

SUBSURFACE PHASE II ENVIRONMENTAL SITE ASSESSMENT

**1106-1110 NIAGARA STREET
BUFFALO, ERIE COUNTY, NEW YORK**

Prepared for:

**Douglas Development Corporation
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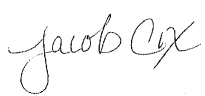
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March 2023

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1.0 INTRODUCTION

Brydges Engineering in Environment and Energy (BE3) and AMD Environmental Consultants, Inc. (AMD) completed a Phase II Environmental Site Assessment (ESA) for 1106-1110 Niagara Street, Buffalo, Erie County, New York (refer to **Figure 1**). The Subsurface Assessment/Phase II ESA was completed in accordance with ASTM E1903-19 - Standard Guide for Environmental Site Assessments: - Phase II Environmental Site Assessment Process and in general accordance with the most current updates of New York State Department of Environmental Conservation NYSDEC Division of Environmental Remediation's (DER's) Technical Guidance for Site Investigation and Remediation (DER-10).

This assessment included an investigation across the property (refer to **Figure 2**). The purpose of the assessment was to obtain information and data for assessing potential environmental impacts at the property from RECs identified during the Phase I ESA performed by Panamerican Environmental Inc. in November 2014. Additionally, the eligibility of the property was assessed for the New York State Department of Environmental Conservation (NYSDEC) Brownfield Cleanup Program (BCP).

1.1 BACKGROUND

1.1.1 General Site Setting

The property contains a one-story manufacturing building with some office and warehouse space located in a block that is bound by Niagara Street to the east, Albany Street on the south; the New York State Thruway Niagara Section (I190) to the west and Gull Street to the north. The property is located in an area of Buffalo along Niagara Street undergoing significant re-development into a revitalized corridor.

1.1.2 Physical Setting

The property includes two separate adjacent parcels that total 0.6-acres on the western side of Niagara Street, at an elevation of 615 feet, and located at latitude 42° 54' 49.08" N; Longitude 78° 54' 01.15" W. The area has been historically mixed manufacturing and commercial with some residential. The subject property is currently vacant. The property to the north is Oliver Gear and Machining which has occupied that building since at least 1935. The Oliver Gear complex is L-shaped, and a portion is adjacent to the subject property to the west. The Oliver Gear building and the subject property building share a wall that separates the two. The adjacent property to the south is the former Co-Operative GLE Exchange Seed and Grain.

1.1.3 Historical Use

Historical records including street directories and Sanborn Maps suggest that the site was occupied by Modern Heat Treating and Forging, Inc. which had been on the property since at least 1984. Addresses in this area of Niagara Street have varied over time and the subject property may have shared or occupied some space with the adjacent historical uses during past times. For example, historic maps indicate that the subject property was occupied by the Co-

Operative GLE Exchange in 1981. A Malt House and brewery were located on/adjacent to the subject property during the late 1800's.

Commercial and manufacturing operations historically surrounded the subject property and the adjacent properties. The adjacent and nearby properties include the following history:

- Adjacent south – the property south is currently in the Brownfields Cleanup Program (BCP) - Curtiss Malt House Project 1100 Niagara Street - NYSDEC Site No. C915382. Historically, this property had been developed as the C. G. Curtiss Malting House in 1899. By 1925 the property had been developed as the Co-Operative Grange League Federation Exchange, Inc that was destroyed by fire in 1927. It was subsequently rebuilt, and Sanborn maps indicate that the property was the Co-Operative Grange League Federation Exchange until after 1981, when the property was vacated.
- Further south of across Albany Street is a completed BCP site and now contains a Tim Hortons Restaurant - 1050-1088 Niagara Street Site – NYSDEC Site No. C915277. This nearby southern property had a long history of being utilized for commercial and industrial operations including brewing, a filling station and commercial printing on its three adjoining parcels.
- Adjacent north - The former Oliver Gear Company was located north of the property as described above.
- Further north - Active BCP - 1130 Niagara Street Site – NYSDEC #C915284. The Site was purchased in 1960 by Curtis Screw for manufacturing and metal machining.
- Adjacent east – The 1095 Niagara Street Site is a BCP – NYSDEC #C915364. Based on historic records and previous investigations, the site was formerly owned by the Keystone Chromium Corporation, a chromium plating operation from about 1936 until 2002. Previous site use included use as a metal alloy foundry as early as 1905.

All these properties are currently in the process of re-development as part of the significant revitalization in the area.

1.1.4 Contaminants of Concern

The history and use of the subject property suggests there were potential environmental impacts associated with fill material and its historical use as well as adjacent properties past industrial use. Potential contaminants include metals, polycyclic aromatic hydrocarbons (PAHs), petroleum and solvents.

1.2 SCOPE

The objective of this environmental assessment was to assess the potential for environmental impacts indicated by historical use at/adjacent to the subject property and to determine if it is eligible for the BCP. This was completed by performing a field assessment of near surface and subsurface soil. Overburden groundwater was also assessed but lack of water in this formation limited the assessment to one location where a temporary micro well was installed.

1.3 PREVIOUS INVESTIGATIONS

A previous Phase I environmental site assessment was performed on the subject property by Panamerican Environmental Inc. (PEI) in November 2014 to identify the presence or likely presence of recognized environmental conditions (RECs). The following RECs were identified during the investigation.

- The property has a history associated with heat treating for over 30 years. This includes the use of chemicals and materials associated with that industry including solvents, petroleum, and plating chemicals.
- A 1,400-gallon methanol UST was and still may be located on the property. A 1,000-gallon oil tank may be located on the property or adjacent property.
- Numerous drums, containers, machines, furnaces, and plating baths are located throughout the property, and most contain products/oils/waste materials.
- The general area consists of commercial/manufacturing within the immediate area of the property and several adjacent facilities were small/large quantity generators of hazardous waste. Some adjacent or nearby petroleum and chemical use and storage exist/existed. Adjacent properties have a history of industrial operations associated with metal work, plating and machining which involves the use of solvents and petroleum compounds. The property to the south contained a historic gasoline service station.
- Surrounding properties are currently in the BCP program.
- The property may have urban fill typical in urban areas.
- Potential vapor encroachment exists for the property due to its past use and adjacent uses including from solvent and petroleum use and storage.

Since the Phase I ESA, the current owner has removed much of the material observed during the Phase I ESA and the building is empty of machinery and other materials. Some remnant staining on the floor was observed.

Numerous ongoing and completed BCP investigations have been completed on the immediately adjacent and nearby properties. The results of these indicate urban fill conditions and impacted groundwater with petroleum and solvent compounds. The fill materials had elevated metals and semi-volatile organic compounds (SVOCs), primarily PAHs. PAHs are a group of chemicals that are formed during incomplete burning of wood, coal, gas, garbage, or other organic substances and are widely distributed in the environment and particularly in older urban environments where coal, gas, and petroleum were burned for heat and other energy uses. PAH compounds are common constituents of fill material found in urban environments, and are typically associated with both fill material, coal tar, and asphalt-based materials or ash. These are frequently also found in railroad fill base material.

Additionally, a Phase II ESA was completed at the immediately adjacent southern property at 1100 Niagara Street by BE3 in June 2019. Field observations and laboratory results from this assessment indicated urban fill conditions in the near-surface soil resulting in metal and PAH compounds above restricted-residential SCOs.

2.0 FIELD INVESTIGATIONS

The subsurface assessment field work for the subject property was completed on February 21, 2023, and March 1, 2023. Prior to conducting the Phase II ESA, the utility locate center was notified to mark underground utilities on the property. The following is a summary of the Phase II tasks.

2.1 Geophysics Assessment Survey

Maddan Geophysics LLC (MADDAN) performed the survey on February 21, 2023. The objective of the survey was to assess if a tank or tanks remained on the property based on historical information suggesting a 1,400-gallon methanol UST was and still may be located on the property as well as a 1,000-gallon oil tank. The survey entailed the use of a high-sensitive metal detector (i.e., Geonics EM61) instrument to survey the near surface for the presence of metallic or metal-containing objects. The investigation was conducted using 3-foot grid line spacing across the surface of the asphalt area to detect ferrous metals. Anomalies that may be related to buried USTs, metal pipes, or metal fill material were recorded and annotated on a site map.

The results of the survey suggested that a tank may be located in the northwest corner of the property adjacent to the building. A copy of the findings is provided in the attached report in Appendix D.

2.2 SOIL SAMPLING

BE3/AMD completed an assessment of near-surface soils across the property by advancing a total of nine soil borings at specific locations across the property. Borings BH-1 through BH-6 were completed outside in the front parking area and borings BHI-1 through BHI-3 were advanced inside the building below the cement slab (see **Figure 2**). A total of nine grab soil samples were collected for submission for laboratory analysis.

Soil borings were field located to assess the subsurface specific to previous property use and to ensure coverage across the parcel. Boring depths ranged from three (3) to ten (10) feet below ground surface (bgs). The borings were completed using a Geoprobe® unit by which employs direct push technology. Continuous soil sampling was performed using Macro Core soil samplers measuring approximately 44 inches in length and 1½ inches in diameter with acetate liners resulting in approximately 4-foot length distinct sample cores (i.e., 0 to 4 feet, 4 to 8 feet, 8 to 12 feet). Each of the samplers was fitted with a new acetate liner prior to use. A photolog of field activities is included in **Appendix A**. Stratification of material observed in each boring are noted on boring logs, which are included in **Appendix B**.

Soil from each soil core was visually described and field screened for volatile organic compounds (VOCs) using a MiniRae 3000+ photoionization detector (PID) with a 10.6 eV Lamp and by visual and olfactory observations. Soil cores from borings were transported to a staging area adjacent

to each borehole. The soil core was opened, and the length of the core was examined visually and with the PID. Odors, PID results, and observations were noted on the boring logs. A total of nine (9) grab subsurface soil samples were collected at specific locations and depths from fill material as follows:

- BH-1 at 1-2 feet below ground surface (bgs). Total depth of boring was 10 feet bgs;
- BH-2 at 1-2 feet bgs. Total depth of boring was 8 feet bgs;
- BH-3 at 1-2 feet bgs. Total depth of boring was 9 feet bgs;
- BH-4 at 1-2 feet bgs. Total depth of boring was 4 feet bgs;
- BH-5 at 1-2 feet bgs. Total depth of boring was 3 feet bgs;
- BH-6 at 1-2 feet bgs. Total depth of boring was 4 feet bgs;
- BHI-1 at 1-2 feet bgs. Total depth of boring was 4 feet bgs;
- BHI-2 at 1-2 feet bgs. Total depth of boring was 6 feet bgs;
- BHI-3 at 0-1 feet bgs. Total depth of boring was 4 feet bgs;

All soil borings were backfilled with the soil from the boring. All outdoor soil samples were taken below asphalt and asphalt subbase which ended approximately one-half foot bgs. All indoor samples were taken from below the concrete foundation slab. The soil samples were submitted to Eurofins Buffalo Laboratory, a NYSDEC approved laboratory, for analysis.

2.2 GROUNDWATER SAMPLING

Only one soil boring, BHI-2, had sufficient indication of groundwater in the overburden material. A groundwater monitoring micro-well (TMW-1) was installed in this boring for the purposes of obtaining a grab sample of groundwater. This boring and temporary well was located inside the structure at the north side of the property.

The well consisted of a 1-inch diameter, schedule 40 PVC casing equipped with a 5-foot, 100-slot screen and a solid PVC riser pipe extending above the surface. The well screen was positioned in the water bearing zone to the bottom of the boring to ensure assessment potential for contaminants. One groundwater sample was collected from the well and analyzed for NYSDEC Part 375 volatile organic compounds and tentatively identified compounds (TICS). After sampling, the well was removed, and the boring was filled with soil to ground surface and the cement floor was patched with cement.

2.3 SUBSURFACE CONDITIONS

The borings indicate that shallow subsurface conditions generally consisted of fill with brown to black clay, silt, slag, and rock. Fill depths ranged from 0 to 2 feet bgs in most locations. Below the fill in most locations was stiff red-brown silty clay or clayey silt. Bedrock was not encountered; however, refusal of the drill rig was observed, and bedrock is known to be shallow in this area. As described, groundwater was observed in one location BHI-2 beginning at a depth of 4 feet. The boreholes were completed to a range of 3 to 9 feet below ground surface. (Refer to borehole logs in **Appendix B**).

3.0 RESULTS

The results of the Phase II assessment indicated the following:

- Fill exists at shallow depths across the property to about 2 feet in most locations.
- The fill contains elevated levels of metals and semi volatile organic compounds primarily PAHs.

Soil samples were analyzed on a standard 10-day turnaround time. The analytical soil results were compared to the NYSDEC unrestricted, residential, restricted residential, commercial, and industrial Soil Cleanup Objectives (SCOs) listed in Table 375-6.8(a) and (b) of 6 NYCRR Part 375 (current). These SCOs and standards are listed in **Table 1**. A copy of the laboratory report is provided in **Appendix C**.

3.1 SOIL

All nine (9) soil samples were analyzed for NYSDEC Part 375 metals by EPA Method 6010C, NYSDEC Part 375 SVOCs by EPA Method 8270D. All samples were collected from near surface soil below the asphalt or below cement ranging from approximately 1 to 2 feet bgs. The six samples taken from the soil beneath the parking area were below asphalt and subbase. The three samples taken from inside the building were taken from below the concrete foundation slab.

Metals

Metal compounds were observed in all soil samples analyzed. A summary of metals above NYSDEC SCOs is provided in **Table 1** and **Figure 2**. The following results were above NYSDEC SCOs:

- Arsenic was above unrestricted SCOs in BH-4 (15.7ppm)
- Beryllium exceeded unrestricted SCOs in BH-4 (4.8ppm)
- Chromium exceeded the unrestricted and residential SCO in BHI-1 (32ppm).
- Copper exceeded the unrestricted SCO in BH-4 (115ppm), BH-5(56.4ppm), BHI-2 (70.5ppm) and BHI-3 (68ppm).
- Lead exceeded the unrestricted SCOs in six (6) of the boreholes and the restricted residential SCOs in BH-05 (639ppm),
- Mercury was elevated above the restricted residential SCOs in five (5) of the soil samples; BH-5 (0.48ppm), BH-6 (0.62ppm, BHI-1 (0.29), BHI-2 (0.35ppm) and BHI3 (0.28).

Other metals were above unrestricted SCOs in various samples across the property – refer to **Table 1** and **Figure 2**.

Semi-Volatile Organic Compounds (SVOCs)

Of the nine soil samples submitted for laboratory analysis, BH-1, BH-4, BHI-2 and BHI-3 had

elevated SVOCs, mostly PAH compounds, above NYSDEC Restricted Residential SCOs. BH-1 had one PAH, indeno(1,2,3-cd)pyrene above commercial SCOs (1.7ppm). BH4 had benzo(a)pyrene (37ppm), benzo(b)fluoranthene (38ppm) and dibenz(a,h)anthracene(5.2) above industrial SCOs and BHI-2 and BHI-3 had benzo(a)pyrene (4ppm and 6.3ppm) above industrial SCOs .

Volatile Organic Compounds (VOCs)

No odors were present during the subsurface soil investigating indicating the presence of volatile organic compounds and the PID had no elevated readings. However, for due diligence, one of the soil samples collected was analyzed for VOCs. No exceedances were found in the soil sample analyzed for volatile organic compounds.

3.2 GROUNDWATER

One groundwater sample was collected using a bailer and analyzed for NYSDEC Part 375 VOCs by EPA Method 8260C. These results were compared to the detected groundwater parameter concentrations to the Class GA Groundwater Quality Standards (GWQS) per NYSDEC Technical and Operational Guidance Series (TOGS) 1.1.1 Ambient Water Quality Standards and Guidance Values.

There were no exceedances found in the grab groundwater sample collected from TWM-1 for volatile organic compounds and no tentatively identified compounds (TICs) were identified.

4.0 CONCLUSIONS

The purpose of this assessment was to identify potential environmental impacts at 1106-1110 Niagara Street in Buffalo, New York. The property was previously commercial/industrial and had a history of chemical and oil use in the manufacturing process. Adjacent properties also have a history of industrial operations associated with metal work, plating and machining which involves the use of solvents and petroleum compounds.

The laboratory results indicate that there are urban fill conditions existing at the property to at least 0-2 feet bgs resulting in target compounds (metals and SVOCs) above NYSDEC restricted residential and industrial SCOs. Historical use, previous environmental investigations, and this assessment indicate environmental impacts exist at the property in soils above NYSDEC SCOs. Visual observations suggest some oil residue may remain on the cement floor area.

5.0 WARRANTS AND LIMITATIONS

This report is based on information from limited soil sampling and visual observations of the soils as well as a review of a previous Phase I ESA at the property. This report is intended exclusively for the purpose outlined herein at the site location and project indicated.

This report is intended for the sole use of Douglas Development. The scope of services performed in this assessment may not be appropriate to satisfy the needs of other users and any use or reuse of this document or the findings, conclusions, or recommendations presented, is at the sole risk of the user.

The conclusions set forth in this report are based upon, and limited by, the analytical data and other information available. It should be noted that all surface and subsurface environmental assessments are inherently limited in the sense that conclusions are drawn, and recommendations developed from information obtained from limited data and site evaluation at a specific time. The passage of time may result in a change in environmental circumstances at this site and surrounding properties, or petroleum/hazardous materials beneath the surface may be present but undetectable during this limited subsurface assessment.

Opinions and recommendations presented herein apply to the site conditions existing at the time of the subsurface assessment and those reasonably foreseeable. They cannot necessarily apply to site changes, which are not made aware and therefore not been evaluated.

6.0 PROFESSIONAL STATEMENT/SIGNATURE

This subsurface assessment at 1106-1110 Niagara Street, Buffalo, New York was performed in conformance with the scope and limitations of ASTM Practice E 1903-11 for the specific objectives specified in the report and was completed based on the scope of work provided by the banks' consultant. I declare that, to the best of my professional knowledge and belief, I meet the definition of environmental professional as defined in 312.10 of 40CFR312 and I have the specific qualifications based on education, training, and experience to assess a property of the nature, history, and setting of the subject property. I have developed and performed all appropriate inquiries in conformance with the standards and practices set forth in 40 CFR 312.



Peter J Gorton, MPH; CHCM

March 20, 2023

Date

FIGURES & TABLES

Historical Topographic Map

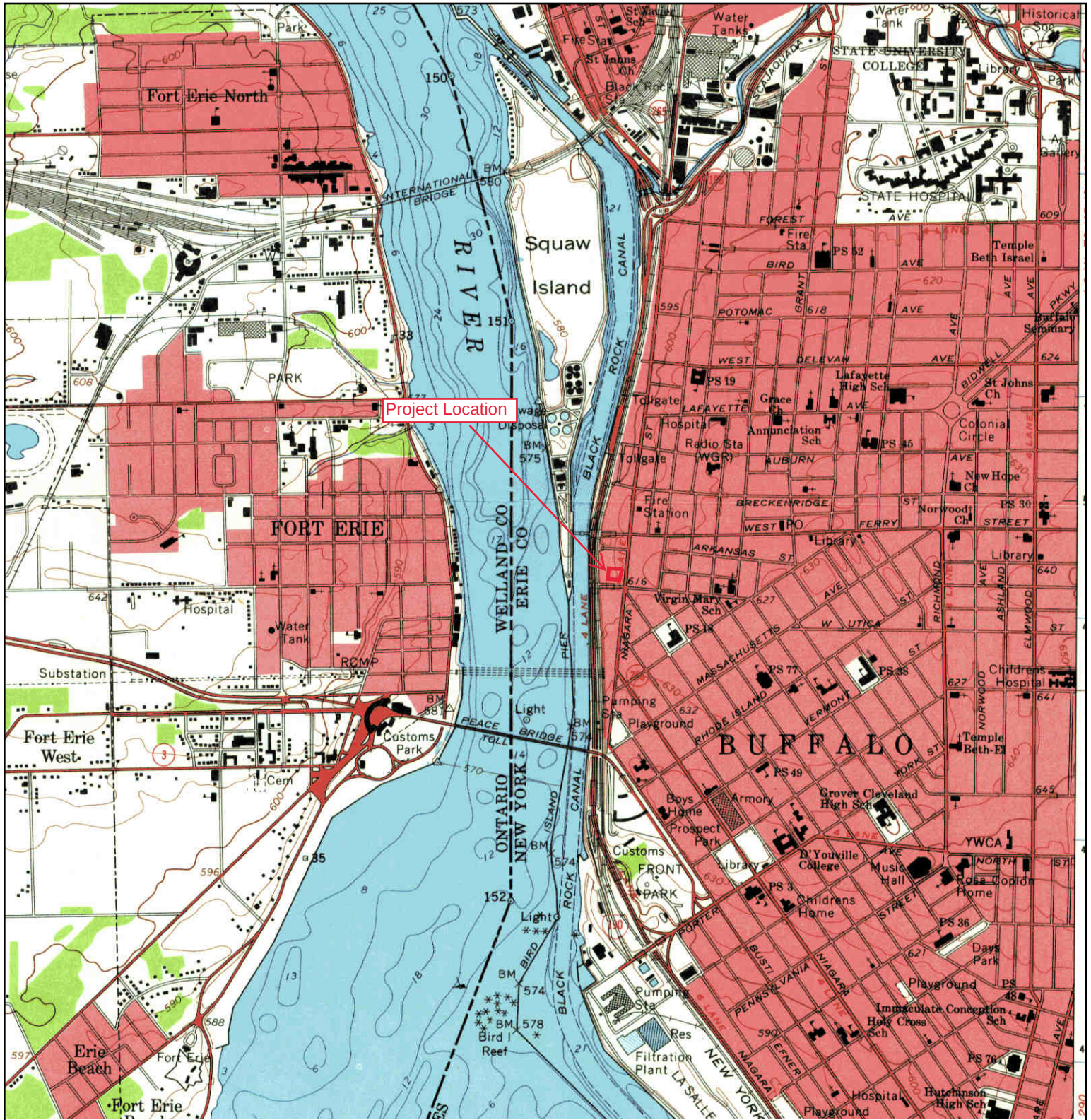


Figure 1: Project Location

N ↑	TARGET QUAD NAME: BUFFALO NW MAP YEAR: 1965 SERIES: 7.5 SCALE: 1:24000	SITE NAME: 1106-1110 Niagara Street ADDRESS: 1106-1110 Niagara Street Buffalo, NY 14213 LAT/LONG: 42.9136 / -78.9003	CLIENT: Panamerican Environmental, Inc CONTACT: Peter J Gorton INQUIRY#: 4098441.4 RESEARCH DATE: 10/07/2014
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Figure 2: 1106-1110 Niagara Street Phase II Boring Locations with Results



Figure 2: 1106-1110 Niagara Street Phase II Boring Locations with Results

1106-1110 Niagara Street
Buffalo, New York

3/1/2023
Douglas Development

TABLE 1
SUMMARY OF SOIL ANALYTICAL RESULTS

Parameter Tested	BE3 Phase II Report March 2023 - Sample Identification, Sample Depth in feet below ground surface (bgs), and Sample Date									NYSDEC Soil Cleanup Objectives (SCOs)				
	BH-1 1-2	BH-2 1-2	BH-3 1-2	BH-4 1-2	BH-5 1-2	BH-6 1-2	BHI-1 1-2	BHI-2 1-2	BHI-3 0-1	Unrestricted	Residential	Restricted Residential	Commerical	Industrial
	3/1/2023													
METALS/INORGANICS - mg/kg/ppm														
Arsenic	4.6	5.9	4.9	15.7	10.5	7.6	6.1	10.3	8.7	13	16	16	16	16
Barium	76.9	50.0	74.1	223.0	158.0	353.0	154	157	134	410	410	410	410	10,000
Beryllium	1.2	0.42	0.70	4.80	2.00	3.70	1.20	0.87	0.81	4.4	8.8	43	670	750
Cadmium	0.15 J	0.87	0.085 J	0.21 J	1.4	0.13 J	0.11 J	1.10	1.10	2.5	2.5	2.5	3.7	4.4
Chromium	11.9	10.1	13.5	22.8	15.4	11.5	32.0	24.2	22.7	30	30	110	1,700	2,000
Copper	18.6	19.0	17.9	115.0	56.4	17.2 B	23.1	70.5 B	68.0	50	280	280	280	10,000
Lead	34	157	69.1	57.3	639.0	82.8	102	199	144	63	400	400	1,000	3,900
Manganese	1080 B	350 B	501 B	1830 B	741 B	1770 B	910 B	639 B	326 B	1,600	2,000	2,000	10,000	10,000
Mercury	0.013 J	0.19	0.290	0.011 J	0.48	0.62	0.29	0.35	0.28	0.18	0.26	0.26	1.1	1.1
Nickel	13.0 B	7.0 B	12.5 B	21.4	17.2 B	11.5	25.2	53.6	23.3 B	30	44	210	320	3,400
Selenium	ND	ND	0.58 J	ND	ND	1.0 J	1.20	1.4 J	ND	4	22	110	1,700	2,000
Silver	ND	ND	ND	ND	ND	ND	ND	0.46 J	ND	2	22	110	1,700	2,000
Zinc	98	164	70.4	118.0	787.0	65.8	118	205	461	109	1,300	6,600	10,000	10,000
SEMI-VOLATILE ORGANIC COMPOUNDS (SVOCs) ppm														
Acenaphthene	ND	ND	ND	4.3 J	ND	ND	ND	0.94 J	1.6 J	20	100	100	500	1,000
Acenaphthylene	0.72 J	ND	ND	7.7 J	ND	ND	ND	0.16 J	2 J	100	100	100	500	1,000
Anthracene	ND	ND	ND	19	ND	ND	ND	2.5	4.0	100	100	100	500	1,000
Benzo(a)anthracene	2.8 J	ND	0.12 J	35	ND	0.17 J	0.028	4.2	6.5	1	1	1.4	37	37
Benzo(a)pyrene	3.1 J	ND	0.14 J	37	ND	0.17 J	ND	4.0	6.3	1	1	1	3.7	3.7
Benzo(b)fluoranthene	3.5 J	ND	0.16 J	38	ND	0.19 J	ND	3.9	6.6	1	1	1.4	37	37
Benzo(g,h,i)perylene	1.7 J	ND	ND	20	ND	ND	ND	1.80	3.3	0.64	1.2	4.9	47	78
Benzo(k)fluoranthene	1.5 J	ND	ND	20	ND	ND	ND	2.20	3.5	0.8	1.2	4.9	47	78
Chrysene	2.8 J	ND	ND	37	ND	ND	ND	4.1	6.7	1	1.2	4.9	47	78
Dibenz(a,h)anthracene	ND	ND	ND	5.2 J	ND	ND	ND	0.59 J	0.99	0.33	0.33	0.33	3.7	3.7
Dibenzofuran	ND	ND	ND	4.2 J	ND	ND	ND	0.55 J	2.0 J	2.1	4.2	18	180	290
Fluoranthene	6.5	ND	0.2 J	89	0.82 J	0.34 J	0.063	11.0	21	85	100	100	500	1,000
Fluorene	ND	ND	ND	4 J	ND	ND	ND	0.96	2.7	30	100	100	500	1,000
Indeno(1,2,3-cd)pyrene	1.7 J	ND	ND	17 J	ND	ND	ND	1.8	3.3	0.5	0.5	1.4	37	37
Naphthalene	ND	ND	ND	ND	ND	ND	ND	0.3 J	2.3	12	84	100	500	1,000
Phenanthrene	2.3 J	ND	ND	35	ND	0.23 J	0.06	10.0	21	1.1	1.2	4.9	47	78
Pyrene	4.5	ND	0.15	71	0.64 J	0.25 J	0.065	8.1	13	64	100	100	500	1,000
VOLATILE ORGANIC COMPOUNDS (VOCs)														
Acetone	-	-	-	-	-	-	0.047 J	ND	ND	0.03	100	100	500	1,000
Chloroform	-	-	-	-	-	-	0.00049	0.00045 J B	0.00043 J B	0.37	4.8	24	180	180
Methylene Chloride	-	-	-	-	-	-	ND	ND	ND	0.05	17	81	500	1,000
2- Butanone (MEK)	-	-	-	-	-	-	0.0073 J	ND	ND	0.12	100	100	500	1,000
Trichloroethene	-	-	-	-	-	-	ND	ND	ND	0.47	1.7	6.4	54	54

ND Analyte not detected

- Not Applicable or sample not tested for this analyte

J Estimated Concentration

B Analyte detected in method blank

K Result is reported as Benzo(b)fluoranthene

E Results exceeded calibration range

T Result is Tentatively Identifies Compound and an estimated value

Analyte detected

Reported concentration greater than or equal to the NYSDEC Unrestricted SCO

Reported concentration greater than or equal to the NYSDEC Residential SCO

Reported concentration greater than or equal to the NYSDEC Restricted Residential SCO

Reported concentration greater than or equal to the NYSDEC Commercial SCO

Reported concentration greater than or equal to the NYSDEC Industrial SCO

TABLE 2
SUMMARY OF GROUNDWATER RESULTS

Parameter Tested	Sample Identification, Approximate Groundwater Depth Below Top of Casing, and Sample Date	NYSDEC TOGS 1.1.1 GA
	TWM-1	
	-	
	3/1/2023	
Volatile Organic Compounds (VOCs)		
Tetrachlorethylene	0.79 J	5

Notes: All units in micrograms per liter (µg/L)

NYSDEC New York State Department of Environmental Conservation

TOGS Technical and Operational Guidance Series

500 Analyte exceeds NYSDEC TOGS guidance value

APPENDICES

APPENDIX A

Field Activity Photolog

Date: 3/1/2023



1. BH-1 Location. (Facing West)



2. BH-1 Location. (Facing North)



3. BH-1 soil cores.



4. BH-2 Location. (Facing East)

Date: 3/1/2023



5. BH-2 Location (Facing South)



6. BH-2 soil cores.



7. BH-3 Location. (Facing North)



8. BH-3Location. (Facing West)

Date: 3/1/2023



9. BH-3 soil cores.



10. BH-4 Location. (Facing north)



11. BH-4 Location. (Facing West)



12. Location of BH-4 facing south

Date: 3/1/2023



13 BH-5 Location. (Facing North)



14. BH-5 Location. (Facing Northwest)



15. BH-5 soil cores.



16. BH-6 Location. (Facing North)

Date: 3/1/2023



17. BH-6 Location. (Facing West)



18. BH-6 soil cores.



19. BHI-1 Location. (Looking South)



20. BHI-1 Location. (Looking Southwest)

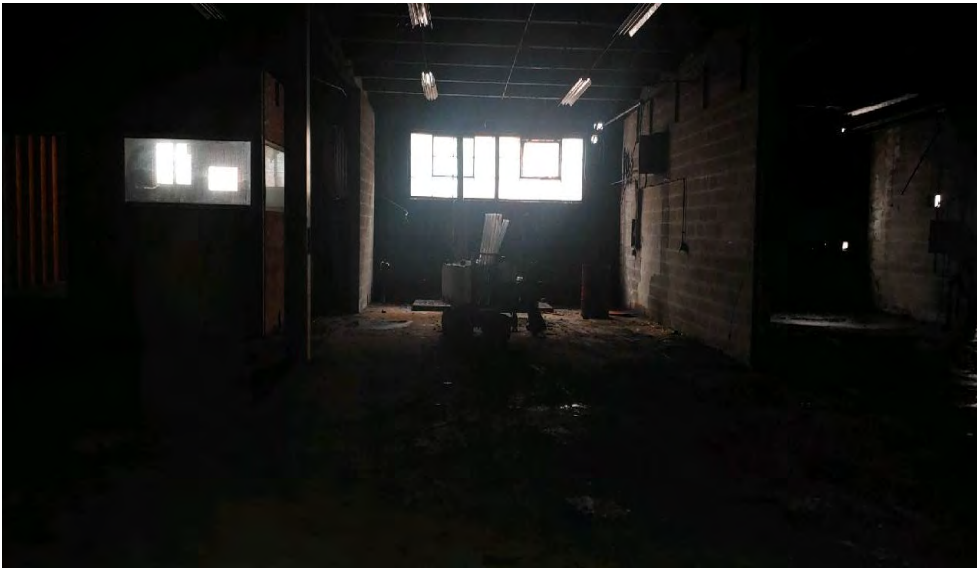
Date: 3/1/2023



21. BHI-1 soil cores.



22. BHI-2 Location. (Facing East)



23. BHI-2 Location. (Facing North)



24. BHI-2 soil cores.

Date: 3/1/2023



25. BHI-3 Location.



26. BHI-3 Location.



27. BHI-3 soil cores.

APPENDIX B

Boring Logs

Geoprobe Bore Hole Log



960 Busti Avenue, Suite B-150
Buffalo, NY 14213
716.249.6880 be3corp.com

Project:				1106-1110 Niagara Street - Phase II	
Client:		Douglas Development		Location:	
				1106 Niagara Street, Buffalo, New York 14213	
Contractor:		TREC		Lat/Long:	
Date Started:		3/1/2023		Equipment Model:	
				Geoprobe	
Date Completed:		3/1/2023		Geologist/Technician:	
				Pete Gorton/Jacob Cox	
Operator:		TREC		Ground Water:	
				N/A	
Bore Hole Number:		BH-1		Depth to Bedrock:	
				N/A	
Depth (Ft)	Sample		REC	PID (ppm)	Description
	NO	TYPE			
0					
				0.0	0 - 0.5 feet - asphalt
1					
2				0.0	0.50 - 2 feet - gravel, some silt and sand, black cinder, fill
3					
4				0.0	2 - 4 feet - Red-brown clay, some gravel
5					
6					
7					
8					4 - 8 feet - Brown silty clay, some gravel, wet.
9					
10				0.0	4 - 10 feet - Brown silty clay, some gravel, tight, wet.
11					
12					
13					
14					
15					
16					
17					
18					
19					
20					
Comments: Soil sample 1-2 feet, metals and SVOCs No odor, No PID readings.					

Geoprobe Bore Hole Log



960 Busti Avenue, Suite B-150
Buffalo, NY 14213
716.249.6880 be3corp.com

Project:				1106-1110 Niagara Street - Phase II	
Client:		Douglas Development		Location:	
				1106 Niagara Street, Buffalo, New York 14213	
Contractor:		TREC		Lat/Long:	
Date Started:		3/1/2023		Equipment Model:	
				Geoprobe	
Date Completed:		3/1/2023		Geologist/Technician:	
				Pete Gorton/Jacob Cox	
Operator:		TREC		Ground Water:	
				N/A	
Bore Hole Number:		BH-2		Depth to Bedrock:	
				N/A	
Depth (Ft)	Sample		REC	PID (ppm)	Description
	NO	TYPE			
0					
				0.0	0 - 0.5 feet - asphalt
1					
2				0.0	0.50 - 2 feet - slag, rock
3					
4				0.0	2 - 4 feet - brown to darkbrown clay, stiff and tight
5					
6					
7					
8				0.0	4 - 8 feet - Brown silty clay, stiff.
9					
10					
11					
12					
13					
14					
15					
16					
17					
18					
19					
20					
Comments: Soil sample 1-2 feet, metals and SVOCs No odor, No PID readings.					

Geoprobe Bore Hole Log



960 Busti Avenue, Suite B-150
Buffalo, NY 14213
716.249.6880 be3corp.com

Project:				1106-1110 Niagara Street - Phase II	
Client:		Douglas Development		Location:	
				1106 Niagara Street, Buffalo, New York 14213	
Contractor:		TREC		Lat/Long:	
Date Started:		3/1/2023		Equipment Model:	
				Geoprobe	
Date Completed:		3/1/2023		Geologist/Technician:	
				Pete Gorton/Jacob Cox	
Operator:		TREC		Ground Water:	
				N/A	
Bore Hole Number:		BH-3		Depth to Bedrock:	
				N/A	
Depth (Ft)	Sample		REC	PID (ppm)	Description
	NO	TYPE			
0					
				0.0	0 - 0.5 feet - asphalt
1					
2				0.0	0.50 - 2 feet - brown-black clay, slag, rock
3					
4				0.0	2 - 4 feet - red-brown clay, stiff and tight
5					
6					
7					
8					
9				0.0	4 - 9 feet - Red-brown clay, stiff, tight. Refusal at 9 feet.
10					
11					
12					
13					
14					
15					
16					
17					
18					
19					
20					
Comments: Soil sample 1-2 feet, metals and SVOCs No odor, No PID readings.					

Geoprobe Bore Hole Log



960 Busti Avenue, Suite B-150
Buffalo, NY 14213
716.249.6880 be3corp.com

Project:				1106-1110 Niagara Street - Phase II	
Client:		Douglas Development		Location:	
				1106 Niagara Street, Buffalo, New York 14213	
Contractor:		TREC		Lat/Long:	
Date Started:		3/1/2023		Equipment Model:	
				Geoprobe	
Date Completed:		3/1/2023		Geologist/Technician:	
				Pete Gorton/Jacob Cox	
Operator:		TREC		Ground Water:	
				N/A	
Bore Hole Number:		BH-4		Depth to Bedrock:	
				N/A	
Depth (Ft)	Sample		REC	PID (ppm)	Description
	NO	TYPE			
0				0.0	0 - 0.5 feet - asphalt
1					
2				0.0	0.50 - 2 feet - brown-black clay, slag, some rock
3					
4				0.0	2 - 4 feet - brown clay, stiff and tight, some rock
5					
6					
7					
8					
9					
10					
11					
12					
13					
14					
15					
16					
17					
18					
19					
20					
Comments: Soil sample 1-2 feet, metals and SVOCs No odor, No PID readings.					

Geoprobe Bore Hole Log



960 Busti Avenue, Suite B-150
Buffalo, NY 14213
716.249.6880 be3corp.com

Project:				1106-1110 Niagara Street - Phase II	
Client:		Douglas Development		Location:	
				1106 Niagara Street, Buffalo, New York 14213	
Contractor:		TREC		Lat/Long:	
Date Started:		3/1/2023		Equipment Model:	
				Geoprobe	
Date Completed:		3/1/2023		Geologist/Technician:	
				Pete Gorton/Jacob Cox	
Operator:		TREC		Ground Water:	
				N/A	
Bore Hole Number:		BH-5		Depth to Bedrock:	
				N/A	
Depth (Ft)	Sample		REC	PID (ppm)	Description
	NO	TYPE			
0				0.0	0 - 0.5 feet - asphalt
1					
2				0.0	0.50 - 2 feet - slag, some brown-black silt and clay, some rock
3				0.0	2 - 3 feet - brown-black clay, stiff and tight.
4					
5					
6					
7					
8					
9					
10					
11					
12					
13					
14					
15					
16					
17					
18					
19					
20					
Comments: Soil sample 1-2 feet, metals and SVOCs No odor, No PID readings.					

Geoprobe Bore Hole Log



960 Busti Avenue, Suite B-150
Buffalo, NY 14213
716.249.6880 be3corp.com

Project:				1106-1110 Niagara Street - Phase II	
Client:		Douglas Development		Location:	
				1106 Niagara Street, Buffalo, New York 14213	
Contractor:		TREC		Lat/Long:	
Date Started:		3/1/2023		Equipment Model:	
				Geoprobe	
Date Completed:		3/1/2023		Geologist/Technician:	
				Pete Gorton/Jacob Cox	
Operator:		TREC		Ground Water:	
				N/A	
Bore Hole Number:		BH-5		Depth to Bedrock:	
				N/A	
Depth (Ft)	Sample		REC	PID (ppm)	Description
	NO	TYPE			
0				0.0	0 - 0.5 feet - asphalt
1					
2				0.0	0.50 - 2 feet - slag, some brown-black silt and clay, some rock
3					
4				0.0	2 - 4 feet - brown-black clay, stiff and tight, moist.
5					
6					
7					
8					
9					
10					
11					
12					
13					
14					
15					
16					
17					
18					
19					
20					
Comments: Soil sample 1-2 feet, metals and SVOCs No odor, No PID readings.					

Geoprobe Bore Hole Log



960 Busti Avenue, Suite B-150
Buffalo, NY 14213
716.249.6880 be3corp.com

Project:				1106-1110 Niagara Street - Phase II	
Client:		Douglas Development		Location:	
				1106 Niagara Street, Buffalo, New York 14213	
Contractor:		TREC		Lat/Long:	
Date Started:		3/1/2023		Equipment Model:	
				Geoprobe	
Date Completed:		3/1/2023		Geologist/Technician:	
				Pete Gorton/Jacob Cox	
Operator:		TREC		Ground Water:	
				N/A	
Bore Hole Number:		BHI-1		Depth to Bedrock:	
				N/A	
Depth (Ft)	Sample		REC	PID (ppm)	Description
	NO	TYPE			
0					
1					
2					
3					
4				0.0	0 - 4 feet - Dark brown clay, stiff and tight
5					
6					
7					
8					
9					
10					
11					
12					
13					
14					
15					
16					
17					
18					
19					
20					
Comments: Soil sample 1-2 feet, metals, SVOCs, and VOCs No odor, No PID readings.					

Geoprobe Bore Hole Log



960 Busti Avenue, Suite B-150
Buffalo, NY 14213
716.249.6880 be3corp.com

Project:				1106-1110 Niagara Street - Phase II	
Client:		Douglas Development		Location:	
				1106 Niagara Street, Buffalo, New York 14213	
Contractor:		TREC		Lat/Long:	
Date Started:		3/1/2023		Equipment Model:	
				Geoprobe	
Date Completed:		3/1/2023		Geologist/Technician:	
				Pete Gorton/Jacob Cox	
Operator:		TREC		Ground Water:	
				N/A	
Bore Hole Number:		BHI-2		Depth to Bedrock:	
				N/A	
Depth (Ft)	Sample		REC	PID (ppm)	Description
	NO	TYPE			
0					
1				0.0	0 - 1 feet - Red-black-orange clay
2				0.0	1 - 2 feet - Black-brown clay
3					
4					
5					
6				0.0	2 - 6 feet - Red-brown clay, stiff and tight, moist. Refusal at 6 feet. Temporary well TWM-1 installed.
7					
8					
9					
10					
11					
12					
13					
14					
15					
16					
17					
18					
19					
20					
Comments: Soil sample 1-2 feet, metals, SVOCs No odor, No PID readings. Well TWM-1 was installed. Groundwater sample for VOCs and TICS.					

Geoprobe Bore Hole Log



960 Busti Avenue, Suite B-150
Buffalo, NY 14213
716.249.6880 be3corp.com

Project:				1106-1110 Niagara Street - Phase II	
Client:		Douglas Development		Location:	
				1106 Niagara Street, Buffalo, New York 14213	
Contractor:		TREC		Lat/Long:	
Date Started:		3/1/2023		Equipment Model:	
				Geoprobe	
Date Completed:		3/1/2023		Geologist/Technician:	
				Pete Gorton/Jacob Cox	
Operator:		TREC		Ground Water:	
				N/A	
Bore Hole Number:		BHI-3		Depth to Bedrock:	
				N/A	
Depth (Ft)	Sample		REC	PID (ppm)	Description
	NO	TYPE			
0					
1				0.0	0 - 1 feet - Black-brown clay, some silt, medium soft.
2					
3					
4				0.0	1 - 4 feet - brown silty clay, stiff.
5					
6					
7					
8					
9					
10					
11					
12					
13					
14					
15					
16					
17					
18					
19					
20					
Comments: Soil sample 0-1 feet, metals, SVOCs, and VOCs No odor, No PID readings.					

APPENDIX C

Laboratory Data

ANALYTICAL REPORT

PREPARED FOR

Attn: Jason Brydges
Brydges Engineering in Environment & Energy DPC
960 Busti Ave
Suite B-150
Buffalo, New York 14213

Generated 3/14/2023 9:10:27 AM

JOB DESCRIPTION

Douglas - 1106 Niagara

JOB NUMBER

480-206554-1

Eurofins Buffalo

Job Notes

The test results in this report meet all NELAP requirements for parameters for which accreditation is required or available. Any exceptions to the NELAP requirements are noted in this report. Pursuant to NELAP, this report may not be reproduced, except in full, without the written approval of the laboratory. This report is confidential and is intended for the sole use of Eurofins Environment Testing Northeast, LLC Buffalo and its client. All questions regarding this report should be directed to the Eurofins Environment Testing Northeast, LLC Buffalo Project Manager or designee who has signed this report.

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Authorization



Generated
3/14/2023 9:10:27 AM

Authorized for release by
John Beninati, Project Manager
John.Beninati@et.eurofinsus.com
(716)504-9874

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Definitions/Glossary

Client: Brydges Engineering in Environment & Energy DPC
Project/Site: Douglas - 1106 Niagara

Job ID: 480-206554-1

Qualifiers

GC/MS VOA

Qualifier	Qualifier Description
*+	LCS and/or LCSD is outside acceptance limits, high biased.
B	Compound was found in the blank and sample.
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.
U	Indicates the analyte was analyzed for but not detected.
vs	Reported analyte concentrations are below 200 ug/kg and may be biased low due to the sample not being collected according to 5035A-L low-level specifications.

GC/MS Semi VOA

Qualifier	Qualifier Description
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, low biased.
S1+	Surrogate recovery exceeds control limits, high biased.
U	Indicates the analyte was analyzed for but not detected.

Metals

Qualifier	Qualifier Description
^+	Continuing Calibration Verification (CCV) is outside acceptance limits, high biased.
^2	Calibration Blank (ICB and/or CCB) is outside acceptance limits.
4	MS, MSD: The analyte present in the original sample is greater than 4 times the matrix spike concentration; therefore, control limits are not applicable.
B	Compound was found in the blank and sample.
F1	MS and/or MSD recovery 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.
U	Indicates the analyte was analyzed for but not detected.

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
α	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

Eurofins Buffalo

Definitions/Glossary

Client: Brydges Engineering in Environment & Energy DPC
Project/Site: Douglas - 1106 Niagara

Job ID: 480-206554-1

Glossary (Continued)

Abbreviation	These commonly used abbreviations may or may not be present in this report.
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: Brydges Engineering in Environment & Energy DPC
Project/Site: Douglas - 1106 Niagara

Job ID: 480-206554-1

Job ID: 480-206554-1

Laboratory: Eurofins Buffalo

Narrative

Job Narrative 480-206554-1

Comments

No additional comments.

Receipt

The samples were received on 3/2/2023 8:00 AM. Unless otherwise noted below, the samples arrived in good condition, and where required, properly preserved and on ice. The temperature of the cooler at receipt was 6.3° C.

Receipt Exceptions

Water sample received not listed on COC. Methods assigned based off information listed on containers: TMW-1 (480-206554-10)

GC/MS VOA

Method 8260C: The following sample(s) was collected in a properly preserved vial; however, the pH was outside the required criteria when verified by the laboratory. The sample was analyzed within the 7-day holding time specified for unpreserved samples: TMW-1 (480-206554-10).

Method 8260C: The continuing calibration verification (CCV) associated with batch 480-660374 recovered above the upper control limit for 2-Butanone (MEK). The samples associated with this CCV were non-detects for the affected analytes; therefore, the data have been reported. The associated sample is impacted: TMW-1 (480-206554-10).

Method 8260C: Due to the coelution of Ethyl Acetate with 2-Butanone in the full spike solution, these analytes exceeded control limits in the laboratory control sample (LCS) associated with batch 480-660374. The following sample was affected: TMW-1 (480-206554-10).

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, appearance, and viscosity: BH-1 1-2FT (480-206554-1), BH-2 1-2FT (480-206554-2), BHI-2 1-2FT (480-206554-4), BHI-3 0-1FT (480-206554-5), BH-3 1-2FT (480-206554-6), BH-4 1-2FT (480-206554-7), BH-5 1-2FT (480-206554-8) and BH-6 1-2FT (480-206554-9). Elevated reporting limits (RL) are provided.

Method 8270D: The continuing calibration verification (CCV) associated with batch 480-660609 recovered outside acceptance criteria, low biased, for Pentachlorophenol. A reporting limit (RL) standard was analyzed, and the target analytes are detected. Since the associated samples were non-detect for the analyte(s), the data are reported.

Method 8270D: Six surrogates are used for this analysis. The laboratory's SOP allows one acid and one base of these surrogates to be outside acceptance criteria without performing re-extraction/re-analysis. The following samples contained an allowable number of surrogate compounds outside limits: BH-2 1-2FT (480-206554-2), BHI-1 1-2FT (480-206554-3), BHI-2 1-2FT (480-206554-4), BHI-3 0-1FT (480-206554-5), BH-3 1-2FT (480-206554-6), BH-6 1-2FT (480-206554-9) and (MB 480-660396/1-A). These results have been reported and qualified.

Method 8270D: The following samples required a dilution due to the nature of the sample matrix: BH-1 1-2FT (480-206554-1) and BH-4 1-2FT (480-206554-7). Because of this dilution, the surrogate spike concentration in the sample was reduced to a level where the recovery calculation does not provide useful information.

Method 8270D: The following sample was diluted due to color, appearance, and viscosity: BH-5 1-2FT (480-206554-8). Elevated reporting limits (RL) are provided.

Method 8270D: The continuing calibration verification (CCV) associated with batch 480-660957 recovered outside acceptance criteria, low biased, for Pentachlorophenol. A reporting limit (RL) standard was analyzed, and the target analytes are detected. Since the associated samples were non-detect for the analyte(s), the data are reported.

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

Case Narrative

Client: Brydges Engineering in Environment & Energy DPC
Project/Site: Douglas - 1106 Niagara

Job ID: 480-206554-1

Job ID: 480-206554-1 (Continued)

Laboratory: Eurofins Buffalo (Continued)

Metals

Method 6010C: The low level continuing calibration verification (CCVL 480-660681/20) recovered above the upper control limit for Total Nickel. The samples associated with this CCVL were either less than the reporting limit (RL) for this analyte or contained this analyte at a concentration greater than 10X the value found in the CCVL; therefore, re-analysis of samples (LCSSRM 480-660424/2-A) and (MB 480-660424/1-A) was not performed.

Method 6010C: The low level continuing calibration verification (CCVL 480-660681/50) recovered above the upper control limit for Total Nickel. The samples associated with this CCVL were either less than the reporting limit (RL) for this analyte or contained this analyte at a concentration greater than 10X the value found in the CCVL; therefore, re-analysis of samples BHI-1 1-2FT (480-206554-3), BHI-3 0-1FT (480-206554-5), BH-5 1-2FT (480-206554-8), (480-206554-B-2-B MS) and (480-206554-B-2-C MSD) was not performed.

Method 6010C: The following samples were diluted due to the presence of Total Calcium which interferes with Copper: BH-2 1-2FT (480-206554-2), (480-206554-B-2-B MS ^2), (480-206554-B-2-C MSD ^2), (480-206554-B-2-A PDS ^2) and (480-206554-B-2-A SD ^10). Elevated reporting limits (RLs) are provided.

Method 6010C: Due to sample matrix effect on the internal standard (ISTD Yttrium), a dilution was required for the following sample: BH-4 1-2FT (480-206554-7).

Method 6010C: The continuing calibration blank (CCB) for analytical batch 480-660847 contained Total Manganese above the reporting limit (RL). All reported samples associated with this CCB were either ND for this analyte or contained this analyte at a concentration greater than 10X the value found in the CCB; therefore, re-analysis of samples BH-4 1-2FT (480-206554-7) was not performed.

Method 6010C: Due to sample matrix effect on the internal standard (ISTD Yttrium_3374), a dilution was required for the following sample for Total Barium and Beryllium: BH-6 1-2FT (480-206554-9).

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

Organic Prep

Method 3550C: Due to the matrix, the following sample could not be concentrated to the final method required volume: BH-4 1-2FT (480-206554-7). The reporting limits (RLs) are elevated proportionately.

Method 3550C: Due to the matrix, the initial volume(s) used for the following sample(s) deviated from the standard procedure: 8270 The reporting limits (RLs) have been adjusted proportionately.

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

Detection Summary

Client: Brydges Engineering in Environment & Energy DPC
Project/Site: Douglas - 1106 Niagara

Job ID: 480-206554-1

Client Sample ID: BH-1 1-2FT

Lab Sample ID: 480-206554-1

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Acenaphthylene	720	J	3900	500	ug/Kg	20	✱	8270D	Total/NA
Benzo[a]anthracene	2800	J	3900	390	ug/Kg	20	✱	8270D	Total/NA
Benzo[a]pyrene	3100	J	3900	570	ug/Kg	20	✱	8270D	Total/NA
Benzo[b]fluoranthene	3500	J	3900	620	ug/Kg	20	✱	8270D	Total/NA
Benzo[g,h,i]perylene	1700	J	3900	410	ug/Kg	20	✱	8270D	Total/NA
Benzo[k]fluoranthene	1500	J	3900	500	ug/Kg	20	✱	8270D	Total/NA
Chrysene	2800	J	3900	870	ug/Kg	20	✱	8270D	Total/NA
Fluoranthene	6500		3900	410	ug/Kg	20	✱	8270D	Total/NA
Indeno[1,2,3-cd]pyrene	1700	J	3900	480	ug/Kg	20	✱	8270D	Total/NA
Phenanthrene	2300	J	3900	570	ug/Kg	20	✱	8270D	Total/NA
Pyrene	4500		3900	460	ug/Kg	20	✱	8270D	Total/NA
Arsenic	4.6		2.3	0.46	mg/Kg	1	✱	6010C	Total/NA
Barium	76.9		0.57	0.13	mg/Kg	1	✱	6010C	Total/NA
Beryllium	1.2		0.23	0.032	mg/Kg	1	✱	6010C	Total/NA
Cadmium	0.15	J	0.23	0.034	mg/Kg	1	✱	6010C	Total/NA
Chromium	11.9		0.57	0.23	mg/Kg	1	✱	6010C	Total/NA
Copper	18.6		1.1	0.24	mg/Kg	1	✱	6010C	Total/NA
Lead	33.5		1.1	0.27	mg/Kg	1	✱	6010C	Total/NA
Manganese	1080	B	0.23	0.037	mg/Kg	1	✱	6010C	Total/NA
Nickel	13.0	B	5.7	0.26	mg/Kg	1	✱	6010C	Total/NA
Zinc	97.6		2.3	0.73	mg/Kg	1	✱	6010C	Total/NA
Mercury	0.013	J	0.024	0.0055	mg/Kg	1	✱	7471B	Total/NA

Client Sample ID: BH-2 1-2FT

Lab Sample ID: 480-206554-2

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Arsenic	5.9		2.7	0.54	mg/Kg	1	✱	6010C	Total/NA
Barium	50.0	F1	0.68	0.15	mg/Kg	1	✱	6010C	Total/NA
Beryllium	0.42		0.27	0.038	mg/Kg	1	✱	6010C	Total/NA
Cadmium	0.87		0.27	0.041	mg/Kg	1	✱	6010C	Total/NA
Chromium	10.1		0.68	0.27	mg/Kg	1	✱	6010C	Total/NA
Copper	19.0		2.7	0.57	mg/Kg	2	✱	6010C	Total/NA
Lead	157	F1	1.4	0.33	mg/Kg	1	✱	6010C	Total/NA
Manganese	350	B	0.27	0.043	mg/Kg	1	✱	6010C	Total/NA
Nickel	7.0	B	6.8	0.31	mg/Kg	1	✱	6010C	Total/NA
Zinc	164	F1	2.7	0.87	mg/Kg	1	✱	6010C	Total/NA
Mercury	0.19	F1	0.025	0.0058	mg/Kg	1	✱	7471B	Total/NA

Client Sample ID: BHI-1 1-2FT

Lab Sample ID: 480-206554-3

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
2-Butanone (MEK)	7.3	J vs	32	2.3	ug/Kg	1	✱	8260C	Total/NA
Acetone	47	vs	32	5.3	ug/Kg	1	✱	8260C	Total/NA
Chloroform	0.49	J B vs	6.3	0.39	ug/Kg	1	✱	8260C	Total/NA
Benzo[a]anthracene	28	J	220	22	ug/Kg	1	✱	8270D	Total/NA
Fluoranthene	63	J	220	23	ug/Kg	1	✱	8270D	Total/NA
Phenanthrene	60	J	220	32	ug/Kg	1	✱	8270D	Total/NA
Pyrene	65	J	220	25	ug/Kg	1	✱	8270D	Total/NA
Arsenic	6.1		2.7	0.53	mg/Kg	1	✱	6010C	Total/NA
Barium	154		0.67	0.15	mg/Kg	1	✱	6010C	Total/NA
Beryllium	1.2		0.27	0.037	mg/Kg	1	✱	6010C	Total/NA
Cadmium	0.11	J	0.27	0.040	mg/Kg	1	✱	6010C	Total/NA

This Detection Summary does not include radiochemical test results.

Eurofins Buffalo

Detection Summary

Client: Brydges Engineering in Environment & Energy DPC
Project/Site: Douglas - 1106 Niagara

Job ID: 480-206554-1

Client Sample ID: BHI-1 1-2FT (Continued)

Lab Sample ID: 480-206554-3

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chromium	32.0		0.67	0.27	mg/Kg	1	✱	6010C	Total/NA
Copper	23.1		1.3	0.28	mg/Kg	1	✱	6010C	Total/NA
Lead	102		1.3	0.32	mg/Kg	1	✱	6010C	Total/NA
Manganese	910	B	0.27	0.043	mg/Kg	1	✱	6010C	Total/NA
Nickel	25.2	B ^+	6.7	0.31	mg/Kg	1	✱	6010C	Total/NA
Selenium	1.2	J	5.3	0.53	mg/Kg	1	✱	6010C	Total/NA
Zinc	118		2.7	0.85	mg/Kg	1	✱	6010C	Total/NA
Mercury	0.29		0.026	0.0059	mg/Kg	1	✱	7471B	Total/NA

Client Sample ID: BHI-2 1-2FT

Lab Sample ID: 480-206554-4

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloroform	0.45	J B vs	5.6	0.34	ug/Kg	1	✱	8260C	Total/NA
Acenaphthene	940	J	960	140	ug/Kg	5	✱	8270D	Total/NA
Acenaphthylene	160	J	960	120	ug/Kg	5	✱	8270D	Total/NA
Anthracene	2500		960	240	ug/Kg	5	✱	8270D	Total/NA
Benzo[a]anthracene	4200		960	96	ug/Kg	5	✱	8270D	Total/NA
Benzo[a]pyrene	4000		960	140	ug/Kg	5	✱	8270D	Total/NA
Benzo[b]fluoranthene	3900		960	150	ug/Kg	5	✱	8270D	Total/NA
Benzo[g,h,i]perylene	1800		960	100	ug/Kg	5	✱	8270D	Total/NA
Benzo[k]fluoranthene	2200		960	120	ug/Kg	5	✱	8270D	Total/NA
Chrysene	4100		960	220	ug/Kg	5	✱	8270D	Total/NA
Dibenz(a,h)anthracene	590	J	960	170	ug/Kg	5	✱	8270D	Total/NA
Dibenzofuran	550	J	960	110	ug/Kg	5	✱	8270D	Total/NA
Fluoranthene	11000		960	100	ug/Kg	5	✱	8270D	Total/NA
Fluorene	960		960	110	ug/Kg	5	✱	8270D	Total/NA
Indeno[1,2,3-cd]pyrene	1800		960	120	ug/Kg	5	✱	8270D	Total/NA
Naphthalene	300	J	960	120	ug/Kg	5	✱	8270D	Total/NA
Phenanthrene	10000		960	140	ug/Kg	5	✱	8270D	Total/NA
Pyrene	8100		960	110	ug/Kg	5	✱	8270D	Total/NA
Arsenic	10.3		2.3	0.47	mg/Kg	1	✱	6010C	Total/NA
Barium	157		0.58	0.13	mg/Kg	1	✱	6010C	Total/NA
Beryllium	0.87		0.23	0.033	mg/Kg	1	✱	6010C	Total/NA
Cadmium	1.1		0.23	0.035	mg/Kg	1	✱	6010C	Total/NA
Chromium	24.2		0.58	0.23	mg/Kg	1	✱	6010C	Total/NA
Copper	70.5	B	1.2	0.24	mg/Kg	1	✱	6010C	Total/NA
Lead	199		1.2	0.28	mg/Kg	1	✱	6010C	Total/NA
Manganese	639	B	0.23	0.037	mg/Kg	1	✱	6010C	Total/NA
Nickel	53.6		5.8	0.27	mg/Kg	1	✱	6010C	Total/NA
Selenium	1.4	J	4.7	0.47	mg/Kg	1	✱	6010C	Total/NA
Silver	0.46	J	0.70	0.23	mg/Kg	1	✱	6010C	Total/NA
Zinc	205		2.3	0.75	mg/Kg	1	✱	6010C	Total/NA
Mercury	0.35		0.021	0.0048	mg/Kg	1	✱	7471B	Total/NA

Client Sample ID: BHI-3 0-1FT

Lab Sample ID: 480-206554-5

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloroform	0.43	J B vs	6.4	0.39	ug/Kg	1	✱	8260C	Total/NA
Acenaphthene	1600	J	2200	320	ug/Kg	10	✱	8270D	Total/NA
Acenaphthylene	2000	J	2200	280	ug/Kg	10	✱	8270D	Total/NA
Anthracene	4000		2200	540	ug/Kg	10	✱	8270D	Total/NA
Benzo[a]anthracene	6500		2200	220	ug/Kg	10	✱	8270D	Total/NA

This Detection Summary does not include radiochemical test results.

Eurofins Buffalo

Detection Summary

Client: Brydges Engineering in Environment & Energy DPC
Project/Site: Douglas - 1106 Niagara

Job ID: 480-206554-1

Client Sample ID: BHI-3 0-1FT (Continued)

Lab Sample ID: 480-206554-5

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Benzo[a]pyrene	6300		2200	320	ug/Kg	10	✱	8270D	Total/NA
Benzo[b]fluoranthene	6600		2200	340	ug/Kg	10	✱	8270D	Total/NA
Benzo[g,h,i]perylene	3300		2200	230	ug/Kg	10	✱	8270D	Total/NA
Benzo[k]fluoranthene	3500		2200	280	ug/Kg	10	✱	8270D	Total/NA
Chrysene	6700		2200	480	ug/Kg	10	✱	8270D	Total/NA
Dibenz(a,h)anthracene	990	J	2200	380	ug/Kg	10	✱	8270D	Total/NA
Dibenzofuran	2000	J	2200	250	ug/Kg	10	✱	8270D	Total/NA
Fluoranthene	21000		2200	230	ug/Kg	10	✱	8270D	Total/NA
Fluorene	2700		2200	250	ug/Kg	10	✱	8270D	Total/NA
Indeno[1,2,3-cd]pyrene	3300		2200	270	ug/Kg	10	✱	8270D	Total/NA
Naphthalene	2300		2200	280	ug/Kg	10	✱	8270D	Total/NA
Phenanthrene	21000		2200	320	ug/Kg	10	✱	8270D	Total/NA
Pyrene	13000		2200	250	ug/Kg	10	✱	8270D	Total/NA
Arsenic	8.7		2.6	0.51	mg/Kg	1	✱	6010C	Total/NA
Barium	134		0.64	0.14	mg/Kg	1	✱	6010C	Total/NA
Beryllium	0.81		0.26	0.036	mg/Kg	1	✱	6010C	Total/NA
Cadmium	1.1		0.26	0.038	mg/Kg	1	✱	6010C	Total/NA
Chromium	22.7		0.64	0.26	mg/Kg	1	✱	6010C	Total/NA
Copper	68.0		1.3	0.27	mg/Kg	1	✱	6010C	Total/NA
Lead	144		1.3	0.31	mg/Kg	1	✱	6010C	Total/NA
Manganese	326	B	0.26	0.041	mg/Kg	1	✱	6010C	Total/NA
Nickel	23.3	B ^+	6.4	0.29	mg/Kg	1	✱	6010C	Total/NA
Zinc	461		2.6	0.82	mg/Kg	1	✱	6010C	Total/NA
Mercury	0.28		0.026	0.0059	mg/Kg	1	✱	7471B	Total/NA

Client Sample ID: BH-3 1-2FT

Lab Sample ID: 480-206554-6

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Benzo[a]anthracene	120	J	910	91	ug/Kg	5	✱	8270D	Total/NA
Benzo[a]pyrene	140	J	910	130	ug/Kg	5	✱	8270D	Total/NA
Benzo[b]fluoranthene	160	J	910	140	ug/Kg	5	✱	8270D	Total/NA
Fluoranthene	200	J	910	96	ug/Kg	5	✱	8270D	Total/NA
Pyrene	150	J	910	110	ug/Kg	5	✱	8270D	Total/NA
Arsenic	4.9		2.1	0.41	mg/Kg	1	✱	6010C	Total/NA
Barium	74.1		0.52	0.11	mg/Kg	1	✱	6010C	Total/NA
Beryllium	0.70		0.21	0.029	mg/Kg	1	✱	6010C	Total/NA
Cadmium	0.085	J	0.21	0.031	mg/Kg	1	✱	6010C	Total/NA
Chromium	13.5		0.52	0.21	mg/Kg	1	✱	6010C	Total/NA
Copper	17.9		1.0	0.22	mg/Kg	1	✱	6010C	Total/NA
Lead	69.1		1.0	0.25	mg/Kg	1	✱	6010C	Total/NA
Manganese	501	B	0.21	0.033	mg/Kg	1	✱	6010C	Total/NA
Nickel	12.5	B	5.2	0.24	mg/Kg	1	✱	6010C	Total/NA
Selenium	0.58	J	4.1	0.41	mg/Kg	1	✱	6010C	Total/NA
Zinc	70.4		2.1	0.66	mg/Kg	1	✱	6010C	Total/NA
Mercury	0.29		0.021	0.0048	mg/Kg	1	✱	7471B	Total/NA

Client Sample ID: BH-4 1-2FT

Lab Sample ID: 480-206554-7

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Acenaphthene	4300	J	19000	2900	ug/Kg	10	✱	8270D	Total/NA
Acenaphthylene	7700	J	19000	2500	ug/Kg	10	✱	8270D	Total/NA
Anthracene	19000		19000	4800	ug/Kg	10	✱	8270D	Total/NA

This Detection Summary does not include radiochemical test results.

Eurofins Buffalo

Detection Summary

Client: Brydges Engineering in Environment & Energy DPC
Project/Site: Douglas - 1106 Niagara

Job ID: 480-206554-1

Client Sample ID: BH-4 1-2FT (Continued)

Lab Sample ID: 480-206554-7

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Benzo[a]anthracene	35000		19000	1900	ug/Kg	10	✱	8270D	Total/NA
Benzo[a]pyrene	37000		19000	2900	ug/Kg	10	✱	8270D	Total/NA
Benzo[b]fluoranthene	38000		19000	3100	ug/Kg	10	✱	8270D	Total/NA
Benzo[g,h,i]perylene	20000		19000	2100	ug/Kg	10	✱	8270D	Total/NA
Benzo[k]fluoranthene	20000		19000	2500	ug/Kg	10	✱	8270D	Total/NA
Chrysene	37000		19000	4400	ug/Kg	10	✱	8270D	Total/NA
Dibenz(a,h)anthracene	5200	J	19000	3400	ug/Kg	10	✱	8270D	Total/NA
Dibenzofuran	4200	J	19000	2300	ug/Kg	10	✱	8270D	Total/NA
Fluoranthene	89000		19000	2100	ug/Kg	10	✱	8270D	Total/NA
Fluorene	4000	J	19000	2300	ug/Kg	10	✱	8270D	Total/NA
Indeno[1,2,3-cd]pyrene	17000	J	19000	2400	ug/Kg	10	✱	8270D	Total/NA
Phenanthrene	35000		19000	2900	ug/Kg	10	✱	8270D	Total/NA
Pyrene	71000		19000	2300	ug/Kg	10	✱	8270D	Total/NA
Arsenic	15.7		11.9	2.4	mg/Kg	5	✱	6010C	Total/NA
Barium	223		3.0	0.65	mg/Kg	5	✱	6010C	Total/NA
Beryllium	4.8		1.2	0.17	mg/Kg	5	✱	6010C	Total/NA
Cadmium	0.21	J	1.2	0.18	mg/Kg	5	✱	6010C	Total/NA
Chromium	22.8		3.0	1.2	mg/Kg	5	✱	6010C	Total/NA
Copper	115		5.9	1.2	mg/Kg	5	✱	6010C	Total/NA
Lead	57.3		1.2	0.29	mg/Kg	1	✱	6010C	Total/NA
Manganese	1830	B ^2	1.2	0.19	mg/Kg	5	✱	6010C	Total/NA
Nickel	21.4	B	5.9	0.27	mg/Kg	1	✱	6010C	Total/NA
Zinc	118		11.9	3.8	mg/Kg	5	✱	6010C	Total/NA
Mercury	0.011	J	0.023	0.0054	mg/Kg	1	✱	7471B	Total/NA

Client Sample ID: BH-5 1-2FT

Lab Sample ID: 480-206554-8

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Fluoranthene	820	J	4000	420	ug/Kg	10	✱	8270D	Total/NA
Pyrene	640	J	4000	470	ug/Kg	10	✱	8270D	Total/NA
Arsenic	10.5		2.3	0.46	mg/Kg	1	✱	6010C	Total/NA
Barium	158		0.57	0.13	mg/Kg	1	✱	6010C	Total/NA
Beryllium	2.0		0.23	0.032	mg/Kg	1	✱	6010C	Total/NA
Cadmium	1.4		0.23	0.034	mg/Kg	1	✱	6010C	Total/NA
Chromium	15.4		0.57	0.23	mg/Kg	1	✱	6010C	Total/NA
Copper	56.4		1.1	0.24	mg/Kg	1	✱	6010C	Total/NA
Lead	639		1.1	0.27	mg/Kg	1	✱	6010C	Total/NA
Manganese	741	B	0.23	0.036	mg/Kg	1	✱	6010C	Total/NA
Nickel	17.2	B ^+	5.7	0.26	mg/Kg	1	✱	6010C	Total/NA
Zinc	787		2.3	0.73	mg/Kg	1	✱	6010C	Total/NA
Mercury	0.48		0.024	0.0056	mg/Kg	1	✱	7471B	Total/NA

Client Sample ID: BH-6 1-2FT

Lab Sample ID: 480-206554-9

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Benzo[a]anthracene	170	J	1100	110	ug/Kg	5	✱	8270D	Total/NA
Benzo[a]pyrene	170	J	1100	160	ug/Kg	5	✱	8270D	Total/NA
Benzo[b]fluoranthene	190	J	1100	170	ug/Kg	5	✱	8270D	Total/NA
Fluoranthene	340	J	1100	110	ug/Kg	5	✱	8270D	Total/NA
Phenanthrene	230	J	1100	160	ug/Kg	5	✱	8270D	Total/NA
Pyrene	250	J	1100	130	ug/Kg	5	✱	8270D	Total/NA
Arsenic	7.6		2.6	0.52	mg/Kg	1	✱	6010C	Total/NA

This Detection Summary does not include radiochemical test results.

Eurofins Buffalo

Detection Summary

Client: Brydges Engineering in Environment & Energy DPC
Project/Site: Douglas - 1106 Niagara

Job ID: 480-206554-1

Client Sample ID: BH-6 1-2FT (Continued)

Lab Sample ID: 480-206554-9

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Barium	353		3.3	0.72	mg/Kg	5	✱	6010C	Total/NA
Beryllium	3.7		1.3	0.18	mg/Kg	5	✱	6010C	Total/NA
Cadmium	0.13	J	0.26	0.039	mg/Kg	1	✱	6010C	Total/NA
Chromium	11.5		0.65	0.26	mg/Kg	1	✱	6010C	Total/NA
Copper	17.2	B	1.3	0.27	mg/Kg	1	✱	6010C	Total/NA
Lead	82.8		1.3	0.31	mg/Kg	1	✱	6010C	Total/NA
Manganese	1770	B	0.26	0.042	mg/Kg	1	✱	6010C	Total/NA
Nickel	11.5		6.5	0.30	mg/Kg	1	✱	6010C	Total/NA
Selenium	1.0	J	5.2	0.52	mg/Kg	1	✱	6010C	Total/NA
Zinc	65.8		2.6	0.84	mg/Kg	1	✱	6010C	Total/NA
Mercury	0.62		0.024	0.0056	mg/Kg	1	✱	7471B	Total/NA

Client Sample ID: TMW-1

Lab Sample ID: 480-206554-10

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Tetrachloroethene	0.79	J	1.0	0.36	ug/L	1		8260C	Total/NA

This Detection Summary does not include radiochemical test results.

Eurofins Buffalo

Client Sample Results

Client: Brydges Engineering in Environment & Energy DPC
Project/Site: Douglas - 1106 Niagara

Job ID: 480-206554-1

Client Sample ID: BH-1 1-2FT

Lab Sample ID: 480-206554-1

Date Collected: 03/01/23 09:00

Matrix: Solid

Date Received: 03/02/23 08:00

Percent Solids: 87.3

Method: SW846 8270D - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,4-Dioxane	2300	U	2300	1300	ug/Kg	☆	03/03/23 08:29	03/06/23 20:31	20
2-Methylphenol	3900	U	3900	460	ug/Kg	☆	03/03/23 08:29	03/06/23 20:31	20
3-Methylphenol	7500	U	7500	590	ug/Kg	☆	03/03/23 08:29	03/06/23 20:31	20
4-Methylphenol	7500	U	7500	460	ug/Kg	☆	03/03/23 08:29	03/06/23 20:31	20
Acenaphthene	3900	U	3900	570	ug/Kg	☆	03/03/23 08:29	03/06/23 20:31	20
Acenaphthylene	720	J	3900	500	ug/Kg	☆	03/03/23 08:29	03/06/23 20:31	20
Anthracene	3900	U	3900	960	ug/Kg	☆	03/03/23 08:29	03/06/23 20:31	20
Benzo[a]anthracene	2800	J	3900	390	ug/Kg	☆	03/03/23 08:29	03/06/23 20:31	20
Benzo[a]pyrene	3100	J	3900	570	ug/Kg	☆	03/03/23 08:29	03/06/23 20:31	20
Benzo[b]fluoranthene	3500	J	3900	620	ug/Kg	☆	03/03/23 08:29	03/06/23 20:31	20
Benzo[g,h,i]perylene	1700	J	3900	410	ug/Kg	☆	03/03/23 08:29	03/06/23 20:31	20
Benzo[k]fluoranthene	1500	J	3900	500	ug/Kg	☆	03/03/23 08:29	03/06/23 20:31	20
Chrysene	2800	J	3900	870	ug/Kg	☆	03/03/23 08:29	03/06/23 20:31	20
Dibenz(a,h)anthracene	3900	U	3900	680	ug/Kg	☆	03/03/23 08:29	03/06/23 20:31	20
Dibenzofuran	3900	U	3900	460	ug/Kg	☆	03/03/23 08:29	03/06/23 20:31	20
Fluoranthene	6500		3900	410	ug/Kg	☆	03/03/23 08:29	03/06/23 20:31	20
Fluorene	3900	U	3900	460	ug/Kg	☆	03/03/23 08:29	03/06/23 20:31	20
Hexachlorobenzene	3900	U	3900	520	ug/Kg	☆	03/03/23 08:29	03/06/23 20:31	20
Indeno[1,2,3-cd]pyrene	1700	J	3900	480	ug/Kg	☆	03/03/23 08:29	03/06/23 20:31	20
Naphthalene	3900	U	3900	500	ug/Kg	☆	03/03/23 08:29	03/06/23 20:31	20
Pentachlorophenol	7500	U	7500	3900	ug/Kg	☆	03/03/23 08:29	03/06/23 20:31	20
Phenanthrene	2300	J	3900	570	ug/Kg	☆	03/03/23 08:29	03/06/23 20:31	20
Phenol	3900	U	3900	590	ug/Kg	☆	03/03/23 08:29	03/06/23 20:31	20
Pyrene	4500		3900	460	ug/Kg	☆	03/03/23 08:29	03/06/23 20:31	20

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2,4,6-Tribromophenol (Surr)	58		54 - 120	03/03/23 08:29	03/06/23 20:31	20
2-Fluorobiphenyl (Surr)	88		60 - 120	03/03/23 08:29	03/06/23 20:31	20
2-Fluorophenol (Surr)	72		52 - 120	03/03/23 08:29	03/06/23 20:31	20
Nitrobenzene-d5 (Surr)	74		53 - 120	03/03/23 08:29	03/06/23 20:31	20
Phenol-d5 (Surr)	74		54 - 120	03/03/23 08:29	03/06/23 20:31	20
p-Terphenyl-d14 (Surr)	84		79 - 130	03/03/23 08:29	03/06/23 20:31	20

Method: SW846 6010C - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	4.6		2.3	0.46	mg/Kg	☆	03/03/23 11:58	03/06/23 21:18	1
Barium	76.9		0.57	0.13	mg/Kg	☆	03/03/23 11:58	03/06/23 21:18	1
Beryllium	1.2		0.23	0.032	mg/Kg	☆	03/03/23 11:58	03/06/23 21:18	1
Cadmium	0.15	J	0.23	0.034	mg/Kg	☆	03/03/23 11:58	03/06/23 21:18	1
Chromium	11.9		0.57	0.23	mg/Kg	☆	03/03/23 11:58	03/06/23 21:18	1
Copper	18.6		1.1	0.24	mg/Kg	☆	03/03/23 11:58	03/06/23 21:18	1
Lead	33.5		1.1	0.27	mg/Kg	☆	03/03/23 11:58	03/06/23 21:18	1
Manganese	1080	B	0.23	0.037	mg/Kg	☆	03/03/23 11:58	03/06/23 21:18	1
Nickel	13.0	B	5.7	0.26	mg/Kg	☆	03/03/23 11:58	03/06/23 21:18	1
Selenium	4.6	U	4.6	0.46	mg/Kg	☆	03/03/23 11:58	03/06/23 21:18	1
Silver	0.68	U	0.68	0.23	mg/Kg	☆	03/03/23 11:58	03/06/23 21:18	1
Zinc	97.6		2.3	0.73	mg/Kg	☆	03/03/23 11:58	03/06/23 21:18	1

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Client Sample Results

Client: Brydges Engineering in Environment & Energy DPC
Project/Site: Douglas - 1106 Niagara

Job ID: 480-206554-1

Client Sample ID: BH-1 1-2FT

Lab Sample ID: 480-206554-1

Date Collected: 03/01/23 09:00

Matrix: Solid

Date Received: 03/02/23 08:00

Percent Solids: 87.3

Method: SW846 7471B - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.013	J	0.024	0.0055	mg/Kg	☆	03/08/23 09:49	03/08/23 13:30	1

Client Sample ID: BH-2 1-2FT

Lab Sample ID: 480-206554-2

Date Collected: 03/01/23 09:30

Matrix: Solid

Date Received: 03/02/23 08:00

Percent Solids: 78.2

Method: SW846 8270D - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,4-Dioxane	620	U	620	340	ug/Kg	☆	03/03/23 08:29	03/06/23 20:55	5
2-Methylphenol	1100	U	1100	120	ug/Kg	☆	03/03/23 08:29	03/06/23 20:55	5
3-Methylphenol	2100	U	2100	160	ug/Kg	☆	03/03/23 08:29	03/06/23 20:55	5
4-Methylphenol	2100	U	2100	120	ug/Kg	☆	03/03/23 08:29	03/06/23 20:55	5
Acenaphthene	1100	U	1100	160	ug/Kg	☆	03/03/23 08:29	03/06/23 20:55	5
Acenaphthylene	1100	U	1100	140	ug/Kg	☆	03/03/23 08:29	03/06/23 20:55	5
Anthracene	1100	U	1100	260	ug/Kg	☆	03/03/23 08:29	03/06/23 20:55	5
Benzo[a]anthracene	1100	U	1100	110	ug/Kg	☆	03/03/23 08:29	03/06/23 20:55	5
Benzo[a]pyrene	1100	U	1100	160	ug/Kg	☆	03/03/23 08:29	03/06/23 20:55	5
Benzo[b]fluoranthene	1100	U	1100	170	ug/Kg	☆	03/03/23 08:29	03/06/23 20:55	5
Benzo[g,h,i]perylene	1100	U	1100	110	ug/Kg	☆	03/03/23 08:29	03/06/23 20:55	5
Benzo[k]fluoranthene	1100	U	1100	140	ug/Kg	☆	03/03/23 08:29	03/06/23 20:55	5
Chrysene	1100	U	1100	240	ug/Kg	☆	03/03/23 08:29	03/06/23 20:55	5
Dibenz(a,h)anthracene	1100	U	1100	190	ug/Kg	☆	03/03/23 08:29	03/06/23 20:55	5
Dibenzofuran	1100	U	1100	120	ug/Kg	☆	03/03/23 08:29	03/06/23 20:55	5
Fluoranthene	1100	U	1100	110	ug/Kg	☆	03/03/23 08:29	03/06/23 20:55	5
Fluorene	1100	U	1100	120	ug/Kg	☆	03/03/23 08:29	03/06/23 20:55	5
Hexachlorobenzene	1100	U	1100	140	ug/Kg	☆	03/03/23 08:29	03/06/23 20:55	5
Indeno[1,2,3-cd]pyrene	1100	U	1100	130	ug/Kg	☆	03/03/23 08:29	03/06/23 20:55	5
Naphthalene	1100	U	1100	140	ug/Kg	☆	03/03/23 08:29	03/06/23 20:55	5
Pentachlorophenol	2100	U	2100	1100	ug/Kg	☆	03/03/23 08:29	03/06/23 20:55	5
Phenanthrene	1100	U	1100	160	ug/Kg	☆	03/03/23 08:29	03/06/23 20:55	5
Phenol	1100	U	1100	160	ug/Kg	☆	03/03/23 08:29	03/06/23 20:55	5
Pyrene	1100	U	1100	120	ug/Kg	☆	03/03/23 08:29	03/06/23 20:55	5

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2,4,6-Tribromophenol (Surr)	34	S1-	54 - 120	03/03/23 08:29	03/06/23 20:55	5
2-Fluorobiphenyl (Surr)	66		60 - 120	03/03/23 08:29	03/06/23 20:55	5
2-Fluorophenol (Surr)	60		52 - 120	03/03/23 08:29	03/06/23 20:55	5
Nitrobenzene-d5 (Surr)	63		53 - 120	03/03/23 08:29	03/06/23 20:55	5
Phenol-d5 (Surr)	63		54 - 120	03/03/23 08:29	03/06/23 20:55	5
p-Terphenyl-d14 (Surr)	66	S1-	79 - 130	03/03/23 08:29	03/06/23 20:55	5

Method: SW846 6010C - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	5.9		2.7	0.54	mg/Kg	☆	03/03/23 11:58	03/06/23 21:22	1
Barium	50.0	F1	0.68	0.15	mg/Kg	☆	03/03/23 11:58	03/06/23 21:22	1
Beryllium	0.42		0.27	0.038	mg/Kg	☆	03/03/23 11:58	03/06/23 21:22	1
Cadmium	0.87		0.27	0.041	mg/Kg	☆	03/03/23 11:58	03/06/23 21:22	1
Chromium	10.1		0.68	0.27	mg/Kg	☆	03/03/23 11:58	03/06/23 21:22	1
Copper	19.0		2.7	0.57	mg/Kg	☆	03/03/23 11:58	03/07/23 14:40	2
Lead	157	F1	1.4	0.33	mg/Kg	☆	03/03/23 11:58	03/06/23 21:22	1

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Client Sample Results

Client: Brydges Engineering in Environment & Energy DPC
Project/Site: Douglas - 1106 Niagara

Job ID: 480-206554-1

Client Sample ID: BH-2 1-2FT

Lab Sample ID: 480-206554-2

Date Collected: 03/01/23 09:30

Matrix: Solid

Date Received: 03/02/23 08:00

Percent Solids: 78.2

Method: SW846 6010C - Metals (ICP) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Manganese	350	B	0.27	0.043	mg/Kg	☆	03/03/23 11:58	03/06/23 21:22	1
Nickel	7.0	B	6.8	0.31	mg/Kg	☆	03/03/23 11:58	03/06/23 21:22	1
Selenium	5.4	U	5.4	0.54	mg/Kg	☆	03/03/23 11:58	03/06/23 21:22	1
Silver	0.81	U	0.81	0.27	mg/Kg	☆	03/03/23 11:58	03/06/23 21:22	1
Zinc	164	F1	2.7	0.87	mg/Kg	☆	03/03/23 11:58	03/06/23 21:22	1

Method: SW846 7471B - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.19	F1	0.025	0.0058	mg/Kg	☆	03/08/23 09:49	03/08/23 13:31	1

Client Sample ID: BHI-1 1-2FT

Lab Sample ID: 480-206554-3

Date Collected: 03/01/23 10:00

Matrix: Solid

Date Received: 03/02/23 08:00

Percent Solids: 78.0

Method: SW846 8260C - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	6.3	U vs	6.3	0.46	ug/Kg	☆	03/02/23 18:33	03/03/23 03:38	1
1,1-Dichloroethane	6.3	U vs	6.3	0.77	ug/Kg	☆	03/02/23 18:33	03/03/23 03:38	1
1,1-Dichloroethene	6.3	U vs	6.3	0.77	ug/Kg	☆	03/02/23 18:33	03/03/23 03:38	1
1,2,4-Trimethylbenzene	6.3	U vs	6.3	1.2	ug/Kg	☆	03/02/23 18:33	03/03/23 03:38	1
1,2-Dichlorobenzene	6.3	U vs	6.3	0.49	ug/Kg	☆	03/02/23 18:33	03/03/23 03:38	1
1,2-Dichloroethane	6.3	U vs	6.3	0.32	ug/Kg	☆	03/02/23 18:33	03/03/23 03:38	1
1,3,5-Trimethylbenzene	6.3	U vs	6.3	0.41	ug/Kg	☆	03/02/23 18:33	03/03/23 03:38	1
1,3-Dichlorobenzene	6.3	U vs	6.3	0.32	ug/Kg	☆	03/02/23 18:33	03/03/23 03:38	1
1,4-Dichlorobenzene	6.3	U vs	6.3	0.88	ug/Kg	☆	03/02/23 18:33	03/03/23 03:38	1
1,4-Dioxane	130	U vs	130	28	ug/Kg	☆	03/02/23 18:33	03/03/23 03:38	1
2-Butanone (MEK)	7.3	J vs	32	2.3	ug/Kg	☆	03/02/23 18:33	03/03/23 03:38	1
Acetone	47	vs	32	5.3	ug/Kg	☆	03/02/23 18:33	03/03/23 03:38	1
Benzene	6.3	U vs	6.3	0.31	ug/Kg	☆	03/02/23 18:33	03/03/23 03:38	1
Carbon tetrachloride	6.3	U vs	6.3	0.61	ug/Kg	☆	03/02/23 18:33	03/03/23 03:38	1
Chlorobenzene	6.3	U vs	6.3	0.83	ug/Kg	☆	03/02/23 18:33	03/03/23 03:38	1
Chloroform	0.49	J B vs	6.3	0.39	ug/Kg	☆	03/02/23 18:33	03/03/23 03:38	1
cis-1,2-Dichloroethene	6.3	U vs	6.3	0.81	ug/Kg	☆	03/02/23 18:33	03/03/23 03:38	1
Ethylbenzene	6.3	U vs	6.3	0.44	ug/Kg	☆	03/02/23 18:33	03/03/23 03:38	1
Methyl tert-butyl ether	6.3	U vs	6.3	0.62	ug/Kg	☆	03/02/23 18:33	03/03/23 03:38	1
Methylene Chloride	6.3	U vs	6.3	2.9	ug/Kg	☆	03/02/23 18:33	03/03/23 03:38	1
n-Butylbenzene	6.3	U vs	6.3	0.55	ug/Kg	☆	03/02/23 18:33	03/03/23 03:38	1
N-Propylbenzene	6.3	U vs	6.3	0.51	ug/Kg	☆	03/02/23 18:33	03/03/23 03:38	1
sec-Butylbenzene	6.3	U vs	6.3	0.55	ug/Kg	☆	03/02/23 18:33	03/03/23 03:38	1
tert-Butylbenzene	6.3	U vs	6.3	0.66	ug/Kg	☆	03/02/23 18:33	03/03/23 03:38	1
Tetrachloroethene	6.3	U vs	6.3	0.85	ug/Kg	☆	03/02/23 18:33	03/03/23 03:38	1
Toluene	6.3	U vs	6.3	0.48	ug/Kg	☆	03/02/23 18:33	03/03/23 03:38	1
trans-1,2-Dichloroethene	6.3	U vs	6.3	0.65	ug/Kg	☆	03/02/23 18:33	03/03/23 03:38	1
Trichloroethene	6.3	U vs	6.3	1.4	ug/Kg	☆	03/02/23 18:33	03/03/23 03:38	1
Vinyl chloride	6.3	U vs	6.3	0.77	ug/Kg	☆	03/02/23 18:33	03/03/23 03:38	1
Xylenes, Total	13	U vs	13	1.1	ug/Kg	☆	03/02/23 18:33	03/03/23 03:38	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	103		64 - 126	03/02/23 18:33	03/03/23 03:38	1
4-Bromofluorobenzene (Surr)	99		72 - 126	03/02/23 18:33	03/03/23 03:38	1

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Client Sample Results

Client: Brydges Engineering in Environment & Energy DPC
Project/Site: Douglas - 1106 Niagara

Job ID: 480-206554-1

Client Sample ID: BHI-1 1-2FT

Lab Sample ID: 480-206554-3

Date Collected: 03/01/23 10:00

Matrix: Solid

Date Received: 03/02/23 08:00

Percent Solids: 78.0

Method: SW846 8260C - Volatile Organic Compounds by GC/MS (Continued)

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Dibromofluoromethane (Surr)	102		60 - 140	03/02/23 18:33	03/03/23 03:38	1
Toluene-d8 (Surr)	100		71 - 125	03/02/23 18:33	03/03/23 03:38	1

Method: SW846 8270D - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,4-Dioxane	130	U	130	70	ug/Kg	☆	03/03/23 08:29	03/06/23 21:19	1
2-Methylphenol	220	U	220	25	ug/Kg	☆	03/03/23 08:29	03/06/23 21:19	1
3-Methylphenol	420	U	420	33	ug/Kg	☆	03/03/23 08:29	03/06/23 21:19	1
4-Methylphenol	420	U	420	25	ug/Kg	☆	03/03/23 08:29	03/06/23 21:19	1
Acenaphthene	220	U	220	32	ug/Kg	☆	03/03/23 08:29	03/06/23 21:19	1
Acenaphthylene	220	U	220	28	ug/Kg	☆	03/03/23 08:29	03/06/23 21:19	1
Anthracene	220	U	220	53	ug/Kg	☆	03/03/23 08:29	03/06/23 21:19	1
Benzo[a]anthracene	28	J	220	22	ug/Kg	☆	03/03/23 08:29	03/06/23 21:19	1
Benzo[a]pyrene	220	U	220	32	ug/Kg	☆	03/03/23 08:29	03/06/23 21:19	1
Benzo[b]fluoranthene	220	U	220	34	ug/Kg	☆	03/03/23 08:29	03/06/23 21:19	1
Benzo[g,h,i]perylene	220	U	220	23	ug/Kg	☆	03/03/23 08:29	03/06/23 21:19	1
Benzo[k]fluoranthene	220	U	220	28	ug/Kg	☆	03/03/23 08:29	03/06/23 21:19	1
Chrysene	220	U	220	48	ug/Kg	☆	03/03/23 08:29	03/06/23 21:19	1
Dibenz(a,h)anthracene	220	U	220	38	ug/Kg	☆	03/03/23 08:29	03/06/23 21:19	1
Dibenzofuran	220	U	220	25	ug/Kg	☆	03/03/23 08:29	03/06/23 21:19	1
Fluoranthene	63	J	220	23	ug/Kg	☆	03/03/23 08:29	03/06/23 21:19	1
Fluorene	220	U	220	25	ug/Kg	☆	03/03/23 08:29	03/06/23 21:19	1
Hexachlorobenzene	220	U	220	29	ug/Kg	☆	03/03/23 08:29	03/06/23 21:19	1
Indeno[1,2,3-cd]pyrene	220	U	220	27	ug/Kg	☆	03/03/23 08:29	03/06/23 21:19	1
Naphthalene	220	U	220	28	ug/Kg	☆	03/03/23 08:29	03/06/23 21:19	1
Pentachlorophenol	420	U	420	220	ug/Kg	☆	03/03/23 08:29	03/06/23 21:19	1
Phenanthrene	60	J	220	32	ug/Kg	☆	03/03/23 08:29	03/06/23 21:19	1
Phenol	220	U	220	33	ug/Kg	☆	03/03/23 08:29	03/06/23 21:19	1
Pyrene	65	J	220	25	ug/Kg	☆	03/03/23 08:29	03/06/23 21:19	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2,4,6-Tribromophenol (Surr)	58		54 - 120	03/03/23 08:29	03/06/23 21:19	1
2-Fluorobiphenyl (Surr)	71		60 - 120	03/03/23 08:29	03/06/23 21:19	1
2-Fluorophenol (Surr)	67		52 - 120	03/03/23 08:29	03/06/23 21:19	1
Nitrobenzene-d5 (Surr)	70		53 - 120	03/03/23 08:29	03/06/23 21:19	1
Phenol-d5 (Surr)	70		54 - 120	03/03/23 08:29	03/06/23 21:19	1
p-Terphenyl-d14 (Surr)	72	S1-	79 - 130	03/03/23 08:29	03/06/23 21:19	1

Method: SW846 6010C - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	6.1		2.7	0.53	mg/Kg	☆	03/03/23 11:58	03/06/23 21:53	1
Barium	154		0.67	0.15	mg/Kg	☆	03/03/23 11:58	03/06/23 21:53	1
Beryllium	1.2		0.27	0.037	mg/Kg	☆	03/03/23 11:58	03/06/23 21:53	1
Cadmium	0.11	J	0.27	0.040	mg/Kg	☆	03/03/23 11:58	03/06/23 21:53	1
Chromium	32.0		0.67	0.27	mg/Kg	☆	03/03/23 11:58	03/06/23 21:53	1
Copper	23.1		1.3	0.28	mg/Kg	☆	03/03/23 11:58	03/06/23 21:53	1
Lead	102		1.3	0.32	mg/Kg	☆	03/03/23 11:58	03/06/23 21:53	1
Manganese	910	B	0.27	0.043	mg/Kg	☆	03/03/23 11:58	03/06/23 21:53	1
Nickel	25.2	B ^+	6.7	0.31	mg/Kg	☆	03/03/23 11:58	03/06/23 21:53	1
Selenium	1.2	J	5.3	0.53	mg/Kg	☆	03/03/23 11:58	03/06/23 21:53	1

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Client Sample Results

Client: Brydges Engineering in Environment & Energy DPC
Project/Site: Douglas - 1106 Niagara

Job ID: 480-206554-1

Client Sample ID: BHI-1 1-2FT

Lab Sample ID: 480-206554-3

Date Collected: 03/01/23 10:00

Matrix: Solid

Date Received: 03/02/23 08:00

Percent Solids: 78.0

Method: SW846 6010C - Metals (ICP) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Silver	0.80	U	0.80	0.27	mg/Kg	☆	03/03/23 11:58	03/06/23 21:53	1
Zinc	118		2.7	0.85	mg/Kg	☆	03/03/23 11:58	03/06/23 21:53	1

Method: SW846 7471B - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.29		0.026	0.0059	mg/Kg	☆	03/08/23 09:49	03/08/23 13:36	1

Client Sample ID: BHI-2 1-2FT

Lab Sample ID: 480-206554-4

Date Collected: 03/01/23 10:30

Matrix: Solid

Date Received: 03/02/23 08:00

Percent Solids: 88.0

Method: SW846 8260C - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	5.6	U vs	5.6	0.40	ug/Kg	☆	03/02/23 18:33	03/03/23 04:03	1
1,1-Dichloroethane	5.6	U vs	5.6	0.68	ug/Kg	☆	03/02/23 18:33	03/03/23 04:03	1
1,1-Dichloroethene	5.6	U vs	5.6	0.68	ug/Kg	☆	03/02/23 18:33	03/03/23 04:03	1
1,2,4-Trimethylbenzene	5.6	U vs	5.6	1.1	ug/Kg	☆	03/02/23 18:33	03/03/23 04:03	1
1,2-Dichlorobenzene	5.6	U vs	5.6	0.44	ug/Kg	☆	03/02/23 18:33	03/03/23 04:03	1
1,2-Dichloroethane	5.6	U vs	5.6	0.28	ug/Kg	☆	03/02/23 18:33	03/03/23 04:03	1
1,3,5-Trimethylbenzene	5.6	U vs	5.6	0.36	ug/Kg	☆	03/02/23 18:33	03/03/23 04:03	1
1,3-Dichlorobenzene	5.6	U vs	5.6	0.29	ug/Kg	☆	03/02/23 18:33	03/03/23 04:03	1
1,4-Dichlorobenzene	5.6	U vs	5.6	0.78	ug/Kg	☆	03/02/23 18:33	03/03/23 04:03	1
1,4-Dioxane	110	U vs	110	24	ug/Kg	☆	03/02/23 18:33	03/03/23 04:03	1
2-Butanone (MEK)	28	U vs	28	2.0	ug/Kg	☆	03/02/23 18:33	03/03/23 04:03	1
4-Isopropyltoluene	5.6	U vs	5.6	0.45	ug/Kg	☆	03/02/23 18:33	03/03/23 04:03	1
Acetone	28	U vs	28	4.7	ug/Kg	☆	03/02/23 18:33	03/03/23 04:03	1
Benzene	5.6	U vs	5.6	0.27	ug/Kg	☆	03/02/23 18:33	03/03/23 04:03	1
Carbon tetrachloride	5.6	U vs	5.6	0.54	ug/Kg	☆	03/02/23 18:33	03/03/23 04:03	1
Chlorobenzene	5.6	U vs	5.6	0.74	ug/Kg	☆	03/02/23 18:33	03/03/23 04:03	1
Chloroform	0.45	J B vs	5.6	0.34	ug/Kg	☆	03/02/23 18:33	03/03/23 04:03	1
cis-1,2-Dichloroethene	5.6	U vs	5.6	0.71	ug/Kg	☆	03/02/23 18:33	03/03/23 04:03	1
Ethylbenzene	5.6	U vs	5.6	0.38	ug/Kg	☆	03/02/23 18:33	03/03/23 04:03	1
Isopropylbenzene	5.6	U vs	5.6	0.84	ug/Kg	☆	03/02/23 18:33	03/03/23 04:03	1
m-Xylene & p-Xylene	11	U vs	11	0.94	ug/Kg	☆	03/02/23 18:33	03/03/23 04:03	1
Methyl tert-butyl ether	5.6	U vs	5.6	0.55	ug/Kg	☆	03/02/23 18:33	03/03/23 04:03	1
Methylene Chloride	5.6	U vs	5.6	2.6	ug/Kg	☆	03/02/23 18:33	03/03/23 04:03	1
Naphthalene	5.6	U vs	5.6	0.75	ug/Kg	☆	03/02/23 18:33	03/03/23 04:03	1
n-Butylbenzene	5.6	U vs	5.6	0.48	ug/Kg	☆	03/02/23 18:33	03/03/23 04:03	1
N-Propylbenzene	5.6	U vs	5.6	0.45	ug/Kg	☆	03/02/23 18:33	03/03/23 04:03	1
o-Xylene	5.6	U vs	5.6	0.73	ug/Kg	☆	03/02/23 18:33	03/03/23 04:03	1
sec-Butylbenzene	5.6	U vs	5.6	0.48	ug/Kg	☆	03/02/23 18:33	03/03/23 04:03	1
tert-Butylbenzene	5.6	U vs	5.6	0.58	ug/Kg	☆	03/02/23 18:33	03/03/23 04:03	1
Tetrachloroethene	5.6	U vs	5.6	0.75	ug/Kg	☆	03/02/23 18:33	03/03/23 04:03	1
Toluene	5.6	U vs	5.6	0.42	ug/Kg	☆	03/02/23 18:33	03/03/23 04:03	1
trans-1,2-Dichloroethene	5.6	U vs	5.6	0.57	ug/Kg	☆	03/02/23 18:33	03/03/23 04:03	1
Trichloroethene	5.6	U vs	5.6	1.2	ug/Kg	☆	03/02/23 18:33	03/03/23 04:03	1
Vinyl chloride	5.6	U vs	5.6	0.68	ug/Kg	☆	03/02/23 18:33	03/03/23 04:03	1
Xylenes, Total	11	U vs	11	0.94	ug/Kg	☆	03/02/23 18:33	03/03/23 04:03	1

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Client Sample Results

Client: Brydges Engineering in Environment & Energy DPC
Project/Site: Douglas - 1106 Niagara

Job ID: 480-206554-1

Client Sample ID: BHI-2 1-2FT

Lab Sample ID: 480-206554-4

Date Collected: 03/01/23 10:30

Matrix: Solid

Date Received: 03/02/23 08:00

Percent Solids: 88.0

Tentatively Identified Compound	Est. Result	Qualifier	Unit	D	RT	CAS No.	Prepared	Analyzed	Dil Fac
Tentatively Identified Compound	None		ug/Kg	☼		N/A	03/02/23 18:33	03/03/23 04:03	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	104		64 - 126				03/02/23 18:33	03/03/23 04:03	1
4-Bromofluorobenzene (Surr)	99		72 - 126				03/02/23 18:33	03/03/23 04:03	1
Dibromofluoromethane (Surr)	102		60 - 140				03/02/23 18:33	03/03/23 04:03	1
Toluene-d8 (Surr)	100		71 - 125				03/02/23 18:33	03/03/23 04:03	1

Method: SW846 8270D - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,4-Dioxane	570	U	570	310	ug/Kg	☼	03/03/23 08:29	03/06/23 21:44	5
2-Methylphenol	960	U	960	110	ug/Kg	☼	03/03/23 08:29	03/06/23 21:44	5
3-Methylphenol	1900	U	1900	150	ug/Kg	☼	03/03/23 08:29	03/06/23 21:44	5
4-Methylphenol	1900	U	1900	110	ug/Kg	☼	03/03/23 08:29	03/06/23 21:44	5
Acenaphthene	940	J	960	140	ug/Kg	☼	03/03/23 08:29	03/06/23 21:44	5
Acenaphthylene	160	J	960	120	ug/Kg	☼	03/03/23 08:29	03/06/23 21:44	5
Anthracene	2500		960	240	ug/Kg	☼	03/03/23 08:29	03/06/23 21:44	5
Benzo[a]anthracene	4200		960	96	ug/Kg	☼	03/03/23 08:29	03/06/23 21:44	5
Benzo[a]pyrene	4000		960	140	ug/Kg	☼	03/03/23 08:29	03/06/23 21:44	5
Benzo[b]fluoranthene	3900		960	150	ug/Kg	☼	03/03/23 08:29	03/06/23 21:44	5
Benzo[g,h,i]perylene	1800		960	100	ug/Kg	☼	03/03/23 08:29	03/06/23 21:44	5
Benzo[k]fluoranthene	2200		960	120	ug/Kg	☼	03/03/23 08:29	03/06/23 21:44	5
Chrysene	4100		960	220	ug/Kg	☼	03/03/23 08:29	03/06/23 21:44	5
Dibenz(a,h)anthracene	590	J	960	170	ug/Kg	☼	03/03/23 08:29	03/06/23 21:44	5
Dibenzofuran	550	J	960	110	ug/Kg	☼	03/03/23 08:29	03/06/23 21:44	5
Fluoranthene	11000		960	100	ug/Kg	☼	03/03/23 08:29	03/06/23 21:44	5
Fluorene	960		960	110	ug/Kg	☼	03/03/23 08:29	03/06/23 21:44	5
Hexachlorobenzene	960	U	960	130	ug/Kg	☼	03/03/23 08:29	03/06/23 21:44	5
Indeno[1,2,3-cd]pyrene	1800		960	120	ug/Kg	☼	03/03/23 08:29	03/06/23 21:44	5
Naphthalene	300	J	960	120	ug/Kg	☼	03/03/23 08:29	03/06/23 21:44	5
Pentachlorophenol	1900	U	1900	960	ug/Kg	☼	03/03/23 08:29	03/06/23 21:44	5
Phenanthrene	10000		960	140	ug/Kg	☼	03/03/23 08:29	03/06/23 21:44	5
Phenol	960	U	960	150	ug/Kg	☼	03/03/23 08:29	03/06/23 21:44	5
Pyrene	8100		960	110	ug/Kg	☼	03/03/23 08:29	03/06/23 21:44	5
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
2,4,6-Tribromophenol (Surr)	45	S1-	54 - 120				03/03/23 08:29	03/06/23 21:44	5
2-Fluorobiphenyl (Surr)	77		60 - 120				03/03/23 08:29	03/06/23 21:44	5
2-Fluorophenol (Surr)	71		52 - 120				03/03/23 08:29	03/06/23 21:44	5
Nitrobenzene-d5 (Surr)	74		53 - 120				03/03/23 08:29	03/06/23 21:44	5
Phenol-d5 (Surr)	72		54 - 120				03/03/23 08:29	03/06/23 21:44	5
p-Terphenyl-d14 (Surr)	78	S1-	79 - 130				03/03/23 08:29	03/06/23 21:44	5

Method: SW846 6010C - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	10.3		2.3	0.47	mg/Kg	☼	03/07/23 11:28	03/09/23 19:30	1
Barium	157		0.58	0.13	mg/Kg	☼	03/07/23 11:28	03/10/23 15:20	1
Beryllium	0.87		0.23	0.033	mg/Kg	☼	03/07/23 11:28	03/09/23 19:30	1
Cadmium	1.1		0.23	0.035	mg/Kg	☼	03/07/23 11:28	03/09/23 19:30	1
Chromium	24.2		0.58	0.23	mg/Kg	☼	03/07/23 11:28	03/10/23 15:20	1
Copper	70.5	B	1.2	0.24	mg/Kg	☼	03/07/23 11:28	03/09/23 19:30	1

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Client Sample Results

Client: Brydges Engineering in Environment & Energy DPC
Project/Site: Douglas - 1106 Niagara

Job ID: 480-206554-1

Client Sample ID: BHI-2 1-2FT

Lab Sample ID: 480-206554-4

Date Collected: 03/01/23 10:30

Matrix: Solid

Date Received: 03/02/23 08:00

Percent Solids: 88.0

Method: SW846 6010C - Metals (ICP) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	199		1.2	0.28	mg/Kg	☆	03/07/23 11:28	03/09/23 19:30	1
Manganese	639	B	0.23	0.037	mg/Kg	☆	03/07/23 11:28	03/10/23 15:20	1
Nickel	53.6		5.8	0.27	mg/Kg	☆	03/07/23 11:28	03/09/23 19:30	1
Selenium	1.4	J	4.7	0.47	mg/Kg	☆	03/07/23 11:28	03/09/23 19:30	1
Silver	0.46	J	0.70	0.23	mg/Kg	☆	03/07/23 11:28	03/09/23 19:30	1
Zinc	205		2.3	0.75	mg/Kg	☆	03/07/23 11:28	03/09/23 19:30	1

Method: SW846 7471B - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.35		0.021	0.0048	mg/Kg	☆	03/08/23 09:49	03/08/23 13:37	1

Client Sample ID: BHI-3 0-1FT

Lab Sample ID: 480-206554-5

Date Collected: 03/01/23 11:00

Matrix: Solid

Date Received: 03/02/23 08:00

Percent Solids: 77.8

Method: SW846 8260C - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	6.4	U vs	6.4	0.46	ug/Kg	☆	03/02/23 18:33	03/03/23 04:28	1
1,1-Dichloroethane	6.4	U vs	6.4	0.78	ug/Kg	☆	03/02/23 18:33	03/03/23 04:28	1
1,1-Dichloroethene	6.4	U vs	6.4	0.78	ug/Kg	☆	03/02/23 18:33	03/03/23 04:28	1
1,2,4-Trimethylbenzene	6.4	U vs	6.4	1.2	ug/Kg	☆	03/02/23 18:33	03/03/23 04:28	1
1,2-Dichlorobenzene	6.4	U vs	6.4	0.50	ug/Kg	☆	03/02/23 18:33	03/03/23 04:28	1
1,2-Dichloroethane	6.4	U vs	6.4	0.32	ug/Kg	☆	03/02/23 18:33	03/03/23 04:28	1
1,3,5-Trimethylbenzene	6.4	U vs	6.4	0.41	ug/Kg	☆	03/02/23 18:33	03/03/23 04:28	1
1,3-Dichlorobenzene	6.4	U vs	6.4	0.33	ug/Kg	☆	03/02/23 18:33	03/03/23 04:28	1
1,4-Dichlorobenzene	6.4	U vs	6.4	0.89	ug/Kg	☆	03/02/23 18:33	03/03/23 04:28	1
1,4-Dioxane	130	U vs	130	28	ug/Kg	☆	03/02/23 18:33	03/03/23 04:28	1
2-Butanone (MEK)	32	U vs	32	2.3	ug/Kg	☆	03/02/23 18:33	03/03/23 04:28	1
Acetone	32	U vs	32	5.4	ug/Kg	☆	03/02/23 18:33	03/03/23 04:28	1
Benzene	6.4	U vs	6.4	0.31	ug/Kg	☆	03/02/23 18:33	03/03/23 04:28	1
Carbon tetrachloride	6.4	U vs	6.4	0.62	ug/Kg	☆	03/02/23 18:33	03/03/23 04:28	1
Chlorobenzene	6.4	U vs	6.4	0.84	ug/Kg	☆	03/02/23 18:33	03/03/23 04:28	1
Chloroform	0.43	J B vs	6.4	0.39	ug/Kg	☆	03/02/23 18:33	03/03/23 04:28	1
cis-1,2-Dichloroethene	6.4	U vs	6.4	0.81	ug/Kg	☆	03/02/23 18:33	03/03/23 04:28	1
Ethylbenzene	6.4	U vs	6.4	0.44	ug/Kg	☆	03/02/23 18:33	03/03/23 04:28	1
Methyl tert-butyl ether	6.4	U vs	6.4	0.62	ug/Kg	☆	03/02/23 18:33	03/03/23 04:28	1
Methylene Chloride	6.4	U vs	6.4	2.9	ug/Kg	☆	03/02/23 18:33	03/03/23 04:28	1
n-Butylbenzene	6.4	U vs	6.4	0.55	ug/Kg	☆	03/02/23 18:33	03/03/23 04:28	1
N-Propylbenzene	6.4	U vs	6.4	0.51	ug/Kg	☆	03/02/23 18:33	03/03/23 04:28	1
sec-Butylbenzene	6.4	U vs	6.4	0.55	ug/Kg	☆	03/02/23 18:33	03/03/23 04:28	1
tert-Butylbenzene	6.4	U vs	6.4	0.66	ug/Kg	☆	03/02/23 18:33	03/03/23 04:28	1
Tetrachloroethene	6.4	U vs	6.4	0.85	ug/Kg	☆	03/02/23 18:33	03/03/23 04:28	1
Toluene	6.4	U vs	6.4	0.48	ug/Kg	☆	03/02/23 18:33	03/03/23 04:28	1
trans-1,2-Dichloroethene	6.4	U vs	6.4	0.66	ug/Kg	☆	03/02/23 18:33	03/03/23 04:28	1
Trichloroethene	6.4	U vs	6.4	1.4	ug/Kg	☆	03/02/23 18:33	03/03/23 04:28	1
Vinyl chloride	6.4	U vs	6.4	0.78	ug/Kg	☆	03/02/23 18:33	03/03/23 04:28	1
Xylenes, Total	13	U vs	13	1.1	ug/Kg	☆	03/02/23 18:33	03/03/23 04:28	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	104		64 - 126	03/02/23 18:33	03/03/23 04:28	1

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Client Sample Results

Client: Brydges Engineering in Environment & Energy DPC
Project/Site: Douglas - 1106 Niagara

Job ID: 480-206554-1

Client Sample ID: BHI-3 0-1FT

Lab Sample ID: 480-206554-5

Date Collected: 03/01/23 11:00

Matrix: Solid

Date Received: 03/02/23 08:00

Percent Solids: 77.8

Method: SW846 8260C - Volatile Organic Compounds by GC/MS (Continued)

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	101		72 - 126	03/02/23 18:33	03/03/23 04:28	1
Dibromofluoromethane (Surr)	103		60 - 140	03/02/23 18:33	03/03/23 04:28	1
Toluene-d8 (Surr)	99		71 - 125	03/02/23 18:33	03/03/23 04:28	1

Method: SW846 8270D - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,4-Dioxane	1300	U	1300	700	ug/Kg	☆	03/03/23 08:29	03/06/23 22:08	10
2-Methylphenol	2200	U	2200	250	ug/Kg	☆	03/03/23 08:29	03/06/23 22:08	10
3-Methylphenol	4200	U	4200	330	ug/Kg	☆	03/03/23 08:29	03/06/23 22:08	10
4-Methylphenol	4200	U	4200	250	ug/Kg	☆	03/03/23 08:29	03/06/23 22:08	10
Acenaphthene	1600	J	2200	320	ug/Kg	☆	03/03/23 08:29	03/06/23 22:08	10
Acenaphthylene	2000	J	2200	280	ug/Kg	☆	03/03/23 08:29	03/06/23 22:08	10
Anthracene	4000		2200	540	ug/Kg	☆	03/03/23 08:29	03/06/23 22:08	10
Benzo[a]anthracene	6500		2200	220	ug/Kg	☆	03/03/23 08:29	03/06/23 22:08	10
Benzo[a]pyrene	6300		2200	320	ug/Kg	☆	03/03/23 08:29	03/06/23 22:08	10
Benzo[b]fluoranthene	6600		2200	340	ug/Kg	☆	03/03/23 08:29	03/06/23 22:08	10
Benzo[g,h,i]perylene	3300		2200	230	ug/Kg	☆	03/03/23 08:29	03/06/23 22:08	10
Benzo[k]fluoranthene	3500		2200	280	ug/Kg	☆	03/03/23 08:29	03/06/23 22:08	10
Chrysene	6700		2200	480	ug/Kg	☆	03/03/23 08:29	03/06/23 22:08	10
Dibenz(a,h)anthracene	990	J	2200	380	ug/Kg	☆	03/03/23 08:29	03/06/23 22:08	10
Dibenzofuran	2000	J	2200	250	ug/Kg	☆	03/03/23 08:29	03/06/23 22:08	10
Fluoranthene	21000		2200	230	ug/Kg	☆	03/03/23 08:29	03/06/23 22:08	10
Fluorene	2700		2200	250	ug/Kg	☆	03/03/23 08:29	03/06/23 22:08	10
Hexachlorobenzene	2200	U	2200	290	ug/Kg	☆	03/03/23 08:29	03/06/23 22:08	10
Indeno[1,2,3-cd]pyrene	3300		2200	270	ug/Kg	☆	03/03/23 08:29	03/06/23 22:08	10
Naphthalene	2300		2200	280	ug/Kg	☆	03/03/23 08:29	03/06/23 22:08	10
Pentachlorophenol	4200	U	4200	2200	ug/Kg	☆	03/03/23 08:29	03/06/23 22:08	10
Phenanthrene	21000		2200	320	ug/Kg	☆	03/03/23 08:29	03/06/23 22:08	10
Phenol	2200	U	2200	330	ug/Kg	☆	03/03/23 08:29	03/06/23 22:08	10
Pyrene	13000		2200	250	ug/Kg	☆	03/03/23 08:29	03/06/23 22:08	10

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2,4,6-Tribromophenol (Surr)	48	S1-	54 - 120	03/03/23 08:29	03/06/23 22:08	10
2-Fluorobiphenyl (Surr)	76		60 - 120	03/03/23 08:29	03/06/23 22:08	10
2-Fluorophenol (Surr)	65		52 - 120	03/03/23 08:29	03/06/23 22:08	10
Nitrobenzene-d5 (Surr)	67		53 - 120	03/03/23 08:29	03/06/23 22:08	10
Phenol-d5 (Surr)	66		54 - 120	03/03/23 08:29	03/06/23 22:08	10
p-Terphenyl-d14 (Surr)	69	S1-	79 - 130	03/03/23 08:29	03/06/23 22:08	10

Method: SW846 6010C - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	8.7		2.6	0.51	mg/Kg	☆	03/03/23 11:58	03/06/23 21:57	1
Barium	134		0.64	0.14	mg/Kg	☆	03/03/23 11:58	03/06/23 21:57	1
Beryllium	0.81		0.26	0.036	mg/Kg	☆	03/03/23 11:58	03/06/23 21:57	1
Cadmium	1.1		0.26	0.038	mg/Kg	☆	03/03/23 11:58	03/06/23 21:57	1
Chromium	22.7		0.64	0.26	mg/Kg	☆	03/03/23 11:58	03/06/23 21:57	1
Copper	68.0		1.3	0.27	mg/Kg	☆	03/03/23 11:58	03/06/23 21:57	1
Lead	144		1.3	0.31	mg/Kg	☆	03/03/23 11:58	03/06/23 21:57	1
Manganese	326	B	0.26	0.041	mg/Kg	☆	03/03/23 11:58	03/06/23 21:57	1
Nickel	23.3	B ^+	6.4	0.29	mg/Kg	☆	03/03/23 11:58	03/06/23 21:57	1

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Client Sample Results

Client: Brydges Engineering in Environment & Energy DPC
Project/Site: Douglas - 1106 Niagara

Job ID: 480-206554-1

Client Sample ID: BHI-3 0-1FT

Lab Sample ID: 480-206554-5

Date Collected: 03/01/23 11:00

Matrix: Solid

Date Received: 03/02/23 08:00

Percent Solids: 77.8

Method: SW846 6010C - Metals (ICP) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Selenium	5.1	U	5.1	0.51	mg/Kg	☆	03/03/23 11:58	03/06/23 21:57	1
Silver	0.77	U	0.77	0.26	mg/Kg	☆	03/03/23 11:58	03/06/23 21:57	1
Zinc	461		2.6	0.82	mg/Kg	☆	03/03/23 11:58	03/06/23 21:57	1

Method: SW846 7471B - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.28		0.026	0.0059	mg/Kg	☆	03/08/23 09:49	03/08/23 13:39	1

Client Sample ID: BH-3 1-2FT

Lab Sample ID: 480-206554-6

Date Collected: 03/01/23 11:30

Matrix: Solid

Date Received: 03/02/23 08:00

Percent Solids: 92.7

Method: SW846 8270D - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,4-Dioxane	530	U	530	290	ug/Kg	☆	03/03/23 08:29	03/06/23 22:32	5
2-Methylphenol	910	U	910	110	ug/Kg	☆	03/03/23 08:29	03/06/23 22:32	5
3-Methylphenol	1800	U	1800	140	ug/Kg	☆	03/03/23 08:29	03/06/23 22:32	5
4-Methylphenol	1800	U	1800	110	ug/Kg	☆	03/03/23 08:29	03/06/23 22:32	5
Acenaphthene	910	U	910	130	ug/Kg	☆	03/03/23 08:29	03/06/23 22:32	5
Acenaphthylene	910	U	910	120	ug/Kg	☆	03/03/23 08:29	03/06/23 22:32	5
Anthracene	910	U	910	220	ug/Kg	☆	03/03/23 08:29	03/06/23 22:32	5
Benzo[a]anthracene	120	J	910	91	ug/Kg	☆	03/03/23 08:29	03/06/23 22:32	5
Benzo[a]pyrene	140	J	910	130	ug/Kg	☆	03/03/23 08:29	03/06/23 22:32	5
Benzo[b]fluoranthene	160	J	910	140	ug/Kg	☆	03/03/23 08:29	03/06/23 22:32	5
Benzo[g,h,i]perylene	910	U	910	96	ug/Kg	☆	03/03/23 08:29	03/06/23 22:32	5
Benzo[k]fluoranthene	910	U	910	120	ug/Kg	☆	03/03/23 08:29	03/06/23 22:32	5
Chrysene	910	U	910	200	ug/Kg	☆	03/03/23 08:29	03/06/23 22:32	5
Dibenz(a,h)anthracene	910	U	910	160	ug/Kg	☆	03/03/23 08:29	03/06/23 22:32	5
Dibenzofuran	910	U	910	110	ug/Kg	☆	03/03/23 08:29	03/06/23 22:32	5
Fluoranthene	200	J	910	96	ug/Kg	☆	03/03/23 08:29	03/06/23 22:32	5
Fluorene	910	U	910	110	ug/Kg	☆	03/03/23 08:29	03/06/23 22:32	5
Hexachlorobenzene	910	U	910	120	ug/Kg	☆	03/03/23 08:29	03/06/23 22:32	5
Indeno[1,2,3-cd]pyrene	910	U	910	110	ug/Kg	☆	03/03/23 08:29	03/06/23 22:32	5
Naphthalene	910	U	910	120	ug/Kg	☆	03/03/23 08:29	03/06/23 22:32	5
Pentachlorophenol	1800	U	1800	910	ug/Kg	☆	03/03/23 08:29	03/06/23 22:32	5
Phenanthrene	910	U	910	130	ug/Kg	☆	03/03/23 08:29	03/06/23 22:32	5
Phenol	910	U	910	140	ug/Kg	☆	03/03/23 08:29	03/06/23 22:32	5
Pyrene	150	J	910	110	ug/Kg	☆	03/03/23 08:29	03/06/23 22:32	5

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2,4,6-Tribromophenol (Surr)	41	S1-	54 - 120	03/03/23 08:29	03/06/23 22:32	5
2-Fluorobiphenyl (Surr)	60		60 - 120	03/03/23 08:29	03/06/23 22:32	5
2-Fluorophenol (Surr)	57		52 - 120	03/03/23 08:29	03/06/23 22:32	5
Nitrobenzene-d5 (Surr)	58		53 - 120	03/03/23 08:29	03/06/23 22:32	5
Phenol-d5 (Surr)	57		54 - 120	03/03/23 08:29	03/06/23 22:32	5
p-Terphenyl-d14 (Surr)	59	S1-	79 - 130	03/03/23 08:29	03/06/23 22:32	5

Method: SW846 6010C - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	4.9		2.1	0.41	mg/Kg	☆	03/03/23 11:58	03/06/23 22:01	1
Barium	74.1		0.52	0.11	mg/Kg	☆	03/03/23 11:58	03/06/23 22:01	1

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Client Sample Results

Client: Brydges Engineering in Environment & Energy DPC
Project/Site: Douglas - 1106 Niagara

Job ID: 480-206554-1

Client Sample ID: BH-3 1-2FT

Lab Sample ID: 480-206554-6

Date Collected: 03/01/23 11:30

Matrix: Solid

Date Received: 03/02/23 08:00

Percent Solids: 92.7

Method: SW846 6010C - Metals (ICP) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Beryllium	0.70		0.21	0.029	mg/Kg	☆	03/03/23 11:58	03/06/23 22:01	1
Cadmium	0.085	J	0.21	0.031	mg/Kg	☆	03/03/23 11:58	03/06/23 22:01	1
Chromium	13.5		0.52	0.21	mg/Kg	☆	03/03/23 11:58	03/06/23 22:01	1
Copper	17.9		1.0	0.22	mg/Kg	☆	03/03/23 11:58	03/06/23 22:01	1
Lead	69.1		1.0	0.25	mg/Kg	☆	03/03/23 11:58	03/06/23 22:01	1
Manganese	501	B	0.21	0.033	mg/Kg	☆	03/03/23 11:58	03/06/23 22:01	1
Nickel	12.5	B	5.2	0.24	mg/Kg	☆	03/03/23 11:58	03/07/23 15:11	1
Selenium	0.58	J	4.1	0.41	mg/Kg	☆	03/03/23 11:58	03/06/23 22:01	1
Silver	0.62	U	0.62	0.21	mg/Kg	☆	03/03/23 11:58	03/06/23 22:01	1
Zinc	70.4		2.1	0.66	mg/Kg	☆	03/03/23 11:58	03/06/23 22:01	1

Method: SW846 7471B - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.29		0.021	0.0048	mg/Kg	☆	03/08/23 09:49	03/08/23 13:43	1

Client Sample ID: BH-4 1-2FT

Lab Sample ID: 480-206554-7

Date Collected: 03/01/23 12:00

Matrix: Solid

Date Received: 03/02/23 08:00

Percent Solids: 86.3

Method: SW846 8270D - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,4-Dioxane	11000	U	11000	6300	ug/Kg	☆	03/03/23 08:29	03/06/23 22:57	10
2-Methylphenol	19000	U	19000	2300	ug/Kg	☆	03/03/23 08:29	03/06/23 22:57	10
3-Methylphenol	38000	U	38000	3000	ug/Kg	☆	03/03/23 08:29	03/06/23 22:57	10
4-Methylphenol	38000	U	38000	2300	ug/Kg	☆	03/03/23 08:29	03/06/23 22:57	10
Acenaphthene	4300	J	19000	2900	ug/Kg	☆	03/03/23 08:29	03/06/23 22:57	10
Acenaphthylene	7700	J	19000	2500	ug/Kg	☆	03/03/23 08:29	03/06/23 22:57	10
Anthracene	19000		19000	4800	ug/Kg	☆	03/03/23 08:29	03/06/23 22:57	10
Benzo[a]anthracene	35000		19000	1900	ug/Kg	☆	03/03/23 08:29	03/06/23 22:57	10
Benzo[a]pyrene	37000		19000	2900	ug/Kg	☆	03/03/23 08:29	03/06/23 22:57	10
Benzo[b]fluoranthene	38000		19000	3100	ug/Kg	☆	03/03/23 08:29	03/06/23 22:57	10
Benzo[g,h,i]perylene	20000		19000	2100	ug/Kg	☆	03/03/23 08:29	03/06/23 22:57	10
Benzo[k]fluoranthene	20000		19000	2500	ug/Kg	☆	03/03/23 08:29	03/06/23 22:57	10
Chrysene	37000		19000	4400	ug/Kg	☆	03/03/23 08:29	03/06/23 22:57	10
Dibenz(a,h)anthracene	5200	J	19000	3400	ug/Kg	☆	03/03/23 08:29	03/06/23 22:57	10
Dibenzofuran	4200	J	19000	2300	ug/Kg	☆	03/03/23 08:29	03/06/23 22:57	10
Fluoranthene	89000		19000	2100	ug/Kg	☆	03/03/23 08:29	03/06/23 22:57	10
Fluorene	4000	J	19000	2300	ug/Kg	☆	03/03/23 08:29	03/06/23 22:57	10
Hexachlorobenzene	19000	U	19000	2600	ug/Kg	☆	03/03/23 08:29	03/06/23 22:57	10
Indeno[1,2,3-cd]pyrene	17000	J	19000	2400	ug/Kg	☆	03/03/23 08:29	03/06/23 22:57	10
Naphthalene	19000	U	19000	2500	ug/Kg	☆	03/03/23 08:29	03/06/23 22:57	10
Pentachlorophenol	38000	U	38000	19000	ug/Kg	☆	03/03/23 08:29	03/06/23 22:57	10
Phenanthrene	35000		19000	2900	ug/Kg	☆	03/03/23 08:29	03/06/23 22:57	10
Phenol	19000	U	19000	3000	ug/Kg	☆	03/03/23 08:29	03/06/23 22:57	10
Pyrene	71000		19000	2300	ug/Kg	☆	03/03/23 08:29	03/06/23 22:57	10

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2,4,6-Tribromophenol (Surr)	206	S1+	54 - 120	03/03/23 08:29	03/06/23 22:57	10
2-Fluorobiphenyl (Surr)	84		60 - 120	03/03/23 08:29	03/06/23 22:57	10
2-Fluorophenol (Surr)	70		52 - 120	03/03/23 08:29	03/06/23 22:57	10

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Client Sample Results

Client: Brydges Engineering in Environment & Energy DPC
Project/Site: Douglas - 1106 Niagara

Job ID: 480-206554-1

Client Sample ID: BH-4 1-2FT

Date Collected: 03/01/23 12:00

Date Received: 03/02/23 08:00

Lab Sample ID: 480-206554-7

Matrix: Solid

Percent Solids: 86.3

Method: SW846 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Nitrobenzene-d5 (Surr)	78		53 - 120	03/03/23 08:29	03/06/23 22:57	10
Phenol-d5 (Surr)	83		54 - 120	03/03/23 08:29	03/06/23 22:57	10
p-Terphenyl-d14 (Surr)	99		79 - 130	03/03/23 08:29	03/06/23 22:57	10

Method: SW846 6010C - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	15.7		11.9	2.4	mg/Kg	☆	03/03/23 11:58	03/07/23 15:23	5
Barium	223		3.0	0.65	mg/Kg	☆	03/03/23 11:58	03/07/23 15:23	5
Beryllium	4.8		1.2	0.17	mg/Kg	☆	03/03/23 11:58	03/07/23 15:23	5
Cadmium	0.21	J	1.2	0.18	mg/Kg	☆	03/03/23 11:58	03/07/23 15:23	5
Chromium	22.8		3.0	1.2	mg/Kg	☆	03/03/23 11:58	03/07/23 15:23	5
Copper	115		5.9	1.2	mg/Kg	☆	03/03/23 11:58	03/07/23 15:23	5
Lead	57.3		1.2	0.29	mg/Kg	☆	03/03/23 11:58	03/06/23 22:05	1
Manganese	1830	B ^2	1.2	0.19	mg/Kg	☆	03/03/23 11:58	03/07/23 15:23	5
Nickel	21.4	B	5.9	0.27	mg/Kg	☆	03/03/23 11:58	03/07/23 15:15	1
Selenium	23.8	U	23.8	2.4	mg/Kg	☆	03/03/23 11:58	03/07/23 15:23	5
Silver	3.6	U	3.6	1.2	mg/Kg	☆	03/03/23 11:58	03/07/23 15:23	5
Zinc	118		11.9	3.8	mg/Kg	☆	03/03/23 11:58	03/07/23 15:23	5

Method: SW846 7471B - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.011	J	0.023	0.0054	mg/Kg	☆	03/08/23 09:49	03/08/23 13:44	1

Client Sample ID: BH-5 1-2FT

Date Collected: 03/01/23 12:30

Date Received: 03/02/23 08:00

Lab Sample ID: 480-206554-8

Matrix: Solid

Percent Solids: 83.9

Method: SW846 8270D - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,4-Dioxane	2400	U	2400	1300	ug/Kg	☆	03/08/23 07:05	03/09/23 18:34	10
2-Methylphenol	4000	U	4000	470	ug/Kg	☆	03/08/23 07:05	03/09/23 18:34	10
3-Methylphenol	7800	U	7800	610	ug/Kg	☆	03/08/23 07:05	03/09/23 18:34	10
4-Methylphenol	7800	U	7800	470	ug/Kg	☆	03/08/23 07:05	03/09/23 18:34	10
Acenaphthene	4000	U	4000	590	ug/Kg	☆	03/08/23 07:05	03/09/23 18:34	10
Acenaphthylene	4000	U	4000	520	ug/Kg	☆	03/08/23 07:05	03/09/23 18:34	10
Anthracene	4000	U	4000	990	ug/Kg	☆	03/08/23 07:05	03/09/23 18:34	10
Benzo[a]anthracene	4000	U	4000	400	ug/Kg	☆	03/08/23 07:05	03/09/23 18:34	10
Benzo[a]pyrene	4000	U	4000	590	ug/Kg	☆	03/08/23 07:05	03/09/23 18:34	10
Benzo[b]fluoranthene	4000	U	4000	640	ug/Kg	☆	03/08/23 07:05	03/09/23 18:34	10
Benzo[g,h,i]perylene	4000	U	4000	420	ug/Kg	☆	03/08/23 07:05	03/09/23 18:34	10
Benzo[k]fluoranthene	4000	U	4000	520	ug/Kg	☆	03/08/23 07:05	03/09/23 18:34	10
Chrysene	4000	U	4000	900	ug/Kg	☆	03/08/23 07:05	03/09/23 18:34	10
Dibenz(a,h)anthracene	4000	U	4000	710	ug/Kg	☆	03/08/23 07:05	03/09/23 18:34	10
Dibenzofuran	4000	U	4000	470	ug/Kg	☆	03/08/23 07:05	03/09/23 18:34	10
Fluoranthene	820	J	4000	420	ug/Kg	☆	03/08/23 07:05	03/09/23 18:34	10
Fluorene	4000	U	4000	470	ug/Kg	☆	03/08/23 07:05	03/09/23 18:34	10
Hexachlorobenzene	4000	U	4000	540	ug/Kg	☆	03/08/23 07:05	03/09/23 18:34	10
Indeno[1,2,3-cd]pyrene	4000	U	4000	490	ug/Kg	☆	03/08/23 07:05	03/09/23 18:34	10
Naphthalene	4000	U	4000	520	ug/Kg	☆	03/08/23 07:05	03/09/23 18:34	10
Pentachlorophenol	7800	U	7800	4000	ug/Kg	☆	03/08/23 07:05	03/09/23 18:34	10

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Client Sample Results

Client: Brydges Engineering in Environment & Energy DPC
Project/Site: Douglas - 1106 Niagara

Job ID: 480-206554-1

Client Sample ID: BH-5 1-2FT

Lab Sample ID: 480-206554-8

Date Collected: 03/01/23 12:30

Matrix: Solid

Date Received: 03/02/23 08:00

Percent Solids: 83.9

Method: SW846 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Phenanthrene	4000	U	4000	590	ug/Kg	☆	03/08/23 07:05	03/09/23 18:34	10
Phenol	4000	U	4000	610	ug/Kg	☆	03/08/23 07:05	03/09/23 18:34	10
Pyrene	640	J	4000	470	ug/Kg	☆	03/08/23 07:05	03/09/23 18:34	10

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2,4,6-Tribromophenol (Surr)	71		54 - 120	03/08/23 07:05	03/09/23 18:34	10
2-Fluorobiphenyl (Surr)	90		60 - 120	03/08/23 07:05	03/09/23 18:34	10
2-Fluorophenol (Surr)	82		52 - 120	03/08/23 07:05	03/09/23 18:34	10
Nitrobenzene-d5 (Surr)	86		53 - 120	03/08/23 07:05	03/09/23 18:34	10
Phenol-d5 (Surr)	91		54 - 120	03/08/23 07:05	03/09/23 18:34	10
p-Terphenyl-d14 (Surr)	94		79 - 130	03/08/23 07:05	03/09/23 18:34	10

Method: SW846 6010C - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	10.5		2.3	0.46	mg/Kg	☆	03/03/23 11:58	03/06/23 22:09	1
Barium	158		0.57	0.13	mg/Kg	☆	03/03/23 11:58	03/06/23 22:09	1
Beryllium	2.0		0.23	0.032	mg/Kg	☆	03/03/23 11:58	03/06/23 22:09	1
Cadmium	1.4		0.23	0.034	mg/Kg	☆	03/03/23 11:58	03/06/23 22:09	1
Chromium	15.4		0.57	0.23	mg/Kg	☆	03/03/23 11:58	03/06/23 22:09	1
Copper	56.4		1.1	0.24	mg/Kg	☆	03/03/23 11:58	03/06/23 22:09	1
Lead	639		1.1	0.27	mg/Kg	☆	03/03/23 11:58	03/06/23 22:09	1
Manganese	741	B	0.23	0.036	mg/Kg	☆	03/03/23 11:58	03/06/23 22:09	1
Nickel	17.2	B ^+	5.7	0.26	mg/Kg	☆	03/03/23 11:58	03/06/23 22:09	1
Selenium	4.6	U	4.6	0.46	mg/Kg	☆	03/03/23 11:58	03/06/23 22:09	1
Silver	0.68	U	0.68	0.23	mg/Kg	☆	03/03/23 11:58	03/06/23 22:09	1
Zinc	787		2.3	0.73	mg/Kg	☆	03/03/23 11:58	03/06/23 22:09	1

Method: SW846 7471B - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.48		0.024	0.0056	mg/Kg	☆	03/08/23 09:49	03/08/23 13:45	1

Client Sample ID: BH-6 1-2FT

Lab Sample ID: 480-206554-9

Date Collected: 03/01/23 13:00

Matrix: Solid

Date Received: 03/02/23 08:00

Percent Solids: 78.8

Method: SW846 8270D - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,4-Dioxane	630	U	630	350	ug/Kg	☆	03/03/23 08:29	03/06/23 23:45	5
2-Methylphenol	1100	U	1100	130	ug/Kg	☆	03/03/23 08:29	03/06/23 23:45	5
3-Methylphenol	2100	U	2100	160	ug/Kg	☆	03/03/23 08:29	03/06/23 23:45	5
4-Methylphenol	2100	U	2100	130	ug/Kg	☆	03/03/23 08:29	03/06/23 23:45	5
Acenaphthene	1100	U	1100	160	ug/Kg	☆	03/03/23 08:29	03/06/23 23:45	5
Acenaphthylene	1100	U	1100	140	ug/Kg	☆	03/03/23 08:29	03/06/23 23:45	5
Anthracene	1100	U	1100	260	ug/Kg	☆	03/03/23 08:29	03/06/23 23:45	5
Benzo[a]anthracene	170	J	1100	110	ug/Kg	☆	03/03/23 08:29	03/06/23 23:45	5
Benzo[a]pyrene	170	J	1100	160	ug/Kg	☆	03/03/23 08:29	03/06/23 23:45	5
Benzo[b]fluoranthene	190	J	1100	170	ug/Kg	☆	03/03/23 08:29	03/06/23 23:45	5
Benzo[g,h,i]perylene	1100	U	1100	110	ug/Kg	☆	03/03/23 08:29	03/06/23 23:45	5
Benzo[k]fluoranthene	1100	U	1100	140	ug/Kg	☆	03/03/23 08:29	03/06/23 23:45	5
Chrysene	1100	U	1100	240	ug/Kg	☆	03/03/23 08:29	03/06/23 23:45	5
Dibenz(a,h)anthracene	1100	U	1100	190	ug/Kg	☆	03/03/23 08:29	03/06/23 23:45	5

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Client Sample Results

Client: Brydges Engineering in Environment & Energy DPC
Project/Site: Douglas - 1106 Niagara

Job ID: 480-206554-1

Client Sample ID: BH-6 1-2FT

Lab Sample ID: 480-206554-9

Date Collected: 03/01/23 13:00

Matrix: Solid

Date Received: 03/02/23 08:00

Percent Solids: 78.8

Method: SW846 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Dibenzofuran	1100	U	1100	130	ug/Kg	☆	03/03/23 08:29	03/06/23 23:45	5
Fluoranthene	340	J	1100	110	ug/Kg	☆	03/03/23 08:29	03/06/23 23:45	5
Fluorene	1100	U	1100	130	ug/Kg	☆	03/03/23 08:29	03/06/23 23:45	5
Hexachlorobenzene	1100	U	1100	140	ug/Kg	☆	03/03/23 08:29	03/06/23 23:45	5
Indeno[1,2,3-cd]pyrene	1100	U	1100	130	ug/Kg	☆	03/03/23 08:29	03/06/23 23:45	5
Naphthalene	1100	U	1100	140	ug/Kg	☆	03/03/23 08:29	03/06/23 23:45	5
Pentachlorophenol	2100	U	2100	1100	ug/Kg	☆	03/03/23 08:29	03/06/23 23:45	5
Phenanthrene	230	J	1100	160	ug/Kg	☆	03/03/23 08:29	03/06/23 23:45	5
Phenol	1100	U	1100	160	ug/Kg	☆	03/03/23 08:29	03/06/23 23:45	5
Pyrene	250	J	1100	130	ug/Kg	☆	03/03/23 08:29	03/06/23 23:45	5

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2,4,6-Tribromophenol (Surr)	41	S1-	54 - 120	03/03/23 08:29	03/06/23 23:45	5
2-Fluorobiphenyl (Surr)	70		60 - 120	03/03/23 08:29	03/06/23 23:45	5
2-Fluorophenol (Surr)	65		52 - 120	03/03/23 08:29	03/06/23 23:45	5
Nitrobenzene-d5 (Surr)	67		53 - 120	03/03/23 08:29	03/06/23 23:45	5
Phenol-d5 (Surr)	64		54 - 120	03/03/23 08:29	03/06/23 23:45	5
p-Terphenyl-d14 (Surr)	68	S1-	79 - 130	03/03/23 08:29	03/06/23 23:45	5

Method: SW846 6010C - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	7.6		2.6	0.52	mg/Kg	☆	03/07/23 11:28	03/09/23 19:34	1
Barium	353		3.3	0.72	mg/Kg	☆	03/07/23 11:28	03/10/23 15:28	5
Beryllium	3.7		1.3	0.18	mg/Kg	☆	03/07/23 11:28	03/10/23 15:28	5
Cadmium	0.13	J	0.26	0.039	mg/Kg	☆	03/07/23 11:28	03/09/23 19:34	1
Chromium	11.5		0.65	0.26	mg/Kg	☆	03/07/23 11:28	03/10/23 15:24	1
Copper	17.2	B	1.3	0.27	mg/Kg	☆	03/07/23 11:28	03/09/23 19:34	1
Lead	82.8		1.3	0.31	mg/Kg	☆	03/07/23 11:28	03/09/23 19:34	1
Manganese	1770	B	0.26	0.042	mg/Kg	☆	03/07/23 11:28	03/10/23 15:24	1
Nickel	11.5		6.5	0.30	mg/Kg	☆	03/07/23 11:28	03/09/23 19:34	1
Selenium	1.0	J	5.2	0.52	mg/Kg	☆	03/07/23 11:28	03/09/23 19:34	1
Silver	0.78	U	0.78	0.26	mg/Kg	☆	03/07/23 11:28	03/09/23 19:34	1
Zinc	65.8		2.6	0.84	mg/Kg	☆	03/07/23 11:28	03/09/23 19:34	1

Method: SW846 7471B - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.62		0.024	0.0056	mg/Kg	☆	03/08/23 09:49	03/08/23 13:47	1

Client Sample ID: TMW-1

Lab Sample ID: 480-206554-10

Date Collected: 03/01/23 10:30

Matrix: Water

Date Received: 03/02/23 08:00

Method: SW846 8260C - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	1.0	U	1.0	0.82	ug/L			03/03/23 12:10	1
1,1-Dichloroethane	1.0	U	1.0	0.38	ug/L			03/03/23 12:10	1
1,1-Dichloroethene	1.0	U	1.0	0.29	ug/L			03/03/23 12:10	1
1,2,4-Trimethylbenzene	1.0	U	1.0	0.75	ug/L			03/03/23 12:10	1
1,2-Dichlorobenzene	1.0	U	1.0	0.79	ug/L			03/03/23 12:10	1
1,2-Dichloroethane	1.0	U	1.0	0.21	ug/L			03/03/23 12:10	1
1,3,5-Trimethylbenzene	1.0	U	1.0	0.77	ug/L			03/03/23 12:10	1

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Client Sample Results

Client: Brydges Engineering in Environment & Energy DPC
Project/Site: Douglas - 1106 Niagara

Job ID: 480-206554-1

Client Sample ID: TMW-1

Lab Sample ID: 480-206554-10

Date Collected: 03/01/23 10:30

Matrix: Water

Date Received: 03/02/23 08:00

Method: SW846 8260C - Volatile Organic Compounds by GC/MS (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,3-Dichlorobenzene	1.0	U	1.0	0.78	ug/L			03/03/23 12:10	1
1,4-Dichlorobenzene	1.0	U	1.0	0.84	ug/L			03/03/23 12:10	1
1,4-Dioxane	40	U	40	9.3	ug/L			03/03/23 12:10	1
2-Butanone (MEK)	10	U *	10	1.3	ug/L			03/03/23 12:10	1
4-Isopropyltoluene	1.0	U	1.0	0.31	ug/L			03/03/23 12:10	1
Acetone	10	U	10	3.0	ug/L			03/03/23 12:10	1
Benzene	1.0	U	1.0	0.41	ug/L			03/03/23 12:10	1
Carbon tetrachloride	1.0	U	1.0	0.27	ug/L			03/03/23 12:10	1
Chlorobenzene	1.0	U	1.0	0.75	ug/L			03/03/23 12:10	1
Chloroform	1.0	U	1.0	0.34	ug/L			03/03/23 12:10	1
cis-1,2-Dichloroethene	1.0	U	1.0	0.81	ug/L			03/03/23 12:10	1
Ethylbenzene	1.0	U	1.0	0.74	ug/L			03/03/23 12:10	1
Isopropylbenzene	1.0	U	1.0	0.79	ug/L			03/03/23 12:10	1
Methyl tert-butyl ether	1.0	U	1.0	0.16	ug/L			03/03/23 12:10	1
Methylene Chloride	1.0	U	1.0	0.44	ug/L			03/03/23 12:10	1
m-Xylene & p-Xylene	2.0	U	2.0	0.66	ug/L			03/03/23 12:10	1
Naphthalene	1.0	U	1.0	0.43	ug/L			03/03/23 12:10	1
n-Butylbenzene	1.0	U	1.0	0.64	ug/L			03/03/23 12:10	1
N-Propylbenzene	1.0	U	1.0	0.69	ug/L			03/03/23 12:10	1
o-Xylene	1.0	U	1.0	0.76	ug/L			03/03/23 12:10	1
sec-Butylbenzene	1.0	U	1.0	0.75	ug/L			03/03/23 12:10	1
Tetrachloroethene	0.79	J	1.0	0.36	ug/L			03/03/23 12:10	1
Toluene	1.0	U	1.0	0.51	ug/L			03/03/23 12:10	1
trans-1,2-Dichloroethene	1.0	U	1.0	0.90	ug/L			03/03/23 12:10	1
Trichloroethene	1.0	U	1.0	0.46	ug/L			03/03/23 12:10	1
Vinyl chloride	1.0	U	1.0	0.90	ug/L			03/03/23 12:10	1
Xylenes, Total	2.0	U	2.0	0.66	ug/L			03/03/23 12:10	1
tert-Butylbenzene	1.0	U	1.0	0.81	ug/L			03/03/23 12:10	1

Tentatively Identified Compound	Est. Result	Qualifier	Unit	D	RT	CAS No.	Prepared	Analyzed	Dil Fac
Tentatively Identified Compound	None		ug/L			N/A		03/03/23 12:10	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	105		77 - 120		03/03/23 12:10	1
4-Bromofluorobenzene (Surr)	86		73 - 120		03/03/23 12:10	1
Toluene-d8 (Surr)	93		80 - 120		03/03/23 12:10	1
Dibromofluoromethane (Surr)	107		75 - 123		03/03/23 12:10	1

Surrogate Summary

Client: Brydges Engineering in Environment & Energy DPC
Project/Site: Douglas - 1106 Niagara

Job ID: 480-206554-1

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)			
		DCA (64-126)	BFB (72-126)	DBFM (60-140)	TOL (71-125)
480-206554-3	BHI-1 1-2FT	103	99	102	100
480-206554-4	BHI-2 1-2FT	104	99	102	100
480-206554-5	BHI-3 0-1FT	104	101	103	99
LCS 480-660357/1-A	Lab Control Sample	100	100	102	100
MB 480-660357/2-A	Method Blank	99	100	100	100

Surrogate Legend

DCA = 1,2-Dichloroethane-d4 (Surr)

BFB = 4-Bromofluorobenzene (Surr)

DBFM = Dibromofluoromethane (Surr)

TOL = Toluene-d8 (Surr)

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

Matrix: Water

Prep Type: Total/NA

Lab Sample ID	Client Sample ID	Percent Surrogate Recovery (Acceptance Limits)			
		DCA (77-120)	BFB (73-120)	TOL (80-120)	DBFM (75-123)
480-206554-10	TMW-1	105	86	93	107
LCS 480-660374/9	Lab Control Sample	107	106	97	115
MB 480-660374/8	Method Blank	108	94	101	111

Surrogate Legend

DCA = 1,2-Dichloroethane-d4 (Surr)

BFB = 4-Bromofluorobenzene (Surr)

TOL = Toluene-d8 (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)	NBZ (53-120)	PHL (54-120)	TPHd14 (79-130)
480-206554-1	BH-1 1-2FT	58	88	72	74	74	84
480-206554-2	BH-2 1-2FT	34 S1-	66	60	63	63	66 S1-
480-206554-3	BHI-1 1-2FT	58	71	67	70	70	72 S1-
480-206554-4	BHI-2 1-2FT	45 S1-	77	71	74	72	78 S1-
480-206554-5	BHI-3 0-1FT	48 S1-	76	65	67	66	69 S1-
480-206554-6	BH-3 1-2FT	41 S1-	60	57	58	57	59 S1-
480-206554-7	BH-4 1-2FT	206 S1+	84	70	78	83	99
480-206554-8	BH-5 1-2FT	71	90	82	86	91	94
480-206554-9	BH-6 1-2FT	41 S1-	70	65	67	64	68 S1-
LCS 480-660396/2-A	Lab Control Sample	85	85	74	77	81	93
LCS 480-660800/2-A	Lab Control Sample	93	93	87	91	96	103
MB 480-660396/1-A	Method Blank	53 S1-	78	69	73	75	90
MB 480-660800/1-A	Method Blank	74	88	82	86	87	97

Surrogate Legend

TBP = 2,4,6-Tribromophenol (Surr)

FBP = 2-Fluorobiphenyl (Surr)

2FP = 2-Fluorophenol (Surr)

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Surrogate Summary

Client: Brydges Engineering in Environment & Energy DPC
Project/Site: Douglas - 1106 Niagara
NBZ = Nitrobenzene-d5 (Surr)
PHL = Phenol-d5 (Surr)
TPHd14 = p-Terphenyl-d14 (Surr)

Job ID: 480-206554-1

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QC Sample Results

Client: Brydges Engineering in Environment & Energy DPC
Project/Site: Douglas - 1106 Niagara

Job ID: 480-206554-1

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

Lab Sample ID: MB 480-660357/2-A

Matrix: Solid

Analysis Batch: 660358

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 660357

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	5.0	U	5.0	0.36	ug/Kg		03/02/23 18:33	03/02/23 22:23	1
1,1-Dichloroethane	5.0	U	5.0	0.61	ug/Kg		03/02/23 18:33	03/02/23 22:23	1
1,1-Dichloroethene	5.0	U	5.0	0.61	ug/Kg		03/02/23 18:33	03/02/23 22:23	1
1,2,4-Trimethylbenzene	5.0	U	5.0	0.96	ug/Kg		03/02/23 18:33	03/02/23 22:23	1
1,2-Dichlorobenzene	5.0	U	5.0	0.39	ug/Kg		03/02/23 18:33	03/02/23 22:23	1
1,2-Dichloroethane	5.0	U	5.0	0.25	ug/Kg		03/02/23 18:33	03/02/23 22:23	1
1,3,5-Trimethylbenzene	5.0	U	5.0	0.32	ug/Kg		03/02/23 18:33	03/02/23 22:23	1
1,3-Dichlorobenzene	5.0	U	5.0	0.26	ug/Kg		03/02/23 18:33	03/02/23 22:23	1
1,4-Dichlorobenzene	5.0	U	5.0	0.70	ug/Kg		03/02/23 18:33	03/02/23 22:23	1
1,4-Dioxane	100	U	100	22	ug/Kg		03/02/23 18:33	03/02/23 22:23	1
2-Butanone (MEK)	25	U	25	1.8	ug/Kg		03/02/23 18:33	03/02/23 22:23	1
4-Isopropyltoluene	5.0	U	5.0	0.40	ug/Kg		03/02/23 18:33	03/02/23 22:23	1
Acetone	25	U	25	4.2	ug/Kg		03/02/23 18:33	03/02/23 22:23	1
Benzene	5.0	U	5.0	0.25	ug/Kg		03/02/23 18:33	03/02/23 22:23	1
Carbon tetrachloride	5.0	U	5.0	0.48	ug/Kg		03/02/23 18:33	03/02/23 22:23	1
Chlorobenzene	5.0	U	5.0	0.66	ug/Kg		03/02/23 18:33	03/02/23 22:23	1
Chloroform	0.392	J	5.0	0.31	ug/Kg		03/02/23 18:33	03/02/23 22:23	1
cis-1,2-Dichloroethene	5.0	U	5.0	0.64	ug/Kg		03/02/23 18:33	03/02/23 22:23	1
Ethylbenzene	5.0	U	5.0	0.35	ug/Kg		03/02/23 18:33	03/02/23 22:23	1
Isopropylbenzene	5.0	U	5.0	0.75	ug/Kg		03/02/23 18:33	03/02/23 22:23	1
Methyl tert-butyl ether	5.0	U	5.0	0.49	ug/Kg		03/02/23 18:33	03/02/23 22:23	1
m-Xylene & p-Xylene	10	U	10	0.84	ug/Kg		03/02/23 18:33	03/02/23 22:23	1
Methylene Chloride	5.0	U	5.0	2.3	ug/Kg		03/02/23 18:33	03/02/23 22:23	1
Naphthalene	5.0	U	5.0	0.67	ug/Kg		03/02/23 18:33	03/02/23 22:23	1
n-Butylbenzene	5.0	U	5.0	0.44	ug/Kg		03/02/23 18:33	03/02/23 22:23	1
N-Propylbenzene	5.0	U	5.0	0.40	ug/Kg		03/02/23 18:33	03/02/23 22:23	1
o-Xylene	5.0	U	5.0	0.65	ug/Kg		03/02/23 18:33	03/02/23 22:23	1
sec-Butylbenzene	5.0	U	5.0	0.44	ug/Kg		03/02/23 18:33	03/02/23 22:23	1
Tetrachloroethene	5.0	U	5.0	0.67	ug/Kg		03/02/23 18:33	03/02/23 22:23	1
Toluene	5.0	U	5.0	0.38	ug/Kg		03/02/23 18:33	03/02/23 22:23	1
trans-1,2-Dichloroethene	5.0	U	5.0	0.52	ug/Kg		03/02/23 18:33	03/02/23 22:23	1
Trichloroethene	5.0	U	5.0	1.1	ug/Kg		03/02/23 18:33	03/02/23 22:23	1
tert-Butylbenzene	5.0	U	5.0	0.52	ug/Kg		03/02/23 18:33	03/02/23 22:23	1
Vinyl chloride	5.0	U	5.0	0.61	ug/Kg		03/02/23 18:33	03/02/23 22:23	1
Xylenes, Total	10	U	10	0.84	ug/Kg		03/02/23 18:33	03/02/23 22:23	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	99		64 - 126	03/02/23 18:33	03/02/23 22:23	1
4-Bromofluorobenzene (Surr)	100		72 - 126	03/02/23 18:33	03/02/23 22:23	1
Toluene-d8 (Surr)	100		71 - 125	03/02/23 18:33	03/02/23 22:23	1
Dibromofluoromethane (Surr)	100		60 - 140	03/02/23 18:33	03/02/23 22:23	1

Lab Sample ID: LCS 480-660357/1-A

Matrix: Solid

Analysis Batch: 660358

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 660357

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
1,1,1-Trichloroethane	50.0	52.8		ug/Kg		106	77 - 121

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QC Sample Results

Client: Brydges Engineering in Environment & Energy DPC
Project/Site: Douglas - 1106 Niagara

Job ID: 480-206554-1

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

Lab Sample ID: LCS 480-660357/1-A

Matrix: Solid

Analysis Batch: 660358

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 660357

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
1,1-Dichloroethane	50.0	50.5		ug/Kg		101	73 - 126
1,1-Dichloroethene	50.0	51.2		ug/Kg		102	59 - 125
1,2,4-Trimethylbenzene	50.0	50.5		ug/Kg		101	74 - 120
1,2-Dichlorobenzene	50.0	49.8		ug/Kg		100	75 - 120
1,2-Dichloroethane	50.0	49.0		ug/Kg		98	77 - 122
1,3,5-Trimethylbenzene	50.0	51.9		ug/Kg		104	74 - 120
1,3-Dichlorobenzene	50.0	50.1		ug/Kg		100	74 - 120
1,4-Dichlorobenzene	50.0	49.6		ug/Kg		99	73 - 120
1,4-Dioxane	1000	1060		ug/Kg		106	64 - 124
2-Butanone (MEK)	250	256		ug/Kg		102	70 - 134
4-Isopropyltoluene	50.0	52.9		ug/Kg		106	74 - 120
Acetone	250	244		ug/Kg		98	61 - 137
Benzene	50.0	50.1		ug/Kg		100	79 - 127
Carbon tetrachloride	50.0	54.7		ug/Kg		109	75 - 135
Chlorobenzene	50.0	49.8		ug/Kg		100	76 - 124
Chloroform	50.0	48.8		ug/Kg		98	80 - 120
cis-1,2-Dichloroethene	50.0	50.7		ug/Kg		101	81 - 120
Ethylbenzene	50.0	51.2		ug/Kg		102	80 - 120
Isopropylbenzene	50.0	52.3		ug/Kg		105	72 - 120
Methyl tert-butyl ether	50.0	50.5		ug/Kg		101	63 - 125
m-Xylene & p-Xylene	50.0	51.1		ug/Kg		102	70 - 130
Methylene Chloride	50.0	50.9		ug/Kg		102	61 - 127
Naphthalene	50.0	53.0		ug/Kg		106	38 - 137
n-Butylbenzene	50.0	53.1		ug/Kg		106	70 - 120
N-Propylbenzene	50.0	51.4		ug/Kg		103	70 - 130
o-Xylene	50.0	51.3		ug/Kg		103	70 - 130
sec-Butylbenzene	50.0	52.1		ug/Kg		104	74 - 120
Tetrachloroethene	50.0	51.3		ug/Kg		103	74 - 122
Toluene	50.0	50.9		ug/Kg		102	74 - 128
trans-1,2-Dichloroethene	50.0	51.6		ug/Kg		103	78 - 126
Trichloroethene	50.0	50.8		ug/Kg		102	77 - 129
tert-Butylbenzene	50.0	51.6		ug/Kg		103	73 - 120
Vinyl chloride	50.0	49.0		ug/Kg		98	61 - 133
Xylenes, Total	100	102		ug/Kg		102	70 - 130

Surrogate	LCS %Recovery	LCS Qualifier	Limits
1,2-Dichloroethane-d4 (Surr)	100		64 - 126
4-Bromofluorobenzene (Surr)	100		72 - 126
Toluene-d8 (Surr)	100		71 - 125
Dibromofluoromethane (Surr)	102		60 - 140

Lab Sample ID: MB 480-660374/8

Matrix: Water

Analysis Batch: 660374

Client Sample ID: Method Blank

Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	1.0	U	1.0	0.82	ug/L			03/03/23 10:42	1
1,1-Dichloroethane	1.0	U	1.0	0.38	ug/L			03/03/23 10:42	1

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QC Sample Results

Client: Brydges Engineering in Environment & Energy DPC
Project/Site: Douglas - 1106 Niagara

Job ID: 480-206554-1

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

Lab Sample ID: MB 480-660374/8

Matrix: Water

Analysis Batch: 660374

Client Sample ID: Method Blank

Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1-Dichloroethene	1.0	U	1.0	0.29	ug/L			03/03/23 10:42	1
1,2,4-Trimethylbenzene	1.0	U	1.0	0.75	ug/L			03/03/23 10:42	1
1,2-Dichlorobenzene	1.0	U	1.0	0.79	ug/L			03/03/23 10:42	1
1,2-Dichloroethane	1.0	U	1.0	0.21	ug/L			03/03/23 10:42	1
1,3,5-Trimethylbenzene	1.0	U	1.0	0.77	ug/L			03/03/23 10:42	1
1,3-Dichlorobenzene	1.0	U	1.0	0.78	ug/L			03/03/23 10:42	1
1,4-Dichlorobenzene	1.0	U	1.0	0.84	ug/L			03/03/23 10:42	1
1,4-Dioxane	40	U	40	9.3	ug/L			03/03/23 10:42	1
2-Butanone (MEK)	10	U	10	1.3	ug/L			03/03/23 10:42	1
4-Isopropyltoluene	1.0	U	1.0	0.31	ug/L			03/03/23 10:42	1
Acetone	10	U	10	3.0	ug/L			03/03/23 10:42	1
Benzene	1.0	U	1.0	0.41	ug/L			03/03/23 10:42	1
Carbon tetrachloride	1.0	U	1.0	0.27	ug/L			03/03/23 10:42	1
Chlorobenzene	1.0	U	1.0	0.75	ug/L			03/03/23 10:42	1
Chloroform	1.0	U	1.0	0.34	ug/L			03/03/23 10:42	1
cis-1,2-Dichloroethene	1.0	U	1.0	0.81	ug/L			03/03/23 10:42	1
Ethylbenzene	1.0	U	1.0	0.74	ug/L			03/03/23 10:42	1
Isopropylbenzene	1.0	U	1.0	0.79	ug/L			03/03/23 10:42	1
Methyl tert-butyl ether	1.0	U	1.0	0.16	ug/L			03/03/23 10:42	1
m-Xylene & p-Xylene	2.0	U	2.0	0.66	ug/L			03/03/23 10:42	1
Methylene Chloride	1.0	U	1.0	0.44	ug/L			03/03/23 10:42	1
Naphthalene	1.0	U	1.0	0.43	ug/L			03/03/23 10:42	1
n-Butylbenzene	1.0	U	1.0	0.64	ug/L			03/03/23 10:42	1
N-Propylbenzene	1.0	U	1.0	0.69	ug/L			03/03/23 10:42	1
o-Xylene	1.0	U	1.0	0.76	ug/L			03/03/23 10:42	1
sec-Butylbenzene	1.0	U	1.0	0.75	ug/L			03/03/23 10:42	1
Tetrachloroethene	1.0	U	1.0	0.36	ug/L			03/03/23 10:42	1
Toluene	1.0	U	1.0	0.51	ug/L			03/03/23 10:42	1
trans-1,2-Dichloroethene	1.0	U	1.0	0.90	ug/L			03/03/23 10:42	1
Trichloroethene	1.0	U	1.0	0.46	ug/L			03/03/23 10:42	1
tert-Butylbenzene	1.0	U	1.0	0.81	ug/L			03/03/23 10:42	1
Vinyl chloride	1.0	U	1.0	0.90	ug/L			03/03/23 10:42	1
Xylenes, Total	2.0	U	2.0	0.66	ug/L			03/03/23 10:42	1

Tentatively Identified Compound	MB Est. Result	MB Qualifier	Unit	D	RT	CAS No.	Prepared	Analyzed	Dil Fac
Tentatively Identified Compound	None		ug/L			N/A		03/03/23 10:42	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	108		77 - 120		03/03/23 10:42	1
4-Bromofluorobenzene (Surr)	94		73 - 120		03/03/23 10:42	1
Toluene-d8 (Surr)	101		80 - 120		03/03/23 10:42	1
Dibromofluoromethane (Surr)	111		75 - 123		03/03/23 10:42	1

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QC Sample Results

Client: Brydges Engineering in Environment & Energy DPC
Project/Site: Douglas - 1106 Niagara

Job ID: 480-206554-1

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

Lab Sample ID: LCS 480-660374/9

Matrix: Water

Analysis Batch: 660374

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
1,1,1-Trichloroethane	25.0	27.1		ug/L		108	73 - 126
1,1-Dichloroethane	25.0	27.3		ug/L		109	77 - 120
1,1-Dichloroethene	25.0	28.5		ug/L		114	66 - 127
1,2,4-Trimethylbenzene	25.0	23.4		ug/L		94	76 - 121
1,2-Dichlorobenzene	25.0	21.6		ug/L		86	80 - 124
1,2-Dichloroethane	25.0	24.9		ug/L		100	75 - 120
1,3,5-Trimethylbenzene	25.0	23.5		ug/L		94	77 - 121
1,3-Dichlorobenzene	25.0	23.0		ug/L		92	77 - 120
1,4-Dichlorobenzene	25.0	22.5		ug/L		90	80 - 120
1,4-Dioxane	500	410		ug/L		82	50 - 150
2-Butanone (MEK)	125	254	*+	ug/L		203	57 - 140
4-Isopropyltoluene	25.0	24.0		ug/L		96	73 - 120
Acetone	125	136		ug/L		109	56 - 142
Benzene	25.0	27.5		ug/L		110	71 - 124
Carbon tetrachloride	25.0	29.0		ug/L		116	72 - 134
Chlorobenzene	25.0	23.0		ug/L		92	80 - 120
Chloroform	25.0	25.5		ug/L		102	73 - 127
cis-1,2-Dichloroethene	25.0	27.5		ug/L		110	74 - 124
Ethylbenzene	25.0	23.1		ug/L		92	77 - 123
Isopropylbenzene	25.0	26.0		ug/L		104	77 - 122
Methyl tert-butyl ether	25.0	23.4		ug/L		94	77 - 120
m-Xylene & p-Xylene	25.0	23.6		ug/L		95	76 - 122
Methylene Chloride	25.0	27.9		ug/L		111	75 - 124
Naphthalene	25.0	22.4		ug/L		90	66 - 125
n-Butylbenzene	25.0	22.3		ug/L		89	71 - 128
N-Propylbenzene	25.0	26.1		ug/L		105	75 - 127
o-Xylene	25.0	23.3		ug/L		93	76 - 122
sec-Butylbenzene	25.0	23.6		ug/L		94	74 - 127
Tetrachloroethene	25.0	24.2		ug/L		97	74 - 122
Toluene	25.0	23.0		ug/L		92	80 - 122
trans-1,2-Dichloroethene	25.0	28.7		ug/L		115	73 - 127
Trichloroethene	25.0	26.8		ug/L		107	74 - 123
tert-Butylbenzene	25.0	23.4		ug/L		93	75 - 123
Vinyl chloride	25.0	28.0		ug/L		112	65 - 133
Xylenes, Total	50.0	46.9		ug/L		94	76 - 122

Surrogate	LCS %Recovery	LCS Qualifier	Limits
1,2-Dichloroethane-d4 (Surr)	107		77 - 120
4-Bromofluorobenzene (Surr)	106		73 - 120
Toluene-d8 (Surr)	97		80 - 120
Dibromofluoromethane (Surr)	115		75 - 123

QC Sample Results

Client: Brydges Engineering in Environment & Energy DPC
Project/Site: Douglas - 1106 Niagara

Job ID: 480-206554-1

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

Lab Sample ID: MB 480-660396/1-A

Matrix: Solid

Analysis Batch: 660609

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 660396

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,4-Dioxane	99	U	99	54	ug/Kg		03/03/23 08:29	03/06/23 16:27	1
2-Methylphenol	170	U	170	20	ug/Kg		03/03/23 08:29	03/06/23 16:27	1
3-Methylphenol	330	U	330	26	ug/Kg		03/03/23 08:29	03/06/23 16:27	1
4-Methylphenol	330	U	330	20	ug/Kg		03/03/23 08:29	03/06/23 16:27	1
Acenaphthene	170	U	170	25	ug/Kg		03/03/23 08:29	03/06/23 16:27	1
Acenaphthylene	170	U	170	22	ug/Kg		03/03/23 08:29	03/06/23 16:27	1
Anthracene	170	U	170	42	ug/Kg		03/03/23 08:29	03/06/23 16:27	1
Benzo[a]anthracene	170	U	170	17	ug/Kg		03/03/23 08:29	03/06/23 16:27	1
Benzo[a]pyrene	170	U	170	25	ug/Kg		03/03/23 08:29	03/06/23 16:27	1
Benzo[b]fluoranthene	170	U	170	27	ug/Kg		03/03/23 08:29	03/06/23 16:27	1
Benzo[g,h,i]perylene	170	U	170	18	ug/Kg		03/03/23 08:29	03/06/23 16:27	1
Benzo[k]fluoranthene	170	U	170	22	ug/Kg		03/03/23 08:29	03/06/23 16:27	1
Chrysene	170	U	170	38	ug/Kg		03/03/23 08:29	03/06/23 16:27	1
Dibenz(a,h)anthracene	170	U	170	30	ug/Kg		03/03/23 08:29	03/06/23 16:27	1
Dibenzofuran	170	U	170	20	ug/Kg		03/03/23 08:29	03/06/23 16:27	1
Fluoranthene	170	U	170	18	ug/Kg		03/03/23 08:29	03/06/23 16:27	1
Fluorene	170	U	170	20	ug/Kg		03/03/23 08:29	03/06/23 16:27	1
Hexachlorobenzene	170	U	170	23	ug/Kg		03/03/23 08:29	03/06/23 16:27	1
Indeno[1,2,3-cd]pyrene	170	U	170	21	ug/Kg		03/03/23 08:29	03/06/23 16:27	1
Naphthalene	170	U	170	22	ug/Kg		03/03/23 08:29	03/06/23 16:27	1
Pentachlorophenol	330	U	330	170	ug/Kg		03/03/23 08:29	03/06/23 16:27	1
Phenanthrene	170	U	170	25	ug/Kg		03/03/23 08:29	03/06/23 16:27	1
Phenol	170	U	170	26	ug/Kg		03/03/23 08:29	03/06/23 16:27	1
Pyrene	170	U	170	20	ug/Kg		03/03/23 08:29	03/06/23 16:27	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
2,4,6-Tribromophenol (Surr)	53	S1-	54 - 120	03/03/23 08:29	03/06/23 16:27	1
2-Fluorobiphenyl (Surr)	78		60 - 120	03/03/23 08:29	03/06/23 16:27	1
2-Fluorophenol (Surr)	69		52 - 120	03/03/23 08:29	03/06/23 16:27	1
Nitrobenzene-d5 (Surr)	73		53 - 120	03/03/23 08:29	03/06/23 16:27	1
Phenol-d5 (Surr)	75		54 - 120	03/03/23 08:29	03/06/23 16:27	1
p-Terphenyl-d14 (Surr)	90		79 - 130	03/03/23 08:29	03/06/23 16:27	1

Lab Sample ID: LCS 480-660396/2-A

Matrix: Solid

Analysis Batch: 660609

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 660396

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
1,4-Dioxane	1630	745		ug/Kg		46	23 - 120
2-Methylphenol	1630	1440		ug/Kg		88	54 - 120
3-Methylphenol	1630	1500		ug/Kg		92	55 - 120
4-Methylphenol	1630	1500		ug/Kg		92	55 - 120
Acenaphthene	1630	1520		ug/Kg		93	62 - 120
Acenaphthylene	1630	1520		ug/Kg		93	58 - 121
Anthracene	1630	1580		ug/Kg		97	62 - 120
Benzo[a]anthracene	1630	1580		ug/Kg		97	65 - 120
Benzo[a]pyrene	1630	1620		ug/Kg		99	64 - 120
Benzo[b]fluoranthene	1630	1570		ug/Kg		96	64 - 120

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QC Sample Results

Client: Brydges Engineering in Environment & Energy DPC
Project/Site: Douglas - 1106 Niagara

Job ID: 480-206554-1

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

Lab Sample ID: LCS 480-660396/2-A

Matrix: Solid

Analysis Batch: 660609

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 660396

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Benzo[g,h,i]perylene	1630	1820		ug/Kg		112	45 - 145
Benzo[k]fluoranthene	1630	1620		ug/Kg		99	65 - 120
Chrysene	1630	1550		ug/Kg		95	64 - 120
Dibenz(a,h)anthracene	1630	1730		ug/Kg		106	54 - 132
Dibenzofuran	1630	1530		ug/Kg		94	63 - 120
Fluoranthene	1630	1610		ug/Kg		99	62 - 120
Fluorene	1630	1580		ug/Kg		97	63 - 120
Hexachlorobenzene	1630	1540		ug/Kg		95	60 - 120
Indeno[1,2,3-cd]pyrene	1630	1860		ug/Kg		114	56 - 134
Naphthalene	1630	1350		ug/Kg		83	55 - 120
Pentachlorophenol	3260	2400		ug/Kg		73	51 - 120
Phenanthrene	1630	1630		ug/Kg		100	60 - 120
Phenol	1630	1420		ug/Kg		87	53 - 120
Pyrene	1630	1670		ug/Kg		103	61 - 133

Surrogate	LCS %Recovery	LCS Qualifier	Limits
2,4,6-Tribromophenol (Surr)	85		54 - 120
2-Fluorobiphenyl (Surr)	85		60 - 120
2-Fluorophenol (Surr)	74		52 - 120
Nitrobenzene-d5 (Surr)	77		53 - 120
Phenol-d5 (Surr)	81		54 - 120
p-Terphenyl-d14 (Surr)	93		79 - 130

Lab Sample ID: MB 480-660800/1-A

Matrix: Solid

Analysis Batch: 660957

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 660800

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,4-Dioxane	99	U	99	55	ug/Kg		03/08/23 07:05	03/09/23 14:57	1
2-Methylphenol	170	U	170	20	ug/Kg		03/08/23 07:05	03/09/23 14:57	1
3-Methylphenol	330	U	330	26	ug/Kg		03/08/23 07:05	03/09/23 14:57	1
4-Methylphenol	330	U	330	20	ug/Kg		03/08/23 07:05	03/09/23 14:57	1
Acenaphthene	170	U	170	25	ug/Kg		03/08/23 07:05	03/09/23 14:57	1
Acenaphthylene	170	U	170	22	ug/Kg		03/08/23 07:05	03/09/23 14:57	1
Anthracene	170	U	170	42	ug/Kg		03/08/23 07:05	03/09/23 14:57	1
Benzo[a]anthracene	170	U	170	17	ug/Kg		03/08/23 07:05	03/09/23 14:57	1
Benzo[a]pyrene	170	U	170	25	ug/Kg		03/08/23 07:05	03/09/23 14:57	1
Benzo[b]fluoranthene	170	U	170	27	ug/Kg		03/08/23 07:05	03/09/23 14:57	1
Benzo[g,h,i]perylene	170	U	170	18	ug/Kg		03/08/23 07:05	03/09/23 14:57	1
Benzo[k]fluoranthene	170	U	170	22	ug/Kg		03/08/23 07:05	03/09/23 14:57	1
Chrysene	170	U	170	38	ug/Kg		03/08/23 07:05	03/09/23 14:57	1
Dibenz(a,h)anthracene	170	U	170	30	ug/Kg		03/08/23 07:05	03/09/23 14:57	1
Dibenzofuran	170	U	170	20	ug/Kg		03/08/23 07:05	03/09/23 14:57	1
Fluoranthene	170	U	170	18	ug/Kg		03/08/23 07:05	03/09/23 14:57	1
Fluorene	170	U	170	20	ug/Kg		03/08/23 07:05	03/09/23 14:57	1
Hexachlorobenzene	170	U	170	23	ug/Kg		03/08/23 07:05	03/09/23 14:57	1
Indeno[1,2,3-cd]pyrene	170	U	170	21	ug/Kg		03/08/23 07:05	03/09/23 14:57	1
Naphthalene	170	U	170	22	ug/Kg		03/08/23 07:05	03/09/23 14:57	1

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QC Sample Results

Client: Brydges Engineering in Environment & Energy DPC
Project/Site: Douglas - 1106 Niagara

Job ID: 480-206554-1

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

Lab Sample ID: MB 480-660800/1-A

Matrix: Solid

Analysis Batch: 660957

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 660800

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Pentachlorophenol	330	U	330	170	ug/Kg		03/08/23 07:05	03/09/23 14:57	1
Phenanthrene	170	U	170	25	ug/Kg		03/08/23 07:05	03/09/23 14:57	1
Phenol	170	U	170	26	ug/Kg		03/08/23 07:05	03/09/23 14:57	1
Pyrene	170	U	170	20	ug/Kg		03/08/23 07:05	03/09/23 14:57	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
2,4,6-Tribromophenol (Surr)	74		54 - 120	03/08/23 07:05	03/09/23 14:57	1
2-Fluorobiphenyl (Surr)	88		60 - 120	03/08/23 07:05	03/09/23 14:57	1
2-Fluorophenol (Surr)	82		52 - 120	03/08/23 07:05	03/09/23 14:57	1
Nitrobenzene-d5 (Surr)	86		53 - 120	03/08/23 07:05	03/09/23 14:57	1
Phenol-d5 (Surr)	87		54 - 120	03/08/23 07:05	03/09/23 14:57	1
p-Terphenyl-d14 (Surr)	97		79 - 130	03/08/23 07:05	03/09/23 14:57	1

Lab Sample ID: LCS 480-660800/2-A

Matrix: Solid

Analysis Batch: 660957

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 660800

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
1,4-Dioxane	1660	952		ug/Kg		57	23 - 120
2-Methylphenol	1660	1640		ug/Kg		99	54 - 120
3-Methylphenol	1660	1690		ug/Kg		102	55 - 120
4-Methylphenol	1660	1690		ug/Kg		102	55 - 120
Acenaphthene	1660	1680		ug/Kg		101	62 - 120
Acenaphthylene	1660	1710		ug/Kg		103	58 - 121
Anthracene	1660	1710		ug/Kg		103	62 - 120
Benzo[a]anthracene	1660	1750		ug/Kg		106	65 - 120
Benzo[a]pyrene	1660	1780		ug/Kg		107	64 - 120
Benzo[b]fluoranthene	1660	1760		ug/Kg		106	64 - 120
Benzo[g,h,i]perylene	1660	2010		ug/Kg		121	45 - 145
Benzo[k]fluoranthene	1660	1730		ug/Kg		104	65 - 120
Chrysene	1660	1740		ug/Kg		105	64 - 120
Dibenz(a,h)anthracene	1660	1900		ug/Kg		115	54 - 132
Dibenzofuran	1660	1690		ug/Kg		102	63 - 120
Fluoranthene	1660	1800		ug/Kg		109	62 - 120
Fluorene	1660	1720		ug/Kg		104	63 - 120
Hexachlorobenzene	1660	1640		ug/Kg		99	60 - 120
Indeno[1,2,3-cd]pyrene	1660	2040		ug/Kg		123	56 - 134
Naphthalene	1660	1530		ug/Kg		92	55 - 120
Pentachlorophenol	3320	2760		ug/Kg		83	51 - 120
Phenanthrene	1660	1760		ug/Kg		106	60 - 120
Phenol	1660	1650		ug/Kg		99	53 - 120
Pyrene	1660	1840		ug/Kg		111	61 - 133

Surrogate	LCS %Recovery	LCS Qualifier	Limits
2,4,6-Tribromophenol (Surr)	93		54 - 120
2-Fluorobiphenyl (Surr)	93		60 - 120
2-Fluorophenol (Surr)	87		52 - 120
Nitrobenzene-d5 (Surr)	91		53 - 120

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QC Sample Results

Client: Brydges Engineering in Environment & Energy DPC
Project/Site: Douglas - 1106 Niagara

Job ID: 480-206554-1

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

Lab Sample ID: LCS 480-660800/2-A
Matrix: Solid
Analysis Batch: 660957

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 660800

Surrogate	LCS %Recovery	LCS Qualifier	Limits
Phenol-d5 (Surr)	96		54 - 120
p-Terphenyl-d14 (Surr)	103		79 - 130

Method: 6010C - Metals (ICP)

Lab Sample ID: MB 480-660424/1-A
Matrix: Solid
Analysis Batch: 660681

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 660424

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	2.1	U	2.1	0.42	mg/Kg		03/03/23 11:58	03/06/23 20:36	1
Barium	0.52	U	0.52	0.12	mg/Kg		03/03/23 11:58	03/06/23 20:36	1
Beryllium	0.21	U	0.21	0.029	mg/Kg		03/03/23 11:58	03/06/23 20:36	1
Cadmium	0.21	U	0.21	0.031	mg/Kg		03/03/23 11:58	03/06/23 20:36	1
Chromium	0.52	U	0.52	0.21	mg/Kg		03/03/23 11:58	03/06/23 20:36	1
Copper	1.0	U	1.0	0.22	mg/Kg		03/03/23 11:58	03/06/23 20:36	1
Lead	1.0	U	1.0	0.25	mg/Kg		03/03/23 11:58	03/06/23 20:36	1
Manganese	0.0399	J	0.21	0.034	mg/Kg		03/03/23 11:58	03/06/23 20:36	1
Nickel	0.322	J ^+	5.2	0.24	mg/Kg		03/03/23 11:58	03/06/23 20:36	1
Selenium	4.2	U	4.2	0.42	mg/Kg		03/03/23 11:58	03/06/23 20:36	1
Silver	0.63	U	0.63	0.21	mg/Kg		03/03/23 11:58	03/06/23 20:36	1
Zinc	2.1	U	2.1	0.67	mg/Kg		03/03/23 11:58	03/06/23 20:36	1

Lab Sample ID: LCSSRM 480-660424/2-A
Matrix: Solid
Analysis Batch: 660681

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 660424

Analyte	Spike Added	LCSSRM Result	LCSSRM Qualifier	Unit	D	%Rec	%Rec Limits
Arsenic	129	108.5		mg/Kg		84.1	60.9 - 113.2
Barium	169	144.7		mg/Kg		85.6	68.6 - 114.2
Beryllium	137	106.1		mg/Kg		77.4	66.3 - 110.2
Cadmium	227	172.8		mg/Kg		76.1	64.8 - 110.1
Chromium	115	93.45		mg/Kg		81.3	62.4 - 115.7
Copper	76.0	64.01		mg/Kg		84.2	69.5 - 115.8
Lead	74.8	87.00		mg/Kg		116.3	67.0 - 128.9
Manganese	400	359.5		mg/Kg		89.9	70.5 - 115.8
Nickel	282	259.8	^+	mg/Kg		92.1	62.1 - 114.9
Selenium	246	197.1		mg/Kg		80.1	60.2 - 114.6
Silver	87.5	73.19		mg/Kg		83.6	63.7 - 115.4
Zinc	401	311.2		mg/Kg		77.6	62.8 - 116.7

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QC Sample Results

Client: Brydges Engineering in Environment & Energy DPC
Project/Site: Douglas - 1106 Niagara

Job ID: 480-206554-1

Method: 6010C - Metals (ICP)

Lab Sample ID: 480-206554-2 MS

Matrix: Solid

Analysis Batch: 660681

Client Sample ID: BH-2 1-2FT

Prep Type: Total/NA

Prep Batch: 660424

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Arsenic	5.9		48.5	50.51		mg/Kg	✱	92	75 - 125
Barium	50.0	F1	48.5	160.1	F1	mg/Kg	✱	227	75 - 125
Beryllium	0.42		48.5	44.54		mg/Kg	✱	91	75 - 125
Cadmium	0.87		48.5	44.03		mg/Kg	✱	89	75 - 125
Chromium	10.1		48.5	66.08		mg/Kg	✱	116	75 - 125
Lead	157	F1	48.5	120.9	F1	mg/Kg	✱	-75	75 - 125
Manganese	350	B	48.5	450.7	4	mg/Kg	✱	209	75 - 125
Nickel	7.0	B	48.5	62.13	^+	mg/Kg	✱	114	75 - 125
Selenium	5.4	U	48.5	43.30		mg/Kg	✱	89	75 - 125
Silver	0.81	U	12.1	10.96		mg/Kg	✱	91	75 - 125
Zinc	164	F1	48.5	153.3	F1	mg/Kg	✱	-23	75 - 125

Lab Sample ID: 480-206554-2 MS

Matrix: Solid

Analysis Batch: 660847

Client Sample ID: BH-2 1-2FT

Prep Type: Total/NA

Prep Batch: 660424

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Copper	19.0		48.5	68.16		mg/Kg	✱	101	75 - 125

Lab Sample ID: 480-206554-2 MSD

Matrix: Solid

Analysis Batch: 660681

Client Sample ID: BH-2 1-2FT

Prep Type: Total/NA

Prep Batch: 660424

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Arsenic	5.9		52.7	56.00		mg/Kg	✱	95	75 - 125	10	20
Barium	50.0	F1	52.7	186.4	F1	mg/Kg	✱	259	75 - 125	15	20
Beryllium	0.42		52.7	48.89		mg/Kg	✱	92	75 - 125	9	20
Cadmium	0.87		52.7	47.79		mg/Kg	✱	89	75 - 125	8	20
Chromium	10.1		52.7	72.15		mg/Kg	✱	118	75 - 125	9	20
Lead	157	F1	52.7	109.8	F1	mg/Kg	✱	-90	75 - 125	10	20
Manganese	350	B	52.7	499.4	4	mg/Kg	✱	284	75 - 125	10	20
Nickel	7.0	B	52.7	68.28	^+	mg/Kg	✱	116	75 - 125	9	20
Selenium	5.4	U	52.7	46.54		mg/Kg	✱	88	75 - 125	7	20
Silver	0.81	U	13.2	11.93		mg/Kg	✱	91	75 - 125	8	20
Zinc	164	F1	52.7	132.9	F1	mg/Kg	✱	-60	75 - 125	14	20

Lab Sample ID: 480-206554-2 MSD

Matrix: Solid

Analysis Batch: 660847

Client Sample ID: BH-2 1-2FT

Prep Type: Total/NA

Prep Batch: 660424

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Copper	19.0		52.7	72.85		mg/Kg	✱	102	75 - 125	7	20

Lab Sample ID: MB 480-660669/1-A

Matrix: Solid

Analysis Batch: 661117

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 660669

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	2.0	U	2.0	0.39	mg/Kg		03/07/23 11:28	03/09/23 17:42	1

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QC Sample Results

Client: Brydges Engineering in Environment & Energy DPC
Project/Site: Douglas - 1106 Niagara

Job ID: 480-206554-1

Method: 6010C - Metals (ICP) (Continued)

Lab Sample ID: MB 480-660669/1-A

Matrix: Solid

Analysis Batch: 661117

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 660669

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Barium	0.49	U	0.49	0.11	mg/Kg		03/07/23 11:28	03/09/23 17:42	1
Beryllium	0.20	U	0.20	0.028	mg/Kg		03/07/23 11:28	03/09/23 17:42	1
Cadmium	0.20	U	0.20	0.030	mg/Kg		03/07/23 11:28	03/09/23 17:42	1
Copper	0.361	J	0.99	0.21	mg/Kg		03/07/23 11:28	03/09/23 17:42	1
Lead	0.99	U	0.99	0.24	mg/Kg		03/07/23 11:28	03/09/23 17:42	1
Nickel	4.9	U	4.9	0.23	mg/Kg		03/07/23 11:28	03/09/23 17:42	1
Selenium	3.9	U	3.9	0.39	mg/Kg		03/07/23 11:28	03/09/23 17:42	1
Silver	0.59	U	0.59	0.20	mg/Kg		03/07/23 11:28	03/09/23 17:42	1
Zinc	2.0	U	2.0	0.63	mg/Kg		03/07/23 11:28	03/09/23 17:42	1

Lab Sample ID: MB 480-660669/1-A

Matrix: Solid

Analysis Batch: 661282

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 660669

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chromium	0.49	U	0.49	0.20	mg/Kg		03/07/23 11:28	03/10/23 15:13	1
Manganese	0.0464	J	0.20	0.032	mg/Kg		03/07/23 11:28	03/10/23 15:13	1

Lab Sample ID: LCSSRM 480-660669/2-A

Matrix: Solid

Analysis Batch: 661117

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 660669

Analyte	Spike Added	LCSSRM Result	LCSSRM Qualifier	Unit	D	%Rec	%Rec Limits
Arsenic	129	106.7		mg/Kg		82.7	60.9 - 113.2
Barium	169	142.7		mg/Kg		84.5	68.6 - 114.2
Beryllium	137	110.3		mg/Kg		80.5	66.3 - 110.2
Cadmium	227	175.1		mg/Kg		77.1	64.8 - 110.1
Copper	76.0	64.75		mg/Kg		85.2	69.5 - 115.8
Lead	74.8	84.88		mg/Kg		113.5	67.0 - 128.9
Nickel	282	263.9		mg/Kg		93.6	62.1 - 114.9
Selenium	246	195.9		mg/Kg		79.7	60.2 - 114.6
Silver	87.5	74.87		mg/Kg		85.6	63.7 - 115.4
Zinc	401	314.6		mg/Kg		78.5	62.8 - 116.7

Lab Sample ID: LCSSRM 480-660669/2-A

Matrix: Solid

Analysis Batch: 661282

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 660669

Analyte	Spike Added	LCSSRM Result	LCSSRM Qualifier	Unit	D	%Rec	%Rec Limits
Chromium	115	91.64		mg/Kg		79.7	62.4 - 115.7

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QC Sample Results

Client: Brydges Engineering in Environment & Energy DPC
Project/Site: Douglas - 1106 Niagara

Job ID: 480-206554-1

Method: 6010C - Metals (ICP) (Continued)

Lab Sample ID: LCSSRM 480-660669/2-A
Matrix: Solid
Analysis Batch: 661282

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 660669

Analyte	Spike Added	LCSSRM Result	LCSSRM Qualifier	Unit	D	%Rec	%Rec Limits
Manganese	400	351.2		mg/Kg		87.8	70.5 - 115.8

Method: 7471B - Mercury (CVAA)

Lab Sample ID: MB 480-660828/1-A
Matrix: Solid
Analysis Batch: 660893

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 660828

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.020	U	0.020	0.0045	mg/Kg		03/08/23 09:49	03/08/23 13:27	1

Lab Sample ID: LCSSRM 480-660828/2-A ^10
Matrix: Solid
Analysis Batch: 660893

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 660828

Analyte	Spike Added	LCSSRM Result	LCSSRM Qualifier	Unit	D	%Rec	%Rec Limits
Mercury	20.7	14.05		mg/Kg		67.9	38.3 - 110.1

Lab Sample ID: 480-206554-2 MS
Matrix: Solid
Analysis Batch: 660893

Client Sample ID: BH-2 1-2FT
Prep Type: Total/NA
Prep Batch: 660828

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Mercury	0.19	F1	0.438	0.761	F1	mg/Kg	✱	130	80 - 120

Lab Sample ID: 480-206554-2 MSD
Matrix: Solid
Analysis Batch: 660893

Client Sample ID: BH-2 1-2FT
Prep Type: Total/NA
Prep Batch: 660828

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Mercury	0.19	F1	0.387	0.677	F1	mg/Kg	✱	126	80 - 120	12	20

QC Association Summary

Client: Brydges Engineering in Environment & Energy DPC
Project/Site: Douglas - 1106 Niagara

Job ID: 480-206554-1

GC/MS VOA

Prep Batch: 660357

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-206554-3	BHI-1 1-2FT	Total/NA	Solid	5035A_L	
480-206554-4	BHI-2 1-2FT	Total/NA	Solid	5035A_L	
480-206554-5	BHI-3 0-1FT	Total/NA	Solid	5035A_L	
MB 480-660357/2-A	Method Blank	Total/NA	Solid	5035A_L	
LCS 480-660357/1-A	Lab Control Sample	Total/NA	Solid	5035A_L	

Analysis Batch: 660358

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-206554-3	BHI-1 1-2FT	Total/NA	Solid	8260C	660357
480-206554-4	BHI-2 1-2FT	Total/NA	Solid	8260C	660357
480-206554-5	BHI-3 0-1FT	Total/NA	Solid	8260C	660357
MB 480-660357/2-A	Method Blank	Total/NA	Solid	8260C	660357
LCS 480-660357/1-A	Lab Control Sample	Total/NA	Solid	8260C	660357

Analysis Batch: 660374

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-206554-10	TMW-1	Total/NA	Water	8260C	
MB 480-660374/8	Method Blank	Total/NA	Water	8260C	
LCS 480-660374/9	Lab Control Sample	Total/NA	Water	8260C	

GC/MS Semi VOA

Prep Batch: 660396

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-206554-1	BH-1 1-2FT	Total/NA	Solid	3550C	
480-206554-2	BH-2 1-2FT	Total/NA	Solid	3550C	
480-206554-3	BHI-1 1-2FT	Total/NA	Solid	3550C	
480-206554-4	BHI-2 1-2FT	Total/NA	Solid	3550C	
480-206554-5	BHI-3 0-1FT	Total/NA	Solid	3550C	
480-206554-6	BH-3 1-2FT	Total/NA	Solid	3550C	
480-206554-7	BH-4 1-2FT	Total/NA	Solid	3550C	
480-206554-9	BH-6 1-2FT	Total/NA	Solid	3550C	
MB 480-660396/1-A	Method Blank	Total/NA	Solid	3550C	
LCS 480-660396/2-A	Lab Control Sample	Total/NA	Solid	3550C	

Analysis Batch: 660609

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-206554-1	BH-1 1-2FT	Total/NA	Solid	8270D	660396
480-206554-2	BH-2 1-2FT	Total/NA	Solid	8270D	660396
480-206554-3	BHI-1 1-2FT	Total/NA	Solid	8270D	660396
480-206554-4	BHI-2 1-2FT	Total/NA	Solid	8270D	660396
480-206554-5	BHI-3 0-1FT	Total/NA	Solid	8270D	660396
480-206554-6	BH-3 1-2FT	Total/NA	Solid	8270D	660396
480-206554-7	BH-4 1-2FT	Total/NA	Solid	8270D	660396
480-206554-9	BH-6 1-2FT	Total/NA	Solid	8270D	660396
MB 480-660396/1-A	Method Blank	Total/NA	Solid	8270D	660396
LCS 480-660396/2-A	Lab Control Sample	Total/NA	Solid	8270D	660396

Prep Batch: 660800

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-206554-8	BH-5 1-2FT	Total/NA	Solid	3550C	

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QC Association Summary

Client: Brydges Engineering in Environment & Energy DPC
Project/Site: Douglas - 1106 Niagara

Job ID: 480-206554-1

GC/MS Semi VOA (Continued)

Prep Batch: 660800 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
MB 480-660800/1-A	Method Blank	Total/NA	Solid	3550C	
LCS 480-660800/2-A	Lab Control Sample	Total/NA	Solid	3550C	

Analysis Batch: 660957

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-206554-8	BH-5 1-2FT	Total/NA	Solid	8270D	660800
MB 480-660800/1-A	Method Blank	Total/NA	Solid	8270D	660800
LCS 480-660800/2-A	Lab Control Sample	Total/NA	Solid	8270D	660800

Metals

Prep Batch: 660424

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-206554-1	BH-1 1-2FT	Total/NA	Solid	3050B	
480-206554-2	BH-2 1-2FT	Total/NA	Solid	3050B	
480-206554-3	BHI-1 1-2FT	Total/NA	Solid	3050B	
480-206554-5	BHI-3 0-1FT	Total/NA	Solid	3050B	
480-206554-6	BH-3 1-2FT	Total/NA	Solid	3050B	
480-206554-7	BH-4 1-2FT	Total/NA	Solid	3050B	
480-206554-8	BH-5 1-2FT	Total/NA	Solid	3050B	
MB 480-660424/1-A	Method Blank	Total/NA	Solid	3050B	
LCSSRM 480-660424/2-A	Lab Control Sample	Total/NA	Solid	3050B	
480-206554-2 MS	BH-2 1-2FT	Total/NA	Solid	3050B	
480-206554-2 MSD	BH-2 1-2FT	Total/NA	Solid	3050B	

Prep Batch: 660669

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-206554-4	BHI-2 1-2FT	Total/NA	Solid	3050B	
480-206554-9	BH-6 1-2FT	Total/NA	Solid	3050B	
MB 480-660669/1-A	Method Blank	Total/NA	Solid	3050B	
LCSSRM 480-660669/2-A	Lab Control Sample	Total/NA	Solid	3050B	

Analysis Batch: 660681

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-206554-1	BH-1 1-2FT	Total/NA	Solid	6010C	660424
480-206554-2	BH-2 1-2FT	Total/NA	Solid	6010C	660424
480-206554-3	BHI-1 1-2FT	Total/NA	Solid	6010C	660424
480-206554-5	BHI-3 0-1FT	Total/NA	Solid	6010C	660424
480-206554-6	BH-3 1-2FT	Total/NA	Solid	6010C	660424
480-206554-7	BH-4 1-2FT	Total/NA	Solid	6010C	660424
480-206554-8	BH-5 1-2FT	Total/NA	Solid	6010C	660424
MB 480-660424/1-A	Method Blank	Total/NA	Solid	6010C	660424
LCSSRM 480-660424/2-A	Lab Control Sample	Total/NA	Solid	6010C	660424
480-206554-2 MS	BH-2 1-2FT	Total/NA	Solid	6010C	660424
480-206554-2 MSD	BH-2 1-2FT	Total/NA	Solid	6010C	660424

Prep Batch: 660828

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-206554-1	BH-1 1-2FT	Total/NA	Solid	7471B	
480-206554-2	BH-2 1-2FT	Total/NA	Solid	7471B	
480-206554-3	BHI-1 1-2FT	Total/NA	Solid	7471B	

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QC Association Summary

Client: Brydges Engineering in Environment & Energy DPC
Project/Site: Douglas - 1106 Niagara

Job ID: 480-206554-1

Metals (Continued)

Prep Batch: 660828 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-206554-4	BHI-2 1-2FT	Total/NA	Solid	7471B	
480-206554-5	BHI-3 0-1FT	Total/NA	Solid	7471B	
480-206554-6	BH-3 1-2FT	Total/NA	Solid	7471B	
480-206554-7	BH-4 1-2FT	Total/NA	Solid	7471B	
480-206554-8	BH-5 1-2FT	Total/NA	Solid	7471B	
480-206554-9	BH-6 1-2FT	Total/NA	Solid	7471B	
MB 480-660828/1-A	Method Blank	Total/NA	Solid	7471B	
LCSSRM 480-660828/2-A ^1	Lab Control Sample	Total/NA	Solid	7471B	
480-206554-2 MS	BH-2 1-2FT	Total/NA	Solid	7471B	
480-206554-2 MSD	BH-2 1-2FT	Total/NA	Solid	7471B	

Analysis Batch: 660847

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-206554-2	BH-2 1-2FT	Total/NA	Solid	6010C	660424
480-206554-6	BH-3 1-2FT	Total/NA	Solid	6010C	660424
480-206554-7	BH-4 1-2FT	Total/NA	Solid	6010C	660424
480-206554-7	BH-4 1-2FT	Total/NA	Solid	6010C	660424
480-206554-2 MS	BH-2 1-2FT	Total/NA	Solid	6010C	660424
480-206554-2 MSD	BH-2 1-2FT	Total/NA	Solid	6010C	660424

Analysis Batch: 660893

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-206554-1	BH-1 1-2FT	Total/NA	Solid	7471B	660828
480-206554-2	BH-2 1-2FT	Total/NA	Solid	7471B	660828
480-206554-3	BHI-1 1-2FT	Total/NA	Solid	7471B	660828
480-206554-4	BHI-2 1-2FT	Total/NA	Solid	7471B	660828
480-206554-5	BHI-3 0-1FT	Total/NA	Solid	7471B	660828
480-206554-6	BH-3 1-2FT	Total/NA	Solid	7471B	660828
480-206554-7	BH-4 1-2FT	Total/NA	Solid	7471B	660828
480-206554-8	BH-5 1-2FT	Total/NA	Solid	7471B	660828
480-206554-9	BH-6 1-2FT	Total/NA	Solid	7471B	660828
MB 480-660828/1-A	Method Blank	Total/NA	Solid	7471B	660828
LCSSRM 480-660828/2-A ^1	Lab Control Sample	Total/NA	Solid	7471B	660828
480-206554-2 MS	BH-2 1-2FT	Total/NA	Solid	7471B	660828
480-206554-2 MSD	BH-2 1-2FT	Total/NA	Solid	7471B	660828

Analysis Batch: 661117

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-206554-4	BHI-2 1-2FT	Total/NA	Solid	6010C	660669
480-206554-9	BH-6 1-2FT	Total/NA	Solid	6010C	660669
MB 480-660669/1-A	Method Blank	Total/NA	Solid	6010C	660669
LCSSRM 480-660669/2-A	Lab Control Sample	Total/NA	Solid	6010C	660669

Analysis Batch: 661282

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-206554-4	BHI-2 1-2FT	Total/NA	Solid	6010C	660669
480-206554-9	BH-6 1-2FT	Total/NA	Solid	6010C	660669
480-206554-9	BH-6 1-2FT	Total/NA	Solid	6010C	660669
MB 480-660669/1-A	Method Blank	Total/NA	Solid	6010C	660669
LCSSRM 480-660669/2-A	Lab Control Sample	Total/NA	Solid	6010C	660669

Eurofins Buffalo

QC Association Summary

Client: Brydges Engineering in Environment & Energy DPC
Project/Site: Douglas - 1106 Niagara

Job ID: 480-206554-1

General Chemistry

Analysis Batch: 660342

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-206554-1	BH-1 1-2FT	Total/NA	Solid	Moisture	
480-206554-2	BH-2 1-2FT	Total/NA	Solid	Moisture	
480-206554-3	BHI-1 1-2FT	Total/NA	Solid	Moisture	
480-206554-4	BHI-2 1-2FT	Total/NA	Solid	Moisture	
480-206554-5	BHI-3 0-1FT	Total/NA	Solid	Moisture	
480-206554-6	BH-3 1-2FT	Total/NA	Solid	Moisture	
480-206554-7	BH-4 1-2FT	Total/NA	Solid	Moisture	
480-206554-8	BH-5 1-2FT	Total/NA	Solid	Moisture	
480-206554-9	BH-6 1-2FT	Total/NA	Solid	Moisture	

Lab Chronicle

Client: Brydges Engineering in Environment & Energy DPC
Project/Site: Douglas - 1106 Niagara

Job ID: 480-206554-1

Client Sample ID: BH-1 1-2FT

Date Collected: 03/01/23 09:00

Date Received: 03/02/23 08:00

Lab Sample ID: 480-206554-1

Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	Moisture		1	660342	KER	EET BUF	03/02/23 15:33

Client Sample ID: BH-1 1-2FT

Date Collected: 03/01/23 09:00

Date Received: 03/02/23 08:00

Lab Sample ID: 480-206554-1

Matrix: Solid

Percent Solids: 87.3

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	3550C			660396	SJM	EET BUF	03/03/23 08:29
Total/NA	Analysis	8270D		20	660609	JMM	EET BUF	03/06/23 20:31
Total/NA	Prep	3050B			660424	VAK	EET BUF	03/03/23 11:58
Total/NA	Analysis	6010C		1	660681	LMH	EET BUF	03/06/23 21:18
Total/NA	Prep	7471B			660828	NVK	EET BUF	03/08/23 09:49
Total/NA	Analysis	7471B		1	660893	NVK	EET BUF	03/08/23 13:30

Client Sample ID: BH-2 1-2FT

Date Collected: 03/01/23 09:30

Date Received: 03/02/23 08:00

Lab Sample ID: 480-206554-2

Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	Moisture		1	660342	KER	EET BUF	03/02/23 15:33

Client Sample ID: BH-2 1-2FT

Date Collected: 03/01/23 09:30

Date Received: 03/02/23 08:00

Lab Sample ID: 480-206554-2

Matrix: Solid

Percent Solids: 78.2

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	3550C			660396	SJM	EET BUF	03/03/23 08:29
Total/NA	Analysis	8270D		5	660609	JMM	EET BUF	03/06/23 20:55
Total/NA	Prep	3050B			660424	VAK	EET BUF	03/03/23 11:58
Total/NA	Analysis	6010C		1	660681	LMH	EET BUF	03/06/23 21:22
Total/NA	Prep	3050B			660424	VAK	EET BUF	03/03/23 11:58
Total/NA	Analysis	6010C		2	660847	LMH	EET BUF	03/07/23 14:40
Total/NA	Prep	7471B			660828	NVK	EET BUF	03/08/23 09:49
Total/NA	Analysis	7471B		1	660893	NVK	EET BUF	03/08/23 13:31

Client Sample ID: BHI-1 1-2FT

Date Collected: 03/01/23 10:00

Date Received: 03/02/23 08:00

Lab Sample ID: 480-206554-3

Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	Moisture		1	660342	KER	EET BUF	03/02/23 15:33

Lab Chronicle

Client: Brydges Engineering in Environment & Energy DPC
Project/Site: Douglas - 1106 Niagara

Job ID: 480-206554-1

Client Sample ID: BHI-1 1-2FT

Lab Sample ID: 480-206554-3

Date Collected: 03/01/23 10:00

Matrix: Solid

Date Received: 03/02/23 08:00

Percent Solids: 78.0

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	5035A_L			660357	CDC	EET BUF	03/02/23 18:33
Total/NA	Analysis	8260C		1	660358	CDC	EET BUF	03/03/23 03:38
Total/NA	Prep	3550C			660396	SJM	EET BUF	03/03/23 08:29
Total/NA	Analysis	8270D		1	660609	JMM	EET BUF	03/06/23 21:19
Total/NA	Prep	3050B			660424	VAK	EET BUF	03/03/23 11:58
Total/NA	Analysis	6010C		1	660681	LMH	EET BUF	03/06/23 21:53
Total/NA	Prep	7471B			660828	NVK	EET BUF	03/08/23 09:49
Total/NA	Analysis	7471B		1	660893	NVK	EET BUF	03/08/23 13:36

Client Sample ID: BHI-2 1-2FT

Lab Sample ID: 480-206554-4

Date Collected: 03/01/23 10:30

Matrix: Solid

Date Received: 03/02/23 08:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	Moisture		1	660342	KER	EET BUF	03/02/23 15:33

Client Sample ID: BHI-2 1-2FT

Lab Sample ID: 480-206554-4

Date Collected: 03/01/23 10:30

Matrix: Solid

Date Received: 03/02/23 08:00

Percent Solids: 88.0

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	5035A_L			660357	CDC	EET BUF	03/02/23 18:33
Total/NA	Analysis	8260C		1	660358	CDC	EET BUF	03/03/23 04:03
Total/NA	Prep	3550C			660396	SJM	EET BUF	03/03/23 08:29
Total/NA	Analysis	8270D		5	660609	JMM	EET BUF	03/06/23 21:44
Total/NA	Prep	3050B			660669	VAK	EET BUF	03/07/23 11:28
Total/NA	Analysis	6010C		1	661117	LMH	EET BUF	03/09/23 19:30
Total/NA	Prep	3050B			660669	VAK	EET BUF	03/07/23 11:28
Total/NA	Analysis	6010C		1	661282	LMH	EET BUF	03/10/23 15:20
Total/NA	Prep	7471B			660828	NVK	EET BUF	03/08/23 09:49
Total/NA	Analysis	7471B		1	660893	NVK	EET BUF	03/08/23 13:37

Client Sample ID: BHI-3 0-1FT

Lab Sample ID: 480-206554-5

Date Collected: 03/01/23 11:00

Matrix: Solid

Date Received: 03/02/23 08:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	Moisture		1	660342	KER	EET BUF	03/02/23 15:33

Client Sample ID: BHI-3 0-1FT

Lab Sample ID: 480-206554-5

Date Collected: 03/01/23 11:00

Matrix: Solid

Date Received: 03/02/23 08:00

Percent Solids: 77.8

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	5035A_L			660357	CDC	EET BUF	03/02/23 18:33
Total/NA	Analysis	8260C		1	660358	CDC	EET BUF	03/03/23 04:28

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Lab Chronicle

Client: Brydges Engineering in Environment & Energy DPC
Project/Site: Douglas - 1106 Niagara

Job ID: 480-206554-1

Client Sample ID: BHI-3 0-1FT

Date Collected: 03/01/23 11:00

Date Received: 03/02/23 08:00

Lab Sample ID: 480-206554-5

Matrix: Solid

Percent Solids: 77.8

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	3550C			660396	SJM	EET BUF	03/03/23 08:29
Total/NA	Analysis	8270D		10	660609	JMM	EET BUF	03/06/23 22:08
Total/NA	Prep	3050B			660424	VAK	EET BUF	03/03/23 11:58
Total/NA	Analysis	6010C		1	660681	LMH	EET BUF	03/06/23 21:57
Total/NA	Prep	7471B			660828	NVK	EET BUF	03/08/23 09:49
Total/NA	Analysis	7471B		1	660893	NVK	EET BUF	03/08/23 13:39

Client Sample ID: BH-3 1-2FT

Date Collected: 03/01/23 11:30

Date Received: 03/02/23 08:00

Lab Sample ID: 480-206554-6

Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	Moisture		1	660342	KER	EET BUF	03/02/23 15:33

Client Sample ID: BH-3 1-2FT

Date Collected: 03/01/23 11:30

Date Received: 03/02/23 08:00

Lab Sample ID: 480-206554-6

Matrix: Solid

Percent Solids: 92.7

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	3550C			660396	SJM	EET BUF	03/03/23 08:29
Total/NA	Analysis	8270D		5	660609	JMM	EET BUF	03/06/23 22:32
Total/NA	Prep	3050B			660424	VAK	EET BUF	03/03/23 11:58
Total/NA	Analysis	6010C		1	660681	LMH	EET BUF	03/06/23 22:01
Total/NA	Prep	3050B			660424	VAK	EET BUF	03/03/23 11:58
Total/NA	Analysis	6010C		1	660847	LMH	EET BUF	03/07/23 15:11
Total/NA	Prep	7471B			660828	NVK	EET BUF	03/08/23 09:49
Total/NA	Analysis	7471B		1	660893	NVK	EET BUF	03/08/23 13:43

Client Sample ID: BH-4 1-2FT

Date Collected: 03/01/23 12:00

Date Received: 03/02/23 08:00

Lab Sample ID: 480-206554-7

Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	Moisture		1	660342	KER	EET BUF	03/02/23 15:33

Client Sample ID: BH-4 1-2FT

Date Collected: 03/01/23 12:00

Date Received: 03/02/23 08:00

Lab Sample ID: 480-206554-7

Matrix: Solid

Percent Solids: 86.3

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	3550C			660396	SJM	EET BUF	03/03/23 08:29
Total/NA	Analysis	8270D		10	660609	JMM	EET BUF	03/06/23 22:57
Total/NA	Prep	3050B			660424	VAK	EET BUF	03/03/23 11:58
Total/NA	Analysis	6010C		1	660681	LMH	EET BUF	03/06/23 22:05
Total/NA	Prep	3050B			660424	VAK	EET BUF	03/03/23 11:58
Total/NA	Analysis	6010C		1	660847	LMH	EET BUF	03/07/23 15:15

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Lab Chronicle

Client: Brydges Engineering in Environment & Energy DPC
Project/Site: Douglas - 1106 Niagara

Job ID: 480-206554-1

Client Sample ID: BH-4 1-2FT

Date Collected: 03/01/23 12:00

Date Received: 03/02/23 08:00

Lab Sample ID: 480-206554-7

Matrix: Solid

Percent Solids: 86.3

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	3050B			660424	VAK	EET BUF	03/03/23 11:58
Total/NA	Analysis	6010C		5	660847	LMH	EET BUF	03/07/23 15:23
Total/NA	Prep	7471B			660828	NVK	EET BUF	03/08/23 09:49
Total/NA	Analysis	7471B		1	660893	NVK	EET BUF	03/08/23 13:44

Client Sample ID: BH-5 1-2FT

Date Collected: 03/01/23 12:30

Date Received: 03/02/23 08:00

Lab Sample ID: 480-206554-8

Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	Moisture		1	660342	KER	EET BUF	03/02/23 15:33

Client Sample ID: BH-5 1-2FT

Date Collected: 03/01/23 12:30

Date Received: 03/02/23 08:00

Lab Sample ID: 480-206554-8

Matrix: Solid

Percent Solids: 83.9

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	3550C			660800	VXF	EET BUF	03/08/23 07:05
Total/NA	Analysis	8270D		10	660957	JMM	EET BUF	03/09/23 18:34
Total/NA	Prep	3050B			660424	VAK	EET BUF	03/03/23 11:58
Total/NA	Analysis	6010C		1	660681	LMH	EET BUF	03/06/23 22:09
Total/NA	Prep	7471B			660828	NVK	EET BUF	03/08/23 09:49
Total/NA	Analysis	7471B		1	660893	NVK	EET BUF	03/08/23 13:45

Client Sample ID: BH-6 1-2FT

Date Collected: 03/01/23 13:00

Date Received: 03/02/23 08:00

Lab Sample ID: 480-206554-9

Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	Moisture		1	660342	KER	EET BUF	03/02/23 15:33

Client Sample ID: BH-6 1-2FT

Date Collected: 03/01/23 13:00

Date Received: 03/02/23 08:00

Lab Sample ID: 480-206554-9

Matrix: Solid

Percent Solids: 78.8

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	3550C			660396	SJM	EET BUF	03/03/23 08:29
Total/NA	Analysis	8270D		5	660609	JMM	EET BUF	03/06/23 23:45
Total/NA	Prep	3050B			660669	VAK	EET BUF	03/07/23 11:28
Total/NA	Analysis	6010C		1	661117	LMH	EET BUF	03/09/23 19:34
Total/NA	Prep	3050B			660669	VAK	EET BUF	03/07/23 11:28
Total/NA	Analysis	6010C		1	661282	LMH	EET BUF	03/10/23 15:24
Total/NA	Prep	3050B			660669	VAK	EET BUF	03/07/23 11:28
Total/NA	Analysis	6010C		5	661282	LMH	EET BUF	03/10/23 15:28
Total/NA	Prep	7471B			660828	NVK	EET BUF	03/08/23 09:49
Total/NA	Analysis	7471B		1	660893	NVK	EET BUF	03/08/23 13:47

Eurofins Buffalo

Lab Chronicle

Client: Brydges Engineering in Environment & Energy DPC
Project/Site: Douglas - 1106 Niagara

Job ID: 480-206554-1

Client Sample ID: TMW-1

Date Collected: 03/01/23 10:30

Date Received: 03/02/23 08:00

Lab Sample ID: 480-206554-10

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	8260C		1	660374	CB	EET BUF	03/03/23 12:10

Laboratory References:

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

Accreditation/Certification Summary

Client: Brydges Engineering in Environment & Energy DPC
Project/Site: Douglas - 1106 Niagara

Job ID: 480-206554-1

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	03-31-23

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: Brydges Engineering in Environment & Energy DPC
Project/Site: Douglas - 1106 Niagara

Job ID: 480-206554-1

Method	Method Description	Protocol	Laboratory
8260C	Volatile Organic Compounds by GC/MS	SW846	EET BUF
8270D	Semivolatile Organic Compounds (GC/MS)	SW846	EET BUF
6010C	Metals (ICP)	SW846	EET BUF
7471B	Mercury (CVAA)	SW846	EET BUF
Moisture	Percent Moisture	EPA	EET BUF
3050B	Preparation, Metals	SW846	EET BUF
3550C	Ultrasonic Extraction	SW846	EET BUF
5030C	Purge and Trap	SW846	EET BUF
5035A_L	Closed System Purge and Trap	SW846	EET BUF
7471B	Preparation, Mercury	SW846	EET 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:

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

Sample Summary

Client: Brydges Engineering in Environment & Energy DPC
Project/Site: Douglas - 1106 Niagara

Job ID: 480-206554-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
480-206554-1	BH-1 1-2FT	Solid	03/01/23 09:00	03/02/23 08:00
480-206554-2	BH-2 1-2FT	Solid	03/01/23 09:30	03/02/23 08:00
480-206554-3	BHI-1 1-2FT	Solid	03/01/23 10:00	03/02/23 08:00
480-206554-4	BHI-2 1-2FT	Solid	03/01/23 10:30	03/02/23 08:00
480-206554-5	BHI-3 0-1FT	Solid	03/01/23 11:00	03/02/23 08:00
480-206554-6	BH-3 1-2FT	Solid	03/01/23 11:30	03/02/23 08:00
480-206554-7	BH-4 1-2FT	Solid	03/01/23 12:00	03/02/23 08:00
480-206554-8	BH-5 1-2FT	Solid	03/01/23 12:30	03/02/23 08:00
480-206554-9	BH-6 1-2FT	Solid	03/01/23 13:00	03/02/23 08:00
480-206554-10	TMW-1	Water	03/01/23 10:30	03/02/23 08:00

Chain of Custody Record



Environment Testing

Client Information Client Contact: Mr. Peter Gorton Phone: 716 418-0192 Email: pgorton@be3corp.com		Lab PM: Beninati, John E-Mail: John.Beninati@et.eurofins.com		Carrier Tracking No(s): 480-182684-38584.1 State of Origin: Page 1 of 2	
Company: Brydges Engineering in Environment & Energy DPC Address: 960 Busti Ave Suite B-150 City: Buffalo State, Zip: NY, 14213 Phone: 716-362-6533(Tel) Email: pgorton@be3corp.com Project Name: BE3 - Douglas Site: 1106 Niagara		PWSID Due Date Requested: TAT Requested (days): 10 day Compliance Project: ☐ Yes ☒ No PO #: Purchase Order not required WO #: Douglas Dev. Project #: 48024347 SSOW#		Analysis Requested Preservation Codes: A - HCL B - NaOH C - Zn Acetate D - Nitric Acid E - NaHSO4 F - MeOH G - Amchlor H - Ascorbic Acid I - Ice J - DI Water K - EDTA L - EDA Other: M - Hexane N - None O - AsNaO2 P - Na2O4S Q - Na2SO3 R - Na2S2O3 S - H2SO4 T - TSP Dodecahydrate U - Acetone V - MCAA W - pH 4.5 Y - Trizma Z - other (specify)	
Sample Identification Sample ID: BH-1 1-2 FT Sample ID: BH-2 1-2 FT Sample ID: BHI-1 1-2 FT Sample ID: BHI-2 1-2 FT Sample ID: BHI-3 0-1 FT Sample ID: BH-3 1-2 FT Sample ID: BH-4 1-2 FT Sample ID: BH-5 1-2 FT Sample ID: BH-6 1-2 FT		Sample Date: 3/1 Sample Time: 9:00 Sample Time: 9:30 Sample Time: 10:00 Sample Time: 10:30 Sample Time: 11:00 Sample Time: 11:30 Sample Time: 12:00 Sample Time: 12:30 Sample Time: 13:00		Sample Type (C=Comp, G=grab): G Matrix (H=water, S=solid, O=other): Solid Preservation Code: G Field Filtered Sample (Yes or No): X Perform Retained (Yes or No): X 6010C, 7471B 8270D - Part 375 SVOCs 8260C - Part 375 VOCs 8260C - Part 375 + CP51 VOCs + TICs	
Total Number of Containers: 8 Special Instructions/Note: 480-206554 Chain of Custody 8 oz Metals + SUC AMBER					
Possible Hazard Identification ☒ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown ☐ Radiological Deliverable Requested: I, II, III, IV, Other (specify)					
Sample Disposal (A fee may be assessed if samples are retained longer than 1 month) ☐ Return To Client ☒ Disposal By Lab ☐ Archive For Months					
Special Instructions/QC Requirements: None					
Empty Kit Relinquished by: Peter Gorton Relinquished by: Peter Gorton Relinquished by:		Date/Time: 3/2/23 8:00 Date/Time:		Date/Time: 3/2/23 8:00 Date/Time:	
Relinquished by:		Date/Time:		Date/Time:	
Custody Seals Intact: ☐ Yes ☐ No Custody Seal No.:		Cooler Temperature(s) °C and Other Remarks: 63 #1 + 1K		Ver: 06/08/2021	

Login Sample Receipt Checklist

Client: Brydges Engineering in Environment & Energy DPC

Job Number: 480-206554-1

Login Number: 206554

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	6.3 #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.	False	REFER TO NCM
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	

APPENDIX D

Geophysical Report

February 24, 2023

Pete Gorton
BE3Corp
960 Busti Avenue
Suite B-150
Buffalo, New York, 14213

Transmitted via email to: Pete Gorton <pgorton@be3corp.com>

Dear Mr. Gorton:

Re: Geophysical Survey Results, 1110 Niagara Street, Buffalo, NY

1.0 INTRODUCTION

This letter report presents the results of the geophysical investigation performed for BE3 Corp in support of their environmental investigation at a portion of a properties located at 1110 Niagara Street in Buffalo, NY (the Site). We understand that historical information suggests the possibility that underground storage tank(s) (USTs) may exist on the property. The primary purpose of the investigation was to explore for anomalies indicative of (UST's).

The geophysical investigation was designed to geophysically characterize the subsurface and focus a follow-up intrusive investigation, if warranted. The information provided herein is intended to assist BE3Corp with their assessment of potential environmental concerns at the Site. Maddan Geophysics LLC (MADDAN) performed data acquisition on February 21, 2023.

2.0 METHODOLOGY

A reference grid was installed at the Site to facilitate data acquisition along parallel survey lines spaced 3 feet apart. The grid was marked with orange and white spray paint with select coordinates labeled to aid in the reoccupation of stations if necessary. Grid coordinate 0N,0E was established at the south west corner of the Site building with grid north taken as the direction parallel the west wall of the building.

Time Domain Electromagnetic Survey Methodology (EM61)

The Geonics EM61 was used to map the distribution of buried metals at the Site. The EM61 unit is a high sensitivity, high resolution time domain electromagnetic (TDEM) metal detector that can detect both ferrous and nonferrous metallic objects. It has an approximate investigation depth of 10 feet. The processing console is contained in a backpack worn by the operator which

is interfaced to a digital data logger. The transmitter and two receiver coils are located on a two-wheeled cart that is pulled by the operator.

The device's transmitter coil generates a pulsed primary EM field at a rate of 150 pulses per second, inducing eddy currents into the subsurface. The decay rates of these eddy currents are measured by two, 3.28 foot by 1.64 foot (1 meter by $\frac{1}{2}$ meter) rectangular receiver coils. By taking the measurements at a relatively long time frame after termination of the primary pulse, the response is practically independent of the survey area's terrain conductivity. Specifically, the decay rates of the eddy currents are much longer for metals than for normal soils allowing the discrimination of the two.



EM61 in use (Photo not from this site)

Data are collected from the EM61's two receiver coils. One of the receiver coils is located coincident to the transmitter coil. The other receiver coil is located 1.31 feet (0.4 meters) above the transmitter coil. Data from the top receiver coil are stored on Channel 1 of a digital data logger. Data from the bottom receiver coil are stored on Channel 2 of the data logger. Channel 1 and Channel 2 data are simultaneously recorded at each station location. The instrument responses are recorded in units of milliVolts (mV). Data were recorded digitally by a data logger at a rate of approximately 2 measurements per foot along the survey lines which were spaced 3 feet apart.

3.0 RESULTS

The EM61 data for the Site are shown in Figure 1. Areas suspected to be free of buried metals are shown as color shades of blue. All areas exhibiting a response greater than background (0 to ~30 mVolts) likely contain buried metals. Linear anomalies are observed and identified with dashed green lines on the figure. These linear anomalies likely represent buried metallic utilities.

Pete Gorton
BE3Corp
February 24, 2023
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Anomaly A is a buried metal anomaly located in the northern portion of the survey area east of a concrete pad. Anomaly A may represent a UST or remnants of a UST and associated appurtenances, items of potential environmental significance, or miscellaneous buried metals. Three small equally spaced unlabelled anomalies immediately east of Anomaly A may represent remnant of a fence line or ballards (cut at grade). Alternatively, these may represent miscellaneous buried metals.

Any of the above background responses may be significant from an environmental perspective and these geophysical data should be viewed with recognition of the limitations of the technology employed.

4.0 LIMITATIONS

The geophysical methods used during this survey are established, indirect techniques for non-destructive subsurface reconnaissance exploration. As these instruments utilize indirect methods, they are subject to inherent limitations and ambiguities. Metallic surface features (electrical wires, scrap metal, etc.) preclude reliable non-invasive data/results beneath, and in the immediate vicinity of, the surface features. Targets such as buried drums, buried tanks, conduits, etc. are detectable only if they produce recognizable anomalies or patterns against the background geophysical data collected. As with any remote sensing technique, the anomalies identified during a geophysical survey should be further investigated by other techniques such as historical aerial photography, test pit excavation and/or test boring, if warranted.

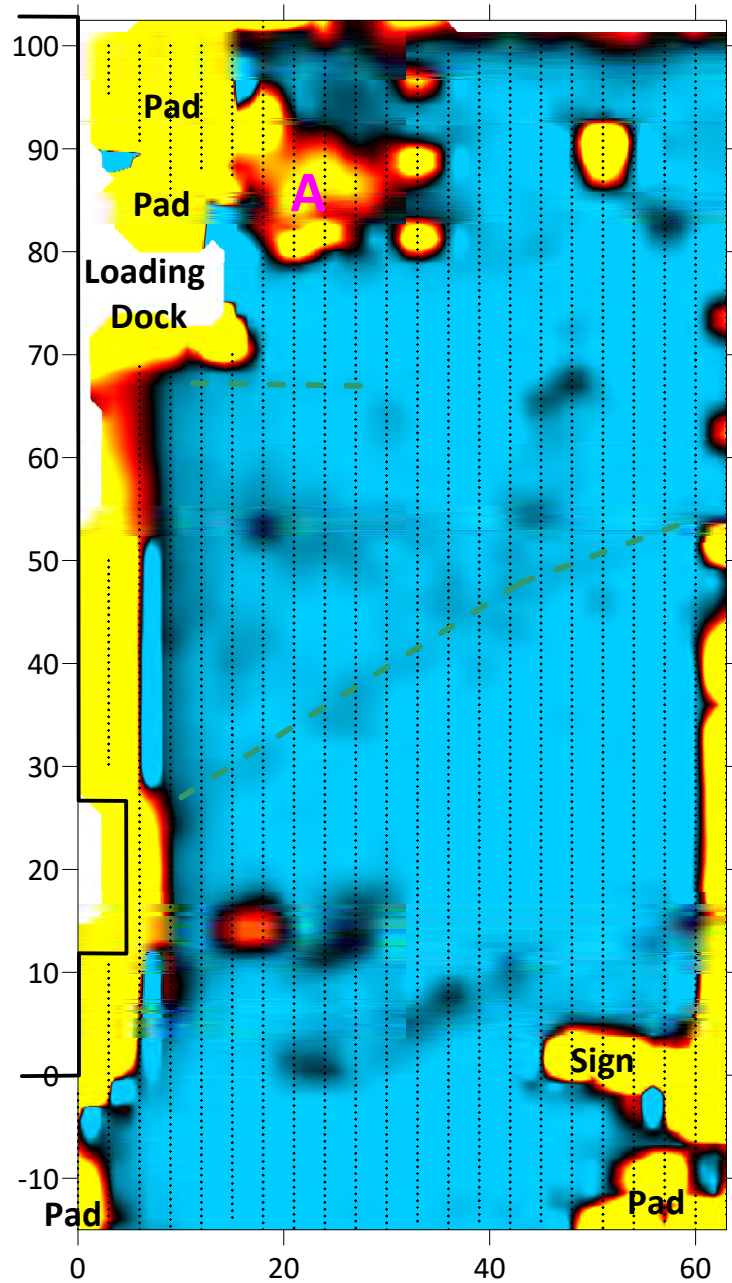
Please do not hesitate to contact us if you have any questions or require additional information.

Sincerely yours,
Maddan Geophysics, LLC

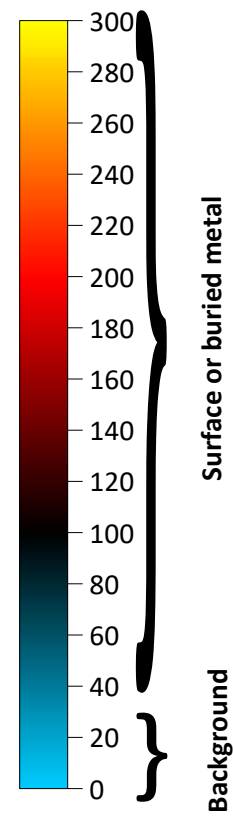
A handwritten signature in dark ink, appearing to read "John Luttinger". The signature is fluid and cursive, with the first name "John" being more prominent than the last name "Luttinger".

John Luttinger
President

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Niagara Street



A

Geophysical Anomaly discussed in report

Interpreted linear anomaly

Figure 1
 Geophysical Survey Results
 Color Contours of EM61 Data
 (mVolts)
 1106-1110 Niagara St.
 Buffalo, NY
 BE3CORP
 Maddan Geophysics

Date: 2/21/2023



1. View of geophysical survey



2. Geophysical survey



3. Geophysical Survey



4. Geophysical survey