

September 11, 2024

Reference No. G2S19650G

Y.E.S. Property Holdings Ltd.  
5090 Commerce Blvd, Suite 200  
Mississauga, Ontario  
L4W 5M4  
Attention: George Kirchmair

**Groundwater Investigation  
580 Hazelhurst Road, Mississauga, Ontario**

**1. Introduction and Site Description**

G2S Consulting Inc. (G2S) was retained by Y.E.S. Property Holdings Ltd. to complete a Groundwater Investigation for the property located at 580 Hazelhurst Road in Mississauga, Ontario, hereinafter referred to as the "Site", as shown on Drawing 1.

The Site is developed with two single-storey slab on-grade buildings, and is currently occupied by York1, a company that designs and constructs shoring and foundation systems. The building in the east corner of the Site was constructed in 2006 and consists of an office space including individual offices, a boardroom, utility room, kitchen, and washrooms. The building located to the southwest of the office was constructed in approximately 1990 out of seacan shipping containers and is used as a shop for repairs of engines, motors, and other drilling equipment, and storage of drilling-related supplies. The western portion of the Site consists of a yard used for the storage of parts and machines.

G2S completed Phase One and Phase Two Environmental Site Assessments (ESAs) for the Site in September 2019. The Phase Two ESA included the advancement of five boreholes on the Site, four of which were completed as groundwater monitoring wells. The results of the investigation led to the following findings:

1. Native material beneath the Site consisted of silty sand and silty clay.
2. Groundwater was found in the monitoring wells beneath depths of 1.20 and 1.99 m below ground surface (bgs).
3. Petroleum hydrocarbon (PHC) fractions F2, F3 and F4G (gravimetric heavy hydrocarbons) were above the Ministry of the Environment, Climate and Parks (MECP) Table 3 Site Condition Standards (SCS) for in soil sample BH101 SS1.
4. The concentrations of volatile organic compounds (VOCs), metals, and polycyclic aromatic hydrocarbons (PAHs) were below MECP Table 3 SCS in the analyzed soil samples.

5. The concentrations of PHCs, VOCs, metals, and PAHs in the groundwater samples in the areas tested met the MECP Table 3 SCS.

Based on the results of the Phase Two ESA, the Site did not meet the MECP Table 3 SCS for Industrial/Commercial/Community (ICC) Property Use in a Non-Potable Groundwater Condition with fine textured soil.

PHC impacts were identified in superficial soil (0-0.6 m bgs) in borehole BH101, located in the vicinity of the diesel aboveground storage tank (AST) on-Site. It was determined that the PHC impacts were likely limited to the shallow soil surrounding the AST, as the soil sample collected from BH101 at a depth of 3.0-3.6 m bgs did not contain PHC parameters above the MECP Table 3 SCS. The identified shallow PHC soil impacts are not anticipated to affect ongoing Site operations.

A Phase One ESA Update and Groundwater Investigation were completed for the Site in September 2022. Groundwater testing of MW101 and MW102 showed no exceedances when compared to Table 3 SCS ICC. A Phase One ESA Update was also completed in September 2024. No additional concerns were identified since the completion of the 2022 Phase One ESA.

In order to provide an update on the current environmental conditions for 580 Hazelhurst Road, G2S recommended that monitoring wells MW101 and MW102 be tested to update the groundwater conditions at the Site and to investigate the areas of the ASTs located on-Site. The monitoring well locations are shown on Drawing 2 in Appendix A.

## **2. Scope of Work**

The scope of work for the groundwater investigation included the following:

- The measurement of the groundwater levels and collection of groundwater samples from existing groundwater monitoring wells MW101 and MW102. The monitoring wells were purged prior to sample collection.
- Submission of representative groundwater samples to a CALA accredited laboratory for analysis of petroleum hydrocarbons (PHCs) including benzene, ethylbenzene, toluene and xylene (BTEX), volatile organic compounds (VOCs), polycyclic aromatic hydrocarbons (PAHs), and metals;
- Preparation of a report outlining the sampling methodology and the results of the groundwater investigation.

## **3. Site Standards Selection**

The assessment criteria applicable to a given site in Ontario are provided in the Ministry of Environment, Conservation, and Parks (MECP) document entitled "Soil, Ground Water and Sediment Standards for Use Under Part XV.1 of the Environmental Protection Act", dated April 15, 2011.

Standards are provided in Tables 1 to 9 in the document. These standards are based on site sensitivity, groundwater use, property use, soil type and restoration depth. For this investigation,

G2S has selected the Table 3 Site Condition Standards (SCS) for Industrial/Commercial/Community (ICC) Property Use in a Non-Potable Groundwater Condition with fine textured soil. The selection of this category is based on the following factors:

- There is no intention to carry out stratified restoration at the Site.
- Based on field observations and grain size analysis conducted during the 2019 Phase Two ESA, the predominant soil type on the Site is fine textured.
- The property use of the Site is industrial and no change in land use is planned.
- The Site is not considered a sensitive site based on:
  - The Site is not within an area of natural significance or includes or is adjacent to such an area or part of such an area.
  - The MECP Table 1 SCS are applicable if pH values for surface soil (<1.5 m) are less than 5 or greater than 9 and pH values for subsurface soil (>1.5 m) are less than 5 or greater than 11. Soil samples analyzed for pH during the 2019 Phase Two ESA indicate that the Table 1 SCS are not applicable for the Site.
- The potable groundwater condition does not apply to the Site based on:
  - No potable wells were observed at the Site and based on G2S's knowledge of the area, it is not expected that any potable water wells exist within 250 m of the Site.
- Based on the findings from the Phase Two ESA, the following can be confirmed with respect to Sections 41 and 43.1 of O.Reg. 153/04:
  - The Site is not a shallow soil property, as defined in Section 43.1 of O.Reg. 153/04.
  - The Site is not an environmentally sensitive site as defined in Section 41 of O.Reg. 15/04.

#### **4. Methodology**

On July 16, 2024, G2S attended the Site to purge and record the groundwater levels from existing monitoring wells MW101 and MW102. At the time of sampling the Site was significantly flooded due to a heavy rainfall and the monitoring wells were not sampled. G2S returned to the Site on July 19, 2024 to collect groundwater samples, but the groundwater appeared very silty. Sampling was not completed due to the possible interference of silt during laboratory analysis. G2S returned to the Site on July 22, 2024, to purge and collect groundwater samples for laboratory analysis from MW101 and MW102. Due to the PHC fractions F2 and F3 exceedance in MW101, G2S returned to the Site on August 6, 2024 and re-sampled MW101 to confirm the result.

Groundwater samples were collected following procedures outlined by the Ministry of the Environment, Conservation, and Parks (MECP) in their "Guidance on Sampling and Analytical Methods for Use at Contaminated Sites in Ontario" (1996).

An electronic water level metre was used to record the depth of groundwater in the monitoring wells. Dedicated bailers were installed in the monitoring wells for purging and dedicated low-density polyethylene (LDPE) tubing was installed in the monitoring wells for sample collection with a low flow peristaltic pump. Three casing volumes of groundwater were purged from each monitoring well prior to sampling. The groundwater was visually inspected for impacts during purging and sample collection.

The ownership, maintenance and decommissioning of the monitoring wells when no longer required is the responsibility of the client.

Table 1 provides details of the groundwater samples collected and the chemical analyses performed.

**Table 1: Groundwater Samples Submitted for Laboratory Analysis**

Sample I.D.	Date Sampled	Chemical Analysis				Rationale
		PHCs F1-F4	VOCs	PAHs	Metals	
MW101	July 16 and August 6, 2024	✓	✓	✓	✓	Update groundwater conditions of the Site
MW102	July 16, 2024	✓	✓	✓	✓	
MW110 (duplicate of MW101)	August 6, 2024				✓	QA/QC

Note: PHCs – Petroleum Hydrocarbons Fractions F1-F4      VOCs – Volatile Organic Compounds  
PAHs – Polycyclic Aromatic Hydrocarbons

The monitoring well locations are shown on the Monitoring Well Location Plan, Drawing 2 in Appendix A. Monitoring wells MW104 and MW105 were not located at the time of sampling; it is assumed that these monitoring wells, which were located in the storage yard, have been covered during the property re-grading in 2019.

Groundwater samples were collected into new, laboratory-supplied sample jars with appropriate preservatives. A clean, ice-packed cooler was used to store and transport the groundwater samples to Paracel Laboratories Ltd. in Hamilton, Ontario, under Chain of Custody (COC) protocols.

## 5. Findings

Table 2 summarizes the depth of groundwater in the monitoring wells and the monitoring well details.

**Table 2: Groundwater Monitoring Well Summary**

Monitoring Well	Surface Elevation (m)	Well Depth (m bgs)	Top of Screen (m bgs)	Depth to GW (m bgs)	GW Elevation (m)
MW101	100.11	4.04	1.60	0.76	99.35
MW102	99.69	2.73	1.00	0.24	99.45

Note: Monitoring wells were surveyed for elevation relative to a temporary benchmark during the 2019 Phase Two ESA, in this case the catch basin located in the north-central area of the Site (assumed elevation 100.0 meters).

No visible sheen or odours were observed in the purged groundwater from the monitoring wells submitted for analysis.

Analytical results tables are presented in Appendix B, and the Certificates of Analysis for the groundwater samples are provided in Appendix C.

### **5.1 Petroleum Hydrocarbon Fractions F1 to F4 (PHC F1 to F4) and BTEX**

Petroleum hydrocarbons F1-F4 and BTEX were either not detected or detected below the MECP Table 3 SCS in the submitted groundwater samples with the exception of PHC Fractions F2 and in the sample collected from monitoring well MW101 on July 22, 2024.

Due to heavy rains prior to the July 22<sup>nd</sup> sampling event, there is the potential that the high volume of surface water could have attributed to the increased concentrations of F2 and F3. G2S returned to the Site on August 6<sup>th</sup> to resample monitoring well MW101. PHCs were not detected in the subsequent groundwater samples. Refer to Table 1 in Appendix B.

### **5.2 Volatile Organic Compounds (VOCs)**

Volatile organic compounds were not detected or were detected below the MECP Table 3 SCS in the submitted groundwater samples. Refer to Table 2 in Appendix B.

### **5.3 Polycyclic Aromatic Hydrocarbons (PAHs)**

Polycyclic aromatic hydrocarbons were not detected in the submitted groundwater samples and met the MECP Table 3 SCS. Refer to Table 3 in Appendix B.

### **5.4 Metals**

Metals were not detected or were detected at concentrations below the MECP Table 3 SCS in the submitted groundwater samples. Refer to Table 4 in Appendix B.

## **6. Quality Assurance and Quality Control Results**

Paracel Laboratories Ltd. is accredited by the Canadian Association of Environmental Analytical Laboratories – “General Requirements for the Competence of Testing and Calibration Laboratories” for the analysis of all parameters for all samples in the scope of work for which SCS have been established under O. Reg. 153/04. Paracel Laboratories Ltd. overall quality control for the analysis meets their acceptability criteria.

The “Protocol for Analytical Methods Used in the Assessment of Properties under Part XV.1 of the Environmental Protection Act” (“the Analytical Protocol”), MOE, March 2004, establishes the criteria used in assessing the performance of analytical laboratories when the data is used in support of the filing of Records of Site Condition.

Paracel’s overall quality control for the analysis meets their acceptability criteria.

## **7. Findings and Conclusions**

The results of the groundwater monitoring program led to the following conclusions:

1. Groundwater was found in the monitoring wells between depths of 0.51 m and 0.77 m below ground surface (bgs) on July 22, 2024.
2. Petroleum hydrocarbons F1-F4 and BTEX were either not detected or detected below the MECP Table 3 SCS in the submitted groundwater samples with the exception of PHC Fractions F2 and in the sample collected from monitoring well MW101 on July 22, 2024. Due to heavy rains prior to the July 22, 2024 sampling event, there is the potential that the high volume of surface water could have attributed to the increased concentrations of PHC fractions F2 and F3. PHCs were not detected upon re-sampling on August 6, 2024.
3. Concentrations of VOCs, PAHs and metals were below the MECP Table 3 SCS in the groundwater samples submitted for analysis.

Based on the results of the groundwater investigation, groundwater in the areas of the sampled monitoring wells meet the MECP Table 3 SCS.

It is noted that impacts in shallow soil were identified during the 2019 Phase Two ESA. Should a Record of Site Condition (RSC) be required for the property, further investigation would be required to satisfy the requirements of O.Reg. 153/04.

## **8. Limitations**

This report has been prepared for the sole benefit of Y.E.S. Property Holdings Ltd. and is intended to provide limited information on the subsurface environmental conditions at 580 Hazelhurst Road in Mississauga, Ontario. The report may not be used by any other person or entity without the expressed written consent of Y.E.S. Property Holdings Ltd. and G2S Consulting Inc. (G2S). Any use which a third party makes of this report, or any reliance on decisions made based on it, is the responsibility of such third parties. G2S accepts no responsibility for damages, suffered by any third party as a result of decisions made or actions based on this report.

The findings in this report are limited to the conditions at the Site at the time of this investigation (July 2024) as described herein. Conclusions presented in this report should not be construed as legal advice.

If Site conditions or applicable standards change or if any additional information becomes available at a future date, changes to the findings, conclusions and recommendations in this report may be necessary.

## 9. Closing Remarks

We trust this report is satisfactory for your purposes. Should you have any questions, please do not hesitate to contact this office.

Yours truly,

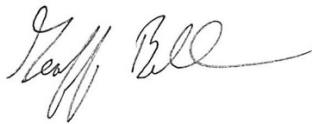
**G2S Consulting Inc.**



Rowan Doherty, B.ESc.  
Environmental Technician



Stephanie Lewis, B.A.  
Senior Project Manager

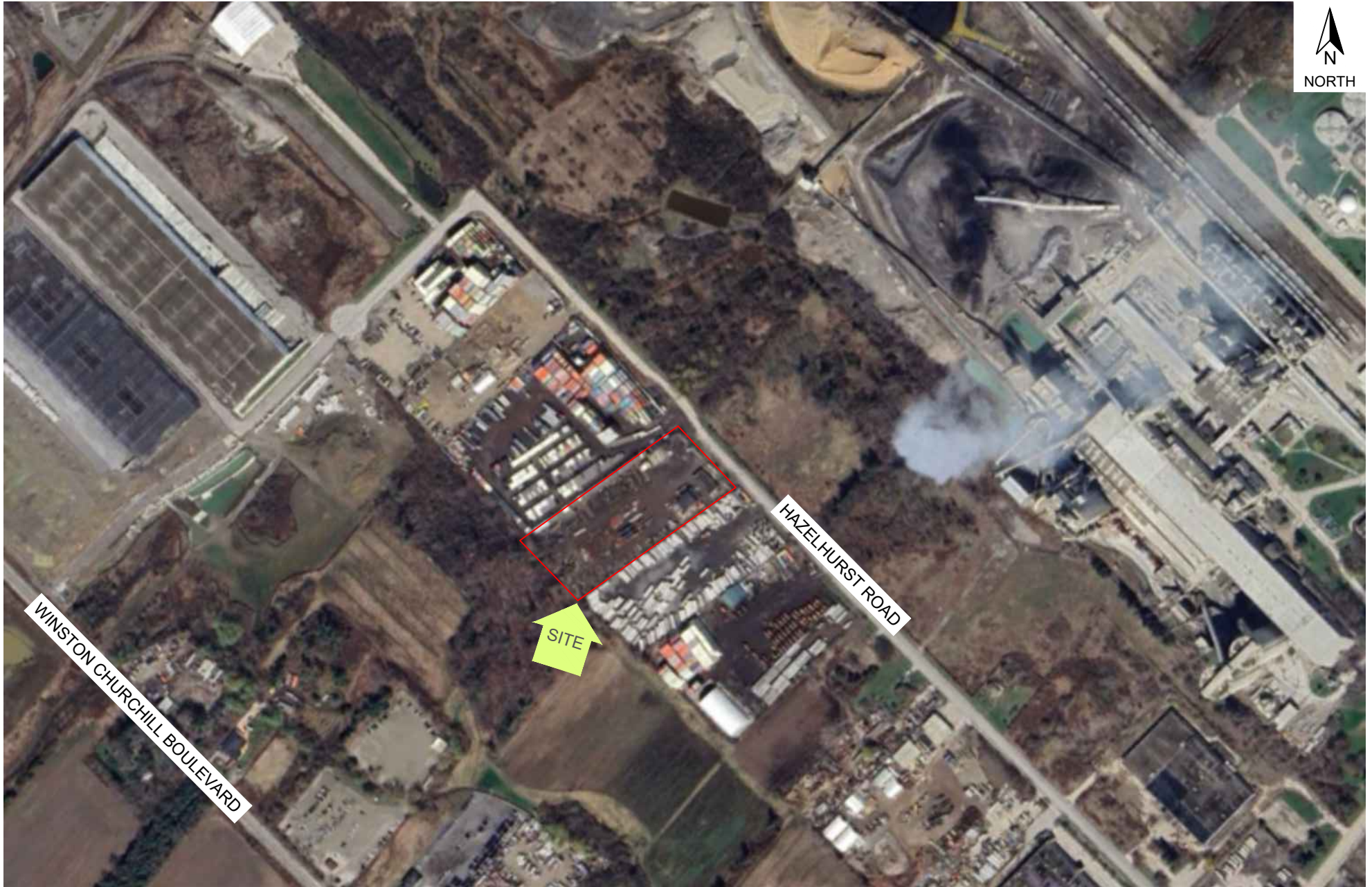


Geoff Bell, P. Geo. (limited)  
Principal, Senior Geoscientist

## **Appendix A: Drawings**







Scale: N.T.S.  
Project No.: G2S19650  
Date: JULY 2024  
Drawn by: RD  
File name: G2S19650.dwg

SITE LOCATION PLAN  
580 HAZELHURST ROAD

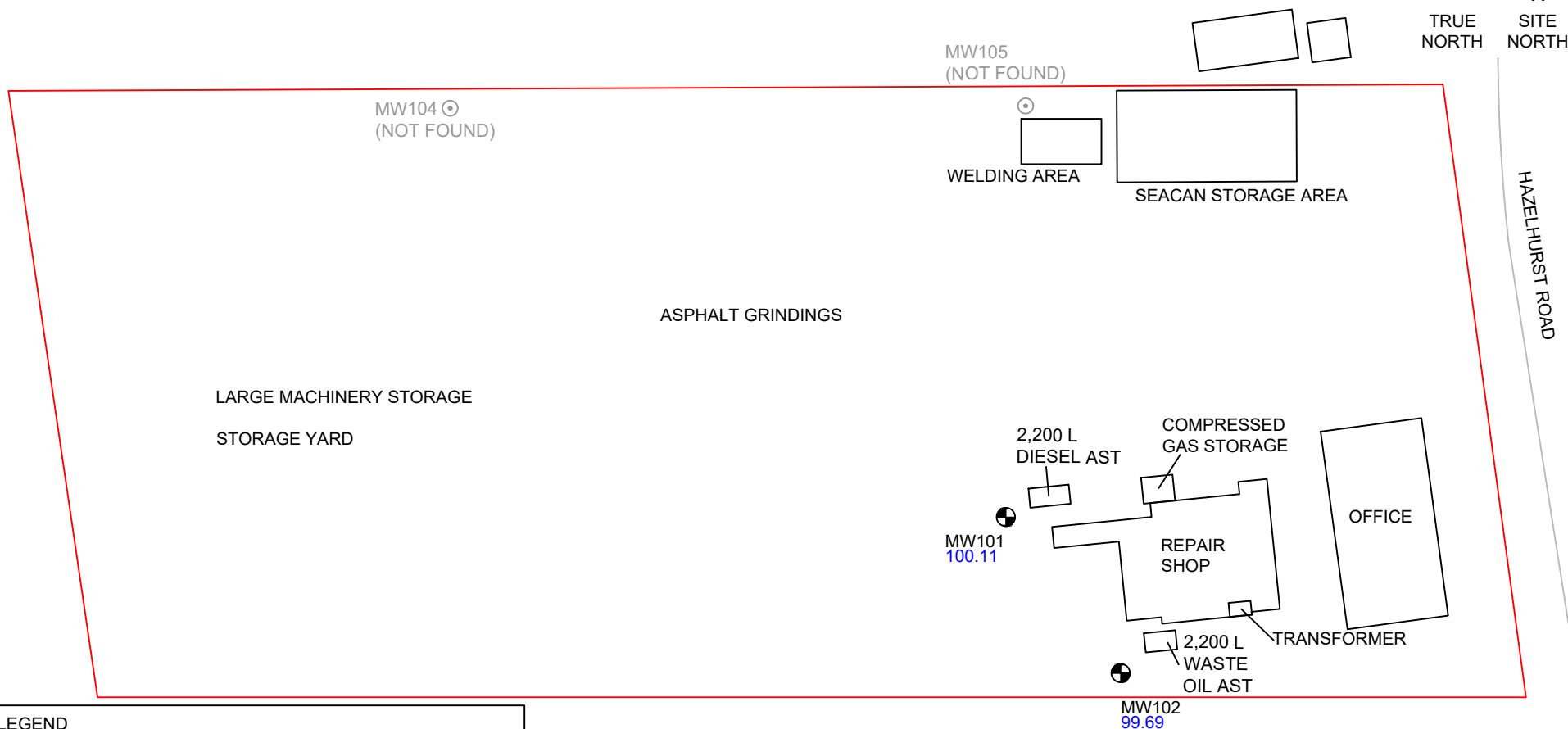
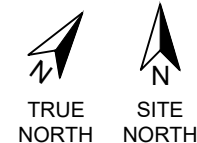
MISSISSAUGA

ONTARIO



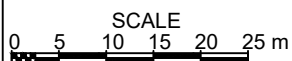
Drawing No.

1



#### LEGEND

- APPROXIMATE SITE BOUNDARY
- EXISTING MONITORING WELL INSTALLED BY G2S (2019)
- MONITORING WELL (NOT FOUND)
- MEASURED GROUNDWATER ELEVATION (JULY 2024)



Scale: AS SHOWN  
Project No.: G2S19650  
Date: JULY 2024  
Drawn by: RD  
File name: G2S19650.dwg

## MONITORING WELL LOCATION PLAN 580 HAZELHURST ROAD

MISSISSAUGA

ONTARIO



Drawing No.

2

**Appendix B:**  
**Analytical Results Tables**

**Table 1: Groundwater Quality Results**  
**Petroleum Hydrocarbons (PHCs) F1-F4 and BTEX**

Parameter	Unit	*Table 3 SCS - Fine	*Table 3 SCS - Coarse	Sample Identification		
				MW101		MW102
Date Sampled	-	-	-	22-Jul-24	6-Aug-24	22-Jul-24
Benzene	µg/L	430	44	<0.5	<0.5	<0.5
Ethylbenzene	µg/L	2,300	2,300	<0.5	<0.5	<0.5
Toluene	µg/L	18,000	18,000	<0.5	<0.5	<0.5
Xylenes (total)	µg/L	4,200	4,200	<0.5	<0.5	<0.5
Petroleum Hydrocarbons F1 (C6-C10)	µg/L	750	750	<25	<25	<25
Petroleum Hydrocarbons F2 (C10-C16)	µg/L	150	150	578	<100	112
Petroleum Hydrocarbons F3 (C16-C34)	µg/L	500	500	952	<100	352
Petroleum Hydrocarbons F4 (C34-C50)	µg/L	500	500	<100	<100	<100

\*MECP Soil, Ground Water and Sediment Standards for Use Under Part XV.1 of the Environmental Protection Act, dated April 2011.

SCS - Site Condition Standard

Exceeds Table 3 SCS levels

**Table 2: Groundwater Quality Results**  
**Volatile Organic Compounds (VOCs)**

Parameter	Unit	*Table 3 SCS - Fine	*Table 3 SCS - Coarse	Sample Identification		
				MW101		MW102
Date Sampled	-	-	-	22-Jul-24	6-Aug-24	22-Jul-24
Acetone	µg/L	130,000	130,000	<5.0	<5.0	5.9
Benzene	µg/L	430	44	<0.5	<0.5	<0.5
Bromodichloromethane	µg/L	85,000	85,000	<0.5	<0.5	<0.5
Bromoform	µg/L	770	380	<0.5	<0.5	<0.5
Bromomethane	µg/L	56	5.6	<0.5	<0.5	<0.5
Carbon Tetrachloride	µg/L	8.4	0.79	<0.2	<0.2	<0.2
Chlorobenzene	µg/L	630	630	<0.5	<0.5	<0.5
Chloroform	µg/L	22	2.4	<0.5	<0.5	<0.5
Dibromochloromethane	µg/L	82,000	82,000	<0.5	<0.5	<0.5
Dichlorodifluoromethane	µg/L	4,400	4,400	<1.0	<1.0	<1.0
1,2-Dichlorobenzene	µg/L	9,600	4,600	<0.5	<0.5	<0.5
1,3-Dichlorobenzene	µg/L	9,600	9,600	<0.5	<0.5	<0.5
1,4-Dichlorobenzene	µg/L	67	8	<0.5	<0.5	<0.5
1,1-Dichloroethane	µg/L	3,100	320	<0.5	<0.5	<0.5
1,2-Dichloroethane	µg/L	12	1.6	<0.5	<0.5	<0.5
1,1-Dichloroethylene	µg/L	17	1.6	<0.5	<0.5	<0.5
cis-1,2-Dichloroethylene	µg/L	17	1.6	<0.5	<0.5	<0.5
trans-1,2-Dichloroethylene	µg/L	17	1.6	<0.5	<0.5	<0.5
1,2-Dichloropropane	µg/L	140	16	<0.5	<0.5	<0.5
cis-1,3- Dichloropropene	µg/L	45	5.2	<0.5	<0.5	<0.5
trans-1,3- Dichloropropene	µg/L	45	5.2	<0.5	<0.5	<0.5
1,3- Dichloropropene (cis+trans)	µg/L	45	5.2	<0.5	<0.5	<0.5
Ethylbenzene	µg/L	0.83	2,300	<0.5	<0.5	<0.5
Ethylene Dibromide	µg/L	2,300	0.25	<0.2	<0.2	<0.2
n-Hexane	µg/L	520	51	<1.0	<1.0	<1.0
Methyl Ethyl Ketone (2-Butanone)	µg/L	1,500,000	470,000	<5.0	<5.0	<5.0
Methyl Isobutyl Ketone	µg/L	580,000	140,000	<5.0	<5.0	<5.0
Methyl t-butyl ether (MTBE)	µg/L	1,400	190	<2.0	<2.0	<2.0
Methylene Chloride (Dichloromethane)	µg/L	5,500	610	<5.0	<5.0	<5.0
Styrene	µg/L	9,100	1,300	<0.5	<0.5	<0.5
1,1,1,2-Tetrachloroethane	µg/L	28	3.3	<0.5	<0.5	<0.5
1,1,2,2-Tetrachloroethane	µg/L	15	3.2	<0.5	<0.5	<0.5
Tetrachloroethylene	µg/L	17	1.6	<0.5	<0.5	<0.5
Toluene	µg/L	18,00	18,000	<0.5	<0.5	<0.5
1,1,1-Trichloroethane	µg/L	6,700	640	<0.5	<0.5	<0.5
1,1,2-Trichloroethane	µg/L	30	4.7	<0.5	<0.5	<0.5
Trichloroethylene	µg/L	17	1.6	<0.5	<0.5	<0.5
Trichlorofluoromethane	µg/L	2,500	2,500	<1.0	<1.0	<1.0
Vinyl Chloride	µg/L	1.7	0.5	<0.5	<0.5	<0.5
Xylene Mixture (Total)	µg/L	4,200	4,200	<0.05	<0.05	<0.05

\*MECP Soil, Ground Water and Sediment Standards for Use Under Part XV.1 of the Environmental Protection Act, dated April 2011.

SCS - Site Condition Standard





**Table 3: Groundwater Quality Results**  
**Polycyclic Aromatic Hydrocarbons (PAHs)**

Parameter	Unit	*Table 3 SCS - fine	*Table 3 SCS - coarse	Sample Identification		
				MW101	MW102	
<b>Date Sampled</b>	-	-	-	<b>22-Jul-24</b>	<b>6-Aug-24</b>	<b>22-Jul-24</b>
Acenaphthene	µg/L	1,700	600	<0.05	<0.05	<0.05
Acenaphthylene	µg/L	1.8	1.8	<0.05	<0.05	<0.05
Anthracene	µg/L	2.4	2.4	<0.01	<0.01	<0.01
Benzo[a]anthracene	µg/L	4.7	4.7	<0.01	<0.01	<0.01
Benzo[a]pyrene	µg/L	0.81	0.81	<0.01	<0.01	<0.01
Benzo[b]fluoranthene	µg/L	0.75	0.75	<0.05	<0.05	<0.05
Benzo[g,h,i]perylene	µg/L	0.2	0.2	<0.05	<0.05	<0.05
Benzo[k]fluoranthene	µg/L	0.4	0.4	<0.05	<0.05	<0.05
Chrysene	µg/L	1	1	<0.05	<0.05	<0.05
Dibenzo[a,h]anthracene	µg/L	0.52	0.52	<0.05	<0.05	<0.05
Fluoranthene	µg/L	130	130	<0.01	<0.01	<0.01
Fluorene	µg/L	400	400	<0.05	<0.05	<0.05
Indeno [1,2,3-cd] pyrene	µg/L	0.2	0.2	<0.05	<0.05	<0.05
1-Methylnaphthalene	µg/L	1,800	1,800	<0.05	<0.05	<0.05
2-Methylnaphthalene	µg/L	1,800	1,800	<0.05	<0.05	<0.05
Methylnaphthalene (1&2)	µg/L	1,800	1,800	<0.10	<0.10	<0.10
Naphthalene	µg/L	6,400	1,400	<0.05	<0.05	<0.05
Phenanthrene	µg/L	580	580	<0.05	<0.05	<0.05
Pyrene	µg/L	68	68	<0.01	<0.01	<0.01

\*MECP Soil, Ground Water and Sediment Standards for Use Under Part XV.1 of the Environmental Protection Act, dated April 2011.

SCS - Site Condition Standards

**Table 4: Groundwater Quality Results**  
**Metals**

Parameter	Unit	*Table 3 SCS - Fine	*Table 3 SCS - Coarse	Sample Identification			
				MW101	MW102	MW110 (MW101 DUP)	
Date Sampled	-	-	-	22-Jul-24	6-Aug-24	22-Jul-24	6-Aug-24
Antimony	µg/L	20,000	20,000	<0.5	<0.5	<0.5	<0.5
Arsenic	µg/L	1,900	1,900	<1.0	<1.0	1.8	<1.0
Barium	µg/L	29,000	29,000	33.3	35.1	36.9	35.3
Beryllium	µg/L	67	67	<0.5	<0.5	<0.5	<0.5
Boron	µg/L	45,000	45,000	489	459	269	466
Cadmium	µg/L	2.7	2.7	<0.2	<0.2	<0.2	<0.2
Chromium (IV)	µg/L	810	140	<10	<10	<10	-
Chromium, Total	µg/L	140	810	<1.0	<1.0	<1.0	<1.0
Cobalt	µg/L	66	66	<0.5	<0.5	0.6	<0.5
Copper	µg/L	87	87	2.6	1.5	1.0	2.8
Lead	µg/L	25	25	1.1	<0.2	<0.2	<0.2
Mercury	µg/L	3	0.29	<0.1	<0.1	<0.1	-
Molybdenum	µg/L	9,200	9,200	<0.5	<0.5	3.3	<0.5
Nickel	µg/L	490	490	2.2	1.8	1.5	1.8
Selenium	µg/L	63	63	<1.0	<1.0	<1.0	<1.0
Silver	µg/L	1.5	1.5	<0.2	<0.2	<0.2	<0.2
Sodium	µg/L	2,300,000	2,300,000	76,000	70,000	26,100	72,600
Thallium	µg/L	510	510	<0.5	<0.5	<0.5	<0.5
Uranium	µg/L	420	420	0.8	0.9	1.5	0.9
Vanadium	µg/L	250	250	3.3	0.9	<0.5	0.8
Zinc	µg/L	1,100	1,100	7.7	<5.0	<5.0	<5.0

\*MECP Soil, Ground Water and Sediment Standards for Use Under Part XV.1 of the Environmental Protection Act, dated April 2011.

SCS - Site Condition Standards

**Appendix C:**  
**Certificates of Analysis**





## Certificate of Analysis

**G2S Environmental Consulting Inc. (Burlington)**

4361 Harvester Road, Unit 12

Burlington, ON L7L 5M4

Attn: Rachael Lesmeister

Client PO:

Project: G2S19650

Custody: 145691

Report Date: 29-Jul-2024

Order Date: 22-Jul-2024

**Order #: 2430072**

This Certificate of Analysis contains analytical data applicable to the following samples as submitted:

Paracel ID	Client ID
2430072-01	MW101
2430072-02	MW102

Approved By:



Alex Enfield, MSc

Lab Manager

Certificate of Analysis

Report Date: 29-Jul-2024

Client: G2S Environmental Consulting Inc. (Burlington)

Order Date: 22-Jul-2024

Client PO:

Project Description: G2S19650

**Analysis Summary Table**

Analysis	Method Reference/Description	Extraction Date	Analysis Date
Chromium, hexavalent - water	MOE E3056 - colourimetric	23-Jul-24	23-Jul-24
PHC F1	CWS Tier 1 - P&T GC-FID	26-Jul-24	29-Jul-24
PHCs F2 to F4	CWS Tier 1 - GC-FID, extraction	25-Jul-24	26-Jul-24
REG 153: Mercury by CVAA	EPA 245.2 - Cold Vapour AA	23-Jul-24	24-Jul-24
REG 153: Metals by ICP/MS, water	EPA 200.8 - ICP-MS	23-Jul-24	23-Jul-24
REG 153: PAHs by GC-MS	EPA 625 - GC-MS, extraction	24-Jul-24	25-Jul-24
REG 153: VOCs by P&T GC-MS	EPA 624 - P&T GC-MS	29-Jul-24	29-Jul-24

Certificate of Analysis

Report Date: 29-Jul-2024

Client: G2S Environmental Consulting Inc. (Burlington)

Order Date: 22-Jul-2024

Client PO:

Project Description: G2S19650

## Summary of Criteria Exceedances

(If this page is blank then there are no exceedances)

Only those criteria that a sample exceeds will be highlighted in red

### Regulatory Comparison:

Paracel Laboratories has provided regulatory guidelines on this report for informational purposes only and makes no representations or warranties that the data is accurate or reflects the current regulatory values. The user is advised to consult with the appropriate official regulations to evaluate compliance. Sample results that are highlighted have exceeded the selected regulatory limit. Calculated uncertainty estimations have not been applied for determining regulatory exceedances.

Sample	Analyte	MDL / Units	Result	Reg 153/04 -T3 Non-Potable Groundwater, coarse	Reg 153/04 -T3 Non-Potable Groundwater, fine
MW101	F2 PHCs (C10-C16)	100 ug/L	578	150 ug/L	150 ug/L
MW101	F3 PHCs (C16-C34)	100 ug/L	952	500 ug/L	500 ug/L

Certificate of Analysis

Report Date: 29-Jul-2024

Client: G2S Environmental Consulting Inc. (Burlington)

Order Date: 22-Jul-2024

Client PO:

Project Description: G2S19650

Client ID:	MW101	MW102	-	-	Criteria:	
Sample Date:	22-Jul-24 00:00	22-Jul-24 00:00	-	-	Reg 153/04 -T3	Reg 153/04 -T3
Sample ID:	2430072-01	2430072-02	-	-	Non-Potable	Non-Potable
Matrix:	Ground Water	Ground Water	-	-	Groundwater, coarse	Groundwater, fine
MDL/Units						

Metals

Mercury	0.1 ug/L	<0.1	<0.1	-	-	0.29 ug/L	2.8 ug/L
Antimony	0.5 ug/L	<0.5	<0.5	-	-	20000 ug/L	20000 ug/L
Arsenic	1.0 ug/L	<1.0	1.8	-	-	1900 ug/L	1900 ug/L
Barium	1.0 ug/L	33.3	36.9	-	-	29000 ug/L	29000 ug/L
Beryllium	0.5 ug/L	<0.5	<0.5	-	-	67 ug/L	67 ug/L
Boron	10.0 ug/L	489	269	-	-	45000 ug/L	45000 ug/L
Cadmium	0.2 ug/L	<0.2	<0.2	-	-	2.7 ug/L	2.7 ug/L
Chromium	1.0 ug/L	<1.0	<1.0	-	-	810 ug/L	810 ug/L
Chromium (VI)	10 ug/L	<10	<10	-	-	140 ug/L	140 ug/L
Cobalt	0.5 ug/L	<0.5	0.6	-	-	66 ug/L	66 ug/L
Copper	0.5 ug/L	2.6	1.0	-	-	87 ug/L	87 ug/L
Lead	0.2 ug/L	1.1	<0.2	-	-	25 ug/L	25 ug/L
Molybdenum	0.5 ug/L	<0.5	3.3	-	-	9200 ug/L	9200 ug/L
Nickel	1.0 ug/L	2.2	1.5	-	-	490 ug/L	490 ug/L
Selenium	1.0 ug/L	<1.0	<1.0	-	-	63 ug/L	63 ug/L
Silver	0.2 ug/L	<0.2	<0.2	-	-	1.5 ug/L	1.5 ug/L
Sodium	200 ug/L	76000	26100	-	-	2300000 ug/L	2300000 ug/L
Thallium	0.5 ug/L	<0.5	<0.5	-	-	510 ug/L	510 ug/L
Uranium	0.2 ug/L	0.8	1.5	-	-	420 ug/L	420 ug/L
Vanadium	0.5 ug/L	3.3	<0.5	-	-	250 ug/L	250 ug/L
Zinc	5.0 ug/L	7.7	<5.0	-	-	1100 ug/L	1100 ug/L

Volatiles

Acetone	5.0 ug/L	<5.0	5.9	-	-	130000 ug/L	130000 ug/L
Benzene	0.5 ug/L	<0.5	<0.5	-	-	44 ug/L	430 ug/L
Bromodichloromethane	0.5 ug/L	<0.5	<0.5	-	-	85000 ug/L	85000 ug/L

Certificate of Analysis

Report Date: 29-Jul-2024

Client: G2S Environmental Consulting Inc. (Burlington)

Order Date: 22-Jul-2024

Client PO:

Project Description: G2S19650

Client ID:	MW101	MW102	-	-	Criteria:	
Sample Date:	22-Jul-24 00:00	22-Jul-24 00:00	-	-	Reg 153/04 -T3	Reg 153/04 -T3
Sample ID:	2430072-01	2430072-02	-	-	Non-Potable	Non-Potable
Matrix:	Ground Water	Ground Water	-	-	Groundwater, coarse	Groundwater, fine
MDL/Units						

**Volatiles**

Bromoform	0.5 ug/L	<0.5	<0.5	-	-	380 ug/L	770 ug/L
Bromomethane	0.5 ug/L	<0.5	<0.5	-	-	5.6 ug/L	56 ug/L
Carbon Tetrachloride	0.2 ug/L	<0.2	<0.2	-	-	0.79 ug/L	8.4 ug/L
Chlorobenzene	0.5 ug/L	<0.5	<0.5	-	-	630 ug/L	630 ug/L
Chloroform	0.5 ug/L	<0.5	<0.5	-	-	2.4 ug/L	22 ug/L
Dibromochloromethane	0.5 ug/L	<0.5	<0.5	-	-	82000 ug/L	82000 ug/L
Dichlorodifluoromethane	1.0 ug/L	<1.0	<1.0	-	-	4400 ug/L	4400 ug/L
1,2-Dichlorobenzene	0.5 ug/L	<0.5	<0.5	-	-	4600 ug/L	9600 ug/L
1,3-Dichlorobenzene	0.5 ug/L	<0.5	<0.5	-	-	9600 ug/L	9600 ug/L
1,4-Dichlorobenzene	0.5 ug/L	<0.5	<0.5	-	-	8 ug/L	67 ug/L
1,1-Dichloroethane	0.5 ug/L	<0.5	<0.5	-	-	320 ug/L	3100 ug/L
1,2-Dichloroethane	0.5 ug/L	<0.5	<0.5	-	-	1.6 ug/L	12 ug/L
1,1-Dichloroethylene	0.5 ug/L	<0.5	<0.5	-	-	1.6 ug/L	17 ug/L
cis-1,2-Dichloroethylene	0.5 ug/L	<0.5	<0.5	-	-	1.6 ug/L	17 ug/L
trans-1,2-Dichloroethylene	0.5 ug/L	<0.5	<0.5	-	-	1.6 ug/L	17 ug/L
1,2-Dichloropropane	0.5 ug/L	<0.5	<0.5	-	-	16 ug/L	140 ug/L
cis-1,3-Dichloropropylene	0.5 ug/L	<0.5	<0.5	-	-	-	-
trans-1,3-Dichloropropylene	0.5 ug/L	<0.5	<0.5	-	-	-	-
1,3-Dichloropropene, total	0.5 ug/L	<0.5	<0.5	-	-	5.2 ug/L	45 ug/L
Ethylene dibromide (dibromoethane,	0.2 ug/L	<0.2	<0.2	-	-	0.25 ug/L	0.83 ug/L
Ethylbenzene	0.5 ug/L	<0.5	<0.5	-	-	2300 ug/L	2300 ug/L
Hexane	1.0 ug/L	<1.0	<1.0	-	-	51 ug/L	520 ug/L
Methyl Ethyl Ketone (2-Butanone)	5.0 ug/L	<5.0	<5.0	-	-	470000 ug/L	1500000 ug/L
Methyl Isobutyl Ketone	5.0 ug/L	<5.0	<5.0	-	-	140000 ug/L	580000 ug/L
Methyl tert-butyl ether	2.0 ug/L	<2.0	<2.0	-	-	190 ug/L	1400 ug/L

Certificate of Analysis

Report Date: 29-Jul-2024

Client: G2S Environmental Consulting Inc. (Burlington)

Order Date: 22-Jul-2024

Client PO:

Project Description: G2S19650

Client ID:	MW101	MW102	-	-	Criteria:	
Sample Date:	22-Jul-24 00:00	22-Jul-24 00:00	-	-	Reg 153/04 -T3	Reg 153/04 -T3
Sample ID:	2430072-01	2430072-02	-	-	Non-Potable	Non-Potable
Matrix:	Ground Water	Ground Water	-	-	Groundwater, coarse	Groundwater, fine
MDL/Units						

#### Volatiles

Methylene Chloride	5.0 ug/L	<5.0	<5.0	-	-	610 ug/L	5500 ug/L
Styrene	0.5 ug/L	<0.5	<0.5	-	-	1300 ug/L	9100 ug/L
1,1,1,2-Tetrachloroethane	0.5 ug/L	<0.5	<0.5	-	-	3.3 ug/L	28 ug/L
1,1,2,2-Tetrachloroethane	0.5 ug/L	<0.5	<0.5	-	-	3.2 ug/L	15 ug/L
Tetrachloroethylene	0.5 ug/L	<0.5	<0.5	-	-	1.6 ug/L	17 ug/L
Toluene	0.5 ug/L	<0.5	<0.5	-	-	18000 ug/L	18000 ug/L
1,1,1-Trichloroethane	0.5 ug/L	<0.5	<0.5	-	-	640 ug/L	6700 ug/L
1,1,2-Trichloroethane	0.5 ug/L	<0.5	<0.5	-	-	4.7 ug/L	30 ug/L
Trichloroethylene	0.5 ug/L	<0.5	<0.5	-	-	1.6 ug/L	17 ug/L
Trichlorofluoromethane	1.0 ug/L	<1.0	<1.0	-	-	2500 ug/L	2500 ug/L
Vinyl chloride	0.5 ug/L	<0.5	<0.5	-	-	0.5 ug/L	1.7 ug/L
m,p-Xylenes	0.5 ug/L	<0.5	<0.5	-	-	-	-
o-Xylene	0.5 ug/L	<0.5	<0.5	-	-	-	-
Xylenes, total	0.05 ug/L	<0.05	<0.05	-	-	4200 ug/L	4200 ug/L
4-Bromofluorobenzene	Surrogate	108%	106%	-	-	-	-
Toluene-d8	Surrogate	103%	103%	-	-	-	-
Dibromofluoromethane	Surrogate	106%	107%	-	-	-	-

#### Hydrocarbons

F1 PHCs (C6-C10)	25 ug/L	<25	<25	-	-	750 ug/L	750 ug/L
F2 PHCs (C10-C16)	100 ug/L	578	112	-	-	150 ug/L	150 ug/L
F3 PHCs (C16-C34)	100 ug/L	952	352	-	-	500 ug/L	500 ug/L
F4 PHCs (C34-C50)	100 ug/L	<100	<100	-	-	500 ug/L	500 ug/L

#### Semi-Volatiles

Acenaphthene	0.05 ug/L	<0.05	<0.05	-	-	600 ug/L	1700 ug/L
Acenaphthylene	0.05 ug/L	<0.05	<0.05	-	-	1.8 ug/L	1.8 ug/L

Certificate of Analysis

Report Date: 29-Jul-2024

Client: G2S Environmental Consulting Inc. (Burlington)

Order Date: 22-Jul-2024

Client PO:

Project Description: G2S19650

Client ID:	MW101	MW102	-	-	Criteria:	
Sample Date:	22-Jul-24 00:00	22-Jul-24 00:00	-	-	Reg 153/04 -T3	Reg 153/04 -T3
Sample ID:	2430072-01	2430072-02	-	-	Non-Potable	Non-Potable
Matrix:	Ground Water	Ground Water	-	-	Groundwater, coarse	Groundwater, fine
MDL/Units						

Semi-Volatiles

Anthracene	0.01 ug/L	<0.01	<0.01	-	-	2.4 ug/L	2.4 ug/L
Benzo [a] anthracene	0.01 ug/L	<0.01	<0.01	-	-	4.7 ug/L	4.7 ug/L
Benzo [a] pyrene	0.01 ug/L	<0.01	<0.01	-	-	0.81 ug/L	0.81 ug/L
Benzo [b] fluoranthene	0.05 ug/L	<0.05	<0.05	-	-	0.75 ug/L	0.75 ug/L
Benzo [g,h,i] perylene	0.05 ug/L	<0.05	<0.05	-	-	0.2 ug/L	0.2 ug/L
Benzo [k] fluoranthene	0.05 ug/L	<0.05	<0.05	-	-	0.4 ug/L	0.4 ug/L
Chrysene	0.05 ug/L	<0.05	<0.05	-	-	1 ug/L	1 ug/L
Dibenzo [a,h] anthracene	0.05 ug/L	<0.05	<0.05	-	-	0.52 ug/L	0.52 ug/L
Fluoranthene	0.01 ug/L	<0.01	<0.01	-	-	130 ug/L	130 ug/L
Fluorene	0.05 ug/L	<0.05	<0.05	-	-	400 ug/L	400 ug/L
Indeno [1,2,3-cd] pyrene	0.05 ug/L	<0.05	<0.05	-	-	0.2 ug/L	0.2 ug/L
1-Methylnaphthalene	0.05 ug/L	<0.05	<0.05	-	-	1800 ug/L	1800 ug/L
2-Methylnaphthalene	0.05 ug/L	<0.05	<0.05	-	-	1800 ug/L	1800 ug/L
Methylnaphthalene (1&2)	0.10 ug/L	<0.10	<0.10	-	-	1800 ug/L	1800 ug/L
Naphthalene	0.05 ug/L	<0.05	<0.05	-	-	1400 ug/L	6400 ug/L
Phenanthrene	0.05 ug/L	<0.05	<0.05	-	-	580 ug/L	580 ug/L
Pyrene	0.01 ug/L	<0.01	<0.01	-	-	68 ug/L	68 ug/L
2-Fluorobiphenyl	Surrogate	92.3%	92.0%	-	-	-	-
Terphenyl-d14	Surrogate	79.7%	84.2%	-	-	-	-

Certificate of Analysis

Report Date: 29-Jul-2024

Client: G2S Environmental Consulting Inc. (Burlington)

Order Date: 22-Jul-2024

Client PO:

Project Description: G2S19650

### Method Quality Control: Blank

Analyte	Result	Reporting Limit	Units	%REC	%REC Limit	RPD	RPD Limit	Notes
<b>Hydrocarbons</b>								
F1 PHCs (C6-C10)	ND	25	ug/L					
F2 PHCs (C10-C16)	ND	100	ug/L					
F3 PHCs (C16-C34)	ND	100	ug/L					
F4 PHCs (C34-C50)	ND	100	ug/L					
<b>Metals</b>								
Mercury	ND	0.1	ug/L					
Antimony	ND	0.5	ug/L					
Arsenic	ND	1.0	ug/L					
Barium	ND	1.0	ug/L					
Beryllium	ND	0.5	ug/L					
Boron	ND	10.0	ug/L					
Cadmium	ND	0.2	ug/L					
Chromium (VI)	ND	10	ug/L					
Chromium	ND	1.0	ug/L					
Cobalt	ND	0.5	ug/L					
Copper	ND	0.5	ug/L					
Lead	ND	0.2	ug/L					
Molybdenum	ND	0.5	ug/L					
Nickel	ND	1.0	ug/L					
Selenium	ND	1.0	ug/L					
Silver	ND	0.2	ug/L					
Sodium	ND	200	ug/L					
Thallium	ND	0.5	ug/L					
Uranium	ND	0.2	ug/L					
Vanadium	ND	0.5	ug/L					
Zinc	ND	5.0	ug/L					
<b>Semi-Volatiles</b>								
Acenaphthene	ND	0.05	ug/L					
Acenaphthylene	ND	0.05	ug/L					
Anthracene	ND	0.01	ug/L					
Benzo [a] anthracene	ND	0.01	ug/L					
Benzo [a] pyrene	ND	0.01	ug/L					



Certificate of Analysis

Report Date: 29-Jul-2024

Client: G2S Environmental Consulting Inc. (Burlington)

Order Date: 22-Jul-2024

Client PO:

Project Description: G2S19650

## Method Quality Control: Blank

Analyte	Result	Reporting Limit	Units	%REC	%REC Limit	RPD	RPD Limit	Notes
Benzo [b] fluoranthene	ND	0.05	ug/L					
Benzo [g,h,i] perylene	ND	0.05	ug/L					
Benzo [k] fluoranthene	ND	0.05	ug/L					
Chrysene	ND	0.05	ug/L					
Dibenzo [a,h] anthracene	ND	0.05	ug/L					
Fluoranthene	ND	0.01	ug/L					
Fluorene	ND	0.05	ug/L					
Indeno [1,2,3-cd] pyrene	ND	0.05	ug/L					
1-Methylnaphthalene	ND	0.05	ug/L					
2-Methylnaphthalene	ND	0.05	ug/L					
Methylnaphthalene (1&2)	ND	0.10	ug/L					
Naphthalene	ND	0.05	ug/L					
Phenanthrene	ND	0.05	ug/L					
Pyrene	ND	0.01	ug/L					
Surrogate: 2-Fluorobiphenyl	8.37		%	83.7	50-140			
Surrogate: Terphenyl-d14	7.33		%	73.3	50-140			
<b>Volatiles</b>								
Acetone	ND	5.0	ug/L					
Benzene	ND	0.5	ug/L					
Bromodichloromethane	ND	0.5	ug/L					
Bromoform	ND	0.5	ug/L					
Bromomethane	ND	0.5	ug/L					
Carbon Tetrachloride	ND	0.2	ug/L					
Chlorobenzene	ND	0.5	ug/L					
Chloroform	ND	0.5	ug/L					
Dibromochloromethane	ND	0.5	ug/L					
Dichlorodifluoromethane	ND	1.0	ug/L					
1,2-Dichlorobenzene	ND	0.5	ug/L					
1,3-Dichlorobenzene	ND	0.5	ug/L					
1,4-Dichlorobenzene	ND	0.5	ug/L					
1,1-Dichloroethane	ND	0.5	ug/L					
1,2-Dichloroethane	ND	0.5	ug/L					

Certificate of Analysis

Report Date: 29-Jul-2024

Client: G2S Environmental Consulting Inc. (Burlington)

Order Date: 22-Jul-2024

Client PO:

Project Description: G2S19650

**Method Quality Control: Blank**

Analyte	Result	Reporting Limit	Units	%REC	%REC Limit	RPD	RPD Limit	Notes
1,1-Dichloroethylene	ND	0.5	ug/L					
cis-1,2-Dichloroethylene	ND	0.5	ug/L					
trans-1,2-Dichloroethylene	ND	0.5	ug/L					
1,2-Dichloropropane	ND	0.5	ug/L					
cis-1,3-Dichloropropylene	ND	0.5	ug/L					
trans-1,3-Dichloropropylene	ND	0.5	ug/L					
1,3-Dichloropropene, total	ND	0.5	ug/L					
Ethylbenzene	ND	0.5	ug/L					
Ethylene dibromide (dibromoethane, 1,2-)	ND	0.2	ug/L					
Hexane	ND	1.0	ug/L					
Methyl Ethyl Ketone (2-Butanone)	ND	5.0	ug/L					
Methyl Isobutyl Ketone	ND	5.0	ug/L					
Methyl tert-butyl ether	ND	2.0	ug/L					
Methylene Chloride	ND	5.0	ug/L					
Styrene	ND	0.5	ug/L					
1,1,1,2-Tetrachloroethane	ND	0.5	ug/L					
1,1,2,2-Tetrachloroethane	ND	0.5	ug/L					
Tetrachloroethylene	ND	0.5	ug/L					
Toluene	ND	0.5	ug/L					
1,1,1-Trichloroethane	ND	0.5	ug/L					
1,1,2-Trichloroethane	ND	0.5	ug/L					
Trichloroethylene	ND	0.5	ug/L					
Trichlorofluoromethane	ND	1.0	ug/L					
Vinyl chloride	ND	0.5	ug/L					
m,p-Xylenes	ND	0.5	ug/L					
o-Xylene	ND	0.5	ug/L					
Xylenes, total	ND	0.05	ug/L					
Surrogate: 4-Bromofluorobenzene	86.5		%	108	50-140			
Surrogate: Dibromofluoromethane	80.8		%	101	50-140			
Surrogate: Toluene-d8	82.1		%	103	50-140			

Certificate of Analysis

Report Date: 29-Jul-2024

Client: G2S Environmental Consulting Inc. (Burlington)

Order Date: 22-Jul-2024

Client PO:

Project Description: G2S19650

### Method Quality Control: Duplicate

Analyte	Result	Reporting Limit	Units	Source Result	%REC	%REC Limit	RPD	RPD Limit	Notes
<b>Hydrocarbons</b>									
F1 PHCs (C6-C10)	ND	25	ug/L	ND			NC	30	
<b>Metals</b>									
Mercury	ND	0.1	ug/L	ND			NC	20	
Antimony	ND	0.5	ug/L	ND			NC	20	
Arsenic	1.2	1.0	ug/L	1.2			7.0	20	
Barium	44.6	1.0	ug/L	43.9			1.5	20	
Beryllium	ND	0.5	ug/L	ND			NC	20	
Boron	22.3	10.0	ug/L	22.3			0.0	20	
Cadmium	ND	0.2	ug/L	ND			NC	20	
Chromium (VI)	ND	10	ug/L	ND			NC	20	
Chromium	ND	1.0	ug/L	ND			NC	20	
Cobalt	1.6	0.5	ug/L	1.6			3.1	20	
Copper	3.6	0.5	ug/L	3.7			0.8	20	
Lead	ND	0.2	ug/L	ND			NC	20	
Molybdenum	3.4	0.5	ug/L	3.4			1.0	20	
Nickel	3.6	1.0	ug/L	3.6			2.2	20	
Selenium	1.4	1.0	ug/L	1.3			3.0	20	
Silver	ND	0.2	ug/L	ND			NC	20	
Sodium	13400	200	ug/L	13500			0.8	20	
Thallium	ND	0.5	ug/L	ND			NC	20	
Uranium	1.3	0.2	ug/L	1.3			0.5	20	
Vanadium	0.8	0.5	ug/L	0.8			1.5	20	
Zinc	ND	5.0	ug/L	ND			NC	20	
<b>Volatiles</b>									
Acetone	ND	5.0	ug/L	ND			NC	30	
Benzene	ND	0.5	ug/L	ND			NC	30	
Bromodichloromethane	ND	0.5	ug/L	ND			NC	30	
Bromoform	ND	0.5	ug/L	ND			NC	30	
Bromomethane	ND	0.5	ug/L	ND			NC	30	
Carbon Tetrachloride	ND	0.2	ug/L	ND			NC	30	

Certificate of Analysis

Report Date: 29-Jul-2024

Client: G2S Environmental Consulting Inc. (Burlington)

Order Date: 22-Jul-2024

Client PO:

Project Description: G2S19650

### Method Quality Control: Duplicate

Analyte	Result	Reporting Limit	Units	Source Result	%REC	%REC Limit	RPD	RPD Limit	Notes
Chlorobenzene	ND	0.5	ug/L	ND			NC	30	
Chloroform	ND	0.5	ug/L	ND			NC	30	
Dibromochloromethane	ND	0.5	ug/L	ND			NC	30	
Dichlorodifluoromethane	ND	1.0	ug/L	ND			NC	30	
1,2-Dichlorobenzene	ND	0.5	ug/L	ND			NC	30	
1,3-Dichlorobenzene	ND	0.5	ug/L	ND			NC	30	
1,4-Dichlorobenzene	ND	0.5	ug/L	ND			NC	30	
1,1-Dichloroethane	ND	0.5	ug/L	ND			NC	30	
1,2-Dichloroethane	ND	0.5	ug/L	ND			NC	30	
1,1-Dichloroethylene	ND	0.5	ug/L	ND			NC	30	
cis-1,2-Dichloroethylene	ND	0.5	ug/L	ND			NC	30	
trans-1,2-Dichloroethylene	ND	0.5	ug/L	ND			NC	30	
1,2-Dichloropropane	ND	0.5	ug/L	ND			NC	30	
cis-1,3-Dichloropropylene	ND	0.5	ug/L	ND			NC	30	
trans-1,3-Dichloropropylene	ND	0.5	ug/L	ND			NC	30	
Ethylbenzene	ND	0.5	ug/L	ND			NC	30	
Ethylene dibromide (dibromoethane, 1,2-)	ND	0.2	ug/L	ND			NC	30	
Hexane	ND	1.0	ug/L	ND			NC	30	
Methyl Ethyl Ketone (2-Butanone)	ND	5.0	ug/L	ND			NC	30	
Methyl Isobutyl Ketone	ND	5.0	ug/L	ND			NC	30	
Methyl tert-butyl ether	ND	2.0	ug/L	ND			NC	30	
Methylene Chloride	ND	5.0	ug/L	ND			NC	30	
Styrene	ND	0.5	ug/L	ND			NC	30	
1,1,1,2-Tetrachloroethane	ND	0.5	ug/L	ND			NC	30	
1,1,2,2-Tetrachloroethane	ND	0.5	ug/L	ND			NC	30	
Tetrachloroethylene	ND	0.5	ug/L	ND			NC	30	
Toluene	ND	0.5	ug/L	ND			NC	30	
1,1,1-Trichloroethane	ND	0.5	ug/L	ND			NC	30	
1,1,2-Trichloroethane	ND	0.5	ug/L	ND			NC	30	
Trichloroethylene	ND	0.5	ug/L	ND			NC	30	
Trichlorofluoromethane	ND	1.0	ug/L	ND			NC	30	

Certificate of Analysis

Report Date: 29-Jul-2024

Client: G2S Environmental Consulting Inc. (Burlington)

Order Date: 22-Jul-2024

Client PO:

Project Description: G2S19650

**Method Quality Control: Duplicate**

Analyte	Result	Reporting Limit	Units	Source Result	%REC	%REC Limit	RPD	RPD Limit	Notes
Vinyl chloride	ND	0.5	ug/L	ND			NC	30	
m,p-Xylenes	ND	0.5	ug/L	ND			NC	30	
o-Xylene	ND	0.5	ug/L	ND			NC	30	
Surrogate: 4-Bromofluorobenzene	86.7		%		108	50-140			
Surrogate: Dibromofluoromethane	81.2		%		101	50-140			
Surrogate: Toluene-d8	81.4		%		102	50-140			

Certificate of Analysis

Report Date: 29-Jul-2024

Client: G2S Environmental Consulting Inc. (Burlington)

Order Date: 22-Jul-2024

Client PO:

Project Description: G2S19650

## Method Quality Control: LCS Dup

Analyte	Result	Reporting Limit	Units	Source Result	%REC	%REC Limit	RPD	RPD Limit	Notes
<b>Hydrocarbons</b>									
F2 PHCs (C10-C16)	1510	100	ug/L	ND	91.2	60-140	8.64	200	
F3 PHCs (C16-C34)	3510	100	ug/L	ND	94.7	60-140	5.86	200	
F4 PHCs (C34-C50)	2590	100	ug/L	ND	96.8	60-140	3.64	200	
<b>Semi-Volatiles</b>									
Acenaphthene	7.95	0.05	ug/L	ND	79.5	50-140	7.95	200	
Acenaphthylene	8.20	0.05	ug/L	ND	82.0	50-140	7.10	200	
Anthracene	8.77	0.01	ug/L	ND	87.7	50-140	11.1	200	
Benzo [a] anthracene	10.7	0.01	ug/L	ND	107	50-140	12.0	200	
Benzo [a] pyrene	9.10	0.01	ug/L	ND	91.0	50-140	9.37	200	
Benzo [b] fluoranthene	10.2	0.05	ug/L	ND	102	50-140	11.3	200	
Benzo [g,h,i] perylene	9.40	0.05	ug/L	ND	94.0	50-140	9.33	200	
Benzo [k] fluoranthene	10.2	0.05	ug/L	ND	102	50-140	3.04	200	
Chrysene	10.1	0.05	ug/L	ND	101	50-140	11.0	200	
Dibenzo [a,h] anthracene	9.82	0.05	ug/L	ND	98.2	50-140	8.33	200	
Fluoranthene	10.6	0.01	ug/L	ND	106	50-140	5.98	200	
Fluorene	9.13	0.05	ug/L	ND	91.3	50-140	9.36	200	
Indeno [1,2,3-cd] pyrene	10.6	0.05	ug/L	ND	106	50-140	8.67	200	
1-Methylnaphthalene	7.36	0.05	ug/L	ND	73.6	50-140	6.65	200	
2-Methylnaphthalene	7.79	0.05	ug/L	ND	77.9	50-140	8.01	200	
Naphthalene	7.96	0.05	ug/L	ND	79.6	50-140	14.3	200	
Phenanthrene	10.0	0.05	ug/L	ND	100	50-140	7.41	200	
Pyrene	10.5	0.01	ug/L	ND	105	50-140	8.85	200	

Certificate of Analysis

Report Date: 29-Jul-2024

Client: G2S Environmental Consulting Inc. (Burlington)

Order Date: 22-Jul-2024

Client PO:

Project Description: G2S19650

## Method Quality Control: Spike

Analyte	Result	Reporting Limit	Units	Source Result	%REC	%REC Limit	RPD	RPD Limit	Notes
<b>Hydrocarbons</b>									
F1 PHCs (C6-C10)	576	25	ug/L	ND	81.5	0-200			
F2 PHCs (C10-C16)	1640	100	ug/L	ND	99.4	60-140			
F3 PHCs (C16-C34)	3720	100	ug/L	ND	100	60-140			
F4 PHCs (C34-C50)	2680	100	ug/L	ND	100	60-140			
<b>Metals</b>									
Mercury	2.44	0.1	ug/L	ND	81.3	70-130			
Antimony	45.2	0.5	ug/L	ND	90.5	70-130			
Arsenic	59.9	1.0	ug/L	1.2	118	70-130			
Barium	91.1	1.0	ug/L	43.9	94.3	70-130			
Beryllium	55.0	0.5	ug/L	ND	110	70-130			
Boron	74.3	10.0	ug/L	22.3	104	70-130			
Cadmium	47.3	0.2	ug/L	ND	94.6	70-130			
Chromium (VI)	211	10	ug/L	ND	106	70-130			
Chromium	57.3	1.0	ug/L	ND	114	70-130			
Cobalt	55.4	0.5	ug/L	1.6	108	70-130			
Copper	52.1	0.5	ug/L	3.7	96.9	70-130			
Lead	48.3	0.2	ug/L	ND	96.4	70-130			
Molybdenum	56.3	0.5	ug/L	3.4	106	70-130			
Nickel	55.2	1.0	ug/L	3.6	103	70-130			
Selenium	58.7	1.0	ug/L	1.3	115	70-130			
Silver	43.6	0.2	ug/L	ND	87.2	70-130			
Sodium	40900	200	ug/L	13500	110	70-130			
Thallium	44.2	0.5	ug/L	ND	88.3	70-130			
Uranium	47.5	0.2	ug/L	1.3	92.4	70-130			
Vanadium	61.9	0.5	ug/L	0.8	122	70-130			
Zinc	48.9	5.0	ug/L	ND	94.2	70-130			
<b>Semi-Volatiles</b>									
Acenaphthene	7.35	0.05	ug/L	ND	73.5	50-140			
Acenaphthylene	7.63	0.05	ug/L	ND	76.3	50-140			
Anthracene	7.85	0.01	ug/L	ND	78.5	50-140			

Certificate of Analysis

Report Date: 29-Jul-2024

Client: G2S Environmental Consulting Inc. (Burlington)

Order Date: 22-Jul-2024

Client PO:

Project Description: G2S19650

## Method Quality Control: Spike

Analyte	Result	Reporting Limit	Units	Source Result	%REC	%REC Limit	RPD	RPD Limit	Notes
Benzo [a] anthracene	9.49	0.01	ug/L	ND	94.9	50-140			
Benzo [a] pyrene	8.28	0.01	ug/L	ND	82.8	50-140			
Benzo [b] fluoranthene	9.07	0.05	ug/L	ND	90.7	50-140			
Benzo [g,h,i] perylene	8.56	0.05	ug/L	ND	85.6	50-140			
Benzo [k] fluoranthene	9.85	0.05	ug/L	ND	98.5	50-140			
Chrysene	9.05	0.05	ug/L	ND	90.5	50-140			
Dibenzo [a,h] anthracene	9.04	0.05	ug/L	ND	90.4	50-140			
Fluoranthene	10.0	0.01	ug/L	ND	100	50-140			
Fluorene	8.31	0.05	ug/L	ND	83.1	50-140			
Indeno [1,2,3-cd] pyrene	9.74	0.05	ug/L	ND	97.4	50-140			
1-Methylnaphthalene	6.89	0.05	ug/L	ND	68.9	50-140			
2-Methylnaphthalene	7.19	0.05	ug/L	ND	71.9	50-140			
Naphthalene	6.90	0.05	ug/L	ND	69.0	50-140			
Phenanthrene	9.31	0.05	ug/L	ND	93.1	50-140			
Pyrene	9.59	0.01	ug/L	ND	95.9	50-140			
Surrogate: 2-Fluorobiphenyl	8.35		%		83.5	50-140			
Surrogate: Terphenyl-d14	8.76		%		87.6	50-140			
<b>Volatiles</b>									
Acetone	104	5.0	ug/L	14.7	88.9	50-140			
Benzene	40.2	0.5	ug/L	ND	100	50-140			
Bromodichloromethane	38.9	0.5	ug/L	ND	97.2	50-140			
Bromoform	37.8	0.5	ug/L	ND	94.6	50-140			
Bromomethane	38.5	0.5	ug/L	ND	97.3	50-140			
Carbon Tetrachloride	38.7	0.2	ug/L	ND	96.7	50-140			
Chlorobenzene	41.5	0.5	ug/L	ND	104	50-140			
Chloroform	39.3	0.5	ug/L	ND	98.3	50-140			
Dibromochloromethane	38.6	0.5	ug/L	ND	96.6	50-140			
Dichlorodifluoromethane	32.2	1.0	ug/L	ND	79.6	50-140			
1,2-Dichlorobenzene	40.0	0.5	ug/L	ND	100	50-140			
1,3-Dichlorobenzene	40.5	0.5	ug/L	ND	101	50-140			
1,4-Dichlorobenzene	40.2	0.5	ug/L	ND	101	50-140			



Certificate of Analysis

Report Date: 29-Jul-2024

Client: G2S Environmental Consulting Inc. (Burlington)

Order Date: 22-Jul-2024

Client PO:

Project Description: G2S19650

## Method Quality Control: Spike

Analyte	Result	Reporting Limit	Units	Source Result	%REC	%REC Limit	RPD	RPD Limit	Notes
1,1-Dichloroethane	39.1	0.5	ug/L	ND	97.6	50-140			
1,2-Dichloroethane	39.1	0.5	ug/L	ND	97.9	50-140			
1,1-Dichloroethylene	32.1	0.5	ug/L	ND	80.2	50-140			
cis-1,2-Dichloroethylene	35.7	0.5	ug/L	ND	89.3	50-140			
trans-1,2-Dichloroethylene	41.5	0.5	ug/L	ND	104	50-140			
1,2-Dichloropropane	39.2	0.5	ug/L	ND	98.0	50-140			
cis-1,3-Dichloropropylene	38.9	0.5	ug/L	ND	97.2	50-140			
trans-1,3-Dichloropropylene	40.4	0.5	ug/L	ND	101	50-140			
Ethylbenzene	40.4	0.5	ug/L	ND	101	50-140			
Ethylene dibromide (dibromoethane, 1,2-)	39.4	0.2	ug/L	ND	98.6	50-140			
Hexane	41.1	1.0	ug/L	ND	103	50-140			
Methyl Ethyl Ketone (2-Butanone)	101	5.0	ug/L	ND	101	50-140			
Methyl Isobutyl Ketone	123	5.0	ug/L	ND	123	50-140			
Methyl tert-butyl ether	82.4	2.0	ug/L	ND	82.4	50-140			
Methylene Chloride	37.9	5.0	ug/L	ND	94.9	50-140			
Styrene	40.0	0.5	ug/L	ND	99.9	50-140			
1,1,1,2-Tetrachloroethane	36.4	0.5	ug/L	ND	91.1	50-140			
1,1,2,2-Tetrachloroethane	38.9	0.5	ug/L	ND	97.2	50-140			
Tetrachloroethylene	40.4	0.5	ug/L	ND	101	50-140			
Toluene	40.4	0.5	ug/L	ND	101	50-140			
1,1,1-Trichloroethane	38.5	0.5	ug/L	ND	96.3	50-140			
1,1,2-Trichloroethane	41.0	0.5	ug/L	ND	102	50-140			
Trichloroethylene	40.5	0.5	ug/L	ND	101	50-140			
Trichlorofluoromethane	35.1	1.0	ug/L	ND	86.5	50-140			
Vinyl chloride	33.5	0.5	ug/L	ND	82.9	50-140			
m,p-Xylenes	82.5	0.5	ug/L	ND	103	50-140			
o-Xylene	40.8	0.5	ug/L	ND	102	50-140			
Surrogate: 4-Bromofluorobenzene	78.1		%		97.7	50-140			
Surrogate: Dibromofluoromethane	81.8		%		102	50-140			
Surrogate: Toluene-d8	79.7		%		99.7	50-140			

Certificate of Analysis

Report Date: 29-Jul-2024

Client: G2S Environmental Consulting Inc. (Burlington)

Order Date: 22-Jul-2024

Client PO:

Project Description: G2S19650

**Qualifier Notes:****Sample Data Revisions:**

None

**Work Order Revisions / Comments:**

None

**Other Report Notes:**

n/a: not applicable

ND: Not Detected

MDL: Method Detection Limit

Source Result: Data used as source for matrix and duplicate samples

%REC: Percent recovery.

RPD: Relative percent difference.

NC: Not Calculated

*CCME PHC additional information:*

- The method for the analysis of PHCs complies with the Reference Method for the CWS PHC and is validated for use in the laboratory. All prescribed quality criteria identified in the method has been met.
- F1 range corrected for BTEX.
- F2 to F3 ranges corrected for appropriate PAHs where available.
- The gravimetric heavy hydrocarbons (F4G) are not to be added to C6 to C50 hydrocarbons.
- In the case where F4 and F4G are both reported, the greater of the two results is to be used for comparison to CWS PHC criteria.
- When reported, data for F4G has been processed using a silica gel cleanup.

Any use of these results implies your agreement that our total liability in connection with this work, however arising, shall be limited to the amount paid by you for this work, and that our employees or agents shall not under any circumstances be liable to you in connection with this work.

Paracel ID: 2430072



Paracel Order Number  
(Lab Use Only)

2430072

Chain of Custody  
(Lab Use Only)

No 145691

Client Name: <u>G2S Consulting</u>	Project Ref: <u>G2S19650</u>	Page <u>1</u> of <u>1</u>
Contact Name: <u>Rachael Lesmeister</u>	Quote #: <u>Standing Offer</u>	Turnaround Time <input type="checkbox"/> 1 day <input type="checkbox"/> 3 day <input type="checkbox"/> 2 day <input checked="" type="checkbox"/> Regular
Address: <u>4361 Harvester Road, Unit 12</u>	PO #: _____	
Telephone: _____	E-mail: <u>rachael@g2sconsulting.com</u> <u>rowand@g2sconsulting.com</u>	Date Required: _____

<input checked="" type="checkbox"/> REG 153/04 <input type="checkbox"/> REG 406/19    Other Regulation <input type="checkbox"/> Table 1 <input type="checkbox"/> Res/Park <input type="checkbox"/> Med/Fine <input type="checkbox"/> REG 558 <input type="checkbox"/> PWQO <input type="checkbox"/> Table 2 <input checked="" type="checkbox"/> Ind/Comm <input type="checkbox"/> Coarse <input type="checkbox"/> CCME <input type="checkbox"/> MISA <input checked="" type="checkbox"/> Table 3 <input type="checkbox"/> Agri/Other <input type="checkbox"/> SU - Sani <input type="checkbox"/> SU-Storm <input type="checkbox"/> Table _____    Mun: _____ For RSC: <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> Other		Matrix Type: S (Soil/Sed.) GW (Ground Water) SW (Surface Water) SS (Storm/Sanitary Sewer) P (paint) A (Air) O (Other)		Required Analysis														
Sample ID/Location Name	Matrix	Air Volume	# of Containers	Sample Taken		PHCs F1-F4+BTEX	VOCs	PAHs	Metals by ICP	Hg	CrVI	B (HWS)						
				Date	Time													
1 MW101	GW		7	July 22/24	4pm	X	X		X	X	X							
2 MW102	GW		7	↓ 22	↓	X	X		X	X	X							
3																		
4																		
5																		
6																		
7																		
8																		
9																		
10																		

Comments:		Method of Delivery: <u>Zoom</u>	
Relinquished By (Sign): <u>[Signature]</u>	Received at Depot:	Received at Lab: <u>dm</u>	Verified By: <u>dm</u>
Relinquished By (Print): <u>Rowan Doherty</u>	Date/Time:	Date/Time: <u>7/22/24 1335</u>	Date/Time: <u>7/22/24 1413</u>
Date/Time: <u>1pm July 22 124</u>	Temperature: _____ °C	Temperature: <u>17.0</u> °C	pH Verified: <input checked="" type="checkbox"/> By: <u>dm</u>

## Certificate of Analysis

**G2S Environmental Consulting Inc. (Burlington)**

4361 Harvester Road, Unit 12

Burlington, ON L7L 5M4

Attn: Stephanie Lewis

Client PO:

Project: G2S19650

Custody:

Report Date: 16-Aug-2024

Order Date: 6-Aug-2024

Revised Report

**Order #: 2432079**

This Certificate of Analysis contains analytical data applicable to the following samples as submitted:

Paracel ID	Client ID
2432079-01	MW101
2432079-02	MW110

Approved By:



Milan Ralitsch, PhD

Senior Technical Manager

Certificate of Analysis

Report Date: 16-Aug-2024

Client: G2S Environmental Consulting Inc. (Burlington)

Order Date: 6-Aug-2024

Client PO:

Project Description: G2S19650

**Analysis Summary Table**

Analysis	Method Reference/Description	Extraction Date	Analysis Date
BTEX by P&T GC-MS	EPA 624 - P&T GC-MS	8-Aug-24	8-Aug-24
Chromium, hexavalent - water	MOE E3056 - colourimetric	13-Aug-24	13-Aug-24
PHC F1	CWS Tier 1 - P&T GC-FID	7-Aug-24	8-Aug-24
PHCs F2 to F4	CWS Tier 1 - GC-FID, extraction	7-Aug-24	8-Aug-24
REG 153: Mercury by CVAA	EPA 245.2 - Cold Vapour AA	12-Aug-24	12-Aug-24
REG 153: Metals by ICP/MS, water	EPA 200.8 - ICP-MS	13-Aug-24	13-Aug-24
REG 153: PAHs by GC-MS	EPA 625 - GC-MS, extraction	13-Aug-24	13-Aug-24
REG 153: VOCs by P&T GC-MS	EPA 624 - P&T GC-MS	12-Aug-24	12-Aug-24

Certificate of Analysis

Report Date: 16-Aug-2024

Client: G2S Environmental Consulting Inc. (Burlington)

Order Date: 6-Aug-2024

Client PO:

Project Description: G2S19650

## Summary of Criteria Exceedances

(If this page is blank then there are no exceedances)

Only those criteria that a sample exceeds will be highlighted in red

### Regulatory Comparison:

Paracel Laboratories has provided regulatory guidelines on this report for informational purposes only and makes no representations or warranties that the data is accurate or reflects the current regulatory values. The user is advised to consult with the appropriate official regulations to evaluate compliance. Sample results that are highlighted have exceeded the selected regulatory limit. Calculated uncertainty estimations have not been applied for determining regulatory exceedances.

Sample	Analyte	MDL / Units	Result	Reg 153/04 -T3 Non-Potable Groundwater, coarse	Reg 153/04 -T3 Non-Potable Groundwater, fine
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Certificate of Analysis

Report Date: 16-Aug-2024

Client: G2S Environmental Consulting Inc. (Burlington)

Order Date: 6-Aug-2024

Client PO:

Project Description: G2S19650

Client ID:	MW101	MW110	-	-	Criteria:	
Sample Date:	06-Aug-24 00:00	06-Aug-24 00:00	-	-	Reg 153/04 -T3	Reg 153/04 -T3
Sample ID:	2432079-01	2432079-02	-	-	Non-Potable	Non-Potable
Matrix:	Water	Water	-	-	Groundwater, coarse	Groundwater, fine
MDL/Units						

Metals

Mercury	0.1 ug/L	<0.1	-	-	-	0.29 ug/L	2.8 ug/L
Antimony	0.5 ug/L	<0.5	<0.5	-	-	20000 ug/L	20000 ug/L
Arsenic	1.0 ug/L	<1.0	<1.0	-	-	1900 ug/L	1900 ug/L
Barium	1.0 ug/L	35.1	35.3	-	-	29000 ug/L	29000 ug/L
Beryllium	0.5 ug/L	<0.5	<0.5	-	-	67 ug/L	67 ug/L
Boron	10.0 ug/L	459	466	-	-	45000 ug/L	45000 ug/L
Cadmium	0.2 ug/L	<0.2	<0.2	-	-	2.7 ug/L	2.7 ug/L
Chromium (VI)	10 ug/L	<10	-	-	-	140 ug/L	140 ug/L
Chromium	1.0 ug/L	<1.0	<1.0	-	-	810 ug/L	810 ug/L
Cobalt	0.5 ug/L	<0.5	<0.5	-	-	66 ug/L	66 ug/L
Copper	0.5 ug/L	1.5	2.8	-	-	87 ug/L	87 ug/L
Lead	0.2 ug/L	<0.2	<0.2	-	-	25 ug/L	25 ug/L
Molybdenum	0.5 ug/L	<0.5	<0.5	-	-	9200 ug/L	9200 ug/L
Nickel	1.0 ug/L	1.8	1.8	-	-	490 ug/L	490 ug/L
Selenium	1.0 ug/L	<1.0	<1.0	-	-	63 ug/L	63 ug/L
Silver	0.2 ug/L	<0.2	<0.2	-	-	1.5 ug/L	1.5 ug/L
Sodium	200 ug/L	70000	72600	-	-	2300000 ug/L	2300000 ug/L
Thallium	0.5 ug/L	<0.5	<0.5	-	-	510 ug/L	510 ug/L
Uranium	0.2 ug/L	0.9	0.9	-	-	420 ug/L	420 ug/L
Vanadium	0.5 ug/L	0.9	0.8	-	-	250 ug/L	250 ug/L
Zinc	5.0 ug/L	<5.0	<5.0	-	-	1100 ug/L	1100 ug/L

Volatiles

Acetone	5.0 ug/L	<5.0	-	-	-	130000 ug/L	130000 ug/L
Benzene	0.5 ug/L	<0.5	-	-	-	44 ug/L	430 ug/L
Bromodichloromethane	0.5 ug/L	<0.5	-	-	-	85000 ug/L	85000 ug/L

Certificate of Analysis

Report Date: 16-Aug-2024

Client: G2S Environmental Consulting Inc. (Burlington)

Order Date: 6-Aug-2024

Client PO:

Project Description: G2S19650

Client ID:	MW101	MW110	-	-	Criteria:	
Sample Date:	06-Aug-24 00:00	06-Aug-24 00:00	-	-	Reg 153/04 -T3	Reg 153/04 -T3
Sample ID:	2432079-01	2432079-02	-	-	Non-Potable	Non-Potable
Matrix:	Water	Water	-	-	Groundwater, coarse	Groundwater, fine
MDL/Units						

**Volatiles**

Bromoform	0.5 ug/L	<0.5	-	-	-	380 ug/L	770 ug/L
Bromomethane	0.5 ug/L	<0.5	-	-	-	5.6 ug/L	56 ug/L
Carbon Tetrachloride	0.2 ug/L	<0.2	-	-	-	0.79 ug/L	8.4 ug/L
Chlorobenzene	0.5 ug/L	<0.5	-	-	-	630 ug/L	630 ug/L
Chloroform	0.5 ug/L	<0.5	-	-	-	2.4 ug/L	22 ug/L
Dibromochloromethane	0.5 ug/L	<0.5	-	-	-	82000 ug/L	82000 ug/L
Dichlorodifluoromethane	1.0 ug/L	<1.0	-	-	-	4400 ug/L	4400 ug/L
1,2-Dichlorobenzene	0.5 ug/L	<0.5	-	-	-	4600 ug/L	9600 ug/L
1,3-Dichlorobenzene	0.5 ug/L	<0.5	-	-	-	9600 ug/L	9600 ug/L
1,4-Dichlorobenzene	0.5 ug/L	<0.5	-	-	-	8 ug/L	67 ug/L
1,1-Dichloroethane	0.5 ug/L	<0.5	-	-	-	320 ug/L	3100 ug/L
1,2-Dichloroethane	0.5 ug/L	<0.5	-	-	-	1.6 ug/L	12 ug/L
1,1-Dichloroethylene	0.5 ug/L	<0.5	-	-	-	1.6 ug/L	17 ug/L
cis-1,2-Dichloroethylene	0.5 ug/L	<0.5	-	-	-	1.6 ug/L	17 ug/L
trans-1,2-Dichloroethylene	0.5 ug/L	<0.5	-	-	-	1.6 ug/L	17 ug/L
1,2-Dichloropropane	0.5 ug/L	<0.5	-	-	-	16 ug/L	140 ug/L
cis-1,3-Dichloropropylene	0.5 ug/L	<0.5	-	-	-	-	-
trans-1,3-Dichloropropylene	0.5 ug/L	<0.5	-	-	-	-	-
1,3-Dichloropropene, total	0.5 ug/L	<0.5	-	-	-	5.2 ug/L	45 ug/L
Ethylbenzene	0.5 ug/L	<0.5	-	-	-	2300 ug/L	2300 ug/L
Ethylene dibromide (dibromoethane,	0.2 ug/L	<0.2	-	-	-	0.25 ug/L	0.83 ug/L
Hexane	1.0 ug/L	<1.0	-	-	-	51 ug/L	520 ug/L
Methyl Ethyl Ketone (2-Butanone)	5.0 ug/L	<5.0	-	-	-	470000 ug/L	1500000 ug/L
Methyl Isobutyl Ketone	5.0 ug/L	<5.0	-	-	-	140000 ug/L	580000 ug/L
Methyl tert-butyl ether	2.0 ug/L	<2.0	-	-	-	190 ug/L	1400 ug/L



Certificate of Analysis

Report Date: 16-Aug-2024

Client: G2S Environmental Consulting Inc. (Burlington)

Order Date: 6-Aug-2024

Client PO:

Project Description: G2S19650

Client ID:	MW101	MW110	-	-	Criteria:	
Sample Date:	06-Aug-24 00:00	06-Aug-24 00:00	-	-	Reg 153/04 -T3	Reg 153/04 -T3
Sample ID:	2432079-01	2432079-02	-	-	Non-Potable	Non-Potable
Matrix:	Water	Water	-	-	Groundwater, coarse	Groundwater, fine
MDL/Units						

#### Volatiles

Methylene Chloride	5.0 ug/L	<5.0	-	-	-	610 ug/L	5500 ug/L
Styrene	0.5 ug/L	<0.5	-	-	-	1300 ug/L	9100 ug/L
1,1,1,2-Tetrachloroethane	0.5 ug/L	<0.5	-	-	-	3.3 ug/L	28 ug/L
1,1,2,2-Tetrachloroethane	0.5 ug/L	<0.5	-	-	-	3.2 ug/L	15 ug/L
Tetrachloroethylene	0.5 ug/L	<0.5	-	-	-	1.6 ug/L	17 ug/L
Toluene	0.5 ug/L	<0.5	-	-	-	18000 ug/L	18000 ug/L
1,1,1-Trichloroethane	0.5 ug/L	<0.5	-	-	-	640 ug/L	6700 ug/L
1,1,2-Trichloroethane	0.5 ug/L	<0.5	-	-	-	4.7 ug/L	30 ug/L
Trichloroethylene	0.5 ug/L	<0.5	-	-	-	1.6 ug/L	17 ug/L
Trichlorofluoromethane	1.0 ug/L	<1.0	-	-	-	2500 ug/L	2500 ug/L
Vinyl chloride	0.5 ug/L	<0.5	-	-	-	0.5 ug/L	1.7 ug/L
m,p-Xylenes	0.5 ug/L	<0.5	-	-	-	-	-
o-Xylene	0.5 ug/L	<0.5	-	-	-	-	-
Xylenes, total	0.05 ug/L	<0.05	-	-	-	4200 ug/L	4200 ug/L
Toluene-d8	Surrogate	105%	-	-	-	-	-
Dibromofluoromethane	Surrogate	97.4%	-	-	-	-	-
4-Bromofluorobenzene	Surrogate	107%	-	-	-	-	-
Benzene	0.5 ug/L	<0.5	-	-	-	44 ug/L	430 ug/L
Ethylbenzene	0.5 ug/L	<0.5	-	-	-	2300 ug/L	2300 ug/L
Toluene	0.5 ug/L	<0.5	-	-	-	18000 ug/L	18000 ug/L
m,p-Xylenes	0.5 ug/L	<0.5	-	-	-	-	-
o-Xylene	0.5 ug/L	<0.5	-	-	-	-	-
Xylenes, total	0.5 ug/L	<0.5	-	-	-	4200 ug/L	4200 ug/L
Toluene-d8	Surrogate	105%	-	-	-	-	-

#### Hydrocarbons

Certificate of Analysis

Report Date: 16-Aug-2024

Client: G2S Environmental Consulting Inc. (Burlington)

Order Date: 6-Aug-2024

Client PO:

Project Description: G2S19650

Client ID:	MW101	MW110	-	-	Criteria:	
Sample Date:	06-Aug-24 00:00	06-Aug-24 00:00	-	-	Reg 153/04 -T3	Reg 153/04 -T3
Sample ID:	2432079-01	2432079-02	-	-	Non-Potable	Non-Potable
Matrix:	Water	Water	-	-	Groundwater, coarse	Groundwater, fine
MDL/Units						

#### Hydrocarbons

F1 PHCs (C6-C10)	25 ug/L	<25	-	-	-	750 ug/L	750 ug/L
F2 PHCs (C10-C16)	100 ug/L	<100	-	-	-	150 ug/L	150 ug/L
F3 PHCs (C16-C34)	100 ug/L	<100	-	-	-	500 ug/L	500 ug/L
F4 PHCs (C34-C50)	100 ug/L	<100	-	-	-	500 ug/L	500 ug/L

#### Semi-Volatiles

Acenaphthene	0.05 ug/L	<0.05	-	-	-	600 ug/L	1700 ug/L
Acenaphthylene	0.05 ug/L	<0.05	-	-	-	1.8 ug/L	1.8 ug/L
Anthracene	0.01 ug/L	<0.01	-	-	-	2.4 ug/L	2.4 ug/L
Benzo [a] anthracene	0.01 ug/L	<0.01	-	-	-	4.7 ug/L	4.7 ug/L
Benzo [a] pyrene	0.01 ug/L	<0.01	-	-	-	0.81 ug/L	0.81 ug/L
Benzo [b] fluoranthene	0.05 ug/L	<0.05	-	-	-	0.75 ug/L	0.75 ug/L
Benzo [g,h,i] perylene	0.05 ug/L	<0.05	-	-	-	0.2 ug/L	0.2 ug/L
Benzo [k] fluoranthene	0.05 ug/L	<0.05	-	-	-	0.4 ug/L	0.4 ug/L
Chrysene	0.05 ug/L	<0.05	-	-	-	1 ug/L	1 ug/L
Dibenzo [a,h] anthracene	0.05 ug/L	<0.05	-	-	-	0.52 ug/L	0.52 ug/L
Fluoranthene	0.01 ug/L	<0.01	-	-	-	130 ug/L	130 ug/L
Fluorene	0.05 ug/L	<0.05	-	-	-	400 ug/L	400 ug/L
Indeno [1,2,3-cd] pyrene	0.05 ug/L	<0.05	-	-	-	0.2 ug/L	0.2 ug/L
1-Methylnaphthalene	0.05 ug/L	<0.05	-	-	-	1800 ug/L	1800 ug/L
2-Methylnaphthalene	0.05 ug/L	<0.05	-	-	-	1800 ug/L	1800 ug/L
Methylnaphthalene (1&2)	0.10 ug/L	<0.10	-	-	-	1800 ug/L	1800 ug/L
Naphthalene	0.05 ug/L	<0.05	-	-	-	1400 ug/L	6400 ug/L
Phenanthrene	0.05 ug/L	<0.05	-	-	-	580 ug/L	580 ug/L
Pyrene	0.01 ug/L	<0.01	-	-	-	68 ug/L	68 ug/L
2-Fluorobiphenyl	Surrogate	78.4%	-	-	-	-	-

Certificate of Analysis

Report Date: 16-Aug-2024

Client: G2S Environmental Consulting Inc. (Burlington)

Order Date: 6-Aug-2024

Client PO:

Project Description: G2S19650

	Client ID:	MW101	MW110	-	-	Criteria:	
	Sample Date:	06-Aug-24 00:00	06-Aug-24 00:00	-	-	Reg 153/04 -T3	Reg 153/04 -T3
	Sample ID:	2432079-01	2432079-02	-	-	Non-Potable	Non-Potable
	Matrix:	Water	Water	-	-	Groundwater, coarse	Groundwater, fine
	MDL/Units						
Semi-Volatiles							
Terphenyl-d14	Surrogate	74.4%	-	-	-	-	-

Certificate of Analysis

Report Date: 16-Aug-2024

Client: G2S Environmental Consulting Inc. (Burlington)

Order Date: 6-Aug-2024

Client PO:

Project Description: G2S19650

## Method Quality Control: Blank

Analyte	Result	Reporting Limit	Units	%REC	%REC Limit	RPD	RPD Limit	Notes
<b>Hydrocarbons</b>								
F1 PHCs (C6-C10)	ND	25	ug/L					
F2 PHCs (C10-C16)	ND	100	ug/L					
F3 PHCs (C16-C34)	ND	100	ug/L					
F4 PHCs (C34-C50)	ND	100	ug/L					
<b>Metals</b>								
Mercury	ND	0.1	ug/L					
Antimony	ND	0.5	ug/L					
Arsenic	ND	1.0	ug/L					
Barium	ND	1.0	ug/L					
Beryllium	ND	0.5	ug/L					
Boron	ND	10.0	ug/L					
Cadmium	ND	0.2	ug/L					
Chromium (VI)	ND	10	ug/L					
Chromium	ND	1.0	ug/L					
Cobalt	ND	0.5	ug/L					
Copper	ND	0.5	ug/L					
Lead	ND	0.2	ug/L					
Molybdenum	ND	0.5	ug/L					
Nickel	ND	1.0	ug/L					
Selenium	ND	1.0	ug/L					
Silver	ND	0.2	ug/L					
Sodium	ND	200	ug/L					
Thallium	ND	0.5	ug/L					
Uranium	ND	0.2	ug/L					
Vanadium	ND	0.5	ug/L					
Zinc	ND	5.0	ug/L					
<b>Semi-Volatiles</b>								
Acenaphthene	ND	0.05	ug/L					
Acenaphthylene	ND	0.05	ug/L					
Anthracene	ND	0.01	ug/L					
Benzo [a] anthracene	ND	0.01	ug/L					
Benzo [a] pyrene	ND	0.01	ug/L					

Certificate of Analysis

Report Date: 16-Aug-2024

Client: G2S Environmental Consulting Inc. (Burlington)

Order Date: 6-Aug-2024

Client PO:

Project Description: G2S19650

### Method Quality Control: Blank

Analyte	Result	Reporting Limit	Units	%REC	%REC Limit	RPD	RPD Limit	Notes
Benzo [b] fluoranthene	ND	0.05	ug/L					
Benzo [g,h,i] perylene	ND	0.05	ug/L					
Benzo [k] fluoranthene	ND	0.05	ug/L					
Chrysene	ND	0.05	ug/L					
Dibenzo [a,h] anthracene	ND	0.05	ug/L					
Fluoranthene	ND	0.01	ug/L					
Fluorene	ND	0.05	ug/L					
Indeno [1,2,3-cd] pyrene	ND	0.05	ug/L					
1-Methylnaphthalene	ND	0.05	ug/L					
2-Methylnaphthalene	ND	0.05	ug/L					
Methylnaphthalene (1&2)	ND	0.10	ug/L					
Naphthalene	ND	0.05	ug/L					
Phenanthrene	ND	0.05	ug/L					
Pyrene	ND	0.01	ug/L					
Surrogate: 2-Fluorobiphenyl	7.25		%	72.5	50-140			
Surrogate: Terphenyl-d14	7.90		%	79.0	50-140			
<b>Volatiles</b>								
Acetone	ND	5.0	ug/L					
Benzene	ND	0.5	ug/L					
Bromodichloromethane	ND	0.5	ug/L					
Bromoform	ND	0.5	ug/L					
Bromomethane	ND	0.5	ug/L					
Carbon Tetrachloride	ND	0.2	ug/L					
Chlorobenzene	ND	0.5	ug/L					
Chloroform	ND	0.5	ug/L					
Dibromochloromethane	ND	0.5	ug/L					
Dichlorodifluoromethane	ND	1.0	ug/L					
1,2-Dichlorobenzene	ND	0.5	ug/L					
1,3-Dichlorobenzene	ND	0.5	ug/L					
1,4-Dichlorobenzene	ND	0.5	ug/L					
1,1-Dichloroethane	ND	0.5	ug/L					
1,2-Dichloroethane	ND	0.5	ug/L					

Certificate of Analysis

Report Date: 16-Aug-2024

Client: G2S Environmental Consulting Inc. (Burlington)

Order Date: 6-Aug-2024

Client PO:

Project Description: G2S19650

## Method Quality Control: Blank

Analyte	Result	Reporting Limit	Units	%REC	%REC Limit	RPD	RPD Limit	Notes
1,1-Dichloroethylene	ND	0.5	ug/L					
cis-1,2-Dichloroethylene	ND	0.5	ug/L					
trans-1,2-Dichloroethylene	ND	0.5	ug/L					
1,2-Dichloropropane	ND	0.5	ug/L					
cis-1,3-Dichloropropylene	ND	0.5	ug/L					
trans-1,3-Dichloropropylene	ND	0.5	ug/L					
1,3-Dichloropropene, total	ND	0.5	ug/L					
Ethylbenzene	ND	0.5	ug/L					
Ethylene dibromide (dibromoethane, 1,2-)	ND	0.2	ug/L					
Hexane	ND	1.0	ug/L					
Methyl Ethyl Ketone (2-Butanone)	ND	5.0	ug/L					
Methyl Isobutyl Ketone	ND	5.0	ug/L					
Methyl tert-butyl ether	ND	2.0	ug/L					
Methylene Chloride	ND	5.0	ug/L					
Styrene	ND	0.5	ug/L					
1,1,1,2-Tetrachloroethane	ND	0.5	ug/L					
1,1,2,2-Tetrachloroethane	ND	0.5	ug/L					
Tetrachloroethylene	ND	0.5	ug/L					
Toluene	ND	0.5	ug/L					
1,1,1-Trichloroethane	ND	0.5	ug/L					
1,1,2-Trichloroethane	ND	0.5	ug/L					
Trichloroethylene	ND	0.5	ug/L					
Trichlorofluoromethane	ND	1.0	ug/L					
Vinyl chloride	ND	0.5	ug/L					
m,p-Xylenes	ND	0.5	ug/L					
o-Xylene	ND	0.5	ug/L					
Xylenes, total	ND	0.05	ug/L					
Surrogate: 4-Bromofluorobenzene	85.8		%	107	50-140			
Surrogate: Dibromofluoromethane	79.4		%	99.2	50-140			
Surrogate: Toluene-d8	82.9		%	104	50-140			
Benzene	ND	0.5	ug/L					
Ethylbenzene	ND	0.5	ug/L					

Certificate of Analysis

Report Date: 16-Aug-2024

Client: G2S Environmental Consulting Inc. (Burlington)

Order Date: 6-Aug-2024

Client PO:

Project Description: G2S19650

### Method Quality Control: Blank

Analyte	Result	Reporting Limit	Units	%REC	%REC Limit	RPD	RPD Limit	Notes
Toluene	ND	0.5	ug/L					
m,p-Xylenes	ND	0.5	ug/L					
o-Xylene	ND	0.5	ug/L					
Xylenes, total	ND	0.5	ug/L					
Surrogate: Toluene-d8	82.9		%	104	50-140			

Certificate of Analysis

Report Date: 16-Aug-2024

Client: G2S Environmental Consulting Inc. (Burlington)

Order Date: 6-Aug-2024

Client PO:

Project Description: G2S19650

### Method Quality Control: Duplicate

Analyte	Result	Reporting Limit	Units	Source Result	%REC	%REC Limit	RPD	RPD Limit	Notes
<b>Hydrocarbons</b>									
F1 PHCs (C6-C10)	ND	25	ug/L	ND			NC	30	
<b>Metals</b>									
Mercury	ND	0.1	ug/L	ND			NC	20	
Antimony	ND	0.5	ug/L	ND			NC	20	
Arsenic	ND	1.0	ug/L	ND			NC	20	
Barium	35.3	1.0	ug/L	35.1			0.7	20	
Beryllium	ND	0.5	ug/L	ND			NC	20	
Boron	456	10.0	ug/L	459			0.6	20	
Cadmium	ND	0.2	ug/L	ND			NC	20	
Chromium (VI)	ND	10	ug/L	ND			NC	20	
Chromium	ND	1.0	ug/L	ND			NC	20	
Cobalt	ND	0.5	ug/L	ND			NC	20	
Copper	1.5	0.5	ug/L	1.5			0.0	20	
Lead	ND	0.2	ug/L	ND			NC	20	
Molybdenum	ND	0.5	ug/L	ND			NC	20	
Nickel	1.8	1.0	ug/L	1.8			1.0	20	
Selenium	ND	1.0	ug/L	ND			NC	20	
Silver	ND	0.2	ug/L	ND			NC	20	
Sodium	70500	200	ug/L	70000			0.6	20	
Thallium	ND	0.5	ug/L	ND			NC	20	
Uranium	1.0	0.2	ug/L	0.9			4.4	20	
Vanadium	0.8	0.5	ug/L	0.9			5.2	20	
Zinc	ND	5.0	ug/L	ND			NC	20	
<b>Volatiles</b>									
Acetone	ND	5.0	ug/L	ND			NC	30	
Benzene	ND	0.5	ug/L	ND			NC	30	
Bromodichloromethane	ND	0.5	ug/L	ND			NC	30	
Bromoform	ND	0.5	ug/L	ND			NC	30	
Bromomethane	ND	0.5	ug/L	ND			NC	30	
Carbon Tetrachloride	ND	0.2	ug/L	ND			NC	30	



Certificate of Analysis

Report Date: 16-Aug-2024

Client: G2S Environmental Consulting Inc. (Burlington)

Order Date: 6-Aug-2024

Client PO:

Project Description: G2S19650

## Method Quality Control: Duplicate

Analyte	Result	Reporting Limit	Units	Source Result	%REC	%REC Limit	RPD	RPD Limit	Notes
Chlorobenzene	ND	0.5	ug/L	ND			NC	30	
Chloroform	ND	0.5	ug/L	ND			NC	30	
Dibromochloromethane	ND	0.5	ug/L	ND			NC	30	
Dichlorodifluoromethane	ND	1.0	ug/L	ND			NC	30	
1,2-Dichlorobenzene	ND	0.5	ug/L	ND			NC	30	
1,3-Dichlorobenzene	ND	0.5	ug/L	ND			NC	30	
1,4-Dichlorobenzene	ND	0.5	ug/L	ND			NC	30	
1,1-Dichloroethane	ND	0.5	ug/L	ND			NC	30	
1,2-Dichloroethane	ND	0.5	ug/L	ND			NC	30	
1,1-Dichloroethylene	ND	0.5	ug/L	ND			NC	30	
cis-1,2-Dichloroethylene	ND	0.5	ug/L	ND			NC	30	
trans-1,2-Dichloroethylene	ND	0.5	ug/L	ND			NC	30	
1,2-Dichloropropane	ND	0.5	ug/L	ND			NC	30	
cis-1,3-Dichloropropylene	ND	0.5	ug/L	ND			NC	30	
trans-1,3-Dichloropropylene	ND	0.5	ug/L	ND			NC	30	
Ethylbenzene	ND	0.5	ug/L	ND			NC	30	
Ethylene dibromide (dibromoethane, 1,2-)	ND	0.2	ug/L	ND			NC	30	
Hexane	ND	1.0	ug/L	ND			NC	30	
Methyl Ethyl Ketone (2-Butanone)	ND	5.0	ug/L	ND			NC	30	
Methyl Isobutyl Ketone	ND	5.0	ug/L	ND			NC	30	
Methyl tert-butyl ether	ND	2.0	ug/L	ND			NC	30	
Methylene Chloride	ND	5.0	ug/L	ND			NC	30	
Styrene	ND	0.5	ug/L	ND			NC	30	
1,1,1,2-Tetrachloroethane	ND	0.5	ug/L	ND			NC	30	
1,1,2,2-Tetrachloroethane	ND	0.5	ug/L	ND			NC	30	
Tetrachloroethylene	ND	0.5	ug/L	ND			NC	30	
Toluene	ND	0.5	ug/L	ND			NC	30	
1,1,1-Trichloroethane	ND	0.5	ug/L	ND			NC	30	
1,1,2-Trichloroethane	ND	0.5	ug/L	ND			NC	30	
Trichloroethylene	ND	0.5	ug/L	ND			NC	30	
Trichlorofluoromethane	ND	1.0	ug/L	ND			NC	30	

Certificate of Analysis

Report Date: 16-Aug-2024

Client: G2S Environmental Consulting Inc. (Burlington)

Order Date: 6-Aug-2024

Client PO:

Project Description: G2S19650

**Method Quality Control: Duplicate**

Analyte	Result	Reporting Limit	Units	Source Result	%REC	%REC Limit	RPD	RPD Limit	Notes
Vinyl chloride	ND	0.5	ug/L	ND			NC	30	
m,p-Xylenes	ND	0.5	ug/L	ND			NC	30	
o-Xylene	ND	0.5	ug/L	ND			NC	30	
Surrogate: 4-Bromofluorobenzene	85.8		%		107	50-140			
Surrogate: Dibromofluoromethane	78.4		%		98.0	50-140			
Surrogate: Toluene-d8	82.5		%		103	50-140			
Benzene	ND	0.5	ug/L	ND			NC	30	
Ethylbenzene	ND	0.5	ug/L	ND			NC	30	
Toluene	ND	0.5	ug/L	ND			NC	30	
m,p-Xylenes	ND	0.5	ug/L	ND			NC	30	
o-Xylene	ND	0.5	ug/L	ND			NC	30	
Surrogate: Toluene-d8	82.5		%		103	50-140			

Certificate of Analysis

Report Date: 16-Aug-2024

Client: G2S Environmental Consulting Inc. (Burlington)

Order Date: 6-Aug-2024

Client PO:

Project Description: G2S19650

## Method Quality Control: LCS Dup

Analyte	Result	Reporting Limit	Units	Source Result	%REC	%REC Limit	RPD	RPD Limit	Notes
<b>Hydrocarbons</b>									
F2 PHCs (C10-C16)	1290	100	ug/L	ND	78.3	60-140	5.07	200	
F3 PHCs (C16-C34)	4460	100	ug/L	ND	120	60-140	5.20	200	
F4 PHCs (C34-C50)	3020	100	ug/L	ND	113	60-140	1.13	200	
<b>Semi-Volatiles</b>									
Acenaphthene	6.31	0.05	ug/L	ND	63.1	50-140	3.15	200	
Acenaphthylene	6.68	0.05	ug/L	ND	66.8	50-140	0.478	200	
Anthracene	7.04	0.01	ug/L	ND	70.4	50-140	3.12	200	
Benzo [a] anthracene	8.46	0.01	ug/L	ND	84.6	50-140	5.77	200	
Benzo [a] pyrene	7.68	0.01	ug/L	ND	76.8	50-140	4.33	200	
Benzo [b] fluoranthene	8.65	0.05	ug/L	ND	86.5	50-140	5.88	200	
Benzo [g,h,i] perylene	8.30	0.05	ug/L	ND	83.0	50-140	4.69	200	
Benzo [k] fluoranthene	8.92	0.05	ug/L	ND	89.2	50-140	10.1	200	
Chrysene	7.88	0.05	ug/L	ND	78.8	50-140	3.83	200	
Dibenzo [a,h] anthracene	11.8	0.05	ug/L	ND	118	50-140	5.30	200	
Fluoranthene	9.04	0.01	ug/L	ND	90.4	50-140	9.53	200	
Fluorene	7.82	0.05	ug/L	ND	78.2	50-140	5.01	200	
Indeno [1,2,3-cd] pyrene	10.4	0.05	ug/L	ND	104	50-140	7.76	200	
1-Methylnaphthalene	6.11	0.05	ug/L	ND	61.1	50-140	7.79	200	
2-Methylnaphthalene	6.06	0.05	ug/L	ND	60.6	50-140	3.77	200	
Naphthalene	6.55	0.05	ug/L	ND	65.5	50-140	9.00	200	
Phenanthrene	8.71	0.05	ug/L	ND	87.1	50-140	8.98	200	
Pyrene	8.23	0.01	ug/L	ND	82.3	50-140	5.88	200	

Certificate of Analysis

Report Date: 16-Aug-2024

Client: G2S Environmental Consulting Inc. (Burlington)

Order Date: 6-Aug-2024

Client PO:

Project Description: G2S19650

### Method Quality Control: Spike

Analyte	Result	Reporting Limit	Units	Source Result	%REC	%REC Limit	RPD	RPD Limit	Notes
<b>Hydrocarbons</b>									
F1 PHCs (C6-C10)	572	25	ug/L	ND	81.0	0-200			
F2 PHCs (C10-C16)	1230	100	ug/L	ND	74.5	60-140			
F3 PHCs (C16-C34)	4230	100	ug/L	ND	114	60-140			
F4 PHCs (C34-C50)	2980	100	ug/L	ND	112	60-140			
<b>Metals</b>									
Mercury	2.82	0.1	ug/L	ND	94.1	80-120			
Antimony	42.4	0.5	ug/L	ND	84.3	70-130			
Arsenic	57.6	1.0	ug/L	ND	115	70-130			
Barium	81.3	1.0	ug/L	35.1	92.4	70-130			
Beryllium	49.2	0.5	ug/L	ND	98.4	70-130			
Boron	419	10.0	ug/L	459	-80.3	70-130			QM-4X
Cadmium	40.6	0.2	ug/L	ND	81.2	70-130			
Chromium (VI)	204	10	ug/L	ND	102	70-130			
Chromium	59.4	1.0	ug/L	ND	118	70-130			
Cobalt	53.6	0.5	ug/L	ND	107	70-130			
Copper	47.5	0.5	ug/L	1.5	91.9	70-130			
Lead	39.4	0.2	ug/L	ND	78.8	70-130			
Molybdenum	53.3	0.5	ug/L	ND	106	70-130			
Nickel	51.9	1.0	ug/L	1.8	100	70-130			
Selenium	51.8	1.0	ug/L	ND	103	70-130			
Silver	43.1	0.2	ug/L	ND	86.1	80-120			
Sodium	90100	200	ug/L	70000	80.4	70-130			
Thallium	39.5	0.5	ug/L	ND	79.0	70-130			
Uranium	44.9	0.2	ug/L	0.9	87.9	70-130			
Vanadium	64.6	0.5	ug/L	0.9	128	70-130			
Zinc	44.9	5.0	ug/L	ND	84.5	70-130			
<b>Semi-Volatiles</b>									
Acenaphthene	6.51	0.05	ug/L	ND	65.1	50-140			
Acenaphthylene	6.71	0.05	ug/L	ND	67.1	50-140			
Anthracene	6.83	0.01	ug/L	ND	68.3	50-140			

Certificate of Analysis

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Client PO:

Project Description: G2S19650

## Method Quality Control: Spike

Analyte	Result	Reporting Limit	Units	Source Result	%REC	%REC Limit	RPD	RPD Limit	Notes
Benzo [a] anthracene	7.98	0.01	ug/L	ND	79.8	50-140			
Benzo [a] pyrene	7.36	0.01	ug/L	ND	73.6	50-140			
Benzo [b] fluoranthene	8.15	0.05	ug/L	ND	81.5	50-140			
Benzo [g,h,i] perylene	7.92	0.05	ug/L	ND	79.2	50-140			
Benzo [k] fluoranthene	8.07	0.05	ug/L	ND	80.7	50-140			
Chrysene	7.58	0.05	ug/L	ND	75.8	50-140			
Dibenzo [a,h] anthracene	11.2	0.05	ug/L	ND	112	50-140			
Fluoranthene	8.21	0.01	ug/L	ND	82.1	50-140			
Fluorene	7.44	0.05	ug/L	ND	74.4	50-140			
Indeno [1,2,3-cd] pyrene	9.62	0.05	ug/L	ND	96.2	50-140			
1-Methylnaphthalene	5.65	0.05	ug/L	ND	56.5	50-140			
2-Methylnaphthalene	5.84	0.05	ug/L	ND	58.4	50-140			
Naphthalene	5.99	0.05	ug/L	ND	59.9	50-140			
Phenanthrene	7.96	0.05	ug/L	ND	79.6	50-140			
Pyrene	7.76	0.01	ug/L	ND	77.6	50-140			
Surrogate: 2-Fluorobiphenyl	7.78		%		77.8	50-140			
Surrogate: Terphenyl-d14	7.39		%		73.9	50-140			
<b>Volatiles</b>									
Acetone	68.1	5.0	ug/L	ND	67.1	50-140			
Benzene	36.3	0.5	ug/L	ND	90.7	50-140			
Bromodichloromethane	33.9	0.5	ug/L	ND	84.7	50-140			
Bromoform	33.1	0.5	ug/L	ND	82.7	50-140			
Bromomethane	37.9	0.5	ug/L	ND	95.6	50-140			
Carbon Tetrachloride	34.1	0.2	ug/L	ND	85.3	50-140			
Chlorobenzene	39.0	0.5	ug/L	ND	97.4	50-140			
Chloroform	35.1	0.5	ug/L	ND	87.7	50-140			
Dibromochloromethane	35.0	0.5	ug/L	ND	87.6	50-140			
Dichlorodifluoromethane	34.3	1.0	ug/L	ND	84.9	50-140			
1,2-Dichlorobenzene	38.5	0.5	ug/L	ND	96.2	50-140			
1,3-Dichlorobenzene	38.3	0.5	ug/L	ND	95.8	50-140			
1,4-Dichlorobenzene	38.4	0.5	ug/L	ND	96.0	50-140			

Certificate of Analysis

Report Date: 16-Aug-2024

Client: G2S Environmental Consulting Inc. (Burlington)

Order Date: 6-Aug-2024

Client PO:

Project Description: G2S19650

## Method Quality Control: Spike

Analyte	Result	Reporting Limit	Units	Source Result	%REC	%REC Limit	RPD	RPD Limit	Notes
1,1-Dichloroethane	35.5	0.5	ug/L	ND	88.6	50-140			
1,2-Dichloroethane	35.3	0.5	ug/L	ND	88.2	50-140			
1,1-Dichloroethylene	34.6	0.5	ug/L	ND	86.4	50-140			
cis-1,2-Dichloroethylene	32.2	0.5	ug/L	ND	80.5	50-140			
trans-1,2-Dichloroethylene	37.3	0.5	ug/L	ND	93.2	50-140			
1,2-Dichloropropane	35.5	0.5	ug/L	ND	88.6	50-140			
cis-1,3-Dichloropropylene	35.5	0.5	ug/L	ND	88.7	50-140			
trans-1,3-Dichloropropylene	36.6	0.5	ug/L	ND	91.5	50-140			
Ethylbenzene	37.2	0.5	ug/L	ND	92.9	50-140			
Ethylene dibromide (dibromoethane, 1,2-)	34.0	0.2	ug/L	ND	85.0	50-140			
Hexane	37.2	1.0	ug/L	ND	92.9	50-140			
Methyl Ethyl Ketone (2-Butanone)	80.3	5.0	ug/L	ND	79.5	50-140			
Methyl Isobutyl Ketone	76.1	5.0	ug/L	ND	74.9	50-140			
Methyl tert-butyl ether	87.1	2.0	ug/L	ND	87.1	50-140			
Methylene Chloride	33.7	5.0	ug/L	ND	84.3	50-140			
Styrene	35.3	0.5	ug/L	ND	88.3	50-140			
1,1,1,2-Tetrachloroethane	32.2	0.5	ug/L	ND	80.4	50-140			
1,1,2,2-Tetrachloroethane	33.6	0.5	ug/L	ND	84.0	50-140			
Tetrachloroethylene	36.4	0.5	ug/L	ND	91.1	50-140			
Toluene	37.8	0.5	ug/L	ND	94.4	50-140			
1,1,1-Trichloroethane	33.9	0.5	ug/L	ND	84.7	50-140			
1,1,2-Trichloroethane	35.8	0.5	ug/L	ND	89.4	50-140			
Trichloroethylene	35.7	0.5	ug/L	ND	89.3	50-140			
Trichlorofluoromethane	32.7	1.0	ug/L	ND	80.7	50-140			
Vinyl chloride	35.5	0.5	ug/L	ND	88.0	50-140			
m,p-Xylenes	74.0	0.5	ug/L	ND	92.5	50-140			
o-Xylene	36.7	0.5	ug/L	ND	91.7	50-140			
Surrogate: 4-Bromofluorobenzene	78.1		%		97.7	50-140			
Surrogate: Dibromofluoromethane	77.0		%		96.3	50-140			
Surrogate: Toluene-d8	80.9		%		101	50-140			
Benzene	36.3	0.5	ug/L	ND	90.7	50-140			

Certificate of Analysis

Report Date: 16-Aug-2024

Client: G2S Environmental Consulting Inc. (Burlington)

Order Date: 6-Aug-2024

Client PO:

Project Description: G2S19650

### Method Quality Control: Spike

Analyte	Result	Reporting Limit	Units	Source Result	%REC	%REC Limit	RPD	RPD Limit	Notes
Ethylbenzene	37.2	0.5	ug/L	ND	92.9	50-140			
Toluene	37.8	0.5	ug/L	ND	94.4	50-140			
m,p-Xylenes	74.0	0.5	ug/L	ND	92.5	50-140			
o-Xylene	36.7	0.5	ug/L	ND	91.7	50-140			
Surrogate: Toluene-d8	80.9		%		101	50-140			

## Certificate of Analysis

Report Date: 16-Aug-2024

Client: G2S Environmental Consulting Inc. (Burlington)

Order Date: 6-Aug-2024

Client PO:

Project Description: G2S19650

Qualifier Notes:**QC Qualifiers:**

QM-4X The spike recovery was outside of QC acceptance limits due to elevated analyte concentration.

Sample Data Revisions:

None

Work Order Revisions / Comments:

Revision-1: This report includes an updated parameter list, as per client.

Revision-2: This report includes an updated Sample ID, as per client.

Other Report Notes:

n/a: not applicable

ND: Not Detected

MDL: Method Detection Limit

Source Result: Data used as source for matrix and duplicate samples

%REC: Percent recovery.

RPD: Relative percent difference.

NC: Not Calculated

*CCME PHC additional information:*

- The method for the analysis of PHCs complies with the Reference Method for the CWS PHC and is validated for use in the laboratory. All prescribed quality criteria identified in the method has been met.
- F1 range corrected for BTEX.
- F2 to F3 ranges corrected for appropriate PAHs where available.
- The gravimetric heavy hydrocarbons (F4G) are not to be added to C6 to C50 hydrocarbons.
- In the case where F4 and F4G are both reported, the greater of the two results is to be used for comparison to CWS PHC criteria.
- When reported, data for F4G has been processed using a silica gel cleanup.

Any use of these results implies your agreement that our total liability in connection with this work, however arising, shall be limited to the amount paid by you for this work, and that our employees or agents shall not under any circumstances be liable to you in connection with this work.



