Kg	1		✱	8270D	Total/NA
Benzo[a]anthracene	1100		200	20	ug/Kg	1		✱	8270D	Total/NA
Benzo[a]pyrene	1100		200	29	ug/Kg	1		✱	8270D	Total/NA
Benzo[b]fluoranthene	1300		200	31	ug/Kg	1		✱	8270D	Total/NA
Benzo[g,h,i]perylene	560		200	21	ug/Kg	1		✱	8270D	Total/NA
Benzo[k]fluoranthene	550		200	26	ug/Kg	1		✱	8270D	Total/NA
Chrysene	1200		200	44	ug/Kg	1		✱	8270D	Total/NA
Dibenz(a,h)anthracene	150	J	200	35	ug/Kg	1		✱	8270D	Total/NA
Fluoranthene	2700		200	21	ug/Kg	1		✱	8270D	Total/NA
Fluorene	670		200	23	ug/Kg	1		✱	8270D	Total/NA
Indeno[1,2,3-cd]pyrene	520		200	24	ug/Kg	1		✱	8270D	Total/NA
Naphthalene	230		200	26	ug/Kg	1		✱	8270D	Total/NA
Pyrene	2100		200	23	ug/Kg	1		✱	8270D	Total/NA
Phenanthrene	1100		200	29	ug/Kg	1		✱	8270D	Total/NA
Arsenic	5.7		2.3		mg/Kg	1		✱	6010C	Total/NA
Barium	123	F1	0.56		mg/Kg	1		✱	6010C	Total/NA
Cadmium	0.26		0.23		mg/Kg	1		✱	6010C	Total/NA
Chromium	14.9		0.56		mg/Kg	1		✱	6010C	Total/NA
Lead	63.7	F1	1.1		mg/Kg	1		✱	6010C	Total/NA
Mercury	0.048		0.025		mg/Kg	1		✱	7471B	Total/NA

Client Sample ID: TP-3 1-2'

Lab Sample ID: 480-195030-2

Analyte	Result	Qualifier	RL	MDL	Unit	Dil	Fac	D	Method	Prep Type
Acenaphthene	500	J	1100	160	ug/Kg	5		✱	8270D	Total/NA
Acenaphthylene	540	J	1100	140	ug/Kg	5		✱	8270D	Total/NA
Anthracene	1100		1100	260	ug/Kg	5		✱	8270D	Total/NA
Benzo[a]anthracene	3300		1100	110	ug/Kg	5		✱	8270D	Total/NA
Benzo[a]pyrene	3100		1100	160	ug/Kg	5		✱	8270D	Total/NA
Benzo[b]fluoranthene	3900		1100	170	ug/Kg	5		✱	8270D	Total/NA
Benzo[g,h,i]perylene	1900		1100	110	ug/Kg	5		✱	8270D	Total/NA
Benzo[k]fluoranthene	1700		1100	140	ug/Kg	5		✱	8270D	Total/NA
Chrysene	3500		1100	240	ug/Kg	5		✱	8270D	Total/NA
Dibenz(a,h)anthracene	570	J	1100	190	ug/Kg	5		✱	8270D	Total/NA
Fluoranthene	7500		1100	110	ug/Kg	5		✱	8270D	Total/NA
Fluorene	950	J	1100	130	ug/Kg	5		✱	8270D	Total/NA
Indeno[1,2,3-cd]pyrene	1800		1100	130	ug/Kg	5		✱	8270D	Total/NA
Naphthalene	410	J	1100	140	ug/Kg	5		✱	8270D	Total/NA
Pyrene	6000		1100	130	ug/Kg	5		✱	8270D	Total/NA
Phenanthrene	4100		1100	160	ug/Kg	5		✱	8270D	Total/NA
Arsenic	10.2		2.6		mg/Kg	1		✱	6010C	Total/NA
Barium	349		0.66		mg/Kg	1		✱	6010C	Total/NA
Cadmium	1.5		0.26		mg/Kg	1		✱	6010C	Total/NA
Chromium	17.5		0.66		mg/Kg	1		✱	6010C	Total/NA
Lead	320		1.3		mg/Kg	1		✱	6010C	Total/NA
Mercury	0.13		0.024		mg/Kg	1		✱	7471B	Total/NA

This Detection Summary does not include radiochemical test results.

Eurofins Buffalo

Detection Summary

Client: Benchmark Env. Eng. & Science, PLLC
Project/Site: Benchmark - Howell Street

Job ID: 480-195030-1

Client Sample ID: TP-6 3-4'

Lab Sample ID: 480-195030-3

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
cis-1,2-Dichloroethene	56000		1600	430	ug/Kg	10	✱	8260C	Total/NA
Cyclohexane	1000	J	1600	340	ug/Kg	10	✱	8260C	Total/NA
Ethylbenzene	6800		1600	450	ug/Kg	10	✱	8260C	Total/NA
Isopropylbenzene	2800		1600	230	ug/Kg	10	✱	8260C	Total/NA
Methylcyclohexane	5000		1600	730	ug/Kg	10	✱	8260C	Total/NA
Tetrachloroethene	27000		1600	210	ug/Kg	10	✱	8260C	Total/NA
Toluene	6200		1600	420	ug/Kg	10	✱	8260C	Total/NA
Trichloroethene	2000		1600	430	ug/Kg	10	✱	8260C	Total/NA
Vinyl chloride	9800		1600	520	ug/Kg	10	✱	8260C	Total/NA
Xylenes, Total	12000		3100	860	ug/Kg	10	✱	8260C	Total/NA
Acenaphthene	190	J	230	34	ug/Kg	1	✱	8270D	Total/NA
Anthracene	170	J	230	57	ug/Kg	1	✱	8270D	Total/NA
Benzo[a]anthracene	300		230	23	ug/Kg	1	✱	8270D	Total/NA
Benzo[a]pyrene	250		230	34	ug/Kg	1	✱	8270D	Total/NA
Benzo[b]fluoranthene	390		230	37	ug/Kg	1	✱	8270D	Total/NA
Benzo[g,h,i]perylene	170	J F2	230	24	ug/Kg	1	✱	8270D	Total/NA
Benzo[k]fluoranthene	150	J	230	30	ug/Kg	1	✱	8270D	Total/NA
Chrysene	440		230	51	ug/Kg	1	✱	8270D	Total/NA
Dibenz(a,h)anthracene	69	J F2	230	41	ug/Kg	1	✱	8270D	Total/NA
Fluoranthene	760		230	24	ug/Kg	1	✱	8270D	Total/NA
Fluorene	430		230	27	ug/Kg	1	✱	8270D	Total/NA
Indeno[1,2,3-cd]pyrene	150	J F2	230	28	ug/Kg	1	✱	8270D	Total/NA
Naphthalene	460		230	30	ug/Kg	1	✱	8270D	Total/NA
Pyrene	630		230	27	ug/Kg	1	✱	8270D	Total/NA
Phenanthrene	630		230	34	ug/Kg	1	✱	8270D	Total/NA
Arsenic	7.9		2.7		mg/Kg	1	✱	6010C	Total/NA
Barium	131		0.66		mg/Kg	1	✱	6010C	Total/NA
Cadmium	0.84		0.27		mg/Kg	1	✱	6010C	Total/NA
Chromium	18.6		0.66		mg/Kg	1	✱	6010C	Total/NA
Lead	197		1.3		mg/Kg	1	✱	6010C	Total/NA
Mercury	0.060		0.027		mg/Kg	1	✱	7471B	Total/NA

Client Sample ID: TP-7 3-5'

Lab Sample ID: 480-195030-4

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Isopropylbenzene	620	J	2900	430	ug/Kg	20	✱	8260C	Total/NA
Acenaphthene	280		220	33	ug/Kg	1	✱	8270D	Total/NA
Anthracene	290		220	55	ug/Kg	1	✱	8270D	Total/NA
Benzo[a]anthracene	490		220	22	ug/Kg	1	✱	8270D	Total/NA
Benzo[a]pyrene	510		220	33	ug/Kg	1	✱	8270D	Total/NA
Benzo[b]fluoranthene	960		220	35	ug/Kg	1	✱	8270D	Total/NA
Benzo[g,h,i]perylene	170	J	220	24	ug/Kg	1	✱	8270D	Total/NA
Chrysene	650		220	50	ug/Kg	1	✱	8270D	Total/NA
Dibenz(a,h)anthracene	74	J	220	39	ug/Kg	1	✱	8270D	Total/NA
Fluoranthene	1300		220	24	ug/Kg	1	✱	8270D	Total/NA
Fluorene	390		220	26	ug/Kg	1	✱	8270D	Total/NA
Indeno[1,2,3-cd]pyrene	180	J	220	28	ug/Kg	1	✱	8270D	Total/NA
Naphthalene	230		220	29	ug/Kg	1	✱	8270D	Total/NA
Pyrene	910		220	26	ug/Kg	1	✱	8270D	Total/NA
Phenanthrene	440		220	33	ug/Kg	1	✱	8270D	Total/NA
Arsenic	9.7		2.6		mg/Kg	1	✱	6010C	Total/NA

This Detection Summary does not include radiochemical test results.

Eurofins Buffalo

Detection Summary

Client: Benchmark Env. Eng. & Science, PLLC
Project/Site: Benchmark - Howell Street

Job ID: 480-195030-1

Client Sample ID: TP-7 3-5' (Continued)

Lab Sample ID: 480-195030-4

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Barium	107		0.65		mg/Kg	1	✱	6010C	Total/NA
Cadmium	0.28		0.26		mg/Kg	1	✱	6010C	Total/NA
Chromium	18.7		0.65		mg/Kg	1	✱	6010C	Total/NA
Lead	83.2		1.3		mg/Kg	1	✱	6010C	Total/NA
Mercury	0.063		0.027		mg/Kg	1	✱	7471B	Total/NA

Client Sample ID: TP-8 3-4'

Lab Sample ID: 480-195030-5

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Benzene	810	J	2800	530	ug/Kg	20	✱	8260C	Total/NA
Acenaphthene	960	J	1100	160	ug/Kg	5	✱	8270D	Total/NA
Anthracene	650	J	1100	260	ug/Kg	5	✱	8270D	Total/NA
Benzo[a]anthracene	710	J	1100	110	ug/Kg	5	✱	8270D	Total/NA
Benzo[a]pyrene	470	J	1100	160	ug/Kg	5	✱	8270D	Total/NA
Benzo[b]fluoranthene	750	J	1100	170	ug/Kg	5	✱	8270D	Total/NA
Benzo[g,h,i]perylene	260	J	1100	110	ug/Kg	5	✱	8270D	Total/NA
Benzo[k]fluoranthene	170	J	1100	140	ug/Kg	5	✱	8270D	Total/NA
Chrysene	720	J	1100	240	ug/Kg	5	✱	8270D	Total/NA
Fluoranthene	2100		1100	110	ug/Kg	5	✱	8270D	Total/NA
Fluorene	1300		1100	130	ug/Kg	5	✱	8270D	Total/NA
Indeno[1,2,3-cd]pyrene	250	J	1100	130	ug/Kg	5	✱	8270D	Total/NA
Naphthalene	260	J	1100	140	ug/Kg	5	✱	8270D	Total/NA
Pyrene	1700		1100	130	ug/Kg	5	✱	8270D	Total/NA
Phenanthrene	1800		1100	160	ug/Kg	5	✱	8270D	Total/NA
Arsenic	5.9		2.6		mg/Kg	1	✱	6010C	Total/NA
Barium	122		0.65		mg/Kg	1	✱	6010C	Total/NA
Cadmium	0.26		0.26		mg/Kg	1	✱	6010C	Total/NA
Chromium	24.3		0.65		mg/Kg	1	✱	6010C	Total/NA
Lead	40.0		1.3		mg/Kg	1	✱	6010C	Total/NA
Mercury	0.062		0.027		mg/Kg	1	✱	7471B	Total/NA

Client Sample ID: TP-10 1-3'

Lab Sample ID: 480-195030-6

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Benzene	130	J	560	110	ug/Kg	4	✱	8260C	Total/NA
Cyclohexane	2300		560	120	ug/Kg	4	✱	8260C	Total/NA
Isopropylbenzene	150	J	560	83	ug/Kg	4	✱	8260C	Total/NA
Methylcyclohexane	4100		560	260	ug/Kg	4	✱	8260C	Total/NA
Xylenes, Total	800	J	1100	310	ug/Kg	4	✱	8260C	Total/NA
Acenaphthene	520	J	1100	160	ug/Kg	5	✱	8270D	Total/NA
Acenaphthylene	290	J	1100	140	ug/Kg	5	✱	8270D	Total/NA
Anthracene	810	J	1100	270	ug/Kg	5	✱	8270D	Total/NA
Benzo[a]anthracene	2300		1100	110	ug/Kg	5	✱	8270D	Total/NA
Benzo[a]pyrene	2400		1100	160	ug/Kg	5	✱	8270D	Total/NA
Benzo[b]fluoranthene	2900		1100	170	ug/Kg	5	✱	8270D	Total/NA
Benzo[g,h,i]perylene	1600		1100	110	ug/Kg	5	✱	8270D	Total/NA
Benzo[k]fluoranthene	1200		1100	140	ug/Kg	5	✱	8270D	Total/NA
Chrysene	2500		1100	240	ug/Kg	5	✱	8270D	Total/NA
Dibenz(a,h)anthracene	430	J	1100	190	ug/Kg	5	✱	8270D	Total/NA
Fluoranthene	4700		1100	110	ug/Kg	5	✱	8270D	Total/NA
Fluorene	740	J	1100	130	ug/Kg	5	✱	8270D	Total/NA
Naphthalene	930	J	1100	140	ug/Kg	5	✱	8270D	Total/NA

This Detection Summary does not include radiochemical test results.

Eurofins Buffalo

Detection Summary

Client: Benchmark Env. Eng. & Science, PLLC
Project/Site: Benchmark - Howell Street

Job ID: 480-195030-1

Client Sample ID: TP-10 1-3' (Continued)

Lab Sample ID: 480-195030-6

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Pyrene	4000		1100	130	ug/Kg	5	✱	8270D	Total/NA
Phenanthrene	2900		1100	160	ug/Kg	5	✱	8270D	Total/NA
Arsenic	16.1		2.4		mg/Kg	1	✱	6010C	Total/NA
Barium	97.1		0.61		mg/Kg	1	✱	6010C	Total/NA
Cadmium	0.53		0.24		mg/Kg	1	✱	6010C	Total/NA
Chromium	17.9		0.61		mg/Kg	1	✱	6010C	Total/NA
Lead	726		1.2		mg/Kg	1	✱	6010C	Total/NA
Mercury	0.076		0.026		mg/Kg	1	✱	7471B	Total/NA

This Detection Summary does not include radiochemical test results.

Eurofins Buffalo

Client Sample Results

Client: Benchmark Env. Eng. & Science, PLLC
Project/Site: Benchmark - Howell Street

Job ID: 480-195030-1

Client Sample ID: TP-1 3-4'

Lab Sample ID: 480-195030-1

Date Collected: 02/15/22 08:15

Matrix: Solid

Date Received: 02/15/22 17:05

Percent Solids: 83.8

Method: 8260C - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	ND		1100	300	ug/Kg	☆	02/16/22 17:28	02/17/22 13:18	10
1,1,2,2-Tetrachloroethane	ND		1100	170	ug/Kg	☆	02/16/22 17:28	02/17/22 13:18	10
1,1,2-Trichloroethane	ND		1100	220	ug/Kg	☆	02/16/22 17:28	02/17/22 13:18	10
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		1100	530	ug/Kg	☆	02/16/22 17:28	02/17/22 13:18	10
1,1-Dichloroethane	ND		1100	330	ug/Kg	☆	02/16/22 17:28	02/17/22 13:18	10
1,1-Dichloroethene	ND		1100	370	ug/Kg	☆	02/16/22 17:28	02/17/22 13:18	10
1,2,4-Trichlorobenzene	ND		1100	410	ug/Kg	☆	02/16/22 17:28	02/17/22 13:18	10
1,2-Dibromo-3-Chloropropane	ND		1100	530	ug/Kg	☆	02/16/22 17:28	02/17/22 13:18	10
1,2-Dichlorobenzene	ND		1100	270	ug/Kg	☆	02/16/22 17:28	02/17/22 13:18	10
1,2-Dichloroethane	ND		1100	440	ug/Kg	☆	02/16/22 17:28	02/17/22 13:18	10
1,2-Dichloropropane	ND		1100	170	ug/Kg	☆	02/16/22 17:28	02/17/22 13:18	10
1,3-Dichlorobenzene	ND		1100	290	ug/Kg	☆	02/16/22 17:28	02/17/22 13:18	10
1,4-Dichlorobenzene	ND		1100	150	ug/Kg	☆	02/16/22 17:28	02/17/22 13:18	10
2-Butanone (MEK)	ND	*1	5300	3200	ug/Kg	☆	02/16/22 17:28	02/17/22 13:18	10
2-Hexanone	ND		5300	2200	ug/Kg	☆	02/16/22 17:28	02/17/22 13:18	10
4-Methyl-2-pentanone (MIBK)	ND		5300	340	ug/Kg	☆	02/16/22 17:28	02/17/22 13:18	10
Acetone	ND	*+ *1	5300	4400	ug/Kg	☆	02/16/22 17:28	02/17/22 13:18	10
Benzene	ND		1100	200	ug/Kg	☆	02/16/22 17:28	02/17/22 13:18	10
Bromodichloromethane	ND		1100	210	ug/Kg	☆	02/16/22 17:28	02/17/22 13:18	10
Bromoform	ND		1100	530	ug/Kg	☆	02/16/22 17:28	02/17/22 13:18	10
Bromomethane	ND		1100	240	ug/Kg	☆	02/16/22 17:28	02/17/22 13:18	10
Carbon disulfide	ND		1100	490	ug/Kg	☆	02/16/22 17:28	02/17/22 13:18	10
Carbon tetrachloride	ND		1100	270	ug/Kg	☆	02/16/22 17:28	02/17/22 13:18	10
Chlorobenzene	ND		1100	140	ug/Kg	☆	02/16/22 17:28	02/17/22 13:18	10
Dibromochloromethane	ND		1100	520	ug/Kg	☆	02/16/22 17:28	02/17/22 13:18	10
Chloroethane	ND	*1	1100	220	ug/Kg	☆	02/16/22 17:28	02/17/22 13:18	10
Chloroform	ND		1100	730	ug/Kg	☆	02/16/22 17:28	02/17/22 13:18	10
Chloromethane	ND		1100	250	ug/Kg	☆	02/16/22 17:28	02/17/22 13:18	10
cis-1,2-Dichloroethene	ND		1100	300	ug/Kg	☆	02/16/22 17:28	02/17/22 13:18	10
cis-1,3-Dichloropropene	ND		1100	260	ug/Kg	☆	02/16/22 17:28	02/17/22 13:18	10
Cyclohexane	ND		1100	240	ug/Kg	☆	02/16/22 17:28	02/17/22 13:18	10
Dichlorodifluoromethane	ND		1100	470	ug/Kg	☆	02/16/22 17:28	02/17/22 13:18	10
Ethylbenzene	ND		1100	310	ug/Kg	☆	02/16/22 17:28	02/17/22 13:18	10
1,2-Dibromoethane	ND		1100	190	ug/Kg	☆	02/16/22 17:28	02/17/22 13:18	10
Isopropylbenzene	ND		1100	160	ug/Kg	☆	02/16/22 17:28	02/17/22 13:18	10
Methyl acetate	ND		5300	510	ug/Kg	☆	02/16/22 17:28	02/17/22 13:18	10
Methyl tert-butyl ether	ND		1100	400	ug/Kg	☆	02/16/22 17:28	02/17/22 13:18	10
Methylcyclohexane	ND		1100	500	ug/Kg	☆	02/16/22 17:28	02/17/22 13:18	10
Methylene Chloride	ND		1100	210	ug/Kg	☆	02/16/22 17:28	02/17/22 13:18	10
Styrene	ND		1100	260	ug/Kg	☆	02/16/22 17:28	02/17/22 13:18	10
Tetrachloroethene	ND		1100	140	ug/Kg	☆	02/16/22 17:28	02/17/22 13:18	10
Toluene	ND		1100	290	ug/Kg	☆	02/16/22 17:28	02/17/22 13:18	10
trans-1,2-Dichloroethene	ND		1100	250	ug/Kg	☆	02/16/22 17:28	02/17/22 13:18	10
trans-1,3-Dichloropropene	ND		1100	110	ug/Kg	☆	02/16/22 17:28	02/17/22 13:18	10
Trichloroethene	ND		1100	300	ug/Kg	☆	02/16/22 17:28	02/17/22 13:18	10
Trichlorofluoromethane	ND		1100	500	ug/Kg	☆	02/16/22 17:28	02/17/22 13:18	10
Vinyl chloride	ND		1100	360	ug/Kg	☆	02/16/22 17:28	02/17/22 13:18	10
Xylenes, Total	ND		2100	590	ug/Kg	☆	02/16/22 17:28	02/17/22 13:18	10

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Client Sample Results

Client: Benchmark Env. Eng. & Science, PLLC
Project/Site: Benchmark - Howell Street

Job ID: 480-195030-1

Client Sample ID: TP-1 3-4'

Lab Sample ID: 480-195030-1

Date Collected: 02/15/22 08:15

Matrix: Solid

Date Received: 02/15/22 17:05

Percent Solids: 83.8

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Toluene-d8 (Surr)	98		50 - 149	02/16/22 17:28	02/17/22 13:18	10
1,2-Dichloroethane-d4 (Surr)	101		53 - 146	02/16/22 17:28	02/17/22 13:18	10
4-Bromofluorobenzene (Surr)	98		49 - 148	02/16/22 17:28	02/17/22 13:18	10
Dibromofluoromethane (Surr)	97		60 - 140	02/16/22 17:28	02/17/22 13:18	10

Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acenaphthene	390		200	29	ug/Kg	☆	02/17/22 08:30	02/18/22 18:35	1
Acenaphthylene	350		200	26	ug/Kg	☆	02/17/22 08:30	02/18/22 18:35	1
Anthracene	460		200	49	ug/Kg	☆	02/17/22 08:30	02/18/22 18:35	1
Benzo[a]anthracene	1100		200	20	ug/Kg	☆	02/17/22 08:30	02/18/22 18:35	1
Benzo[a]pyrene	1100		200	29	ug/Kg	☆	02/17/22 08:30	02/18/22 18:35	1
Benzo[b]fluoranthene	1300		200	31	ug/Kg	☆	02/17/22 08:30	02/18/22 18:35	1
Benzo[g,h,i]perylene	560		200	21	ug/Kg	☆	02/17/22 08:30	02/18/22 18:35	1
Benzo[k]fluoranthene	550		200	26	ug/Kg	☆	02/17/22 08:30	02/18/22 18:35	1
Chrysene	1200		200	44	ug/Kg	☆	02/17/22 08:30	02/18/22 18:35	1
Dibenz(a,h)anthracene	150 J		200	35	ug/Kg	☆	02/17/22 08:30	02/18/22 18:35	1
Fluoranthene	2700		200	21	ug/Kg	☆	02/17/22 08:30	02/18/22 18:35	1
Fluorene	670		200	23	ug/Kg	☆	02/17/22 08:30	02/18/22 18:35	1
Indeno[1,2,3-cd]pyrene	520		200	24	ug/Kg	☆	02/17/22 08:30	02/18/22 18:35	1
Naphthalene	230		200	26	ug/Kg	☆	02/17/22 08:30	02/18/22 18:35	1
Pyrene	2100		200	23	ug/Kg	☆	02/17/22 08:30	02/18/22 18:35	1
Phenanthrene	1100		200	29	ug/Kg	☆	02/17/22 08:30	02/18/22 18:35	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2,4,6-Tribromophenol (Surr)	118		54 - 120	02/17/22 08:30	02/18/22 18:35	1
2-Fluorobiphenyl	112		60 - 120	02/17/22 08:30	02/18/22 18:35	1
2-Fluorophenol (Surr)	85		52 - 120	02/17/22 08:30	02/18/22 18:35	1
Phenol-d5 (Surr)	92		54 - 120	02/17/22 08:30	02/18/22 18:35	1
p-Terphenyl-d14 (Surr)	99		79 - 130	02/17/22 08:30	02/18/22 18:35	1
Nitrobenzene-d5 (Surr)	104		53 - 120	02/17/22 08:30	02/18/22 18:35	1

Method: 6010C - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	5.7		2.3		mg/Kg	☆	02/16/22 15:41	02/17/22 17:15	1
Barium	123 F1		0.56		mg/Kg	☆	02/16/22 15:41	02/17/22 17:15	1
Cadmium	0.26		0.23		mg/Kg	☆	02/16/22 15:41	02/17/22 17:15	1
Chromium	14.9		0.56		mg/Kg	☆	02/16/22 15:41	02/17/22 17:15	1
Lead	63.7 F1		1.1		mg/Kg	☆	02/16/22 15:41	02/17/22 17:15	1
Selenium	ND		4.5		mg/Kg	☆	02/16/22 15:41	02/17/22 17:15	1
Silver	ND		0.68		mg/Kg	☆	02/16/22 15:41	02/17/22 17:15	1

Method: 7471B - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.048		0.025		mg/Kg	☆	02/17/22 11:06	02/17/22 13:00	1

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Client Sample Results

Client: Benchmark Env. Eng. & Science, PLLC
Project/Site: Benchmark - Howell Street

Job ID: 480-195030-1

Client Sample ID: TP-3 1-2'

Lab Sample ID: 480-195030-2

Date Collected: 02/15/22 09:33

Matrix: Solid

Date Received: 02/15/22 17:05

Percent Solids: 78.4

Method: 8260C - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	ND		2800	770	ug/Kg	☆	02/16/22 17:28	02/17/22 13:41	20
1,1,2,2-Tetrachloroethane	ND		2800	450	ug/Kg	☆	02/16/22 17:28	02/17/22 13:41	20
1,1,2-Trichloroethane	ND		2800	580	ug/Kg	☆	02/16/22 17:28	02/17/22 13:41	20
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		2800	1400	ug/Kg	☆	02/16/22 17:28	02/17/22 13:41	20
1,1-Dichloroethane	ND		2800	850	ug/Kg	☆	02/16/22 17:28	02/17/22 13:41	20
1,1-Dichloroethene	ND		2800	960	ug/Kg	☆	02/16/22 17:28	02/17/22 13:41	20
1,2,4-Trichlorobenzene	ND		2800	1000	ug/Kg	☆	02/16/22 17:28	02/17/22 13:41	20
1,2-Dibromo-3-Chloropropane	ND		2800	1400	ug/Kg	☆	02/16/22 17:28	02/17/22 13:41	20
1,2-Dichlorobenzene	ND		2800	710	ug/Kg	☆	02/16/22 17:28	02/17/22 13:41	20
1,2-Dichloroethane	ND		2800	1100	ug/Kg	☆	02/16/22 17:28	02/17/22 13:41	20
1,2-Dichloropropane	ND		2800	450	ug/Kg	☆	02/16/22 17:28	02/17/22 13:41	20
1,3-Dichlorobenzene	ND		2800	740	ug/Kg	☆	02/16/22 17:28	02/17/22 13:41	20
1,4-Dichlorobenzene	ND		2800	390	ug/Kg	☆	02/16/22 17:28	02/17/22 13:41	20
2-Butanone (MEK)	ND	*1	14000	8200	ug/Kg	☆	02/16/22 17:28	02/17/22 13:41	20
2-Hexanone	ND		14000	5700	ug/Kg	☆	02/16/22 17:28	02/17/22 13:41	20
4-Methyl-2-pentanone (MIBK)	ND		14000	880	ug/Kg	☆	02/16/22 17:28	02/17/22 13:41	20
Acetone	ND	*+ *1	14000	11000	ug/Kg	☆	02/16/22 17:28	02/17/22 13:41	20
Benzene	ND		2800	530	ug/Kg	☆	02/16/22 17:28	02/17/22 13:41	20
Bromodichloromethane	ND		2800	550	ug/Kg	☆	02/16/22 17:28	02/17/22 13:41	20
Bromoform	ND		2800	1400	ug/Kg	☆	02/16/22 17:28	02/17/22 13:41	20
Bromomethane	ND		2800	610	ug/Kg	☆	02/16/22 17:28	02/17/22 13:41	20
Carbon disulfide	ND		2800	1300	ug/Kg	☆	02/16/22 17:28	02/17/22 13:41	20
Carbon tetrachloride	ND		2800	710	ug/Kg	☆	02/16/22 17:28	02/17/22 13:41	20
Chlorobenzene	ND		2800	360	ug/Kg	☆	02/16/22 17:28	02/17/22 13:41	20
Dibromochloromethane	ND		2800	1300	ug/Kg	☆	02/16/22 17:28	02/17/22 13:41	20
Chloroethane	ND	*1	2800	580	ug/Kg	☆	02/16/22 17:28	02/17/22 13:41	20
Chloroform	ND		2800	1900	ug/Kg	☆	02/16/22 17:28	02/17/22 13:41	20
Chloromethane	ND		2800	660	ug/Kg	☆	02/16/22 17:28	02/17/22 13:41	20
cis-1,2-Dichloroethene	ND		2800	760	ug/Kg	☆	02/16/22 17:28	02/17/22 13:41	20
cis-1,3-Dichloropropene	ND		2800	660	ug/Kg	☆	02/16/22 17:28	02/17/22 13:41	20
Cyclohexane	ND		2800	610	ug/Kg	☆	02/16/22 17:28	02/17/22 13:41	20
Dichlorodifluoromethane	ND		2800	1200	ug/Kg	☆	02/16/22 17:28	02/17/22 13:41	20
Ethylbenzene	ND		2800	800	ug/Kg	☆	02/16/22 17:28	02/17/22 13:41	20
1,2-Dibromoethane	ND		2800	480	ug/Kg	☆	02/16/22 17:28	02/17/22 13:41	20
Isopropylbenzene	ND		2800	410	ug/Kg	☆	02/16/22 17:28	02/17/22 13:41	20
Methyl acetate	ND		14000	1300	ug/Kg	☆	02/16/22 17:28	02/17/22 13:41	20
Methyl tert-butyl ether	ND		2800	1000	ug/Kg	☆	02/16/22 17:28	02/17/22 13:41	20
Methylcyclohexane	ND		2800	1300	ug/Kg	☆	02/16/22 17:28	02/17/22 13:41	20
Methylene Chloride	ND		2800	550	ug/Kg	☆	02/16/22 17:28	02/17/22 13:41	20
Styrene	ND		2800	670	ug/Kg	☆	02/16/22 17:28	02/17/22 13:41	20
Tetrachloroethene	ND		2800	370	ug/Kg	☆	02/16/22 17:28	02/17/22 13:41	20
Toluene	ND		2800	740	ug/Kg	☆	02/16/22 17:28	02/17/22 13:41	20
trans-1,2-Dichloroethene	ND		2800	650	ug/Kg	☆	02/16/22 17:28	02/17/22 13:41	20
trans-1,3-Dichloropropene	ND		2800	270	ug/Kg	☆	02/16/22 17:28	02/17/22 13:41	20
Trichloroethene	ND		2800	770	ug/Kg	☆	02/16/22 17:28	02/17/22 13:41	20
Trichlorofluoromethane	ND		2800	1300	ug/Kg	☆	02/16/22 17:28	02/17/22 13:41	20
Vinyl chloride	ND		2800	930	ug/Kg	☆	02/16/22 17:28	02/17/22 13:41	20
Xylenes, Total	ND		5500	1500	ug/Kg	☆	02/16/22 17:28	02/17/22 13:41	20

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Client Sample Results

Client: Benchmark Env. Eng. & Science, PLLC
Project/Site: Benchmark - Howell Street

Job ID: 480-195030-1

Client Sample ID: TP-3 1-2'

Lab Sample ID: 480-195030-2

Date Collected: 02/15/22 09:33

Matrix: Solid

Date Received: 02/15/22 17:05

Percent Solids: 78.4

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Toluene-d8 (Surr)	102		50 - 149	02/16/22 17:28	02/17/22 13:41	20
1,2-Dichloroethane-d4 (Surr)	109		53 - 146	02/16/22 17:28	02/17/22 13:41	20
4-Bromofluorobenzene (Surr)	104		49 - 148	02/16/22 17:28	02/17/22 13:41	20
Dibromofluoromethane (Surr)	105		60 - 140	02/16/22 17:28	02/17/22 13:41	20

Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acenaphthene	500	J	1100	160	ug/Kg	☆	02/17/22 08:30	02/18/22 18:59	5
Acenaphthylene	540	J	1100	140	ug/Kg	☆	02/17/22 08:30	02/18/22 18:59	5
Anthracene	1100		1100	260	ug/Kg	☆	02/17/22 08:30	02/18/22 18:59	5
Benzo[a]anthracene	3300		1100	110	ug/Kg	☆	02/17/22 08:30	02/18/22 18:59	5
Benzo[a]pyrene	3100		1100	160	ug/Kg	☆	02/17/22 08:30	02/18/22 18:59	5
Benzo[b]fluoranthene	3900		1100	170	ug/Kg	☆	02/17/22 08:30	02/18/22 18:59	5
Benzo[g,h,i]perylene	1900		1100	110	ug/Kg	☆	02/17/22 08:30	02/18/22 18:59	5
Benzo[k]fluoranthene	1700		1100	140	ug/Kg	☆	02/17/22 08:30	02/18/22 18:59	5
Chrysene	3500		1100	240	ug/Kg	☆	02/17/22 08:30	02/18/22 18:59	5
Dibenz(a,h)anthracene	570	J	1100	190	ug/Kg	☆	02/17/22 08:30	02/18/22 18:59	5
Fluoranthene	7500		1100	110	ug/Kg	☆	02/17/22 08:30	02/18/22 18:59	5
Fluorene	950	J	1100	130	ug/Kg	☆	02/17/22 08:30	02/18/22 18:59	5
Indeno[1,2,3-cd]pyrene	1800		1100	130	ug/Kg	☆	02/17/22 08:30	02/18/22 18:59	5
Naphthalene	410	J	1100	140	ug/Kg	☆	02/17/22 08:30	02/18/22 18:59	5
Pyrene	6000		1100	130	ug/Kg	☆	02/17/22 08:30	02/18/22 18:59	5
Phenanthrene	4100		1100	160	ug/Kg	☆	02/17/22 08:30	02/18/22 18:59	5

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2,4,6-Tribromophenol (Surr)	82		54 - 120	02/17/22 08:30	02/18/22 18:59	5
2-Fluorobiphenyl	94		60 - 120	02/17/22 08:30	02/18/22 18:59	5
2-Fluorophenol (Surr)	73		52 - 120	02/17/22 08:30	02/18/22 18:59	5
Phenol-d5 (Surr)	81		54 - 120	02/17/22 08:30	02/18/22 18:59	5
p-Terphenyl-d14 (Surr)	92		79 - 130	02/17/22 08:30	02/18/22 18:59	5
Nitrobenzene-d5 (Surr)	100		53 - 120	02/17/22 08:30	02/18/22 18:59	5

Method: 6010C - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	10.2		2.6		mg/Kg	☆	02/16/22 15:41	02/17/22 17:33	1
Barium	349		0.66		mg/Kg	☆	02/16/22 15:41	02/17/22 17:33	1
Cadmium	1.5		0.26		mg/Kg	☆	02/16/22 15:41	02/17/22 17:33	1
Chromium	17.5		0.66		mg/Kg	☆	02/16/22 15:41	02/17/22 17:33	1
Lead	320		1.3		mg/Kg	☆	02/16/22 15:41	02/17/22 17:33	1
Selenium	ND		5.3		mg/Kg	☆	02/16/22 15:41	02/17/22 17:33	1
Silver	ND		0.79		mg/Kg	☆	02/16/22 15:41	02/17/22 17:33	1

Method: 7471B - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.13		0.024		mg/Kg	☆	02/17/22 11:06	02/17/22 13:01	1

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Client Sample Results

Client: Benchmark Env. Eng. & Science, PLLC
Project/Site: Benchmark - Howell Street

Job ID: 480-195030-1

Client Sample ID: TP-6 3-4'

Lab Sample ID: 480-195030-3

Date Collected: 02/15/22 11:17

Matrix: Solid

Date Received: 02/15/22 17:05

Percent Solids: 72.3

Method: 8260C - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	ND		1600	430	ug/Kg	☆	02/16/22 17:28	02/17/22 14:04	10
1,1,2,2-Tetrachloroethane	ND		1600	250	ug/Kg	☆	02/16/22 17:28	02/17/22 14:04	10
1,1,2-Trichloroethane	ND		1600	330	ug/Kg	☆	02/16/22 17:28	02/17/22 14:04	10
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		1600	780	ug/Kg	☆	02/16/22 17:28	02/17/22 14:04	10
1,1-Dichloroethane	ND		1600	480	ug/Kg	☆	02/16/22 17:28	02/17/22 14:04	10
1,1-Dichloroethene	ND		1600	540	ug/Kg	☆	02/16/22 17:28	02/17/22 14:04	10
1,2,4-Trichlorobenzene	ND		1600	590	ug/Kg	☆	02/16/22 17:28	02/17/22 14:04	10
1,2-Dibromo-3-Chloropropane	ND		1600	780	ug/Kg	☆	02/16/22 17:28	02/17/22 14:04	10
1,2-Dichlorobenzene	ND		1600	400	ug/Kg	☆	02/16/22 17:28	02/17/22 14:04	10
1,2-Dichloroethane	ND		1600	630	ug/Kg	☆	02/16/22 17:28	02/17/22 14:04	10
1,2-Dichloropropane	ND		1600	250	ug/Kg	☆	02/16/22 17:28	02/17/22 14:04	10
1,3-Dichlorobenzene	ND		1600	410	ug/Kg	☆	02/16/22 17:28	02/17/22 14:04	10
1,4-Dichlorobenzene	ND		1600	220	ug/Kg	☆	02/16/22 17:28	02/17/22 14:04	10
2-Butanone (MEK)	ND	*1	7800	4600	ug/Kg	☆	02/16/22 17:28	02/17/22 14:04	10
2-Hexanone	ND		7800	3200	ug/Kg	☆	02/16/22 17:28	02/17/22 14:04	10
4-Methyl-2-pentanone (MIBK)	ND		7800	500	ug/Kg	☆	02/16/22 17:28	02/17/22 14:04	10
Acetone	ND	*+ *1	7800	6400	ug/Kg	☆	02/16/22 17:28	02/17/22 14:04	10
Benzene	ND		1600	290	ug/Kg	☆	02/16/22 17:28	02/17/22 14:04	10
Bromodichloromethane	ND		1600	310	ug/Kg	☆	02/16/22 17:28	02/17/22 14:04	10
Bromoform	ND		1600	780	ug/Kg	☆	02/16/22 17:28	02/17/22 14:04	10
Bromomethane	ND		1600	340	ug/Kg	☆	02/16/22 17:28	02/17/22 14:04	10
Carbon disulfide	ND		1600	710	ug/Kg	☆	02/16/22 17:28	02/17/22 14:04	10
Carbon tetrachloride	ND		1600	400	ug/Kg	☆	02/16/22 17:28	02/17/22 14:04	10
Chlorobenzene	ND		1600	200	ug/Kg	☆	02/16/22 17:28	02/17/22 14:04	10
Dibromochloromethane	ND		1600	750	ug/Kg	☆	02/16/22 17:28	02/17/22 14:04	10
Chloroethane	ND	*1	1600	320	ug/Kg	☆	02/16/22 17:28	02/17/22 14:04	10
Chloroform	ND		1600	1100	ug/Kg	☆	02/16/22 17:28	02/17/22 14:04	10
Chloromethane	ND		1600	370	ug/Kg	☆	02/16/22 17:28	02/17/22 14:04	10
cis-1,2-Dichloroethene	56000		1600	430	ug/Kg	☆	02/16/22 17:28	02/17/22 14:04	10
cis-1,3-Dichloropropene	ND		1600	370	ug/Kg	☆	02/16/22 17:28	02/17/22 14:04	10
Cyclohexane	1000	J	1600	340	ug/Kg	☆	02/16/22 17:28	02/17/22 14:04	10
Dichlorodifluoromethane	ND		1600	680	ug/Kg	☆	02/16/22 17:28	02/17/22 14:04	10
Ethylbenzene	6800		1600	450	ug/Kg	☆	02/16/22 17:28	02/17/22 14:04	10
1,2-Dibromoethane	ND		1600	270	ug/Kg	☆	02/16/22 17:28	02/17/22 14:04	10
Isopropylbenzene	2800		1600	230	ug/Kg	☆	02/16/22 17:28	02/17/22 14:04	10
Methyl acetate	ND		7800	740	ug/Kg	☆	02/16/22 17:28	02/17/22 14:04	10
Methyl tert-butyl ether	ND		1600	590	ug/Kg	☆	02/16/22 17:28	02/17/22 14:04	10
Methylcyclohexane	5000		1600	730	ug/Kg	☆	02/16/22 17:28	02/17/22 14:04	10
Methylene Chloride	ND		1600	310	ug/Kg	☆	02/16/22 17:28	02/17/22 14:04	10
Styrene	ND		1600	370	ug/Kg	☆	02/16/22 17:28	02/17/22 14:04	10
Tetrachloroethene	27000		1600	210	ug/Kg	☆	02/16/22 17:28	02/17/22 14:04	10
Toluene	6200		1600	420	ug/Kg	☆	02/16/22 17:28	02/17/22 14:04	10
trans-1,2-Dichloroethene	ND		1600	370	ug/Kg	☆	02/16/22 17:28	02/17/22 14:04	10
trans-1,3-Dichloropropene	ND		1600	150	ug/Kg	☆	02/16/22 17:28	02/17/22 14:04	10
Trichloroethene	2000		1600	430	ug/Kg	☆	02/16/22 17:28	02/17/22 14:04	10
Trichlorofluoromethane	ND		1600	730	ug/Kg	☆	02/16/22 17:28	02/17/22 14:04	10
Vinyl chloride	9800		1600	520	ug/Kg	☆	02/16/22 17:28	02/17/22 14:04	10
Xylenes, Total	12000		3100	860	ug/Kg	☆	02/16/22 17:28	02/17/22 14:04	10

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Client Sample Results

Client: Benchmark Env. Eng. & Science, PLLC
Project/Site: Benchmark - Howell Street

Job ID: 480-195030-1

Client Sample ID: TP-6 3-4'

Lab Sample ID: 480-195030-3

Date Collected: 02/15/22 11:17

Matrix: Solid

Date Received: 02/15/22 17:05

Percent Solids: 72.3

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Toluene-d8 (Surr)	99		50 - 149	02/16/22 17:28	02/17/22 14:04	10
1,2-Dichloroethane-d4 (Surr)	106		53 - 146	02/16/22 17:28	02/17/22 14:04	10
4-Bromofluorobenzene (Surr)	101		49 - 148	02/16/22 17:28	02/17/22 14:04	10
Dibromofluoromethane (Surr)	106		60 - 140	02/16/22 17:28	02/17/22 14:04	10

Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acenaphthene	190	J	230	34	ug/Kg	☆	02/17/22 08:30	02/18/22 18:12	1
Acenaphthylene	ND		230	30	ug/Kg	☆	02/17/22 08:30	02/18/22 18:12	1
Anthracene	170	J	230	57	ug/Kg	☆	02/17/22 08:30	02/18/22 18:12	1
Benzo[a]anthracene	300		230	23	ug/Kg	☆	02/17/22 08:30	02/18/22 18:12	1
Benzo[a]pyrene	250		230	34	ug/Kg	☆	02/17/22 08:30	02/18/22 18:12	1
Benzo[b]fluoranthene	390		230	37	ug/Kg	☆	02/17/22 08:30	02/18/22 18:12	1
Benzo[g,h,i]perylene	170	J F2	230	24	ug/Kg	☆	02/17/22 08:30	02/18/22 18:12	1
Benzo[k]fluoranthene	150	J	230	30	ug/Kg	☆	02/17/22 08:30	02/18/22 18:12	1
Chrysene	440		230	51	ug/Kg	☆	02/17/22 08:30	02/18/22 18:12	1
Dibenz(a,h)anthracene	69	J F2	230	41	ug/Kg	☆	02/17/22 08:30	02/18/22 18:12	1
Fluoranthene	760		230	24	ug/Kg	☆	02/17/22 08:30	02/18/22 18:12	1
Fluorene	430		230	27	ug/Kg	☆	02/17/22 08:30	02/18/22 18:12	1
Indeno[1,2,3-cd]pyrene	150	J F2	230	28	ug/Kg	☆	02/17/22 08:30	02/18/22 18:12	1
Naphthalene	460		230	30	ug/Kg	☆	02/17/22 08:30	02/18/22 18:12	1
Pyrene	630		230	27	ug/Kg	☆	02/17/22 08:30	02/18/22 18:12	1
Phenanthrene	630		230	34	ug/Kg	☆	02/17/22 08:30	02/18/22 18:12	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2,4,6-Tribromophenol (Surr)	118		54 - 120	02/17/22 08:30	02/18/22 18:12	1
2-Fluorobiphenyl	98		60 - 120	02/17/22 08:30	02/18/22 18:12	1
2-Fluorophenol (Surr)	78		52 - 120	02/17/22 08:30	02/18/22 18:12	1
Phenol-d5 (Surr)	82		54 - 120	02/17/22 08:30	02/18/22 18:12	1
p-Terphenyl-d14 (Surr)	88		79 - 130	02/17/22 08:30	02/18/22 18:12	1
Nitrobenzene-d5 (Surr)	110		53 - 120	02/17/22 08:30	02/18/22 18:12	1

Method: 6010C - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	7.9		2.7		mg/Kg	☆	02/16/22 15:41	02/17/22 17:37	1
Barium	131		0.66		mg/Kg	☆	02/16/22 15:41	02/17/22 17:37	1
Cadmium	0.84		0.27		mg/Kg	☆	02/16/22 15:41	02/17/22 17:37	1
Chromium	18.6		0.66		mg/Kg	☆	02/16/22 15:41	02/17/22 17:37	1
Lead	197		1.3		mg/Kg	☆	02/16/22 15:41	02/17/22 17:37	1
Selenium	ND		5.3		mg/Kg	☆	02/16/22 15:41	02/17/22 17:37	1
Silver	ND		0.80		mg/Kg	☆	02/16/22 15:41	02/17/22 17:37	1

Method: 7471B - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.060		0.027		mg/Kg	☆	02/17/22 11:06	02/17/22 13:02	1

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Client Sample Results

Client: Benchmark Env. Eng. & Science, PLLC
Project/Site: Benchmark - Howell Street

Job ID: 480-195030-1

Client Sample ID: TP-7 3-5'

Lab Sample ID: 480-195030-4

Date Collected: 02/15/22 11:35

Matrix: Solid

Date Received: 02/15/22 17:05

Percent Solids: 75.9

Method: 8260C - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	ND		2900	800	ug/Kg	☆	02/16/22 17:28	02/17/22 14:27	20
1,1,2,2-Tetrachloroethane	ND		2900	470	ug/Kg	☆	02/16/22 17:28	02/17/22 14:27	20
1,1,2-Trichloroethane	ND		2900	600	ug/Kg	☆	02/16/22 17:28	02/17/22 14:27	20
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		2900	1400	ug/Kg	☆	02/16/22 17:28	02/17/22 14:27	20
1,1-Dichloroethane	ND		2900	890	ug/Kg	☆	02/16/22 17:28	02/17/22 14:27	20
1,1-Dichloroethene	ND		2900	990	ug/Kg	☆	02/16/22 17:28	02/17/22 14:27	20
1,2,4-Trichlorobenzene	ND		2900	1100	ug/Kg	☆	02/16/22 17:28	02/17/22 14:27	20
1,2-Dibromo-3-Chloropropane	ND		2900	1400	ug/Kg	☆	02/16/22 17:28	02/17/22 14:27	20
1,2-Dichlorobenzene	ND		2900	730	ug/Kg	☆	02/16/22 17:28	02/17/22 14:27	20
1,2-Dichloroethane	ND		2900	1200	ug/Kg	☆	02/16/22 17:28	02/17/22 14:27	20
1,2-Dichloropropane	ND		2900	470	ug/Kg	☆	02/16/22 17:28	02/17/22 14:27	20
1,3-Dichlorobenzene	ND		2900	770	ug/Kg	☆	02/16/22 17:28	02/17/22 14:27	20
1,4-Dichlorobenzene	ND		2900	400	ug/Kg	☆	02/16/22 17:28	02/17/22 14:27	20
2-Butanone (MEK)	ND	*1	14000	8500	ug/Kg	☆	02/16/22 17:28	02/17/22 14:27	20
2-Hexanone	ND		14000	5900	ug/Kg	☆	02/16/22 17:28	02/17/22 14:27	20
4-Methyl-2-pentanone (MIBK)	ND		14000	920	ug/Kg	☆	02/16/22 17:28	02/17/22 14:27	20
Acetone	ND	*+ *1	14000	12000	ug/Kg	☆	02/16/22 17:28	02/17/22 14:27	20
Benzene	ND		2900	550	ug/Kg	☆	02/16/22 17:28	02/17/22 14:27	20
Bromodichloromethane	ND		2900	570	ug/Kg	☆	02/16/22 17:28	02/17/22 14:27	20
Bromoform	ND		2900	1400	ug/Kg	☆	02/16/22 17:28	02/17/22 14:27	20
Bromomethane	ND		2900	630	ug/Kg	☆	02/16/22 17:28	02/17/22 14:27	20
Carbon disulfide	ND		2900	1300	ug/Kg	☆	02/16/22 17:28	02/17/22 14:27	20
Carbon tetrachloride	ND		2900	730	ug/Kg	☆	02/16/22 17:28	02/17/22 14:27	20
Chlorobenzene	ND		2900	380	ug/Kg	☆	02/16/22 17:28	02/17/22 14:27	20
Dibromochloromethane	ND		2900	1400	ug/Kg	☆	02/16/22 17:28	02/17/22 14:27	20
Chloroethane	ND	*1	2900	600	ug/Kg	☆	02/16/22 17:28	02/17/22 14:27	20
Chloroform	ND		2900	2000	ug/Kg	☆	02/16/22 17:28	02/17/22 14:27	20
Chloromethane	ND		2900	680	ug/Kg	☆	02/16/22 17:28	02/17/22 14:27	20
cis-1,2-Dichloroethene	ND		2900	790	ug/Kg	☆	02/16/22 17:28	02/17/22 14:27	20
cis-1,3-Dichloropropene	ND		2900	690	ug/Kg	☆	02/16/22 17:28	02/17/22 14:27	20
Cyclohexane	ND		2900	640	ug/Kg	☆	02/16/22 17:28	02/17/22 14:27	20
Dichlorodifluoromethane	ND		2900	1300	ug/Kg	☆	02/16/22 17:28	02/17/22 14:27	20
Ethylbenzene	ND		2900	840	ug/Kg	☆	02/16/22 17:28	02/17/22 14:27	20
1,2-Dibromoethane	ND		2900	500	ug/Kg	☆	02/16/22 17:28	02/17/22 14:27	20
Isopropylbenzene	620	J	2900	430	ug/Kg	☆	02/16/22 17:28	02/17/22 14:27	20
Methyl acetate	ND		14000	1400	ug/Kg	☆	02/16/22 17:28	02/17/22 14:27	20
Methyl tert-butyl ether	ND		2900	1100	ug/Kg	☆	02/16/22 17:28	02/17/22 14:27	20
Methylcyclohexane	ND		2900	1300	ug/Kg	☆	02/16/22 17:28	02/17/22 14:27	20
Methylene Chloride	ND		2900	570	ug/Kg	☆	02/16/22 17:28	02/17/22 14:27	20
Styrene	ND		2900	690	ug/Kg	☆	02/16/22 17:28	02/17/22 14:27	20
Tetrachloroethene	ND		2900	390	ug/Kg	☆	02/16/22 17:28	02/17/22 14:27	20
Toluene	ND		2900	770	ug/Kg	☆	02/16/22 17:28	02/17/22 14:27	20
trans-1,2-Dichloroethene	ND		2900	680	ug/Kg	☆	02/16/22 17:28	02/17/22 14:27	20
trans-1,3-Dichloropropene	ND		2900	280	ug/Kg	☆	02/16/22 17:28	02/17/22 14:27	20
Trichloroethene	ND		2900	800	ug/Kg	☆	02/16/22 17:28	02/17/22 14:27	20
Trichlorofluoromethane	ND		2900	1300	ug/Kg	☆	02/16/22 17:28	02/17/22 14:27	20
Vinyl chloride	ND		2900	960	ug/Kg	☆	02/16/22 17:28	02/17/22 14:27	20
Xylenes, Total	ND		5700	1600	ug/Kg	☆	02/16/22 17:28	02/17/22 14:27	20

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Client Sample Results

Client: Benchmark Env. Eng. & Science, PLLC
Project/Site: Benchmark - Howell Street

Job ID: 480-195030-1

Client Sample ID: TP-7 3-5'

Lab Sample ID: 480-195030-4

Date Collected: 02/15/22 11:35

Matrix: Solid

Date Received: 02/15/22 17:05

Percent Solids: 75.9

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Toluene-d8 (Surr)	102		50 - 149	02/16/22 17:28	02/17/22 14:27	20
1,2-Dichloroethane-d4 (Surr)	104		53 - 146	02/16/22 17:28	02/17/22 14:27	20
4-Bromofluorobenzene (Surr)	102		49 - 148	02/16/22 17:28	02/17/22 14:27	20
Dibromofluoromethane (Surr)	101		60 - 140	02/16/22 17:28	02/17/22 14:27	20

Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acenaphthene	280		220	33	ug/Kg	☆	02/17/22 08:30	02/18/22 19:23	1
Acenaphthylene	ND		220	29	ug/Kg	☆	02/17/22 08:30	02/18/22 19:23	1
Anthracene	290		220	55	ug/Kg	☆	02/17/22 08:30	02/18/22 19:23	1
Benzo[a]anthracene	490		220	22	ug/Kg	☆	02/17/22 08:30	02/18/22 19:23	1
Benzo[a]pyrene	510		220	33	ug/Kg	☆	02/17/22 08:30	02/18/22 19:23	1
Benzo[b]fluoranthene	960		220	35	ug/Kg	☆	02/17/22 08:30	02/18/22 19:23	1
Benzo[g,h,i]perylene	170 J		220	24	ug/Kg	☆	02/17/22 08:30	02/18/22 19:23	1
Benzo[k]fluoranthene	ND		220	29	ug/Kg	☆	02/17/22 08:30	02/18/22 19:23	1
Chrysene	650		220	50	ug/Kg	☆	02/17/22 08:30	02/18/22 19:23	1
Dibenz(a,h)anthracene	74 J		220	39	ug/Kg	☆	02/17/22 08:30	02/18/22 19:23	1
Fluoranthene	1300		220	24	ug/Kg	☆	02/17/22 08:30	02/18/22 19:23	1
Fluorene	390		220	26	ug/Kg	☆	02/17/22 08:30	02/18/22 19:23	1
Indeno[1,2,3-cd]pyrene	180 J		220	28	ug/Kg	☆	02/17/22 08:30	02/18/22 19:23	1
Naphthalene	230		220	29	ug/Kg	☆	02/17/22 08:30	02/18/22 19:23	1
Pyrene	910		220	26	ug/Kg	☆	02/17/22 08:30	02/18/22 19:23	1
Phenanthrene	440		220	33	ug/Kg	☆	02/17/22 08:30	02/18/22 19:23	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2,4,6-Tribromophenol (Surr)	109		54 - 120	02/17/22 08:30	02/18/22 19:23	1
2-Fluorobiphenyl	106		60 - 120	02/17/22 08:30	02/18/22 19:23	1
2-Fluorophenol (Surr)	84		52 - 120	02/17/22 08:30	02/18/22 19:23	1
Phenol-d5 (Surr)	87		54 - 120	02/17/22 08:30	02/18/22 19:23	1
p-Terphenyl-d14 (Surr)	81		79 - 130	02/17/22 08:30	02/18/22 19:23	1
Nitrobenzene-d5 (Surr)	99		53 - 120	02/17/22 08:30	02/18/22 19:23	1

Method: 6010C - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	9.7		2.6		mg/Kg	☆	02/16/22 15:41	02/17/22 17:52	1
Barium	107		0.65		mg/Kg	☆	02/16/22 15:41	02/17/22 17:52	1
Cadmium	0.28		0.26		mg/Kg	☆	02/16/22 15:41	02/17/22 17:52	1
Chromium	18.7		0.65		mg/Kg	☆	02/16/22 15:41	02/17/22 17:52	1
Lead	83.2		1.3		mg/Kg	☆	02/16/22 15:41	02/17/22 17:52	1
Selenium	ND		5.2		mg/Kg	☆	02/16/22 15:41	02/17/22 17:52	1
Silver	ND		0.78		mg/Kg	☆	02/16/22 15:41	02/17/22 17:52	1

Method: 7471B - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.063		0.027		mg/Kg	☆	02/17/22 11:06	02/17/22 13:03	1

Eurofins Buffalo

Client Sample Results

Client: Benchmark Env. Eng. & Science, PLLC
Project/Site: Benchmark - Howell Street

Job ID: 480-195030-1

Client Sample ID: TP-8 3-4'

Lab Sample ID: 480-195030-5

Date Collected: 02/15/22 12:00

Matrix: Solid

Date Received: 02/15/22 17:05

Percent Solids: 77.6

Method: 8260C - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	ND		2800	770	ug/Kg	✱	02/16/22 17:28	02/17/22 14:50	20
1,1,2,2-Tetrachloroethane	ND		2800	450	ug/Kg	✱	02/16/22 17:28	02/17/22 14:50	20
1,1,2-Trichloroethane	ND		2800	580	ug/Kg	✱	02/16/22 17:28	02/17/22 14:50	20
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		2800	1400	ug/Kg	✱	02/16/22 17:28	02/17/22 14:50	20
1,1-Dichloroethane	ND		2800	860	ug/Kg	✱	02/16/22 17:28	02/17/22 14:50	20
1,1-Dichloroethene	ND		2800	960	ug/Kg	✱	02/16/22 17:28	02/17/22 14:50	20
1,2,4-Trichlorobenzene	ND		2800	1100	ug/Kg	✱	02/16/22 17:28	02/17/22 14:50	20
1,2-Dibromo-3-Chloropropane	ND		2800	1400	ug/Kg	✱	02/16/22 17:28	02/17/22 14:50	20
1,2-Dichlorobenzene	ND		2800	710	ug/Kg	✱	02/16/22 17:28	02/17/22 14:50	20
1,2-Dichloroethane	ND		2800	1100	ug/Kg	✱	02/16/22 17:28	02/17/22 14:50	20
1,2-Dichloropropane	ND		2800	450	ug/Kg	✱	02/16/22 17:28	02/17/22 14:50	20
1,3-Dichlorobenzene	ND		2800	740	ug/Kg	✱	02/16/22 17:28	02/17/22 14:50	20
1,4-Dichlorobenzene	ND		2800	390	ug/Kg	✱	02/16/22 17:28	02/17/22 14:50	20
2-Butanone (MEK)	ND	*1	14000	8200	ug/Kg	✱	02/16/22 17:28	02/17/22 14:50	20
2-Hexanone	ND		14000	5700	ug/Kg	✱	02/16/22 17:28	02/17/22 14:50	20
4-Methyl-2-pentanone (MIBK)	ND		14000	890	ug/Kg	✱	02/16/22 17:28	02/17/22 14:50	20
Acetone	ND	*+ *1	14000	11000	ug/Kg	✱	02/16/22 17:28	02/17/22 14:50	20
Benzene	810	J	2800	530	ug/Kg	✱	02/16/22 17:28	02/17/22 14:50	20
Bromodichloromethane	ND		2800	550	ug/Kg	✱	02/16/22 17:28	02/17/22 14:50	20
Bromoform	ND		2800	1400	ug/Kg	✱	02/16/22 17:28	02/17/22 14:50	20
Bromomethane	ND		2800	610	ug/Kg	✱	02/16/22 17:28	02/17/22 14:50	20
Carbon disulfide	ND		2800	1300	ug/Kg	✱	02/16/22 17:28	02/17/22 14:50	20
Carbon tetrachloride	ND		2800	710	ug/Kg	✱	02/16/22 17:28	02/17/22 14:50	20
Chlorobenzene	ND		2800	370	ug/Kg	✱	02/16/22 17:28	02/17/22 14:50	20
Dibromochloromethane	ND		2800	1300	ug/Kg	✱	02/16/22 17:28	02/17/22 14:50	20
Chloroethane	ND	*1	2800	580	ug/Kg	✱	02/16/22 17:28	02/17/22 14:50	20
Chloroform	ND		2800	1900	ug/Kg	✱	02/16/22 17:28	02/17/22 14:50	20
Chloromethane	ND		2800	660	ug/Kg	✱	02/16/22 17:28	02/17/22 14:50	20
cis-1,2-Dichloroethene	ND		2800	760	ug/Kg	✱	02/16/22 17:28	02/17/22 14:50	20
cis-1,3-Dichloropropene	ND		2800	660	ug/Kg	✱	02/16/22 17:28	02/17/22 14:50	20
Cyclohexane	ND		2800	620	ug/Kg	✱	02/16/22 17:28	02/17/22 14:50	20
Dichlorodifluoromethane	ND		2800	1200	ug/Kg	✱	02/16/22 17:28	02/17/22 14:50	20
Ethylbenzene	ND		2800	810	ug/Kg	✱	02/16/22 17:28	02/17/22 14:50	20
1,2-Dibromoethane	ND		2800	480	ug/Kg	✱	02/16/22 17:28	02/17/22 14:50	20
Isopropylbenzene	ND		2800	420	ug/Kg	✱	02/16/22 17:28	02/17/22 14:50	20
Methyl acetate	ND		14000	1300	ug/Kg	✱	02/16/22 17:28	02/17/22 14:50	20
Methyl tert-butyl ether	ND		2800	1000	ug/Kg	✱	02/16/22 17:28	02/17/22 14:50	20
Methylcyclohexane	ND		2800	1300	ug/Kg	✱	02/16/22 17:28	02/17/22 14:50	20
Methylene Chloride	ND		2800	550	ug/Kg	✱	02/16/22 17:28	02/17/22 14:50	20
Styrene	ND		2800	670	ug/Kg	✱	02/16/22 17:28	02/17/22 14:50	20
Tetrachloroethene	ND		2800	370	ug/Kg	✱	02/16/22 17:28	02/17/22 14:50	20
Toluene	ND		2800	740	ug/Kg	✱	02/16/22 17:28	02/17/22 14:50	20
trans-1,2-Dichloroethene	ND		2800	650	ug/Kg	✱	02/16/22 17:28	02/17/22 14:50	20
trans-1,3-Dichloropropene	ND		2800	270	ug/Kg	✱	02/16/22 17:28	02/17/22 14:50	20
Trichloroethene	ND		2800	770	ug/Kg	✱	02/16/22 17:28	02/17/22 14:50	20
Trichlorofluoromethane	ND		2800	1300	ug/Kg	✱	02/16/22 17:28	02/17/22 14:50	20
Vinyl chloride	ND		2800	930	ug/Kg	✱	02/16/22 17:28	02/17/22 14:50	20
Xylenes, Total	ND		5500	1500	ug/Kg	✱	02/16/22 17:28	02/17/22 14:50	20

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Client Sample Results

Client: Benchmark Env. Eng. & Science, PLLC
Project/Site: Benchmark - Howell Street

Job ID: 480-195030-1

Client Sample ID: TP-8 3-4'

Lab Sample ID: 480-195030-5

Date Collected: 02/15/22 12:00

Matrix: Solid

Date Received: 02/15/22 17:05

Percent Solids: 77.6

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Toluene-d8 (Surr)	98		50 - 149	02/16/22 17:28	02/17/22 14:50	20
1,2-Dichloroethane-d4 (Surr)	101		53 - 146	02/16/22 17:28	02/17/22 14:50	20
4-Bromofluorobenzene (Surr)	97		49 - 148	02/16/22 17:28	02/17/22 14:50	20
Dibromofluoromethane (Surr)	100		60 - 140	02/16/22 17:28	02/17/22 14:50	20

Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acenaphthene	960	J	1100	160	ug/Kg	☆	02/17/22 08:30	02/18/22 19:47	5
Acenaphthylene	ND		1100	140	ug/Kg	☆	02/17/22 08:30	02/18/22 19:47	5
Anthracene	650	J	1100	260	ug/Kg	☆	02/17/22 08:30	02/18/22 19:47	5
Benzo[a]anthracene	710	J	1100	110	ug/Kg	☆	02/17/22 08:30	02/18/22 19:47	5
Benzo[a]pyrene	470	J	1100	160	ug/Kg	☆	02/17/22 08:30	02/18/22 19:47	5
Benzo[b]fluoranthene	750	J	1100	170	ug/Kg	☆	02/17/22 08:30	02/18/22 19:47	5
Benzo[g,h,i]perylene	260	J	1100	110	ug/Kg	☆	02/17/22 08:30	02/18/22 19:47	5
Benzo[k]fluoranthene	170	J	1100	140	ug/Kg	☆	02/17/22 08:30	02/18/22 19:47	5
Chrysene	720	J	1100	240	ug/Kg	☆	02/17/22 08:30	02/18/22 19:47	5
Dibenz(a,h)anthracene	ND		1100	190	ug/Kg	☆	02/17/22 08:30	02/18/22 19:47	5
Fluoranthene	2100		1100	110	ug/Kg	☆	02/17/22 08:30	02/18/22 19:47	5
Fluorene	1300		1100	130	ug/Kg	☆	02/17/22 08:30	02/18/22 19:47	5
Indeno[1,2,3-cd]pyrene	250	J	1100	130	ug/Kg	☆	02/17/22 08:30	02/18/22 19:47	5
Naphthalene	260	J	1100	140	ug/Kg	☆	02/17/22 08:30	02/18/22 19:47	5
Pyrene	1700		1100	130	ug/Kg	☆	02/17/22 08:30	02/18/22 19:47	5
Phenanthrene	1800		1100	160	ug/Kg	☆	02/17/22 08:30	02/18/22 19:47	5

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2,4,6-Tribromophenol (Surr)	77		54 - 120	02/17/22 08:30	02/18/22 19:47	5
2-Fluorobiphenyl	96		60 - 120	02/17/22 08:30	02/18/22 19:47	5
2-Fluorophenol (Surr)	71		52 - 120	02/17/22 08:30	02/18/22 19:47	5
Phenol-d5 (Surr)	79		54 - 120	02/17/22 08:30	02/18/22 19:47	5
p-Terphenyl-d14 (Surr)	90		79 - 130	02/17/22 08:30	02/18/22 19:47	5
Nitrobenzene-d5 (Surr)	106		53 - 120	02/17/22 08:30	02/18/22 19:47	5

Method: 6010C - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	5.9		2.6		mg/Kg	☆	02/16/22 15:41	02/17/22 17:55	1
Barium	122		0.65		mg/Kg	☆	02/16/22 15:41	02/17/22 17:55	1
Cadmium	0.26		0.26		mg/Kg	☆	02/16/22 15:41	02/17/22 17:55	1
Chromium	24.3		0.65		mg/Kg	☆	02/16/22 15:41	02/17/22 17:55	1
Lead	40.0		1.3		mg/Kg	☆	02/16/22 15:41	02/17/22 17:55	1
Selenium	ND		5.2		mg/Kg	☆	02/16/22 15:41	02/17/22 17:55	1
Silver	ND		0.78		mg/Kg	☆	02/16/22 15:41	02/17/22 17:55	1

Method: 7471B - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.062		0.027		mg/Kg	☆	02/17/22 11:06	02/17/22 13:05	1

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Client Sample Results

Client: Benchmark Env. Eng. & Science, PLLC
Project/Site: Benchmark - Howell Street

Job ID: 480-195030-1

Client Sample ID: TP-10 1-3'

Lab Sample ID: 480-195030-6

Date Collected: 02/15/22 12:55

Matrix: Solid

Date Received: 02/15/22 17:05

Percent Solids: 77.8

Method: 8260C - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	ND		560	150	ug/Kg	✱	02/16/22 17:28	02/17/22 15:13	4
1,1,2,2-Tetrachloroethane	ND		560	90	ug/Kg	✱	02/16/22 17:28	02/17/22 15:13	4
1,1,2-Trichloroethane	ND		560	120	ug/Kg	✱	02/16/22 17:28	02/17/22 15:13	4
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		560	280	ug/Kg	✱	02/16/22 17:28	02/17/22 15:13	4
1,1-Dichloroethane	ND		560	170	ug/Kg	✱	02/16/22 17:28	02/17/22 15:13	4
1,1-Dichloroethene	ND		560	190	ug/Kg	✱	02/16/22 17:28	02/17/22 15:13	4
1,2,4-Trichlorobenzene	ND		560	210	ug/Kg	✱	02/16/22 17:28	02/17/22 15:13	4
1,2-Dibromo-3-Chloropropane	ND		560	280	ug/Kg	✱	02/16/22 17:28	02/17/22 15:13	4
1,2-Dichlorobenzene	ND		560	140	ug/Kg	✱	02/16/22 17:28	02/17/22 15:13	4
1,2-Dichloroethane	ND		560	230	ug/Kg	✱	02/16/22 17:28	02/17/22 15:13	4
1,2-Dichloropropane	ND		560	90	ug/Kg	✱	02/16/22 17:28	02/17/22 15:13	4
1,3-Dichlorobenzene	ND		560	150	ug/Kg	✱	02/16/22 17:28	02/17/22 15:13	4
1,4-Dichlorobenzene	ND		560	78	ug/Kg	✱	02/16/22 17:28	02/17/22 15:13	4
2-Butanone (MEK)	ND	*1	2800	1600	ug/Kg	✱	02/16/22 17:28	02/17/22 15:13	4
2-Hexanone	ND		2800	1100	ug/Kg	✱	02/16/22 17:28	02/17/22 15:13	4
4-Methyl-2-pentanone (MIBK)	ND		2800	180	ug/Kg	✱	02/16/22 17:28	02/17/22 15:13	4
Acetone	ND	*+ *1	2800	2300	ug/Kg	✱	02/16/22 17:28	02/17/22 15:13	4
Benzene	130	J	560	110	ug/Kg	✱	02/16/22 17:28	02/17/22 15:13	4
Bromodichloromethane	ND		560	110	ug/Kg	✱	02/16/22 17:28	02/17/22 15:13	4
Bromoform	ND		560	280	ug/Kg	✱	02/16/22 17:28	02/17/22 15:13	4
Bromomethane	ND		560	120	ug/Kg	✱	02/16/22 17:28	02/17/22 15:13	4
Carbon disulfide	ND		560	250	ug/Kg	✱	02/16/22 17:28	02/17/22 15:13	4
Carbon tetrachloride	ND		560	140	ug/Kg	✱	02/16/22 17:28	02/17/22 15:13	4
Chlorobenzene	ND		560	73	ug/Kg	✱	02/16/22 17:28	02/17/22 15:13	4
Dibromochloromethane	ND		560	270	ug/Kg	✱	02/16/22 17:28	02/17/22 15:13	4
Chloroethane	ND	*1	560	120	ug/Kg	✱	02/16/22 17:28	02/17/22 15:13	4
Chloroform	ND		560	380	ug/Kg	✱	02/16/22 17:28	02/17/22 15:13	4
Chloromethane	ND		560	130	ug/Kg	✱	02/16/22 17:28	02/17/22 15:13	4
cis-1,2-Dichloroethene	ND		560	150	ug/Kg	✱	02/16/22 17:28	02/17/22 15:13	4
cis-1,3-Dichloropropene	ND		560	130	ug/Kg	✱	02/16/22 17:28	02/17/22 15:13	4
Cyclohexane	2300		560	120	ug/Kg	✱	02/16/22 17:28	02/17/22 15:13	4
Dichlorodifluoromethane	ND		560	240	ug/Kg	✱	02/16/22 17:28	02/17/22 15:13	4
Ethylbenzene	ND		560	160	ug/Kg	✱	02/16/22 17:28	02/17/22 15:13	4
1,2-Dibromoethane	ND		560	97	ug/Kg	✱	02/16/22 17:28	02/17/22 15:13	4
Isopropylbenzene	150	J	560	83	ug/Kg	✱	02/16/22 17:28	02/17/22 15:13	4
Methyl acetate	ND		2800	260	ug/Kg	✱	02/16/22 17:28	02/17/22 15:13	4
Methyl tert-butyl ether	ND		560	210	ug/Kg	✱	02/16/22 17:28	02/17/22 15:13	4
Methylcyclohexane	4100		560	260	ug/Kg	✱	02/16/22 17:28	02/17/22 15:13	4
Methylene Chloride	ND		560	110	ug/Kg	✱	02/16/22 17:28	02/17/22 15:13	4
Styrene	ND		560	130	ug/Kg	✱	02/16/22 17:28	02/17/22 15:13	4
Tetrachloroethene	ND		560	75	ug/Kg	✱	02/16/22 17:28	02/17/22 15:13	4
Toluene	ND		560	150	ug/Kg	✱	02/16/22 17:28	02/17/22 15:13	4
trans-1,2-Dichloroethene	ND		560	130	ug/Kg	✱	02/16/22 17:28	02/17/22 15:13	4
trans-1,3-Dichloropropene	ND		560	55	ug/Kg	✱	02/16/22 17:28	02/17/22 15:13	4
Trichloroethene	ND		560	150	ug/Kg	✱	02/16/22 17:28	02/17/22 15:13	4
Trichlorofluoromethane	ND		560	260	ug/Kg	✱	02/16/22 17:28	02/17/22 15:13	4
Vinyl chloride	ND		560	190	ug/Kg	✱	02/16/22 17:28	02/17/22 15:13	4
Xylenes, Total	800	J	1100	310	ug/Kg	✱	02/16/22 17:28	02/17/22 15:13	4

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Client Sample Results

Client: Benchmark Env. Eng. & Science, PLLC
Project/Site: Benchmark - Howell Street

Job ID: 480-195030-1

Client Sample ID: TP-10 1-3'

Lab Sample ID: 480-195030-6

Date Collected: 02/15/22 12:55

Matrix: Solid

Date Received: 02/15/22 17:05

Percent Solids: 77.8

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Toluene-d8 (Surr)	99		50 - 149	02/16/22 17:28	02/17/22 15:13	4
1,2-Dichloroethane-d4 (Surr)	102		53 - 146	02/16/22 17:28	02/17/22 15:13	4
4-Bromofluorobenzene (Surr)	96		49 - 148	02/16/22 17:28	02/17/22 15:13	4
Dibromofluoromethane (Surr)	99		60 - 140	02/16/22 17:28	02/17/22 15:13	4

Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acenaphthene	520	J	1100	160	ug/Kg	☆	02/17/22 08:30	02/18/22 20:11	5
Acenaphthylene	290	J	1100	140	ug/Kg	☆	02/17/22 08:30	02/18/22 20:11	5
Anthracene	810	J	1100	270	ug/Kg	☆	02/17/22 08:30	02/18/22 20:11	5
Benzo[a]anthracene	2300		1100	110	ug/Kg	☆	02/17/22 08:30	02/18/22 20:11	5
Benzo[a]pyrene	2400		1100	160	ug/Kg	☆	02/17/22 08:30	02/18/22 20:11	5
Benzo[b]fluoranthene	2900		1100	170	ug/Kg	☆	02/17/22 08:30	02/18/22 20:11	5
Benzo[g,h,i]perylene	1600		1100	110	ug/Kg	☆	02/17/22 08:30	02/18/22 20:11	5
Benzo[k]fluoranthene	1200		1100	140	ug/Kg	☆	02/17/22 08:30	02/18/22 20:11	5
Chrysene	2500		1100	240	ug/Kg	☆	02/17/22 08:30	02/18/22 20:11	5
Dibenz(a,h)anthracene	430	J	1100	190	ug/Kg	☆	02/17/22 08:30	02/18/22 20:11	5
Fluoranthene	4700		1100	110	ug/Kg	☆	02/17/22 08:30	02/18/22 20:11	5
Fluorene	740	J	1100	130	ug/Kg	☆	02/17/22 08:30	02/18/22 20:11	5
Indeno[1,2,3-cd]pyrene	ND		1100	130	ug/Kg	☆	02/17/22 08:30	02/18/22 20:11	5
Naphthalene	930	J	1100	140	ug/Kg	☆	02/17/22 08:30	02/18/22 20:11	5
Pyrene	4000		1100	130	ug/Kg	☆	02/17/22 08:30	02/18/22 20:11	5
Phenanthrene	2900		1100	160	ug/Kg	☆	02/17/22 08:30	02/18/22 20:11	5

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2,4,6-Tribromophenol (Surr)	76		54 - 120	02/17/22 08:30	02/18/22 20:11	5
2-Fluorobiphenyl	99		60 - 120	02/17/22 08:30	02/18/22 20:11	5
2-Fluorophenol (Surr)	77		52 - 120	02/17/22 08:30	02/18/22 20:11	5
Phenol-d5 (Surr)	82		54 - 120	02/17/22 08:30	02/18/22 20:11	5
p-Terphenyl-d14 (Surr)	88		79 - 130	02/17/22 08:30	02/18/22 20:11	5
Nitrobenzene-d5 (Surr)	98		53 - 120	02/17/22 08:30	02/18/22 20:11	5

Method: 6010C - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	16.1		2.4		mg/Kg	☆	02/16/22 15:41	02/17/22 17:59	1
Barium	97.1		0.61		mg/Kg	☆	02/16/22 15:41	02/17/22 17:59	1
Cadmium	0.53		0.24		mg/Kg	☆	02/16/22 15:41	02/17/22 17:59	1
Chromium	17.9		0.61		mg/Kg	☆	02/16/22 15:41	02/17/22 17:59	1
Lead	726		1.2		mg/Kg	☆	02/16/22 15:41	02/17/22 17:59	1
Selenium	ND		4.9		mg/Kg	☆	02/16/22 15:41	02/17/22 17:59	1
Silver	ND		0.73		mg/Kg	☆	02/16/22 15:41	02/17/22 17:59	1

Method: 7471B - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.076		0.026		mg/Kg	☆	02/17/22 11:06	02/17/22 13:06	1

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Surrogate Summary

Client: Benchmark Env. Eng. & Science, PLLC
Project/Site: Benchmark - Howell Street

Job ID: 480-195030-1

Method: 8260C - Volatile Organic Compounds by GC/MS

Matrix: Solid

Prep Type: Total/NA

Lab Sample ID	Client Sample ID	Percent Surrogate Recovery (Acceptance Limits)			
		TOL (50-149)	DCA (53-146)	BFB (49-148)	DBFM (60-140)
480-195030-1	TP-1 3-4'	98	101	98	97
480-195030-2	TP-3 1-2'	102	109	104	105
480-195030-3	TP-6 3-4'	99	106	101	106
480-195030-4	TP-7 3-5'	102	104	102	101
480-195030-5	TP-8 3-4'	98	101	97	100
480-195030-6	TP-10 1-3'	99	102	96	99
LCS 480-615092/1-A	Lab Control Sample	97	102	100	103
LCSD 480-615092/2-A	Lab Control Sample Dup	97	99	100	99
MB 480-615092/3-A	Method Blank	104	105	104	103

Surrogate Legend

TOL = Toluene-d8 (Surr)
DCA = 1,2-Dichloroethane-d4 (Surr)
BFB = 4-Bromofluorobenzene (Surr)
DBFM = Dibromofluoromethane (Surr)

Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Matrix: Solid

Prep Type: Total/NA

Lab Sample ID	Client Sample ID	Percent Surrogate Recovery (Acceptance Limits)					
		TBP (54-120)	FBP (60-120)	2FP (52-120)	PHL (54-120)	TPHd14 (79-130)	NBZ (53-120)
480-195030-1	TP-1 3-4'	118	112	85	92	99	104
480-195030-2	TP-3 1-2'	82	94	73	81	92	100
480-195030-3	TP-6 3-4'	118	98	78	82	88	110
480-195030-3 MS	TP-6 3-4'	133 S1+	115	93	95	103	111
480-195030-3 MSD	TP-6 3-4'	122 S1+	98	83	88	92	98
480-195030-4	TP-7 3-5'	109	106	84	87	81	99
480-195030-5	TP-8 3-4'	77	96	71	79	90	106
480-195030-6	TP-10 1-3'	76	99	77	82	88	98
LCS 480-615141/2-A	Lab Control Sample	128 S1+	113	95	96	123	100
MB 480-615141/1-A	Method Blank	103	108	91	91	127	94

Surrogate Legend

TBP = 2,4,6-Tribromophenol (Surr)
FBP = 2-Fluorobiphenyl
2FP = 2-Fluorophenol (Surr)
PHL = Phenol-d5 (Surr)
TPHd14 = p-Terphenyl-d14 (Surr)
NBZ = Nitrobenzene-d5 (Surr)

QC Sample Results

Client: Benchmark Env. Eng. & Science, PLLC
Project/Site: Benchmark - Howell Street

Job ID: 480-195030-1

Method: 8260C - Volatile Organic Compounds by GC/MS

Lab Sample ID: MB 480-615092/3-A

Matrix: Solid

Analysis Batch: 615137

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 615092

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	ND		100	28	ug/Kg		02/16/22 14:31	02/17/22 12:18	1
1,1,2,2-Tetrachloroethane	ND		100	16	ug/Kg		02/16/22 14:31	02/17/22 12:18	1
1,1,2-Trichloroethane	ND		100	21	ug/Kg		02/16/22 14:31	02/17/22 12:18	1
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		100	50	ug/Kg		02/16/22 14:31	02/17/22 12:18	1
1,1-Dichloroethane	ND		100	31	ug/Kg		02/16/22 14:31	02/17/22 12:18	1
1,1-Dichloroethene	ND		100	35	ug/Kg		02/16/22 14:31	02/17/22 12:18	1
1,2,4-Trichlorobenzene	ND		100	38	ug/Kg		02/16/22 14:31	02/17/22 12:18	1
1,2-Dibromo-3-Chloropropane	ND		100	50	ug/Kg		02/16/22 14:31	02/17/22 12:18	1
1,2-Dichlorobenzene	ND		100	26	ug/Kg		02/16/22 14:31	02/17/22 12:18	1
1,2-Dichloroethane	ND		100	41	ug/Kg		02/16/22 14:31	02/17/22 12:18	1
1,2-Dichloropropane	ND		100	16	ug/Kg		02/16/22 14:31	02/17/22 12:18	1
1,3-Dichlorobenzene	ND		100	27	ug/Kg		02/16/22 14:31	02/17/22 12:18	1
1,4-Dichlorobenzene	ND		100	14	ug/Kg		02/16/22 14:31	02/17/22 12:18	1
2-Butanone (MEK)	ND		500	300	ug/Kg		02/16/22 14:31	02/17/22 12:18	1
2-Hexanone	ND		500	210	ug/Kg		02/16/22 14:31	02/17/22 12:18	1
4-Methyl-2-pentanone (MIBK)	ND		500	32	ug/Kg		02/16/22 14:31	02/17/22 12:18	1
Acetone	ND		500	410	ug/Kg		02/16/22 14:31	02/17/22 12:18	1
Benzene	ND		100	19	ug/Kg		02/16/22 14:31	02/17/22 12:18	1
Bromodichloromethane	ND		100	20	ug/Kg		02/16/22 14:31	02/17/22 12:18	1
Bromoform	ND		100	50	ug/Kg		02/16/22 14:31	02/17/22 12:18	1
Bromomethane	ND		100	22	ug/Kg		02/16/22 14:31	02/17/22 12:18	1
Carbon disulfide	ND		100	46	ug/Kg		02/16/22 14:31	02/17/22 12:18	1
Carbon tetrachloride	ND		100	26	ug/Kg		02/16/22 14:31	02/17/22 12:18	1
Chlorobenzene	ND		100	13	ug/Kg		02/16/22 14:31	02/17/22 12:18	1
Dibromochloromethane	ND		100	48	ug/Kg		02/16/22 14:31	02/17/22 12:18	1
Chloroethane	ND		100	21	ug/Kg		02/16/22 14:31	02/17/22 12:18	1
Chloroform	ND		100	69	ug/Kg		02/16/22 14:31	02/17/22 12:18	1
Chloromethane	ND		100	24	ug/Kg		02/16/22 14:31	02/17/22 12:18	1
cis-1,2-Dichloroethene	ND		100	28	ug/Kg		02/16/22 14:31	02/17/22 12:18	1
cis-1,3-Dichloropropene	ND		100	24	ug/Kg		02/16/22 14:31	02/17/22 12:18	1
Cyclohexane	ND		100	22	ug/Kg		02/16/22 14:31	02/17/22 12:18	1
Dichlorodifluoromethane	ND		100	44	ug/Kg		02/16/22 14:31	02/17/22 12:18	1
Ethylbenzene	ND		100	29	ug/Kg		02/16/22 14:31	02/17/22 12:18	1
1,2-Dibromoethane	ND		100	18	ug/Kg		02/16/22 14:31	02/17/22 12:18	1
Isopropylbenzene	ND		100	15	ug/Kg		02/16/22 14:31	02/17/22 12:18	1
Methyl acetate	ND		500	48	ug/Kg		02/16/22 14:31	02/17/22 12:18	1
Methyl tert-butyl ether	ND		100	38	ug/Kg		02/16/22 14:31	02/17/22 12:18	1
Methylcyclohexane	ND		100	47	ug/Kg		02/16/22 14:31	02/17/22 12:18	1
Methylene Chloride	ND		100	20	ug/Kg		02/16/22 14:31	02/17/22 12:18	1
Styrene	ND		100	24	ug/Kg		02/16/22 14:31	02/17/22 12:18	1
Tetrachloroethene	ND		100	13	ug/Kg		02/16/22 14:31	02/17/22 12:18	1
Toluene	ND		100	27	ug/Kg		02/16/22 14:31	02/17/22 12:18	1
trans-1,2-Dichloroethene	ND		100	24	ug/Kg		02/16/22 14:31	02/17/22 12:18	1
trans-1,3-Dichloropropene	ND		100	9.8	ug/Kg		02/16/22 14:31	02/17/22 12:18	1
Trichloroethene	ND		100	28	ug/Kg		02/16/22 14:31	02/17/22 12:18	1
Trichlorofluoromethane	ND		100	47	ug/Kg		02/16/22 14:31	02/17/22 12:18	1
Vinyl chloride	ND		100	34	ug/Kg		02/16/22 14:31	02/17/22 12:18	1
Xylenes, Total	ND		200	55	ug/Kg		02/16/22 14:31	02/17/22 12:18	1

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QC Sample Results

Client: Benchmark Env. Eng. & Science, PLLC
Project/Site: Benchmark - Howell Street

Job ID: 480-195030-1

Method: 8260C - Volatile Organic Compounds by GC/MS (Continued)

Lab Sample ID: MB 480-615092/3-A

Matrix: Solid

Analysis Batch: 615137

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 615092

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
Toluene-d8 (Surr)	104		50 - 149	02/16/22 14:31	02/17/22 12:18	1
1,2-Dichloroethane-d4 (Surr)	105		53 - 146	02/16/22 14:31	02/17/22 12:18	1
4-Bromofluorobenzene (Surr)	104		49 - 148	02/16/22 14:31	02/17/22 12:18	1
Dibromofluoromethane (Surr)	103		60 - 140	02/16/22 14:31	02/17/22 12:18	1

Lab Sample ID: LCS 480-615092/1-A

Matrix: Solid

Analysis Batch: 615137

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 615092

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
1,1,1-Trichloroethane	2500	2760		ug/Kg		110	68 - 130
1,1,1,2,2-Tetrachloroethane	2500	2730		ug/Kg		109	73 - 120
1,1,1,2-Trichloroethane	2500	2800		ug/Kg		112	80 - 120
1,1,1,2-Trichloro-1,2,2-trifluoroethane	2500	2800		ug/Kg		112	10 - 179
1,1-Dichloroethane	2500	2790		ug/Kg		112	78 - 121
1,1-Dichloroethene	2500	2780		ug/Kg		111	48 - 133
1,2,4-Trichlorobenzene	2500	2770		ug/Kg		111	70 - 140
1,2-Dibromo-3-Chloropropane	2500	2700		ug/Kg		108	56 - 122
1,2-Dichlorobenzene	2500	2670		ug/Kg		107	78 - 125
1,2-Dichloroethane	2500	2740		ug/Kg		110	74 - 127
1,2-Dichloropropane	2500	2810		ug/Kg		112	80 - 120
1,3-Dichlorobenzene	2500	2750		ug/Kg		110	80 - 120
1,4-Dichlorobenzene	2500	2720		ug/Kg		109	80 - 120
2-Butanone (MEK)	12500	11000		ug/Kg		88	54 - 149
2-Hexanone	12500	14400		ug/Kg		115	59 - 127
4-Methyl-2-pentanone (MIBK)	12500	14600		ug/Kg		117	74 - 120
Acetone	12500	12100		ug/Kg		97	47 - 141
Benzene	2500	2810		ug/Kg		112	77 - 125
Bromodichloromethane	2500	2770		ug/Kg		111	71 - 121
Bromoform	2500	2630		ug/Kg		105	48 - 125
Bromomethane	2500	1970		ug/Kg		79	39 - 149
Carbon disulfide	2500	2740		ug/Kg		109	40 - 136
Carbon tetrachloride	2500	2770		ug/Kg		111	54 - 135
Chlorobenzene	2500	2690		ug/Kg		108	76 - 126
Dibromochloromethane	2500	2760		ug/Kg		111	64 - 120
Chloroethane	2500	2050		ug/Kg		82	23 - 150
Chloroform	2500	2680		ug/Kg		107	78 - 120
Chloromethane	2500	2690		ug/Kg		108	61 - 124
cis-1,2-Dichloroethene	2500	2770		ug/Kg		111	79 - 124
cis-1,3-Dichloropropene	2500	2940		ug/Kg		118	75 - 121
Cyclohexane	2500	2630		ug/Kg		105	49 - 129
Dichlorodifluoromethane	2500	3060		ug/Kg		122	10 - 150
Ethylbenzene	2500	2790		ug/Kg		112	78 - 124
1,2-Dibromoethane	2500	2750		ug/Kg		110	80 - 120
Isopropylbenzene	2500	2670		ug/Kg		107	76 - 120
Methyl acetate	5000	5470		ug/Kg		109	71 - 123
Methyl tert-butyl ether	2500	2690		ug/Kg		108	67 - 137
Methylcyclohexane	2500	2650		ug/Kg		106	50 - 130

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QC Sample Results

Client: Benchmark Env. Eng. & Science, PLLC
Project/Site: Benchmark - Howell Street

Job ID: 480-195030-1

Method: 8260C - Volatile Organic Compounds by GC/MS (Continued)

Lab Sample ID: LCS 480-615092/1-A

Matrix: Solid

Analysis Batch: 615137

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 615092

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Methylene Chloride	2500	2780		ug/Kg		111	75 - 118
Styrene	2500	2830		ug/Kg		113	80 - 120
Tetrachloroethene	2500	2690		ug/Kg		107	73 - 133
Toluene	2500	2730		ug/Kg		109	75 - 124
trans-1,2-Dichloroethene	2500	2710		ug/Kg		109	74 - 129
trans-1,3-Dichloropropene	2500	2850		ug/Kg		114	73 - 120
Trichloroethene	2500	2850		ug/Kg		114	75 - 131
Trichlorofluoromethane	2500	2880		ug/Kg		115	29 - 158
Vinyl chloride	2500	2950		ug/Kg		118	59 - 124

Surrogate	LCS %Recovery	LCS Qualifier	Limits
Toluene-d8 (Surr)	97		50 - 149
1,2-Dichloroethane-d4 (Surr)	102		53 - 146
4-Bromofluorobenzene (Surr)	100		49 - 148
Dibromofluoromethane (Surr)	103		60 - 140

Lab Sample ID: LCSD 480-615092/2-A

Matrix: Solid

Analysis Batch: 615137

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 615092

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
1,1,1-Trichloroethane	2500	2470		ug/Kg		99	68 - 130	11	20
1,1,2,2-Tetrachloroethane	2500	2670		ug/Kg		107	73 - 120	3	20
1,1,2-Trichloroethane	2500	2730		ug/Kg		109	80 - 120	2	20
1,1,2-Trichloro-1,2,2-trifluoroethane	2500	2600		ug/Kg		104	10 - 179	7	20
1,1-Dichloroethane	2500	2500		ug/Kg		100	78 - 121	11	20
1,1-Dichloroethene	2500	2510		ug/Kg		101	48 - 133	10	20
1,2,4-Trichlorobenzene	2500	2770		ug/Kg		111	70 - 140	0	20
1,2-Dibromo-3-Chloropropane	2500	2860		ug/Kg		115	56 - 122	6	20
1,2-Dichlorobenzene	2500	2660		ug/Kg		106	78 - 125	1	20
1,2-Dichloroethane	2500	2620		ug/Kg		105	74 - 127	5	20
1,2-Dichloropropane	2500	2600		ug/Kg		104	80 - 120	8	20
1,3-Dichlorobenzene	2500	2660		ug/Kg		107	80 - 120	3	20
1,4-Dichlorobenzene	2500	2570		ug/Kg		103	80 - 120	5	20
2-Butanone (MEK)	12500	15500	*1	ug/Kg		124	54 - 149	34	20
2-Hexanone	12500	14600		ug/Kg		117	59 - 127	2	20
4-Methyl-2-pentanone (MIBK)	12500	14800		ug/Kg		118	74 - 120	1	20
Acetone	12500	20200	*+ *1	ug/Kg		161	47 - 141	50	20
Benzene	2500	2540		ug/Kg		102	77 - 125	10	20
Bromodichloromethane	2500	2690		ug/Kg		108	71 - 121	3	20
Bromoform	2500	2640		ug/Kg		106	48 - 125	0	20
Bromomethane	2500	1830		ug/Kg		73	39 - 149	7	20
Carbon disulfide	2500	2490		ug/Kg		100	40 - 136	9	20
Carbon tetrachloride	2500	2500		ug/Kg		100	54 - 135	10	20
Chlorobenzene	2500	2620		ug/Kg		105	76 - 126	3	20
Dibromochloromethane	2500	2630		ug/Kg		105	64 - 120	5	20
Chloroethane	2500	1630	*1	ug/Kg		65	23 - 150	22	20
Chloroform	2500	2490		ug/Kg		100	78 - 120	7	20

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QC Sample Results

Client: Benchmark Env. Eng. & Science, PLLC
Project/Site: Benchmark - Howell Street

Job ID: 480-195030-1

Method: 8260C - Volatile Organic Compounds by GC/MS (Continued)

Lab Sample ID: LCSD 480-615092/2-A

Matrix: Solid

Analysis Batch: 615137

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 615092

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Chloromethane	2500	2460		ug/Kg		99	61 - 124	9	20
cis-1,2-Dichloroethene	2500	2600		ug/Kg		104	79 - 124	6	20
cis-1,3-Dichloropropene	2500	2690		ug/Kg		108	75 - 121	9	20
Cyclohexane	2500	2440		ug/Kg		98	49 - 129	7	20
Dichlorodifluoromethane	2500	2870		ug/Kg		115	10 - 150	7	20
Ethylbenzene	2500	2670		ug/Kg		107	78 - 124	4	20
1,2-Dibromoethane	2500	2730		ug/Kg		109	80 - 120	1	20
Isopropylbenzene	2500	2570		ug/Kg		103	76 - 120	4	20
Methyl acetate	5000	5850		ug/Kg		117	71 - 123	7	20
Methyl tert-butyl ether	2500	2710		ug/Kg		109	67 - 137	1	20
Methylcyclohexane	2500	2540		ug/Kg		101	50 - 130	4	20
Methylene Chloride	2500	2580		ug/Kg		103	75 - 118	8	20
Styrene	2500	2730		ug/Kg		109	80 - 120	4	20
Tetrachloroethene	2500	2610		ug/Kg		104	73 - 133	3	20
Toluene	2500	2650		ug/Kg		106	75 - 124	3	20
trans-1,2-Dichloroethene	2500	2430		ug/Kg		97	74 - 129	11	20
trans-1,3-Dichloropropene	2500	2760		ug/Kg		111	73 - 120	3	20
Trichloroethene	2500	2610		ug/Kg		104	75 - 131	9	20
Trichlorofluoromethane	2500	2450		ug/Kg		98	29 - 158	16	20
Vinyl chloride	2500	2770		ug/Kg		111	59 - 124	6	20

Surrogate	LCSD %Recovery	LCSD Qualifier	Limits
Toluene-d8 (Surr)	97		50 - 149
1,2-Dichloroethane-d4 (Surr)	99		53 - 146
4-Bromofluorobenzene (Surr)	100		49 - 148
Dibromofluoromethane (Surr)	99		60 - 140

Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Lab Sample ID: MB 480-615141/1-A

Matrix: Solid

Analysis Batch: 615423

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 615141

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acenaphthene	ND		170	24	ug/Kg		02/17/22 08:30	02/18/22 16:37	1
Acenaphthylene	ND		170	21	ug/Kg		02/17/22 08:30	02/18/22 16:37	1
Anthracene	ND		170	41	ug/Kg		02/17/22 08:30	02/18/22 16:37	1
Benzo[a]anthracene	ND		170	17	ug/Kg		02/17/22 08:30	02/18/22 16:37	1
Benzo[a]pyrene	ND		170	24	ug/Kg		02/17/22 08:30	02/18/22 16:37	1
Benzo[b]fluoranthene	ND		170	26	ug/Kg		02/17/22 08:30	02/18/22 16:37	1
Benzo[g,h,i]perylene	ND		170	18	ug/Kg		02/17/22 08:30	02/18/22 16:37	1
Benzo[k]fluoranthene	ND		170	21	ug/Kg		02/17/22 08:30	02/18/22 16:37	1
Chrysene	ND		170	37	ug/Kg		02/17/22 08:30	02/18/22 16:37	1
Dibenz(a,h)anthracene	ND		170	29	ug/Kg		02/17/22 08:30	02/18/22 16:37	1
Fluoranthene	ND		170	18	ug/Kg		02/17/22 08:30	02/18/22 16:37	1
Fluorene	ND		170	20	ug/Kg		02/17/22 08:30	02/18/22 16:37	1
Indeno[1,2,3-cd]pyrene	ND		170	20	ug/Kg		02/17/22 08:30	02/18/22 16:37	1
Naphthalene	ND		170	21	ug/Kg		02/17/22 08:30	02/18/22 16:37	1
Pyrene	ND		170	20	ug/Kg		02/17/22 08:30	02/18/22 16:37	1

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QC Sample Results

Client: Benchmark Env. Eng. & Science, PLLC
Project/Site: Benchmark - Howell Street

Job ID: 480-195030-1

Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: MB 480-615141/1-A

Matrix: Solid

Analysis Batch: 615423

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 615141

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Phenanthrene	ND		170	24	ug/Kg		02/17/22 08:30	02/18/22 16:37	1
Surrogate	%Recovery	MB Qualifier	Limits				Prepared	Analyzed	Dil Fac
2,4,6-Tribromophenol (Surr)	103		54 - 120				02/17/22 08:30	02/18/22 16:37	1
2-Fluorobiphenyl	108		60 - 120				02/17/22 08:30	02/18/22 16:37	1
2-Fluorophenol (Surr)	91		52 - 120				02/17/22 08:30	02/18/22 16:37	1
Phenol-d5 (Surr)	91		54 - 120				02/17/22 08:30	02/18/22 16:37	1
p-Terphenyl-d14 (Surr)	127		79 - 130				02/17/22 08:30	02/18/22 16:37	1
Nitrobenzene-d5 (Surr)	94		53 - 120				02/17/22 08:30	02/18/22 16:37	1

Lab Sample ID: LCS 480-615141/2-A

Matrix: Solid

Analysis Batch: 615423

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 615141

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Acenaphthene	1640	1810		ug/Kg		111	62 - 120
Acenaphthylene	1640	1730		ug/Kg		106	58 - 121
Anthracene	1640	1890		ug/Kg		116	62 - 120
Benzo[a]anthracene	1640	1850		ug/Kg		113	65 - 120
Benzo[a]pyrene	1640	1690		ug/Kg		104	64 - 120
Benzo[b]fluoranthene	1640	1870		ug/Kg		115	64 - 120
Benzo[g,h,i]perylene	1640	2000		ug/Kg		123	45 - 145
Benzo[k]fluoranthene	1640	1910		ug/Kg		117	65 - 120
Chrysene	1640	1830		ug/Kg		112	64 - 120
Dibenz(a,h)anthracene	1640	1950		ug/Kg		119	54 - 132
Fluoranthene	1640	1860		ug/Kg		113	62 - 120
Fluorene	1640	1840		ug/Kg		113	63 - 120
Indeno[1,2,3-cd]pyrene	1640	1960		ug/Kg		120	56 - 134
Naphthalene	1640	1640		ug/Kg		100	55 - 120
Pyrene	1640	1940		ug/Kg		119	61 - 133
Phenanthrene	1640	1830		ug/Kg		112	60 - 120
Surrogate	%Recovery	LCS Qualifier	Limits				
2,4,6-Tribromophenol (Surr)	128	S1+	54 - 120				
2-Fluorobiphenyl	113		60 - 120				
2-Fluorophenol (Surr)	95		52 - 120				
Phenol-d5 (Surr)	96		54 - 120				
p-Terphenyl-d14 (Surr)	123		79 - 130				
Nitrobenzene-d5 (Surr)	100		53 - 120				

Lab Sample ID: 480-195030-3 MS

Matrix: Solid

Analysis Batch: 615423

Client Sample ID: TP-6 3-4'

Prep Type: Total/NA

Prep Batch: 615141

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Acenaphthene	190	J	2270	2700		ug/Kg	⊛	110	60 - 120
Acenaphthylene	ND		2270	2440		ug/Kg	⊛	108	58 - 121
Anthracene	170	J	2270	2650		ug/Kg	⊛	109	62 - 120

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QC Sample Results

Client: Benchmark Env. Eng. & Science, PLLC
Project/Site: Benchmark - Howell Street

Job ID: 480-195030-1

Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: 480-195030-3 MS

Matrix: Solid

Analysis Batch: 615423

Client Sample ID: TP-6 3-4'

Prep Type: Total/NA

Prep Batch: 615141

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Benzo[a]anthracene	300		2270	2720		ug/Kg	✱	107	65 - 120
Benzo[a]pyrene	250		2270	2360		ug/Kg	✱	93	64 - 120
Benzo[b]fluoranthene	390		2270	2570		ug/Kg	✱	96	10 - 150
Benzo[g,h,i]perylene	170	J F2	2270	2610		ug/Kg	✱	108	45 - 145
Benzo[k]fluoranthene	150	J	2270	2440		ug/Kg	✱	101	23 - 150
Chrysene	440		2270	2820		ug/Kg	✱	105	64 - 120
Dibenz(a,h)anthracene	69	J F2	2270	2550		ug/Kg	✱	109	54 - 132
Fluoranthene	760		2270	3170		ug/Kg	✱	106	62 - 120
Fluorene	430		2270	3080		ug/Kg	✱	117	63 - 120
Indeno[1,2,3-cd]pyrene	150	J F2	2270	2690		ug/Kg	✱	112	56 - 134
Naphthalene	460		2270	2580		ug/Kg	✱	93	46 - 120
Pyrene	630		2270	2800		ug/Kg	✱	96	61 - 133
Phenanthrene	630		2270	2970		ug/Kg	✱	103	60 - 122

Surrogate	MS %Recovery	MS Qualifier	Limits
2,4,6-Tribromophenol (Surr)	133	S1+	54 - 120
2-Fluorobiphenyl	115		60 - 120
2-Fluorophenol (Surr)	93		52 - 120
Phenol-d5 (Surr)	95		54 - 120
p-Terphenyl-d14 (Surr)	103		79 - 130
Nitrobenzene-d5 (Surr)	111		53 - 120

Lab Sample ID: 480-195030-3 MSD

Matrix: Solid

Analysis Batch: 615423

Client Sample ID: TP-6 3-4'

Prep Type: Total/NA

Prep Batch: 615141

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Acenaphthene	190	J	2270	2450		ug/Kg	✱	99	60 - 120	10	35
Acenaphthylene	ND		2270	2210		ug/Kg	✱	97	58 - 121	10	18
Anthracene	170	J	2270	2410		ug/Kg	✱	99	62 - 120	9	15
Benzo[a]anthracene	300		2270	2550		ug/Kg	✱	99	65 - 120	7	15
Benzo[a]pyrene	250		2270	2240		ug/Kg	✱	88	64 - 120	5	15
Benzo[b]fluoranthene	390		2270	2440		ug/Kg	✱	90	10 - 150	5	15
Benzo[g,h,i]perylene	170	J F2	2270	2050	F2	ug/Kg	✱	82	45 - 145	24	15
Benzo[k]fluoranthene	150	J	2270	2260		ug/Kg	✱	93	23 - 150	8	22
Chrysene	440		2270	2730		ug/Kg	✱	101	64 - 120	3	15
Dibenz(a,h)anthracene	69	J F2	2270	2060	F2	ug/Kg	✱	88	54 - 132	21	15
Fluoranthene	760		2270	3050		ug/Kg	✱	101	62 - 120	4	15
Fluorene	430		2270	2700		ug/Kg	✱	100	63 - 120	13	15
Indeno[1,2,3-cd]pyrene	150	J F2	2270	2190	F2	ug/Kg	✱	90	56 - 134	21	15
Naphthalene	460		2270	2340		ug/Kg	✱	83	46 - 120	10	29
Pyrene	630		2270	2690		ug/Kg	✱	91	61 - 133	4	35
Phenanthrene	630		2270	2730		ug/Kg	✱	93	60 - 122	8	15

Surrogate	MSD %Recovery	MSD Qualifier	Limits
2,4,6-Tribromophenol (Surr)	122	S1+	54 - 120
2-Fluorobiphenyl	98		60 - 120
2-Fluorophenol (Surr)	83		52 - 120

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QC Sample Results

Client: Benchmark Env. Eng. & Science, PLLC
Project/Site: Benchmark - Howell Street

Job ID: 480-195030-1

Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: 480-195030-3 MSD

Matrix: Solid

Analysis Batch: 615423

Client Sample ID: TP-6 3-4'

Prep Type: Total/NA

Prep Batch: 615141

	MSD	MSD	
Surrogate	%Recovery	Qualifier	Limits
Phenol-d5 (Surr)	88		54 - 120
p-Terphenyl-d14 (Surr)	92		79 - 130
Nitrobenzene-d5 (Surr)	98		53 - 120

Method: 6010C - Metals (ICP)

Lab Sample ID: MB 480-615099/1-A

Matrix: Solid

Analysis Batch: 615358

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 615099

Analyte	MB	MB								
	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil	Fac
Arsenic	ND		2.1		mg/Kg		02/16/22 15:41	02/17/22 16:45		1
Barium	ND		0.51		mg/Kg		02/16/22 15:41	02/17/22 16:45		1
Cadmium	ND		0.21		mg/Kg		02/16/22 15:41	02/17/22 16:45		1
Chromium	ND		0.51		mg/Kg		02/16/22 15:41	02/17/22 16:45		1
Lead	ND		1.0		mg/Kg		02/16/22 15:41	02/17/22 16:45		1
Selenium	ND		4.1		mg/Kg		02/16/22 15:41	02/17/22 16:45		1
Silver	ND		0.62		mg/Kg		02/16/22 15:41	02/17/22 16:45		1

Lab Sample ID: LCSSRM 480-615099/2-A

Matrix: Solid

Analysis Batch: 615358

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 615099

Analyte	Spike	LCSSRM	LCSSRM						%Rec.	
	Added	Result	Qualifier	Unit	D	%Rec	Limits			
Arsenic	156	147.2		mg/Kg		94.4	69.9 - 130.1			
Barium	239	231.3		mg/Kg		96.8	74.9 - 124.7			
Cadmium	137	124.1		mg/Kg		90.6	75.2 - 124.8			
Chromium	154	147.5		mg/Kg		95.8	70.1 - 129.9			
Lead	130	145.5		mg/Kg		111.9	71.8 - 128.5			
Selenium	167	153.1		mg/Kg		91.7	67.7 - 132.3			
Silver	33.6	32.14		mg/Kg		95.6	68.5 - 131.3			

Lab Sample ID: 480-195030-1 MS

Matrix: Solid

Analysis Batch: 615358

Client Sample ID: TP-1 3-4'

Prep Type: Total/NA

Prep Batch: 615099

Analyte	Sample	Sample	Spike	MS	MS				%Rec.	
	Result	Qualifier	Added	Result	Qualifier	Unit	D	%Rec	Limits	
Arsenic	5.7		49.5	53.10		mg/Kg	☼	96	75 - 125	
Barium	123	F1	49.5	196.5	F1	mg/Kg	☼	148	75 - 125	
Cadmium	0.26		49.5	46.33		mg/Kg	☼	93	75 - 125	
Chromium	14.9		49.5	70.24		mg/Kg	☼	112	75 - 125	
Lead	63.7	F1	49.5	130.8	F1	mg/Kg	☼	136	75 - 125	
Selenium	ND		49.5	46.17		mg/Kg	☼	89	75 - 125	
Silver	ND		12.4	11.79		mg/Kg	☼	95	75 - 125	

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QC Sample Results

Client: Benchmark Env. Eng. & Science, PLLC
Project/Site: Benchmark - Howell Street

Job ID: 480-195030-1

Method: 6010C - Metals (ICP)

Lab Sample ID: 480-195030-1 MSD

Matrix: Solid

Analysis Batch: 615358

Client Sample ID: TP-1 3-4'

Prep Type: Total/NA

Prep Batch: 615099

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Arsenic	5.7		50.2	51.51		mg/Kg	⊛	91	75 - 125	3	20
Barium	123	F1	50.2	198.3	F1	mg/Kg	⊛	150	75 - 125	1	20
Cadmium	0.26		50.2	46.06		mg/Kg	⊛	91	75 - 125	1	20
Chromium	14.9		50.2	67.39		mg/Kg	⊛	104	75 - 125	4	20
Lead	63.7	F1	50.2	130.3	F1	mg/Kg	⊛	133	75 - 125	0	20
Selenium	ND		50.2	45.34		mg/Kg	⊛	86	75 - 125	2	20
Silver	ND		12.6	11.80		mg/Kg	⊛	94	75 - 125	0	20

Method: 7471B - Mercury (CVAA)

Lab Sample ID: MB 480-615189/1-A

Matrix: Solid

Analysis Batch: 615267

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 615189

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.020		mg/Kg		02/17/22 11:06	02/17/22 12:43	1

Lab Sample ID: LCSSRM 480-615189/2-A ^10

Matrix: Solid

Analysis Batch: 615267

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 615189

Analyte	Spike Added	LCSSRM Result	LCSSRM Qualifier	Unit	D	%Rec	%Rec. Limits
Mercury	27.2	22.23		mg/Kg		81.7	59.9 - 140.1

QC Association Summary

Client: Benchmark Env. Eng. & Science, PLLC
Project/Site: Benchmark - Howell Street

Job ID: 480-195030-1

GC/MS VOA

Prep Batch: 615092

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-195030-1	TP-1 3-4'	Total/NA	Solid	5035A_H	
480-195030-2	TP-3 1-2'	Total/NA	Solid	5035A_H	
480-195030-3	TP-6 3-4'	Total/NA	Solid	5035A_H	
480-195030-4	TP-7 3-5'	Total/NA	Solid	5035A_H	
480-195030-5	TP-8 3-4'	Total/NA	Solid	5035A_H	
480-195030-6	TP-10 1-3'	Total/NA	Solid	5035A_H	
MB 480-615092/3-A	Method Blank	Total/NA	Solid	5035A_H	
LCS 480-615092/1-A	Lab Control Sample	Total/NA	Solid	5035A_H	
LCSD 480-615092/2-A	Lab Control Sample Dup	Total/NA	Solid	5035A_H	

Analysis Batch: 615137

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-195030-1	TP-1 3-4'	Total/NA	Solid	8260C	615092
480-195030-2	TP-3 1-2'	Total/NA	Solid	8260C	615092
480-195030-3	TP-6 3-4'	Total/NA	Solid	8260C	615092
480-195030-4	TP-7 3-5'	Total/NA	Solid	8260C	615092
480-195030-5	TP-8 3-4'	Total/NA	Solid	8260C	615092
480-195030-6	TP-10 1-3'	Total/NA	Solid	8260C	615092
MB 480-615092/3-A	Method Blank	Total/NA	Solid	8260C	615092
LCS 480-615092/1-A	Lab Control Sample	Total/NA	Solid	8260C	615092
LCSD 480-615092/2-A	Lab Control Sample Dup	Total/NA	Solid	8260C	615092

GC/MS Semi VOA

Prep Batch: 615141

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-195030-1	TP-1 3-4'	Total/NA	Solid	3550C	
480-195030-2	TP-3 1-2'	Total/NA	Solid	3550C	
480-195030-3	TP-6 3-4'	Total/NA	Solid	3550C	
480-195030-4	TP-7 3-5'	Total/NA	Solid	3550C	
480-195030-5	TP-8 3-4'	Total/NA	Solid	3550C	
480-195030-6	TP-10 1-3'	Total/NA	Solid	3550C	
MB 480-615141/1-A	Method Blank	Total/NA	Solid	3550C	
LCS 480-615141/2-A	Lab Control Sample	Total/NA	Solid	3550C	
480-195030-3 MS	TP-6 3-4'	Total/NA	Solid	3550C	
480-195030-3 MSD	TP-6 3-4'	Total/NA	Solid	3550C	

Analysis Batch: 615423

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-195030-1	TP-1 3-4'	Total/NA	Solid	8270D	615141
480-195030-2	TP-3 1-2'	Total/NA	Solid	8270D	615141
480-195030-3	TP-6 3-4'	Total/NA	Solid	8270D	615141
480-195030-4	TP-7 3-5'	Total/NA	Solid	8270D	615141
480-195030-5	TP-8 3-4'	Total/NA	Solid	8270D	615141
480-195030-6	TP-10 1-3'	Total/NA	Solid	8270D	615141
MB 480-615141/1-A	Method Blank	Total/NA	Solid	8270D	615141
LCS 480-615141/2-A	Lab Control Sample	Total/NA	Solid	8270D	615141
480-195030-3 MS	TP-6 3-4'	Total/NA	Solid	8270D	615141
480-195030-3 MSD	TP-6 3-4'	Total/NA	Solid	8270D	615141

QC Association Summary

Client: Benchmark Env. Eng. & Science, PLLC
Project/Site: Benchmark - Howell Street

Job ID: 480-195030-1

Metals

Prep Batch: 615099

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-195030-1	TP-1 3-4'	Total/NA	Solid	3050B	
480-195030-2	TP-3 1-2'	Total/NA	Solid	3050B	
480-195030-3	TP-6 3-4'	Total/NA	Solid	3050B	
480-195030-4	TP-7 3-5'	Total/NA	Solid	3050B	
480-195030-5	TP-8 3-4'	Total/NA	Solid	3050B	
480-195030-6	TP-10 1-3'	Total/NA	Solid	3050B	
MB 480-615099/1-A	Method Blank	Total/NA	Solid	3050B	
LCSSRM 480-615099/2-A	Lab Control Sample	Total/NA	Solid	3050B	
480-195030-1 MS	TP-1 3-4'	Total/NA	Solid	3050B	
480-195030-1 MSD	TP-1 3-4'	Total/NA	Solid	3050B	

Prep Batch: 615189

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-195030-1	TP-1 3-4'	Total/NA	Solid	7471B	
480-195030-2	TP-3 1-2'	Total/NA	Solid	7471B	
480-195030-3	TP-6 3-4'	Total/NA	Solid	7471B	
480-195030-4	TP-7 3-5'	Total/NA	Solid	7471B	
480-195030-5	TP-8 3-4'	Total/NA	Solid	7471B	
480-195030-6	TP-10 1-3'	Total/NA	Solid	7471B	
MB 480-615189/1-A	Method Blank	Total/NA	Solid	7471B	
LCSSRM 480-615189/2-A ^10	Lab Control Sample	Total/NA	Solid	7471B	

Analysis Batch: 615267

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-195030-1	TP-1 3-4'	Total/NA	Solid	7471B	615189
480-195030-2	TP-3 1-2'	Total/NA	Solid	7471B	615189
480-195030-3	TP-6 3-4'	Total/NA	Solid	7471B	615189
480-195030-4	TP-7 3-5'	Total/NA	Solid	7471B	615189
480-195030-5	TP-8 3-4'	Total/NA	Solid	7471B	615189
480-195030-6	TP-10 1-3'	Total/NA	Solid	7471B	615189
MB 480-615189/1-A	Method Blank	Total/NA	Solid	7471B	615189
LCSSRM 480-615189/2-A ^10	Lab Control Sample	Total/NA	Solid	7471B	615189

Analysis Batch: 615358

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-195030-1	TP-1 3-4'	Total/NA	Solid	6010C	615099
480-195030-2	TP-3 1-2'	Total/NA	Solid	6010C	615099
480-195030-3	TP-6 3-4'	Total/NA	Solid	6010C	615099
480-195030-4	TP-7 3-5'	Total/NA	Solid	6010C	615099
480-195030-5	TP-8 3-4'	Total/NA	Solid	6010C	615099
480-195030-6	TP-10 1-3'	Total/NA	Solid	6010C	615099
MB 480-615099/1-A	Method Blank	Total/NA	Solid	6010C	615099
LCSSRM 480-615099/2-A	Lab Control Sample	Total/NA	Solid	6010C	615099
480-195030-1 MS	TP-1 3-4'	Total/NA	Solid	6010C	615099
480-195030-1 MSD	TP-1 3-4'	Total/NA	Solid	6010C	615099

General Chemistry

Analysis Batch: 615109

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-195030-1	TP-1 3-4'	Total/NA	Solid	Moisture	

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QC Association Summary

Client: Benchmark Env. Eng. & Science, PLLC
Project/Site: Benchmark - Howell Street

Job ID: 480-195030-1

General Chemistry (Continued)

Analysis Batch: 615109 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-195030-2	TP-3 1-2'	Total/NA	Solid	Moisture	
480-195030-3	TP-6 3-4'	Total/NA	Solid	Moisture	
480-195030-4	TP-7 3-5'	Total/NA	Solid	Moisture	
480-195030-5	TP-8 3-4'	Total/NA	Solid	Moisture	
480-195030-6	TP-10 1-3'	Total/NA	Solid	Moisture	

Lab Chronicle

Client: Benchmark Env. Eng. & Science, PLLC
Project/Site: Benchmark - Howell Street

Job ID: 480-195030-1

Client Sample ID: TP-1 3-4'

Lab Sample ID: 480-195030-1

Date Collected: 02/15/22 08:15

Matrix: Solid

Date Received: 02/15/22 17:05

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Moisture		1	615109	02/16/22 16:04	JMM	TAL BUF

Client Sample ID: TP-1 3-4'

Lab Sample ID: 480-195030-1

Date Collected: 02/15/22 08:15

Matrix: Solid

Date Received: 02/15/22 17:05

Percent Solids: 83.8

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035A_H			615092	02/16/22 17:28	LCH	TAL BUF
Total/NA	Analysis	8260C		10	615137	02/17/22 13:18	CRL	TAL BUF
Total/NA	Prep	3550C			615141	02/17/22 08:30	VXF	TAL BUF
Total/NA	Analysis	8270D		1	615423	02/18/22 18:35	PJQ	TAL BUF
Total/NA	Prep	3050B			615099	02/16/22 15:41	NBS	TAL BUF
Total/NA	Analysis	6010C		1	615358	02/17/22 17:15	AMH	TAL BUF
Total/NA	Prep	7471B			615189	02/17/22 11:06	NVK	TAL BUF
Total/NA	Analysis	7471B		1	615267	02/17/22 13:00	BMB	TAL BUF

Client Sample ID: TP-3 1-2'

Lab Sample ID: 480-195030-2

Date Collected: 02/15/22 09:33

Matrix: Solid

Date Received: 02/15/22 17:05

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Moisture		1	615109	02/16/22 16:04	JMM	TAL BUF

Client Sample ID: TP-3 1-2'

Lab Sample ID: 480-195030-2

Date Collected: 02/15/22 09:33

Matrix: Solid

Date Received: 02/15/22 17:05

Percent Solids: 78.4

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035A_H			615092	02/16/22 17:28	LCH	TAL BUF
Total/NA	Analysis	8260C		20	615137	02/17/22 13:41	CRL	TAL BUF
Total/NA	Prep	3550C			615141	02/17/22 08:30	VXF	TAL BUF
Total/NA	Analysis	8270D		5	615423	02/18/22 18:59	PJQ	TAL BUF
Total/NA	Prep	3050B			615099	02/16/22 15:41	NBS	TAL BUF
Total/NA	Analysis	6010C		1	615358	02/17/22 17:33	AMH	TAL BUF
Total/NA	Prep	7471B			615189	02/17/22 11:06	NVK	TAL BUF
Total/NA	Analysis	7471B		1	615267	02/17/22 13:01	BMB	TAL BUF

Client Sample ID: TP-6 3-4'

Lab Sample ID: 480-195030-3

Date Collected: 02/15/22 11:17

Matrix: Solid

Date Received: 02/15/22 17:05

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Moisture		1	615109	02/16/22 16:04	JMM	TAL BUF

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Lab Chronicle

Client: Benchmark Env. Eng. & Science, PLLC
Project/Site: Benchmark - Howell Street

Job ID: 480-195030-1

Client Sample ID: TP-6 3-4'

Lab Sample ID: 480-195030-3

Date Collected: 02/15/22 11:17

Matrix: Solid

Date Received: 02/15/22 17:05

Percent Solids: 72.3

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035A_H			615092	02/16/22 17:28	LCH	TAL BUF
Total/NA	Analysis	8260C		10	615137	02/17/22 14:04	CRL	TAL BUF
Total/NA	Prep	3550C			615141	02/17/22 08:30	VXF	TAL BUF
Total/NA	Analysis	8270D		1	615423	02/18/22 18:12	PJQ	TAL BUF
Total/NA	Prep	3050B			615099	02/16/22 15:41	NBS	TAL BUF
Total/NA	Analysis	6010C		1	615358	02/17/22 17:37	AMH	TAL BUF
Total/NA	Prep	7471B			615189	02/17/22 11:06	NVK	TAL BUF
Total/NA	Analysis	7471B		1	615267	02/17/22 13:02	BMB	TAL BUF

Client Sample ID: TP-7 3-5'

Lab Sample ID: 480-195030-4

Date Collected: 02/15/22 11:35

Matrix: Solid

Date Received: 02/15/22 17:05

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Moisture		1	615109	02/16/22 16:04	JMM	TAL BUF

Client Sample ID: TP-7 3-5'

Lab Sample ID: 480-195030-4

Date Collected: 02/15/22 11:35

Matrix: Solid

Date Received: 02/15/22 17:05

Percent Solids: 75.9

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035A_H			615092	02/16/22 17:28	LCH	TAL BUF
Total/NA	Analysis	8260C		20	615137	02/17/22 14:27	CRL	TAL BUF
Total/NA	Prep	3550C			615141	02/17/22 08:30	VXF	TAL BUF
Total/NA	Analysis	8270D		1	615423	02/18/22 19:23	PJQ	TAL BUF
Total/NA	Prep	3050B			615099	02/16/22 15:41	NBS	TAL BUF
Total/NA	Analysis	6010C		1	615358	02/17/22 17:52	AMH	TAL BUF
Total/NA	Prep	7471B			615189	02/17/22 11:06	NVK	TAL BUF
Total/NA	Analysis	7471B		1	615267	02/17/22 13:03	BMB	TAL BUF

Client Sample ID: TP-8 3-4'

Lab Sample ID: 480-195030-5

Date Collected: 02/15/22 12:00

Matrix: Solid

Date Received: 02/15/22 17:05

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Moisture		1	615109	02/16/22 16:04	JMM	TAL BUF

Client Sample ID: TP-8 3-4'

Lab Sample ID: 480-195030-5

Date Collected: 02/15/22 12:00

Matrix: Solid

Date Received: 02/15/22 17:05

Percent Solids: 77.6

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035A_H			615092	02/16/22 17:28	LCH	TAL BUF
Total/NA	Analysis	8260C		20	615137	02/17/22 14:50	CRL	TAL BUF
Total/NA	Prep	3550C			615141	02/17/22 08:30	VXF	TAL BUF
Total/NA	Analysis	8270D		5	615423	02/18/22 19:47	PJQ	TAL BUF

Eurofins Buffalo

Lab Chronicle

Client: Benchmark Env. Eng. & Science, PLLC
Project/Site: Benchmark - Howell Street

Job ID: 480-195030-1

Client Sample ID: TP-8 3-4'

Lab Sample ID: 480-195030-5

Date Collected: 02/15/22 12:00

Matrix: Solid

Date Received: 02/15/22 17:05

Percent Solids: 77.6

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3050B			615099	02/16/22 15:41	NBS	TAL BUF
Total/NA	Analysis	6010C		1	615358	02/17/22 17:55	AMH	TAL BUF
Total/NA	Prep	7471B			615189	02/17/22 11:06	NVK	TAL BUF
Total/NA	Analysis	7471B		1	615267	02/17/22 13:05	BMB	TAL BUF

Client Sample ID: TP-10 1-3'

Lab Sample ID: 480-195030-6

Date Collected: 02/15/22 12:55

Matrix: Solid

Date Received: 02/15/22 17:05

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Moisture		1	615109	02/16/22 16:04	JMM	TAL BUF

Client Sample ID: TP-10 1-3'

Lab Sample ID: 480-195030-6

Date Collected: 02/15/22 12:55

Matrix: Solid

Date Received: 02/15/22 17:05

Percent Solids: 77.8

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035A_H			615092	02/16/22 17:28	LCH	TAL BUF
Total/NA	Analysis	8260C		4	615137	02/17/22 15:13	CRL	TAL BUF
Total/NA	Prep	3550C			615141	02/17/22 08:30	VXF	TAL BUF
Total/NA	Analysis	8270D		5	615423	02/18/22 20:11	PJQ	TAL BUF
Total/NA	Prep	3050B			615099	02/16/22 15:41	NBS	TAL BUF
Total/NA	Analysis	6010C		1	615358	02/17/22 17:59	AMH	TAL BUF
Total/NA	Prep	7471B			615189	02/17/22 11:06	NVK	TAL BUF
Total/NA	Analysis	7471B		1	615267	02/17/22 13:06	BMB	TAL BUF

Laboratory References:

TAL BUF = Eurofins Buffalo, 10 Hazelwood Drive, Amherst, NY 14228-2298, TEL (716)691-2600

Accreditation/Certification Summary

Client: Benchmark Env. Eng. & Science, PLLC
Project/Site: Benchmark - Howell Street

Job ID: 480-195030-1

Laboratory: Eurofins Buffalo

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

Authority	Program	Identification Number	Expiration Date
New York	NELAP	10026	04-01-22

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

Analysis Method	Prep Method	Matrix	Analyte
Moisture		Solid	Percent Moisture
Moisture		Solid	Percent Solids

Method Summary

Client: Benchmark Env. Eng. & Science, PLLC
Project/Site: Benchmark - Howell Street

Job ID: 480-195030-1

Method	Method Description	Protocol	Laboratory
8260C	Volatile Organic Compounds by GC/MS	SW846	TAL BUF
8270D	Semivolatile Organic Compounds (GC/MS)	SW846	TAL BUF
6010C	Metals (ICP)	SW846	TAL BUF
7471B	Mercury (CVAA)	SW846	TAL BUF
Moisture	Percent Moisture	EPA	TAL BUF
3050B	Preparation, Metals	SW846	TAL BUF
3550C	Ultrasonic Extraction	SW846	TAL BUF
5035A_H	Closed System Purge and Trap	SW846	TAL BUF
7471B	Preparation, Mercury	SW846	TAL BUF

Protocol References:

EPA = US Environmental Protection Agency

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

Laboratory References:

TAL BUF = Eurofins Buffalo, 10 Hazelwood Drive, Amherst, NY 14228-2298, TEL (716)691-2600

Sample Summary

Client: Benchmark Env. Eng. & Science, PLLC
Project/Site: Benchmark - Howell Street

Job ID: 480-195030-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
480-195030-1	TP-1 3-4'	Solid	02/15/22 08:15	02/15/22 17:05
480-195030-2	TP-3 1-2'	Solid	02/15/22 09:33	02/15/22 17:05
480-195030-3	TP-6 3-4'	Solid	02/15/22 11:17	02/15/22 17:05
480-195030-4	TP-7 3-5'	Solid	02/15/22 11:35	02/15/22 17:05
480-195030-5	TP-8 3-4'	Solid	02/15/22 12:00	02/15/22 17:05
480-195030-6	TP-10 1-3'	Solid	02/15/22 12:55	02/15/22 17:05

Chain of Custody Record



Environment Testing
TestAmerica

Regulatory Program: ☐ DW ☐ NPDES ☐ RCRA ☐ Other:

Client Contact		Project Manager: Nate Munley		Site Contact: Ethan Smith		Date: 2-15-22		COC No: 1 of 1 COCs	
Benchmark-Turnkey Environmental Engineering and Science		Tel/Fax:		Lab Contact: Brian Fischer		Carrier:		Sampler:	
2558 Hamburg Turnpike Suite 300		Analysis Turnaround Time		Perform MS/MSD (Y/N)				For Lab Use Only:	
Lackawanna, NY 14218		☐ CALENDAR DAYS ☐ WORKING DAYS		Filtered Sample (Y/N)				Walk-in Client:	
(716) 856-0599 Phone		TAT if different from Below		Matrix				Lab Sampling:	
(716) 856-0583 FAX		☐ 2 weeks		# of Cont.				Job / SDG No.:	
Project Name: Howell Street Site		☐ 1 week		Sample Type (C=Comp, G=Grab)					
Site: Buffalo, NY		☐ 2 days		Sample Date					
P O # T0258-022-002		☐ 1 day		Sample Time					
Sample Identification		Sample Date		Sample Time		Matrix		Sample Specific Notes:	
TP-1 3-4'	2-15-22	0815	G	Soil	3				
TP-3 1-2'	2-15-22	0933	G	Soil	3				
TP-6 3-4'	2-15-22	1117	G	Soil	3				
TP-7 3-5'	2-15-22	1135	G	Soil	3				
TP-8 3-4'	2-15-22	1200	G	Soil	3				
TP-10 1-3'	2-15-22	1255	G	Soil	3				
480-195030 Chain of Custody									
Preservation Used: 1= Ice, 2= HCl; 3= H2SO4; 4=HNO3; 5=NaOH; 6= Other Possible Hazard Identification: Are any samples from a listed EPA Hazardous Waste? Please List any EPA Waste Codes for the sample in the Comments Section if the lab is to dispose of the sample. ☐ Non-Hazard ☐ Flammable ☐ Skin Irritant ☒ Unknown									
Special Instructions/QC Requirements & Comments:									
Custody Seals Intact: ☐ Yes ☐ No		Custody Seal No.:		Cooler Temp. (°C): Obs'd: 522		Corr'd:		Therm ID No.:	
Relinquished by: <i>[Signature]</i>		Company: BMTK		Received by: <i>[Signature]</i>		Company:		Date/Time: 2/15/22 1705	
Relinquished by:		Company:		Received by:		Company:		Date/Time:	
Relinquished by:		Company:		Received in Laboratory by:		Company:		Date/Time:	

Login Sample Receipt Checklist

Client: Benchmark Env. Eng. & Science, PLLC

Job Number: 480-195030-1

Login Number: 195030

List Source: Eurofins Buffalo

List Number: 1

Creator: Sabuda, Brendan D

Question	Answer	Comment
Radioactivity either was not measured or, if measured, is at or below background	True	
The cooler's custody seal, if present, is intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	5.2 #1 ice
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the sample IDs on the containers and the COC.	True	
Samples are received within Holding Time (Excluding tests with immediate HTs)..	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
VOA sample vials do not have headspace or bubble is <6mm (1/4") in diameter.	True	
If necessary, staff have been informed of any short hold time or quick TAT needs	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Sampling Company provided.	True	
Samples received within 48 hours of sampling.	True	
Samples requiring field filtration have been filtered in the field.	True	
Chlorine Residual checked.	True	