



July 29, 2022

Ms. Lindley Campbell  
Oil Control Program  
Maryland Department of the Environment  
1800 Washington Blvd, Suite 620  
Baltimore, Maryland 21230

RE: **SECOND QUARTER 2022 MONITORING REPORT**  
MDE Case No. 2021-0221-HA  
High's Store No. 86  
3711 Federal Hill Road, Jarrettsville, Harford County, Maryland

Dear Ms. Campbell:

Groundwater & Environmental Services, Inc. (GES), on behalf of High's of Baltimore, LLC (High's), is pleased to submit the attached Second Quarter 2022 Monitoring Report for the above-mentioned facility. For the Second Quarter 2022 monitoring period, the following activities were completed:

- gauging of monitoring wells MW-1, MW-3, and MW-4 was completed on June 22, 2022 (tank field observation pipes were gauged as dry this day);
- quarterly sampling of monitoring wells MW-1, MW-3, and MW-4 was completed on June 22, 2022; and,
- quarterly sampling of the onsite potable well for 3711 Federal Hill Road was completed on June 22, 2022.

For the Second Quarter 2022 monitoring event, GES collected the groundwater samples from the three onsite monitoring wells using low-flow sampling techniques. The low-flow sampling logs generated for the event are included with the field documentation as **Appendix A**. The gauging data from the event was incorporated with the historical gauging database for the Site and included as **Table 1**. A Site Location Map, Local Area Map, Site Map, and Groundwater Monitoring Map for the June 22, 2022 event are attached as **Figures 1 through 4**, respectively.

In compliance with the January 27, 2021 MDE directive, GES submitted the June 22, 2022 monitoring well samples for an analysis of full suite Volatile Organic Compounds (VOCs) with naphthalene and oxygenates, including methyl tert-butyl ether (MTBE), via USEPA Method 8260C. The monitoring well samples were also analyzed for Total Petroleum Hydrocarbons– Gasoline Range Organics (TPH-GRO) and Total Petroleum Hydrocarbons– Diesel Range Organics (TPH-DRO) via USEPA Method 8015D. The laboratory selected for the analysis was Eurofins Lancaster of Lancaster, Pennsylvania (Eurofins Lancaster).

The monitoring well analytical results from the June 2022 event were tabulated with the historical analytical database and included as **Table 1**. A copy of the Eurofins Lancaster analytical report is included as **Appendix B**.



GES has also prepared and attached a report outline for the June 22, 2022 monitoring event that is similar in format to previous monitoring reports submitted for the case.

A summary of benzene, MTBE, and TPH concentration results from the June 22, 2022 monitoring event is presented below.

**Table A – Analytical Summary – June 22, 2022**

Well	Benzene (µg/L)	MTBE (µg/L)	TPH-GRO (µg/L)	TPH-DRO (µg/L)
MW-1	ND (0.10)	ND (0.08)	ND (23)	ND (57)
MW-3	ND (0.10)	ND (0.08)	ND (23)	ND (58)
MW-4	ND (0.10)	5.0	ND (23)	ND (57)

ND (0.10) = Non-Detect to the Method Detection Limit (MDL #)  
 µg/L = Micrograms per Liter

Review of **Table A** indicates the following:

- The MTBE detection for MW-4 at 5.0 µg/L was below the MDE Action Level for the constituent at 20 µg/L.

Further review of Table 1 and Appendix B demonstrates minor detections of fuel oxygenates at well MW-4 including di-isopropyl ether (2.1 ug/L), and t-butyl alcohol (9.8 J ug/L). Currently, there are no established MDE groundwater cleanup standards for di-isopropyl ether or t-butyl alcohol.

Updated benzene and MTBE concentration hydrographs for monitoring wells MW-1, MW-3, and MW-4 are attached as **Appendix C**.

Per MDE directive requirements, the onsite potable supply well for the High's #86 facility was also sampled during the Second Quarter 2022 period, which occurred on June 22, 2022. The potable water sample was collected from the store's deli sink. The onsite potable well sample was analyzed by Eurofins Lancaster for a full suite VOC list with naphthalene and oxygenates, including MTBE, via USEPA Method 524.2. A copy of the Eurofins Lancaster analytical report for the potable well sample is included in **Appendix B**. The analytical results from the June 22, 2022 onsite potable sample were tabulated with the historical potable analytical database and included as **Table 2**. Review of Appendix B and Table 2 demonstrates that the MTBE concentration for the onsite potable sample collected June 22, 2022 was non-detect at a laboratory method detection limit of 0.10 µg/L. No additional VOC constituents were detected in the onsite potable water sample collected June 22, 2022.

Per the January 27, 2021 MDE directive, GES submitted a Sensitive Receptor Survey Report related to the active MDE Case No. 2021-0221-HA on April 9, 2021.

GES, on behalf of High's, will continue quarterly onsite groundwater and potable monitoring at the High's Store #86 - Jarrettsville location unless otherwise directed by the MDE.



If you have any questions or would like additional information please contact the undersigned at (800) 220-3606, extension 3726 or Herb Meade at (410) 261-5450.

Sincerely,

A handwritten signature in black ink, appearing to read 'Pete Reichardt'. The signature is fluid and cursive, with a long horizontal stroke extending to the right.

Pete Reichardt  
Senior Project Manager

Enclosures

- c: Susan Bull – MDE (3 additional copies w/ CD, e-copy)
- Herb Meade – High's of Baltimore (e-copy)
- John Resline – Harford County Health Dept. (Hardcopy & CD)
- File – GES, MD (PSID 913037)



**Consultant Contact:** Pete Reichardt, Groundwater & Environmental Services, Inc.  
Greg Beal, Advanced Environmental Concepts, Inc.

**Client Contact:** Herb Meade, High's of Baltimore

**Site Use:** Active commercial store and service station that operates two 12,000-gallon compartmentalized gasoline/diesel USTs.

**Surrounding Area:** Residential, commercial, and agricultural

**Sensitive Receptors:** Potable Wells: This site is served by one onsite supply well. The surrounding commercial and residential properties are all served by potable wells.  
Schools/Daycare/Hospitals: Jarrettsville Elementary (0.5 mile to SW), Salem Lutheran Child Care (0.55 mile to WSW)  
Surface Water/Wetlands: East Branch Winters Run (615 ft to N)

**Date of Most Recent Regulatory Directive Correspondence:** February 22, 2021 – MDE extension granted for completion and submission of SRS results by April 6, 2021

**REGULATORY INTERACTION**

Agency: Maryland Department of the Environment – Oil Control Program  
Agency Contact: Susan Bull, Lindley Campbell  
MDE Case #: 2021-0221-HA

**SCHEDULE OF ROUTINE ACTIVITIES**

**Groundwater Sampling:** Three monitoring wells: MW-1, MW-3, and MW-4; and two tank field observation pipes

**Sampling Frequency:** Revised to quarterly per 1/27/21 directive

**Sampling Methodology:** Low-Flow Sampling Procedures

**Laboratory Analyses:** Full-suite volatile organic compounds (VOCs), including oxygenates and naphthalene, via EPA Method 8260C and Total Petroleum Hydrocarbons (TPH) – Gasoline Range Organics (GRO) and TPH – Diesel Range Organics (DRO) via EPA Method 8015D.



### **GROUNDWATER DATA SUMMARY**

Groundwater Sampling Date:	June 22, 2022
# of Wells / # Sampled (including TF wells):	5 / 3 (TF wells not sampled due to insufficient water)
Groundwater Elevation Range:	629.09 feet (MW-1) to 629.48 feet (MW-3)
Maximum Benzene:	Non-Detect (MDL=0.10 µg/L)
Maximum Toluene:	Non-Detect (MDL=0.08 µg/L)
Maximum Ethylbenzene:	Non-Detect (MDL=0.08 µg/L)
Maximum Total Xylenes:	Non-Detect (MDL=0.07 µg/L)
Maximum Naphthalene:	Non-Detect (MDL=0.08 µg/L)
Maximum MTBE:	5.0 µg/L (MW-4)
Maximum TPH-GRO:	Non-Detect (MDL=23 µg/L)
Maximum TPH-DRO:	Non-Detect (MDL=57-58 µg/L)

µg/L = micrograms per liter  
MTBE = Methyl tert-butyl ether  
TF = Tank field wells/pipes  
MDL = Method Detection Limit  
“J” = estimated analytical value existing between Method Detection Limit (MDL) and the Reporting Limit (RL)

### **ONSITE POTABLE WELL DATA SUMMARY**

Potable Supply Sampling Date:	June 22, 2022
Benzene Concentration:	Non-Detect to MDL of 0.10 µg/L
MTBE Concentration:	Non-Detect to MDL of 0.10 µg/L

### **FUTURE ACTIVITIES – Third Quarter 2022**

- GES to conduct a Third Quarter 2022 groundwater monitoring event with onsite potable supply well sampling



## **ATTACHMENTS**

### **FIGURES**

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Figure 1	Site Location Map
Figure 2	Local Area Map
Figure 3	Site Map
Figure 4	Groundwater Monitoring Map, June 22, 2022

### **TABLES**

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Table 1	Historical Gauging and Analytical Summary
Table 2	Historical Onsite Potable Well Analytical Summary

### **APPENDIX**

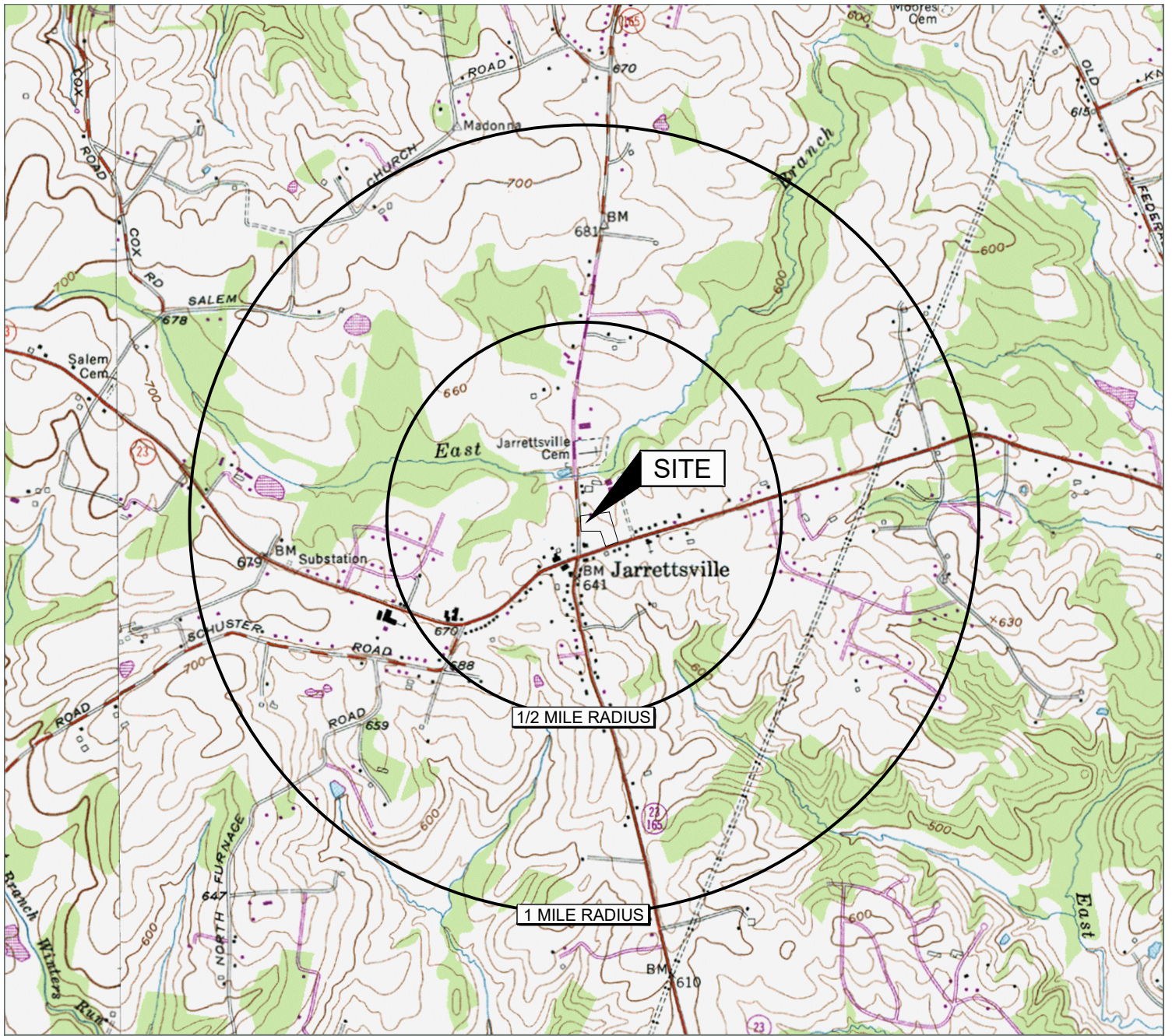
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Appendix A	Field Documentation
Appendix B	Laboratory Analytical Reports and Chain-of-Custody Documentation
Appendix C	Concentration Hydrographs

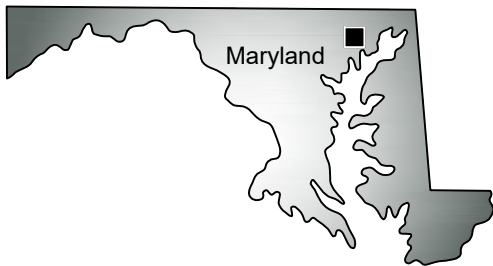
## Figures

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Source:  
 USGS 7.5 Minute Series  
 Topographic Quadrangle  
 Jarrettsville, Maryland  
 Contour Interval = 20 Feet



Quadrangle Location

Site Location Map

Carroll Independent Fuel Company  
 High's #86  
 3711 Federal Hill Road  
 Jarrettsville, Maryland

Drawn  
 E.V.  
 Designed  
 E.V.  
 Approved  
 P.R.

Date  
 01/15/21  
 Figure  
 1



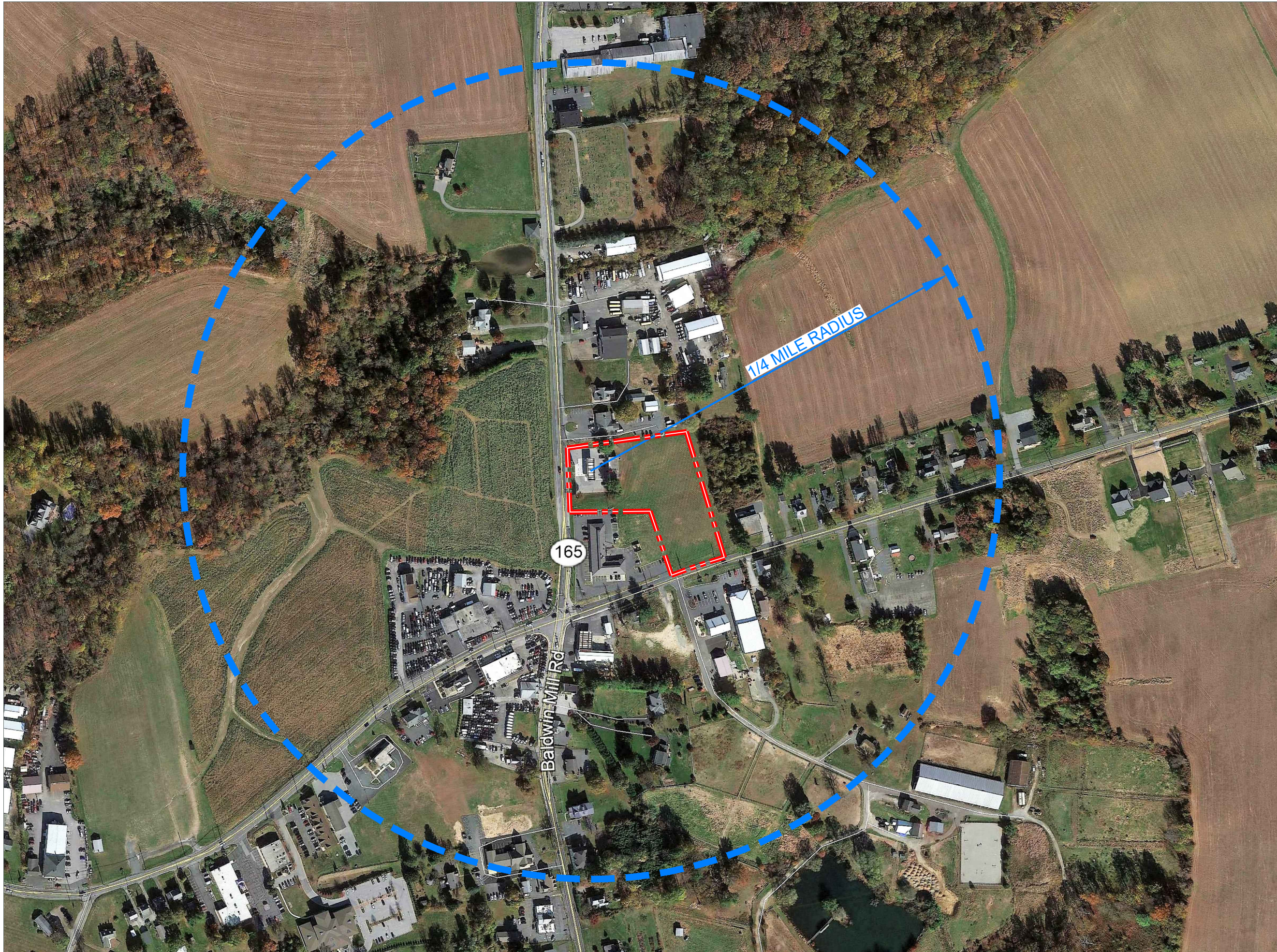
Scale In Feet



Groundwater & Environmental Services, Inc.



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**LEGEND**

== == PROPERTY BOUNDARY (APPROXIMATE)

Source:  
©2020 Google Earth Imagery  
November 5, 2019.

Harford County WebGIS V3.0.

**Local Area Map**

Carroll Independent Fuel Company  
High's #86  
3711 Federal Hill Road  
Jarrettsville, Maryland

Drawn  
E.V.  
Designed  
P.R.  
Approved  
P.R.



Date  
01/15/21  
Figure  
2

Scale In Feet (Approximate)

0 300







Groundwater & Environmental Services, Inc.

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**LEGEND**

-  PROPERTY BOUNDARY (APPROXIMATE)
-  MONITORING WELL
-  TANK FIELD WELL
-  POTABLE SUPPLY WELL

**Site Map**

High's of Baltimore  
Store #86  
3711 Federal Hill Road  
Jarrettsville, Maryland

Drawn  
W.G.S.  
Designed  
P.R.  
Approved  
P.R.

Date  
7/18/22  
Figure  
3



Scale In Feet  
0 (Approximate) 30



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**LEGEND**

- PROPERTY BOUNDARY (APPROXIMATE)
- MONITORING WELL
- TANK FIELD WELL
- POTABLE SUPPLY WELL



MW-1	
629.09	
B	ND(0.10)
M	ND(0.08)
GRO	ND(23)
DRO	ND(57)

ug/L MICROGRAMS PER LITER  
 J ESTIMATED CONCENTRATION  
 MTBE METHYL *tert*-BUTYL ETHER  
 TPH TOTAL PETROLEUM HYDROCARBON  
 GRO GASOLINE RANGE ORGANICS  
 DRO DIESEL RANGE ORGANICS  
 <# WHERE AN ANALYTE IS NOT DETECTED, A METHOD DETECTION LIMIT IS GIVEN

GROUNDWATER CONTOUR (ft AMSL)  
 DASHED WHERE INFERRED

Groundwater Monitoring Map  
June 22, 2022

High's of Baltimore  
Store #86  
3711 Federal Hill Road  
Jarrettsville, Maryland

Drawn W.G.S.	 Scale In Feet 0 (Approximate) 30  <small>Groundwater &amp; Environmental Services, Inc.</small>	Date 7/19/22
Designed P.R.		Figure 4
Approved P.R.		

## Tables

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Table 1

## HISTORICAL GAUGING AND ANALYTICAL SUMMARY

High's Store No. 86  
3711 Federal Hill Road  
Jarrettsville, MD

Monitoring Well	Date	Top of Casing (ft)	Depth to Water (ft)	GW Elevation (ft)	Depth to Bottom (Measured Depth) (ft)	Benzene (µg/L)	Toluene (µg/L)	Ethylbenzene (µg/L)	Total Xylenes (µg/L)	MTBE (µg/L)	Naphthalene (µg/L)	Diisopropyl ether (µg/L)	tert-Amyl methyl ether (µg/L)	tert-Butyl alcohol (µg/L)	TPH-GRO (µg/L)	TPH-DRO (µg/L)	Chloromethane (µg/L)	Ethyl tert-butyl ether (µg/L)	Isopropylbenzene (µg/L)	Methylene chloride (µg/L)	p-Isopropyltoluene (µg/L)
GW Clean-up Standards*						5.0	1,000	700	10,000	20	0.17	NL	NL	NL	47	47	19	NL	NL	5.0	NL
MW-1	7/13/2005	642.26	11.35	630.91	-	ND	ND	ND	ND	130	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
MW-1	12/16/2005	642.26	12.41	629.85	-	ND	ND	ND	ND	43	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
MW-1	6/15/2006	642.26	12.83	629.43	-	ND	ND	ND	ND	62	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
MW-1	1/15/2007	642.26	11.19	631.07	-	ND	ND	ND	ND	15	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
MW-1	5/17/2007	642.26	11.22	631.04	-	ND	ND	2.0	ND	2.0	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
MW-1	9/26/2007	642.26	13.11	629.15	-	ND	ND	ND	ND	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
MW-1	12/13/2007	642.26	14.81	627.45	-	ND	ND	ND	ND	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
MW-1	3/31/2008	642.26	12.68	629.58	-	ND	ND	ND	ND	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
MW-1	6/30/2008	642.26	12.74	629.52	-	ND	ND	ND	ND	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
MW-1	9/24/2008	642.26	14.68	627.58	-	ND	ND	ND	ND	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
MW-1	12/30/2008	642.26	14.36	627.90	-	ND	ND	ND	ND	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
MW-1	3/12/2009	642.26	15.79	626.47	-	ND	ND	ND	ND	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
MW-1	5/6/2009	642.26	12.69	629.57	-	ND	ND	ND	ND	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
MW-1	9/14/2009	642.26	12.69	629.57	-	ND	ND	ND	ND	1.0	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
MW-1	12/14/2009	642.26	10.01	632.25	-	ND	ND	ND	ND	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
MW-1	3/26/2010	642.26	8.90	633.36	-	ND	ND	ND	ND	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
MW-1	6/29/2010	642.26	11.92	630.34	-	ND	ND	ND	ND	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
MW-1	10/16/2010	642.26	11.55	630.71	-	ND	ND	ND	ND	2.0	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
MW-1	1/31/2011	642.26	14.39	627.87	-	ND	ND	ND	ND	3.0	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
MW-1	4/17/2011	642.26	11.33	630.93	-	ND	ND	ND	ND	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
MW-1	3/19/2012	642.26	12.21	630.05	-	ND	ND	ND	ND	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
MW-1	6/4/2012	642.26	11.97	630.29	-	ND	ND	ND	ND	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
MW-1	9/28/2012	642.26	14.44	627.82	-	ND	ND	ND	ND	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
MW-1	12/14/2012	642.26	14.82	627.44	-	ND	ND	ND	ND	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
MW-1	3/18/2013	642.26	12.14	630.12	-	ND	ND	ND	ND	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
MW-1	7/5/2013	642.26	12.93	629.33	-	ND	ND	ND	ND	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
MW-1	9/27/2013	642.26	14.85	627.41	-	ND	ND	ND	ND	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
MW-1	1/8/2014	642.26	13.08	629.18	-	ND	ND	ND	ND	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
MW-1	3/12/2014	642.26	-	-	-	-	-	-	-	-	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
MW-1	6/30/2014	642.26	10.17	632.09	-	ND	ND	ND	ND	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
MW-1	9/4/2014	642.26	11.45	630.81	-	ND	ND	ND	ND	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
MW-1	12/16/2014	642.26	15.82	626.44	-	ND	ND	ND	ND	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
MW-1	12/9/2015	642.26	11.83	630.43	-	ND	ND	ND	ND	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
MW-1	10/3/2016	642.26	13.65	628.61	-	ND	ND	ND	ND	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
MW-1	10/6/2017	642.26	13.94	628.32	-	ND	ND	ND	ND	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
MW-1	10/2/2018	642.26	8.85	633.41	-	ND	ND	ND	ND	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
MW-1	10/25/2019	642.26	14.80	627.46	-	ND	ND	ND	ND	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
MW-1	10/9/2020	642.26	12.83	629.43	-	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
MW-1	12/22/2020	642.26	12.63	629.63	28.60	ND(0.05)	ND(0.07)	ND(0.06)	ND(0.15)	ND(0.05)	ND(0.05)	ND(0.05)	ND(0.20)	ND(1.1)	-	-	0.20 J	ND(0.05)	ND(0.05)	ND(0.07)	ND(0.05)
MW-1	02/15/2021	642.26	12.27	629.99	28.60	ND(0.05)	ND(0.07)	ND(0.06)	ND(0.15)	ND(0.05)	ND(0.05)	ND(0.05)	ND(0.20)	ND(1.1)	42 J	1,200	ND(0.06)	ND(0.05)	ND(0.05)	ND(0.07)	ND(0.05)
MW-1	05/24/2021	642.26	12.50	629.76	-	ND(0.05)	ND(0.07)	ND(0.06)	ND(0.15)	ND(0.05)	ND(0.05)	ND(0.05)	ND(0.20)	ND(1.1)	ND(23)	920	ND(0.06)	ND(0.05)	ND(0.05)	ND(0.07)	0.055 J

Table 1

## HISTORICAL GAUGING AND ANALYTICAL SUMMARY

High's Store No. 86  
3711 Federal Hill Road  
Jarrettsville, MD

Monitoring Well	Date	Top of Casing (ft)	Depth to Water (ft)	GW Elevation (ft)	Depth to Bottom (Measured Depth) (ft)	Benzene (µg/L)	Toluene (µg/L)	Ethylbenzene (µg/L)	Total Xylenes (µg/L)	MTBE (µg/L)	Naphthalene (µg/L)	Diisopropyl ether (µg/L)	tert-Amyl methyl ether (µg/L)	tert-Butyl alcohol (µg/L)	TPH-GRO (µg/L)	TPH-DRO (µg/L)	Chloromethane (µg/L)	Ethyl tert-butyl ether (µg/L)	Isopropylbenzene (µg/L)	Methylene chloride (µg/L)	p-Isopropyltoluene (µg/L)
GW Clean-up Standards*						5.0	1,000	700	10,000	20	0.17	NL	NL	NL	47	47	19	NL	NL	5.0	NL
MW-1	08/25/2021	642.26	13.85	628.41	-	ND(0.05)	ND(0.07)	ND(0.06)	ND(0.15)	ND(0.05)	ND(0.05)	ND(0.05)	ND(0.20)	ND(1.1)	ND(23)	ND(58)	ND(0.06)	ND(0.05)	ND(0.05)	ND(0.07)	ND(0.05)
MW-1	12/06/2021	642.26	14.77	627.49	-	ND(0.05)	ND(0.07)	ND(0.06)	ND(0.15)	ND(0.05)	ND(0.05)	ND(0.05)	ND(0.2)	ND(1.1)	ND(23)	ND(57)	ND(0.06)	ND(0.05)	ND(0.05)	ND(0.07)	ND(0.05)
MW-1	03/09/2022	642.26	14.56	627.70	-	ND(0.05)	ND(0.07)	ND(0.06)	ND(0.15)	ND(0.05)	ND(0.05)	ND(0.05)	ND(0.20)	ND(1.1)	ND(23)	ND(58)	ND(0.06)	ND(0.05)	ND(0.05)	ND(0.07)	ND(0.05)
MW-1	06/22/2022	642.26	13.17	629.09	-	ND(0.10)	ND(0.08)	ND(0.08)	ND(0.07)	ND(0.08)	ND(0.08)	ND(0.10)	ND(0.20)	ND(3.0)	ND(23)	ND(57)	ND(0.10)	ND(0.08)	ND(0.08)	ND(0.10)	ND(0.08)
MW-3	07/12/2005	644.13	13.88	630.25	-	ND	ND	ND	ND	14.0	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
MW-3	12/16/2005	644.13	14.69	629.44	-	ND	ND	ND	ND	3.0	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
MW-3	06/15/2006	644.13	14.50	629.63	-	ND	ND	ND	ND	2.0	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
MW-3	01/15/2007	644.13	13.17	630.96	-	ND	ND	ND	ND	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
MW-3	05/17/2007	644.13	13.22	630.91	-	ND	ND	ND	ND	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
MW-3	09/26/2007	644.13	15.22	628.91	-	ND	ND	ND	ND	4.6	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
MW-3	12/13/2007	644.13	16.61	627.52	-	ND	ND	ND	ND	2.0	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
MW-3	03/31/2008	644.13	14.47	629.66	-	ND	ND	ND	ND	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
MW-3	06/30/2008	644.13	14.19	629.94	-	ND	ND	ND	ND	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
MW-3	09/24/2008	644.13	16.13	628.00	-	ND	ND	ND	ND	4.0	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
MW-3	12/30/2008	644.13	16.94	627.19	-	ND	ND	ND	ND	2.0	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
MW-3	03/12/2009	644.13	16.26	627.87	-	ND	ND	ND	ND	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
MW-3	05/06/2009	644.13	15.35	628.78	-	ND	ND	ND	ND	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
MW-3	09/14/2009	644.13	15.82	628.31	-	ND	ND	ND	ND	2.0	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
MW-3	12/14/2009	644.13	12.96	631.17	-	ND	ND	ND	ND	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
MW-3	03/26/2010	644.13	10.64	633.49	-	ND	ND	ND	ND	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
MW-3	06/29/2010	644.13	13.89	630.24	-	ND	ND	ND	ND	4.0	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
MW-3	10/16/2010	644.13	19.55	624.58	-	ND	ND	ND	ND	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
MW-3	01/31/2011	644.13	15.77	628.36	-	ND	ND	ND	ND	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
MW-3	04/17/2011	644.13	13.20	630.93	-	ND	1.0	ND	ND	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
MW-3	03/19/2012	644.13	14.72	629.41	-	ND	ND	ND	ND	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
MW-3	06/04/2012	644.13	19.47	624.66	-	ND	ND	ND	ND	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
MW-3	09/28/2012	644.13	16.83	627.30	-	ND	ND	ND	ND	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
MW-3	12/14/2012	644.13	15.64	628.49	-	ND	ND	ND	ND	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
MW-3	03/18/2013	644.13	14.18	629.95	-	ND	ND	ND	ND	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
MW-3	07/05/2013	644.13	14.89	629.24	-	ND	ND	ND	ND	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
MW-3	09/27/2013	644.13	16.26	627.87	-	ND	ND	ND	ND	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
MW-3	01/08/2014	644.13	14.59	629.54	-	ND	ND	ND	ND	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
MW-3	03/12/2014	644.13	13.32	630.81	-	ND	ND	ND	ND	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
MW-3	06/30/2014	644.13	12.39	631.74	-	ND	ND	ND	ND	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
MW-3	09/04/2014	644.13	14.29	629.84	-	ND	ND	ND	ND	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
MW-3	12/16/2014	644.13	15.60	628.53	-	ND	ND	ND	ND	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
MW-3	12/09/2015	644.13	14.77	629.36	-	ND	ND	ND	ND	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
MW-3	10/03/2016	644.13	16.16	627.97	-	ND	ND	ND	ND	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
MW-3	10/06/2017	644.13	15.18	628.95	-	ND	ND	ND	ND	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
MW-3	10/02/2018	644.13	10.62	633.51	-	ND	ND	ND	ND	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
MW-3	10/25/2019	644.13	16.10	628.03	-	ND	ND	ND	ND	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

## HISTORICAL GAUGING AND ANALYTICAL SUMMARY

High's Store No. 86  
3711 Federal Hill Road  
Jarrettsville, MD

Monitoring Well	Date	Top of Casing (ft)	Depth to Water (ft)	GW Elevation (ft)	Depth to Bottom (Measured Depth) (ft)	Benzene (µg/L)	Toluene (µg/L)	Ethylbenzene (µg/L)	Total Xylenes (µg/L)	MTBE (µg/L)	Naphthalene (µg/L)	Diisopropyl ether (µg/L)	tert-Amyl methyl ether (µg/L)	tert-Butyl alcohol (µg/L)	TPH-GRO (µg/L)	TPH-DRO (µg/L)	Chloromethane (µg/L)	Ethyl tert-butyl ether (µg/L)	Isopropylbenzene (µg/L)	Methylene chloride (µg/L)	p-Isopropyltoluene (µg/L)
GW Clean-up Standards*						5.0	1,000	700	10,000	20	0.17	NL	NL	NL	47	47	19	NL	NL	5.0	NL
MW-3	10/09/2020	644.13	16.52	627.61	-	ND	ND	ND	ND	ND	ND	ND	ND	ND	NA	NA	ND	ND	ND	ND	ND
MW-3	12/22/2020	644.13	14.73	629.40	29.04	ND(0.05)	ND(0.07)	ND(0.06)	ND<0.15	ND(0.05)	ND(0.05)	ND(0.05)	ND<0.20	ND(1.1)	-	-	0.12 J	ND(0.05)	ND(0.05)	ND(0.07)	ND(0.05)
MW-3	02/15/2021	644.13	13.67	630.46	29.04	ND(0.05)	ND(0.07)	ND(0.06)	ND<0.15	ND(0.05)	ND(0.05)	ND(0.05)	ND<0.20	ND(1.1)	ND(23)	ND(59)	ND(0.06)	ND(0.05)	ND(0.05)	ND(0.07)	ND(0.05)
MW-3	05/24/2021	644.13	14.02	630.11	-	ND(0.05)	ND(0.07)	ND(0.06)	ND<0.15	ND(0.05)	ND(0.05)	ND(0.05)	ND<0.20	ND(1.1)	ND(23)	ND(56)	ND(0.06)	ND(0.05)	ND(0.05)	ND(0.07)	ND(0.05)
MW-3	08/25/2021	644.13	16.02	628.11	-	ND(0.05)	ND(0.07)	ND(0.06)	ND(0.15)	ND(0.05)	ND(0.05)	ND(0.05)	ND(0.20)	ND(1.1)	ND(23)	58 J	ND(0.06)	ND(0.05)	ND(0.05)	ND(0.07)	ND(0.05)
MW-3	12/06/2021	644.13	16.24	627.89	-	ND(0.05)	ND(0.07)	ND(0.06)	ND(0.15)	ND(0.05)	ND(0.05)	ND(0.05)	ND(0.2)	ND(1.1)	ND(23)	ND(57)	ND(0.06)	ND(0.05)	ND(0.05)	ND(0.07)	ND(0.05)
MW-3	03/09/2022	644.13	16.16	627.97	-	ND(0.05)	ND(0.07)	ND(0.06)	ND(0.15)	ND(0.05)	ND(0.05)	ND(0.05)	ND(0.20)	ND(1.1)	ND(23)	ND(57)	ND(0.06)	ND(0.05)	ND(0.05)	ND(0.07)	ND(0.05)
MW-3	06/22/2022	644.13	14.65	629.48	-	ND(0.10)	ND(0.08)	ND(0.08)	ND(0.07)	ND(0.08)	ND(0.08)	ND(0.10)	ND(0.20)	ND(3.0)	ND(23)	ND(58)	ND(0.10)	ND(0.08)	ND(0.08)	ND(0.10)	ND(0.08)
MW-4	09/26/2007	645.00	15.67	629.33	-	ND	ND	ND	ND	320,000	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
MW-4	12/13/2007	645.00	17.53	627.47	-	ND	ND	ND	ND	57,000	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
MW-4	03/31/2008	645.00	15.34	629.66	-	ND	ND	ND	ND	12,000	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
MW-4	06/30/2008	645.00	15.28	629.72	-	ND	ND	ND	ND	55,000	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
MW-4	09/24/2008	645.00	17.35	627.65	-	ND	ND	ND	ND	310,000	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
MW-4	12/30/2008	645.00	16.94	628.06	-	ND	ND	ND	ND	49,000	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
MW-4	03/12/2009	645.00	17.11	627.89	-	ND	ND	ND	ND	13,000	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
MW-4	05/06/2009	645.00	16.09	628.91	-	ND	ND	ND	ND	19,000	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
MW-4	09/14/2009	645.00	16.30	628.70	-	ND	ND	ND	ND	84,000	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
MW-4	12/14/2009	645.00	13.68	631.32	-	ND	ND	ND	ND	520	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
MW-4	03/26/2010	645.00	-	-	-	ND	ND	ND	ND	4,400	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
MW-4	06/29/2010	645.00	-	-	-	ND	ND	ND	ND	160,000	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
MW-4	10/06/2010	645.00	16.48	628.52	-	ND	ND	ND	ND	19,000	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
MW-4	01/31/2011	645.00	16.82	628.18	-	ND	ND	ND	ND	58,000	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
MW-4	04/17/2011	645.00	14.30	630.70	-	ND	ND	ND	ND	46,000	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
MW-4	03/19/2012	645.00	15.72	629.28	-	88.1	24.8	ND	53.5	19,920	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
MW-4	06/04/2012	645.00	15.96	629.04	-	94.1	20.5	30.1	23.6	43,560	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
MW-4	09/28/2012	645.00	17.87	627.13	-	111	17.8	7.08	69.2	33,680	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
MW-4	12/14/2012	645.00	16.58	628.42	-	ND	ND	ND	ND	8,140	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
MW-4	03/18/2013	645.00	15.08	629.92	-	ND	ND	ND	ND	1,920	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
MW-4	07/05/2013	645.00	15.99	629.01	-	32.8	14.2	ND	ND	5,800	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
MW-4	09/27/2013	645.00	17.36	627.64	-	70.5	5.28	ND	38.20	46,100	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
MW-4	01/08/2014	645.00	15.38	629.62	-	ND	ND	ND	ND	63	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
MW-4	03/12/2014	645.00	14.13	630.87	-	ND	ND	ND	ND	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
MW-4	06/30/2014	645.00	13.60	631.40	-	ND	ND	ND	ND	416	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
MW-4	09/04/2014	645.00	15.54	629.46	-	86.0	ND	10.0	10.0	5,600	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
MW-4	12/16/2014	645.00	16.49	628.51	-	ND	ND	ND	ND	83.1	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
MW-4	12/09/2015	645.00	15.55	629.45	-	ND	ND	ND	ND	1,700	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
MW-4	10/03/2016	645.00	17.22	627.78	-	90.4	ND	ND	ND	3,610	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
MW-4	10/06/2017	645.00	16.20	628.80	-	ND	ND	ND	ND	164	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
MW-4	10/02/2018	645.00	12.66	632.34	-	ND	ND	ND	ND	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
MW-4	10/25/2019	645.00	17.10	627.90	-	235	ND	ND	ND	507	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
MW-4	10/9/2020 <sup>A</sup>	645.00	16.57	628.43	-	139	ND	ND	ND	452	ND	128	ND	7,140	NA	NA	ND	ND<5	ND<5	ND<5	ND<5

Table 1

## HISTORICAL GAUGING AND ANALYTICAL SUMMARY

High's Store No. 86  
3711 Federal Hill Road  
Jarrettsville, MD

Monitoring Well	Date	Top of Casing (ft)	Depth to Water (ft)	GW Elevation (ft)	Depth to Bottom (Measured Depth) (ft)	Benzene (µg/L)	Toluene (µg/L)	Ethylbenzene (µg/L)	Total Xylenes (µg/L)	MTBE (µg/L)	Naphthalene (µg/L)	Diisopropyl ether (µg/L)	tert-Amyl methyl ether (µg/L)	tert-Butyl alcohol (µg/L)	TPH-GRO (µg/L)	TPH-DRO (µg/L)	Chloromethane (µg/L)	Ethyl tert-butyl ether (µg/L)	Isopropylbenzene (µg/L)	Methylene chloride (µg/L)	p-Isopropyltoluene (µg/L)	
<b>GW Clean-up Standards*</b>						<b>5.0</b>	<b>1,000</b>	<b>700</b>	<b>10,000</b>	<b>20</b>	<b>0.17</b>	<b>NL</b>	<b>NL</b>	<b>NL</b>	<b>47</b>	<b>47</b>	<b>19</b>	<b>NL</b>	<b>NL</b>	<b>5.0</b>	<b>NL</b>	
MW-4	11/19/2020 <sup>B</sup>	645.00	-	-	-	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
MW-4	11/20/2020 <sup>A</sup>	645.00	-	-	-	ND	ND	ND	ND	34.5	ND	ND	ND	169	ND	ND	ND	ND	ND	ND	ND	ND
MW-4	11/20/2020 <sup>B</sup>	645.00	-	-	-	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
MW-4	12/22/2020	645.00	15.54	629.46	24.30	ND(0.05)	ND(0.07)	ND(0.06)	ND(0.15)	1.6	ND(0.05)	0.19 J	ND(0.20)	2.6 J	-	-	0.13 J	ND(0.05)	ND(0.05)	ND(0.07)	ND(0.05)	
MW-4	02/15/2021	645.00	14.73	630.27	24.30	16	ND(0.07)	ND(0.06)	0.23 J	35.0	0.060 J	18.0	1.6	1,100	300	ND(60)	0.38 J	0.63	0.057 J	0.11 J	ND(0.05)	
MW-4	05/24/2021	645.00	15.20	629.80	-	35	1.2	ND(0.12)	0.41 J	78	ND(0.10)	31.0	ND(0.40)	2,200	570	ND(57)	ND(0.12)	1.1	0.11 J	0.35 J	ND(0.10)	
MW-4	08/25/2021	645.00	17.10	627.90	-	45	2.0	ND(0.12)	0.88 J	130	0.23 J	38.0	4.5	3,100	700	130	ND(0.12)	1.7	0.16 J	0.58 J	ND(0.10)	
MW-4	12/06/2021	645.00	17.12	627.88	-	7.9	ND(0.07)	ND(0.06)	ND(0.15)	23	ND(0.05)	8.0	1.2	720	120	ND(57)	0.16 J	0.33 J	ND(0.05)	0.078 J	ND(0.05)	
MW-4	03/09/2022	645.00	16.84	628.16	-	ND(0.05)	ND(0.07)	ND(0.06)	ND(0.15)	0.20 J	ND(0.05)	ND(0.05)	ND(0.20)	ND(1.1)	ND(23)	ND(57)	ND(0.06)	ND(0.05)	ND(0.05)	ND(0.07)	ND(0.05)	
MW-4	06/22/2022	645.00	15.72	629.28	-	ND(0.10)	ND(0.08)	ND(0.08)	ND(0.07)	5.0	ND(0.08)	2.1	ND(0.20)	9.8 J	ND(23)	ND(57)	ND(0.10)	ND(0.08)	ND(0.08)	ND(0.10)	ND(0.08)	
TF-1	12/22/2020	-	DRY	-	13.13	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TF-1	02/15/2021	-	DRY	-	13.13	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TF-1	05/24/2021	-	DRY	-	13.13	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TF-1	08/25/2021	-	DRY	-	13.13	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TF-1	12/06/2021	-	DRY	-	13.13	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TF-1	03/09/2022	-	DRY	-	13.13	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TF-1	06/22/2022	-	DRY	-	13.13	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TF-2	12/22/2020	-	DRY	-	9.35	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TF-2	02/15/2021	-	DRY	-	9.35	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TF-2	05/24/2021	-	DRY	-	9.35	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TF-2	08/25/2021	-	DRY	-	9.35	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TF-2	12/06/2021	-	DRY	-	9.35	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TF-2	03/09/2022	-	DRY	-	9.35	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TF-2	06/22/2022	-	DRY	-	9.35	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



## HISTORICAL GAUGING AND ANALYTICAL SUMMARY

High's Store No. 86  
3711 Federal Hill Road  
Jarrettsville, MD

Monitoring Well	Date	Top of Casing (ft)	Depth to Water (ft)	GW Elevation (ft)	Depth to Bottom (Measured Depth) (ft)	Benzene (µg/L)	Toluene (µg/L)	Ethylbenzene (µg/L)	Total Xylenes (µg/L)	MTBE (µg/L)	Naphthalene (µg/L)	Diisopropyl ether (µg/L)	tert-Amyl methyl ether (µg/L)	tert-Butyl alcohol (µg/L)	TPH-GRO (µg/L)	TPH-DRO (µg/L)	Chloromethane (µg/L)	Ethyl tert-butyl ether (µg/L)	Isopropylbenzene (µg/L)	Methylene chloride (µg/L)	p-Isopropyltoluene (µg/L)
<b>GW Clean-up Standards*</b>						<b>5.0</b>	<b>1,000</b>	<b>700</b>	<b>10,000</b>	<b>20</b>	<b>0.17</b>	<b>NL</b>	<b>NL</b>	<b>NL</b>	<b>47</b>	<b>47</b>	<b>19</b>	<b>NL</b>	<b>NL</b>	<b>5.0</b>	<b>NL</b>

## Notes:

\* GW Cleanup Standards are the Maryland Department of the Environment (MDE) Groundwater Clean-up Standards for Type I and II Aquifers (2018)

Analytical and gauging data prior to December 2020 was obtained by Advanced Environmental Concepts, Inc.

11/19/20<sup>A</sup> = sample collected during recharge

11/19/20<sup>B</sup> = sample collected after recharge

NA = analytical data not available at the time of this report

ND<# = Non-detect less than the Method Detection Limit of #

ND (#) = Not detected, concentration below Method Detection Limit (#)

µg/L = micrograms per liter

MTBE = Methyl Tertiary Butyl Ether

BTEX = Benzene, toluene, ethylbenzene, xylenes

PID = Photoionization detector

ppm = parts per million

ft = feet

- = Not analyzed

J = Detected between the Method Detection Limit (MDL) and Reporting Limit (RL); therefore the result is an estimated value.

NL =No Limit established

TPH-GRO =Total Petroleum Hydrocarbons-Gasoline Range Organics

TPH-DRO =Total Petroleum Hydrocarbons-Diesel Range Organics

Table 2

## HISTORICAL POTABLE WELL ANALYTICAL SUMMARY

High's Store No. 86  
3711 Federal Hill Road  
Jarrettsville, MD

Sample ID	Date	Benzene (µg/L)	Toluene (µg/L)	Ethylbenzene (µg/L)	Total Xylenes (µg/L)	MTBE (µg/L)	Naphthalene (µg/L)	Diisopropyl ether (µg/L)	tert-Amyl methyl ether (µg/L)	tert-Butyl alcohol (µg/L)	
<b>GW Clean-up Standards*</b>		<b>5.0</b>	<b>1,000</b>	<b>700</b>	<b>10,000</b>	<b>20</b>	<b>0.17</b>	<b>NL</b>	<b>NL</b>	<b>NL</b>	
3711-Federal Hill (High's)	3/18/2013	ND	ND	ND	ND	ND	ND	ND	ND	ND	
	7/5/2013	ND	ND	ND	ND	ND	ND	ND	ND	ND	
	9/27/2013	ND	ND	ND	ND	ND	ND	ND	ND	ND	
	1/8/2014	ND	ND	ND	ND	ND	ND	ND	ND	ND	
	6/30/2014	ND	ND	ND	ND	ND	ND	ND	ND	ND	
	12/16/2014	ND	ND	ND	ND	ND	ND	ND	ND	ND	
	12/9/2015	ND	ND	ND	ND	ND	ND	ND	ND	ND	
	10/3/2016	ND	ND	ND	ND	ND	ND	ND	ND	ND	
	10/6/2017	ND	ND	ND	ND	ND	ND	ND	ND	ND	
	10/2/2018	ND	ND	ND	ND	ND	ND	ND	ND	ND	
	10/25/2019	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<10
	10/9/2020	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<10
	2/15/2021	ND(0.10)	ND(0.10)	ND(0.10)	ND(0.10)	0.10 J	ND(0.20)	ND(0.10)	ND(0.10)	ND(0.10)	ND(2.5)
	5/24/2021	ND(0.10)	ND(0.10)	ND(0.10)	ND(0.10)	ND(0.10)	ND(0.20)	ND(0.10)	ND(0.10)	ND(0.10)	ND(2.5)
	8/25/2021	ND(0.10)	ND(0.10)	ND(0.10)	ND(0.10)	ND(0.10)	ND(0.20)	ND(0.10)	ND(0.10)	ND(0.10)	ND(2.5)
12/6/2021	ND(0.10)	ND(0.10)	ND(0.10)	ND(0.10)	ND(0.10)	ND(0.20)	ND(0.10)	ND(0.10)	ND(0.10)	ND(5.0)	
3/9/2022	ND(0.10)	ND(0.10)	ND(0.10)	ND(0.10)	ND(0.10)	ND(0.20)	ND(0.10)	ND(0.10)	ND(0.10)	ND(5.0)	
6/22/2022	ND(0.10)	ND(0.10)	ND(0.10)	ND(0.10)	ND(0.10)	ND(0.20)	ND(0.10)	ND(0.10)	ND(0.10)	ND(5.0)	

Notes: \* GW Cleanup Standards are the Maryland Department of the Environment (MDE) Groundwater Clean-up Standards for Type I and II Aquifers (2018)

ND (#) = Not detected, concentration below Method Detection Limit (#)

µg/L = micrograms per liter

MTBE = Methyl Tertiary Butyl Ether

- = Not analyzed

J = Detected between the Method Detection Limit (MDL) and Reporting Limit (RL); therefore the result is an estimated value.

NL = No Limit established

NA = Analytical data not available at the time of this report

# Appendix A – Field Documentation

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# Groundwater Sampling Data Collection Sheet



Well ID:	MW-1	Site ID:	Hgms #26	Sample Date:	6-22-22
Initial DTW / Time:	4"	Address:	3811 Federal Hill Rd. Jarrettsville Md.		
Well Diameter:		Sample Method (circle one):	Low Flow		
Total Well Depth:		Purge/sample	Grab/No Pruge		
Water Column Length:		Sampling Tech(s):	Jeff Plummer		
Pump Intake depth:		Weather Conditions:	Partly cloudy		
		Air Temp =	80'		

## Data Collection: Low Flow

Time	DTW	Temp	Conductivity	D.O.	pH	ORP	Flow Rate	Cumulative Purge Volume	Appearance of Purge Water	Comment
		____ Unit ± 0.3 °C	ms/cm Unit ± 3%	mg/L Unit ± 10%	NA ± 0.1	____ Unit ± 10				
1045	13:17	Just prior to lowering any equipment into well								
1050	13:03	After lowering equipment into the well & before turning on the pump								
1050	Purge Start Time									
1055	13:63	15.94	1.143	5.74	5.74	207.4	300ml./min		clear	
1100	13:73	15.92	1.141	5.78	5.69	209.8				
1105	13:78	15.83	1.139	5.80	5.69	207.7				
1110	13:83	15.89	1.138	5.84	5.60	206.0				
1115	13:88	15.88	1.130	5.79	5.58	205.4	✓	2 gallons	↓	
1120	Sample Collection Time									
	Purge Stop Time									

## Data Collection: Purge and Sample / Grab Sampling

Time	DTW	Temp	Conductivity	D.O.	pH	ORP	Flow Rate	Cumulative Purge Volume	Appearance of Purge Water	Method Of Sampling
		____ Unit ± 0.3 °C	____ Unit ± 3%	____ Unit ± 10%	NA ± 0.1	____ Unit ± 10				
		Just prior to lowering any equipment into well								
		Sample Collection Time								
Note: Unless otherwise stated, field parameters collected during purge and sample or grab sampling were collected from the well with a sonde before purging or sampling.										

## General Comment & Type of Equipment Used (pumps/YSI meter/ect./caibration info):

TF-1 dry @ 13:13  
 TF-2 dry @ 9:35

Stabilization is achieved when three successive readings are within

- ± 0.3 °C for temperature,
- ± 0.1 for pH,
- ± 3% for specific conductivity,
- ± 10 for reduction-oxidation potential

Purge Volumes:

- 2-inch diameter well:  
0.16 gal./ft x \_\_\_\_ (linear feet of water) = gallons of water
- 4-inch diameter well:  
0.65 gal./ft x \_\_\_\_ (linear feet of water) = gallons of water

# Groundwater Sampling Data Collection Sheet



Well ID: <u>1MW-3</u>		Site ID: <u>HHS #86</u>		Sample Date: <u>6-22-23</u>						
Initial DTW / Time:		Address: <u>371 Federal Hill Rd. Jopettville Md.</u>								
Well Diameter: <u>4"</u>	Sample Method (circle one) <u>Low Flow</u>		Sampling Tech(s): <u>J. Plummer</u>							
Total Well Depth:			Weather Conditions: <u>clear 77°</u>							
Water Column Length:			Air Temp =							
Pump Intake depth:										
<b>Data Collection: Low Flow</b>										
Time	DTW	Temp	Conductivity	D.O.	pH	ORP	Flow Rate	Cumulative Purge Volume	Appearance of Purge Water	Comment
		____ Unit ± 0.3 °C	____ Unit ± 3%	____ Unit ± 10%	NA ± 0.1	____ Unit ± 10				
<u>0950</u>	<u>14.05</u>	Just prior to lowering any equipment into well								
<u>0955</u>	<u>14.03</u>	After lowering equipment into the well & before turning on the pump								
<u>0955</u>	Purge Start Time									
<u>1000</u>	<u>14.73</u>	<u>17.85</u>	<u>0.249</u>	<u>10.24</u>	<u>6.35</u>	<u>172.7</u>	<u>300 ml/min</u>		<u>clear</u>	
<u>1005</u>	<u>14.73</u>	<u>17.89</u>	<u>0.247</u>	<u>10.13</u>	<u>5.61</u>	<u>187.2</u>				
<u>1010</u>	<u>14.73</u>	<u>17.90</u>	<u>0.246</u>	<u>10.06</u>	<u>5.71</u>	<u>181.0</u>				
<u>1015</u>	<u>14.73</u>	<u>17.68</u>	<u>0.248</u>	<u>10.02</u>	<u>5.62</u>	<u>190.2</u>				
<u>1020</u>	<u>14.73</u>	<u>17.72</u>	<u>0.247</u>	<u>10.01</u>	<u>5.55</u>	<u>199.7</u>		<u>2 gallons</u>		
<u>1025</u>	Sample Collection Time									
	Purge Stop Time									
<b>Data Collection: Purge and Sample / Grab Sampling</b>										
If Applicable										
Time	DTW	Temp	Conductivity	D.O.	pH	ORP	Flow Rate	Cumulative Purge Volume	Appearance of Purge Water	Method Of Sampling
		____ Unit ± 0.3 °C	____ Unit ± 3%	____ Unit ± 10%	NA ± 0.1	____ Unit ± 10				
		Just prior to lowering any equipment into well								
		Sample Collection Time								
Note: Unless otherwise stated, field parameters collected during purge and sample or grab sampling were collected from the well with a sonde before purging or sampling.										
General Comment & Type of Equipment Used (pumps/YSI meter/ect./caibration info):										

Stabilization is achieved when three successive readings are within

- ± 0.3 °C for temperature,
- ± 0.1 for pH,
- ± 3% for specific conductivity,
- ± 10 for reduction-oxidation potential

Purge Volumes:

- 2-inch diameter well:  
0.16 gal./ft x \_\_\_\_ (linear feet of water) = gallons of water
- 4-inch diameter well:  
0.65 gal./ft x \_\_\_\_ (linear feet of water) = gallons of water

Groundwater Sampling Data Collection Sheet



Well ID:	MW-4		Site ID:	Highs # 86	Sample Date:	6-22-12
Initial DTW / Time:			Address:	3714 Federal Hill Rd. Jarrettville Md.		
Well Diameter:	2"	Sample Method (circle one) <u>Low Flow</u> Purge/sample Grab/No Pruge	Sampling Tech(s):	Jeff Plummer		
Total Well Depth:			Weather Conditions:	Partly cloudy 82°		
Water Column Length:			Air Temp =			
Pump Intake depth:						

Data Collection: Low Flow

Time	DTW	Temp	Conductivity	D.O.	pH	ORP	Flow Rate	Cumulative Purge Volume	Appearance of Purge Water	Comment
		____ Unit ± 0.3 °C	<u>ms/cm</u> Unit ± 3%	<u>mg/l</u> Unit ± 10%	NA ± 0.1	____ Unit ± 10				
1745	15.72	Just prior to lowering any equipment into well								
115	15.68	After lowering equipment into the well & before turning on the pump								
115	Purge Start Time									
1155	16.10	16.06	0.396	7.22	4.12	219.6	300 ml/min		cloudy	
1200	16.15	17.83	0.364	7.70	4.28	230.8			clear	
1205	16.18	17.85	0.366	7.74	4.26	232.1				
1210	16.21	17.57	0.368	7.90	4.28	230.5				
1215	16.23	17.64	0.362	8.03	4.31	229.5		2 gallons		
1220	Sample Collection Time									
	Purge Stop Time									

Data Collection: Purge and Sample / Grab Sampling

Time	DTW	Temp	Conductivity	D.O.	pH	ORP	Flow Rate	Cumulative Purge Volume	Appearance of Purge Water	Method Of Sampling
		____ Unit ± 0.3 °C	____ Unit ± 3%	____ Unit ± 10%	NA ± 0.1	____ Unit ± 10				
		Just prior to lowering any equipment into well								
		Note: Unless otherwise stated, field parameters collected during purge and sample or grab sampling were collected from the well with a sonde before purging or sampling.								

General Comment & Type of Equipment Used (pumps/YSI meter/ect./caibration info):

Stabilization is achieved when three successive readings are within  
 ± 0.3 °C for temperature,  
 ± 0.1 for pH,  
 ± 3% for specific conductivity,  
 ± 10 for reduction-oxidation potential

Purge Volumes:  
 2-inch diameter well:  
 0.16 gal./ft x \_\_\_\_ (linear feet of water) = gallons of water  
 4-inch diameter well:  
 0.65 gal./ft x \_\_\_\_ (linear feet of water) = gallons of water

## **Appendix B – Lab Analytical Reports and COC Documentation**

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## ANALYTICAL REPORT

Eurofins Lancaster Laboratories Environment Testing, LLC  
2425 New Holland Pike  
Lancaster, PA 17601  
Tel: (717)656-2300

Laboratory Job ID: 410-88688-1

Client Project/Site: Carroll - High's #86, Jarrettsville MD

**For:**

Groundwater & Environmental Services Inc  
1350 Blair Drive  
Suite H-2  
Odenton, Maryland 21113

Attn: Peter Reichardt



Authorized for release by:

6/29/2022 3:09:24 AM

Amek Carter, Project Manager  
(717)556-7252

[Loran.Carter@et.eurofinsus.com](mailto:Loran.Carter@et.eurofinsus.com)

### LINKS

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results through



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

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

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





Analytical test results meet all requirements of the associated regulatory program (e.g., NELAC (TNI), DoD, and ISO 17025) unless otherwise noted under the individual analysis. Data qualifiers are applied to note exceptions. Noncompliant quality control (QC) is further explained in narrative comments.

- QC results that exceed the upper limits and are associated with non-detect samples are qualified but further narration is not required since the bias is high and does not change a non-detect result. Further narration is also not required with QC blank detection when the associated sample concentration is non-detect or more than ten times the level in the blank.
  - Matrix QC may not be reported if insufficient sample or site-specific QC samples were not submitted. In these situations, to demonstrate precision and accuracy at a batch level, a LCS/LCSD is performed, unless otherwise specified in the method.
  - Surrogate and/or isotope dilution analyte recoveries (if applicable) which are outside of the QC window are confirmed unless attributed to a dilution or otherwise noted in the narrative.
- Regulated compliance samples (e.g. SDWA, NPDES) must comply with the associated agency requirements/permits.

Measurement uncertainty values, as applicable, are available upon request.

Test results relate only to the sample tested. Clients should be aware that a critical step in a chemical or microbiological analysis is the collection of the sample. Unless the sample analyzed is truly representative of the bulk of material involved, the test results will be meaningless. If you have questions regarding the proper techniques of collecting samples, please contact us. We cannot be held responsible for sample integrity, however, unless sampling has been performed by a member of our staff. Times are local to the area of activity. Parameters listed in the 40 CFR Part 136 Table II as "analyze immediately" and tested in the laboratory are not performed within 15 minutes of collection.

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A handwritten signature in black ink that reads "Amek Carter".

---

Amek Carter  
Project Manager  
6/29/2022 3:09:24 AM



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## Definitions/Glossary

Client: Groundwater & Environmental Services Inc  
Project/Site: Carroll - High's #86, Jarrettsville MD

Job ID: 410-88688-1

### Qualifiers

#### GC/MS VOA

Qualifier	Qualifier Description
*+	LCS and/or LCSD is outside acceptance limits, high biased.
cn	Refer to Case Narrative for further detail
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

### Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
▫	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
1C	Result is from the primary column on a dual-column method.
2C	Result is from the confirmation column on a dual-column method.
CFL	Contains Free Liquid
CFU	Colony Forming Unit
CNF	Contains No Free Liquid
DER	Duplicate Error Ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL	Detection Limit (DoD/DOE)
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision Level Concentration (Radiochemistry)
EDL	Estimated Detection Limit (Dioxin)
LOD	Limit of Detection (DoD/DOE)
LOQ	Limit of Quantitation (DoD/DOE)
MCL	EPA recommended "Maximum Contaminant Level"
MDA	Minimum Detectable Activity (Radiochemistry)
MDC	Minimum Detectable Concentration (Radiochemistry)
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
MPN	Most Probable Number
MQL	Method Quantitation Limit
NC	Not Calculated
ND	Not Detected at the reporting limit (or MDL or EDL if shown)
NEG	Negative / Absent
POS	Positive / Present
PQL	Practical Quantitation Limit
PRES	Presumptive
QC	Quality Control
RER	Relative Error Ratio (Radiochemistry)
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)
TNTC	Too Numerous To Count

# Case Narrative

Client: Groundwater & Environmental Services Inc  
Project/Site: Carroll - High's #86, Jarrettsville MD

Job ID: 410-88688-1

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## Job ID: 410-88688-1

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Laboratory: Eurofins Lancaster Laboratories Environment Testing, LLC

### Narrative

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#### Job Narrative 410-88688-1

#### Receipt

The samples were received on 6/23/2022 5:04 PM. Unless otherwise noted below, the samples arrived in good condition, and, where required, properly preserved and on ice. The temperature of the cooler at receipt time was 4.8°C

#### Receipt Exceptions

A trip blank was not submitted for analysis with this sample shipment; and was not listed on the Chain of Custody (COC).

#### GC/MS VOA

Method 8260C\_LL: The continuing calibration verification (CCV) associated with batch 410-270122 recovered outside acceptance criteria, low biased, for 1,1,1-Trichloroethane and Trichlorofluoromethane. A reporting limit (RL) standard was analyzed, and the target analyte was detected. Non-detections of the affected analytes are reported. Any detections are considered estimated..

Method 8260C\_LL: The preservative used in the sample containers provided is not compatible with the Method 8260 analytes requested. The following samples were received preserved with hydrochloric acid: MW-1 (410-88688-1), MW-3 (410-88688-2) and MW-4 (410-88688-3). The requested target analyte list includes Acrylonitrile , acid-labile compounds that degrade in an acidic medium.

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

#### Gasoline Range Organics

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

#### Diesel Range Organics

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



# Detection Summary

Client: Groundwater & Environmental Services Inc  
Project/Site: Carroll - High's #86, Jarrettsville MD

Job ID: 410-88688-1

## Client Sample ID: MW-1

Lab Sample ID: 410-88688-1

No Detections.

## Client Sample ID: MW-3

Lab Sample ID: 410-88688-2

No Detections.

## Client Sample ID: MW-4

Lab Sample ID: 410-88688-3

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Methyl tertiary butyl ether	5.0		0.50	0.080	ug/L	1		8260C LL	Total/NA
di-Isopropyl ether	2.1		0.50	0.10	ug/L	1		8260C LL	Total/NA
t-Butyl alcohol	9.8	J	10	3.0	ug/L	1		8260C LL	Total/NA

This Detection Summary does not include radiochemical test results.

Eurofins Lancaster Laboratories Environment Testing, LLC

# Client Sample Results

Client: Groundwater & Environmental Services Inc  
 Project/Site: Carroll - High's #86, Jarrettsville MD

Job ID: 410-88688-1

**Client Sample ID: MW-1**

**Lab Sample ID: 410-88688-1**

**Date Collected: 06/22/22 11:20**

**Matrix: Groundwater**

**Date Received: 06/23/22 17:04**

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1,2-Tetrachloroethane	ND		0.50	0.070	ug/L			06/28/22 16:25	1
cis-1,3-Dichloropropene	ND		0.50	0.10	ug/L			06/28/22 16:25	1
trans-1,3-Dichloropropene	ND		0.50	0.080	ug/L			06/28/22 16:25	1
Ethylbenzene	ND		0.50	0.080	ug/L			06/28/22 16:25	1
Styrene	ND		0.50	0.070	ug/L			06/28/22 16:25	1
1,4-Dichlorobenzene	ND		0.50	0.070	ug/L			06/28/22 16:25	1
1,2-Dibromoethane	ND		0.50	0.080	ug/L			06/28/22 16:25	1
1,1-Dichloropropene	ND		0.50	0.10	ug/L			06/28/22 16:25	1
1,2-Dichloroethane	ND		0.50	0.070	ug/L			06/28/22 16:25	1
1,2,3-Trichlorobenzene	ND		0.50	0.070	ug/L			06/28/22 16:25	1
1,2,3-Trichloropropane	ND		1.0	0.10	ug/L			06/28/22 16:25	1
Toluene	ND		0.50	0.080	ug/L			06/28/22 16:25	1
Chlorobenzene	ND		0.50	0.070	ug/L			06/28/22 16:25	1
1,2,4-Trimethylbenzene	ND		0.50	0.080	ug/L			06/28/22 16:25	1
1,2,4-Trichlorobenzene	ND		0.50	0.070	ug/L			06/28/22 16:25	1
Dibromochloromethane	ND		0.50	0.080	ug/L			06/28/22 16:25	1
Xylenes, Total	ND		1.0	0.070	ug/L			06/28/22 16:25	1
Tetrachloroethene	ND		0.50	0.20	ug/L			06/28/22 16:25	1
cis-1,2-Dichloroethene	ND		0.50	0.080	ug/L			06/28/22 16:25	1
trans-1,2-Dichloroethene	ND		0.50	0.10	ug/L			06/28/22 16:25	1
Methyl tertiary butyl ether	ND		0.50	0.080	ug/L			06/28/22 16:25	1
1,3,5-Trimethylbenzene	ND		0.50	0.080	ug/L			06/28/22 16:25	1
1,3-Dichlorobenzene	ND		0.50	0.070	ug/L			06/28/22 16:25	1
1,3-Dichloropropane	ND		0.50	0.080	ug/L			06/28/22 16:25	1
Chloroform	ND		0.50	0.090	ug/L			06/28/22 16:25	1
Benzene	ND		0.50	0.10	ug/L			06/28/22 16:25	1
1,1,1-Trichloroethane	ND	cn	0.50	0.080	ug/L			06/28/22 16:25	1
Bromomethane	ND		0.50	0.10	ug/L			06/28/22 16:25	1
Chloromethane	ND		0.50	0.10	ug/L			06/28/22 16:25	1
Chloroethane	ND		0.50	0.10	ug/L			06/28/22 16:25	1
2,2-Dichloropropane	ND		0.50	0.10	ug/L			06/28/22 16:25	1
Vinyl chloride	ND		0.50	0.10	ug/L			06/28/22 16:25	1
Methylene Chloride	ND		0.50	0.10	ug/L			06/28/22 16:25	1
Carbon disulfide	ND		1.0	0.10	ug/L			06/28/22 16:25	1
Bromoform	ND		1.0	0.30	ug/L			06/28/22 16:25	1
Bromodichloromethane	ND		0.50	0.080	ug/L			06/28/22 16:25	1
1,1-Dichloroethane	ND		0.50	0.10	ug/L			06/28/22 16:25	1
2-Chlorotoluene	ND		0.50	0.080	ug/L			06/28/22 16:25	1
1,1-Dichloroethene	ND		0.50	0.10	ug/L			06/28/22 16:25	1
Trichlorofluoromethane	ND	cn	0.50	0.10	ug/L			06/28/22 16:25	1
4-Chlorotoluene	ND		0.50	0.080	ug/L			06/28/22 16:25	1
Dichlorodifluoromethane	ND		0.50	0.10	ug/L			06/28/22 16:25	1
1,2-Dichloropropane	ND		0.50	0.10	ug/L			06/28/22 16:25	1
1,1,2-Trichloroethane	ND		0.50	0.080	ug/L			06/28/22 16:25	1
Acrylonitrile	ND	cn	5.0	0.40	ug/L			06/28/22 16:25	1
Trichloroethene	ND		0.50	0.080	ug/L			06/28/22 16:25	1
1,1,1,2,2-Tetrachloroethane	ND	*+	0.50	0.10	ug/L			06/28/22 16:25	1
1,2-Dichlorobenzene	ND		0.50	0.070	ug/L			06/28/22 16:25	1
1,2-Dibromo-3-Chloropropane	ND		0.50	0.10	ug/L			06/28/22 16:25	1

# Client Sample Results

Client: Groundwater & Environmental Services Inc  
 Project/Site: Carroll - High's #86, Jarrettsville MD

Job ID: 410-88688-1

**Client Sample ID: MW-1**

**Lab Sample ID: 410-88688-1**

Date Collected: 06/22/22 11:20

Matrix: Groundwater

Date Received: 06/23/22 17:04

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Bromobenzene	ND		0.50	0.080	ug/L			06/28/22 16:25	1
Bromochloromethane	ND		0.50	0.080	ug/L			06/28/22 16:25	1
Isopropylbenzene	ND		0.50	0.080	ug/L			06/28/22 16:25	1
Dibromomethane	ND		0.50	0.080	ug/L			06/28/22 16:25	1
di-Isopropyl ether	ND		0.50	0.10	ug/L			06/28/22 16:25	1
Ethyl t-butyl ether	ND		0.50	0.080	ug/L			06/28/22 16:25	1
Hexachlorobutadiene	ND		0.50	0.080	ug/L			06/28/22 16:25	1
Naphthalene	ND		0.50	0.080	ug/L			06/28/22 16:25	1
n-Butylbenzene	ND		0.50	0.080	ug/L			06/28/22 16:25	1
N-Propylbenzene	ND		0.50	0.10	ug/L			06/28/22 16:25	1
p-Isopropyltoluene	ND		0.50	0.080	ug/L			06/28/22 16:25	1
sec-Butylbenzene	ND		0.50	0.10	ug/L			06/28/22 16:25	1
t-Amyl methyl ether	ND		0.50	0.20	ug/L			06/28/22 16:25	1
t-Butyl alcohol	ND		10	3.0	ug/L			06/28/22 16:25	1
tert-Butylbenzene	ND		0.50	0.080	ug/L			06/28/22 16:25	1
trans-1,4-Dichloro-2-butene	ND		5.0	2.0	ug/L			06/28/22 16:25	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	102		80 - 120					06/28/22 16:25	1
Dibromofluoromethane (Surr)	92		80 - 120					06/28/22 16:25	1
4-Bromofluorobenzene (Surr)	94		80 - 120					06/28/22 16:25	1
Toluene-d8 (Surr)	104		80 - 120					06/28/22 16:25	1

**Method: 8015D - Gasoline Range Organics (GRO) (GC)**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
GRO (1C)	ND		0.050	0.023	mg/L			06/28/22 00:37	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
a,a,a-Trifluorotoluene (fid) (1C)	100		63 - 135					06/28/22 00:37	1

**Method: 8015D - Diesel Range Organics (DRO) (GC)**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
DRO (C10-C28)	ND		110	57	ug/L		06/28/22 05:38	06/28/22 15:50	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
o-terphenyl (Surr)	121		37 - 153				06/28/22 05:38	06/28/22 15:50	1

**Client Sample ID: MW-3**

**Lab Sample ID: 410-88688-2**

Date Collected: 06/22/22 10:25

Matrix: Groundwater

Date Received: 06/23/22 17:04

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1,2-Tetrachloroethane	ND		0.50	0.070	ug/L			06/28/22 16:47	1
cis-1,3-Dichloropropene	ND		0.50	0.10	ug/L			06/28/22 16:47	1
trans-1,3-Dichloropropene	ND		0.50	0.080	ug/L			06/28/22 16:47	1
Ethylbenzene	ND		0.50	0.080	ug/L			06/28/22 16:47	1
Styrene	ND		0.50	0.070	ug/L			06/28/22 16:47	1
1,4-Dichlorobenzene	ND		0.50	0.070	ug/L			06/28/22 16:47	1
1,2-Dibromoethane	ND		0.50	0.080	ug/L			06/28/22 16:47	1
1,1-Dichloropropene	ND		0.50	0.10	ug/L			06/28/22 16:47	1

Eurofins Lancaster Laboratories Environment Testing, LLC

# Client Sample Results

Client: Groundwater & Environmental Services Inc  
 Project/Site: Carroll - High's #86, Jarrettsville MD

Job ID: 410-88688-1

**Client Sample ID: MW-3**

**Lab Sample ID: 410-88688-2**

Date Collected: 06/22/22 10:25

Matrix: Groundwater

Date Received: 06/23/22 17:04

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane	ND		0.50	0.070	ug/L			06/28/22 16:47	1
1,2,3-Trichlorobenzene	ND		0.50	0.070	ug/L			06/28/22 16:47	1
1,2,3-Trichloropropane	ND		1.0	0.10	ug/L			06/28/22 16:47	1
Toluene	ND		0.50	0.080	ug/L			06/28/22 16:47	1
Chlorobenzene	ND		0.50	0.070	ug/L			06/28/22 16:47	1
1,2,4-Trimethylbenzene	ND		0.50	0.080	ug/L			06/28/22 16:47	1
1,2,4-Trichlorobenzene	ND		0.50	0.070	ug/L			06/28/22 16:47	1
Dibromochloromethane	ND		0.50	0.080	ug/L			06/28/22 16:47	1
Xylenes, Total	ND		1.0	0.070	ug/L			06/28/22 16:47	1
Tetrachloroethene	ND		0.50	0.20	ug/L			06/28/22 16:47	1
cis-1,2-Dichloroethene	ND		0.50	0.080	ug/L			06/28/22 16:47	1
trans-1,2-Dichloroethene	ND		0.50	0.10	ug/L			06/28/22 16:47	1
Methyl tertiary butyl ether	ND		0.50	0.080	ug/L			06/28/22 16:47	1
1,3,5-Trimethylbenzene	ND		0.50	0.080	ug/L			06/28/22 16:47	1
1,3-Dichlorobenzene	ND		0.50	0.070	ug/L			06/28/22 16:47	1
1,3-Dichloropropane	ND		0.50	0.080	ug/L			06/28/22 16:47	1
Chloroform	ND		0.50	0.090	ug/L			06/28/22 16:47	1
Benzene	ND		0.50	0.10	ug/L			06/28/22 16:47	1
1,1,1-Trichloroethane	ND	cn	0.50	0.080	ug/L			06/28/22 16:47	1
Bromomethane	ND		0.50	0.10	ug/L			06/28/22 16:47	1
Chloromethane	ND		0.50	0.10	ug/L			06/28/22 16:47	1
Chloroethane	ND		0.50	0.10	ug/L			06/28/22 16:47	1
2,2-Dichloropropane	ND		0.50	0.10	ug/L			06/28/22 16:47	1
Vinyl chloride	ND		0.50	0.10	ug/L			06/28/22 16:47	1
Methylene Chloride	ND		0.50	0.10	ug/L			06/28/22 16:47	1
Carbon disulfide	ND		1.0	0.10	ug/L			06/28/22 16:47	1
Bromoform	ND		1.0	0.30	ug/L			06/28/22 16:47	1
Bromodichloromethane	ND		0.50	0.080	ug/L			06/28/22 16:47	1
1,1-Dichloroethane	ND		0.50	0.10	ug/L			06/28/22 16:47	1
2-Chlorotoluene	ND		0.50	0.080	ug/L			06/28/22 16:47	1
1,1-Dichloroethene	ND		0.50	0.10	ug/L			06/28/22 16:47	1
Trichlorofluoromethane	ND	cn	0.50	0.10	ug/L			06/28/22 16:47	1
4-Chlorotoluene	ND		0.50	0.080	ug/L			06/28/22 16:47	1
Dichlorodifluoromethane	ND		0.50	0.10	ug/L			06/28/22 16:47	1
1,2-Dichloropropane	ND		0.50	0.10	ug/L			06/28/22 16:47	1
1,1,2-Trichloroethane	ND		0.50	0.080	ug/L			06/28/22 16:47	1
Acrylonitrile	ND	cn	5.0	0.40	ug/L			06/28/22 16:47	1
Trichloroethene	ND		0.50	0.080	ug/L			06/28/22 16:47	1
1,1,2,2-Tetrachloroethane	ND	*+	0.50	0.10	ug/L			06/28/22 16:47	1
1,2-Dichlorobenzene	ND		0.50	0.070	ug/L			06/28/22 16:47	1
1,2-Dibromo-3-Chloropropane	ND		0.50	0.10	ug/L			06/28/22 16:47	1
Bromobenzene	ND		0.50	0.080	ug/L			06/28/22 16:47	1
Bromochloromethane	ND		0.50	0.080	ug/L			06/28/22 16:47	1
Isopropylbenzene	ND		0.50	0.080	ug/L			06/28/22 16:47	1
Dibromomethane	ND		0.50	0.080	ug/L			06/28/22 16:47	1
di-Isopropyl ether	ND		0.50	0.10	ug/L			06/28/22 16:47	1
Ethyl t-butyl ether	ND		0.50	0.080	ug/L			06/28/22 16:47	1
Hexachlorobutadiene	ND		0.50	0.080	ug/L			06/28/22 16:47	1
Naphthalene	ND		0.50	0.080	ug/L			06/28/22 16:47	1

Eurofins Lancaster Laboratories Environment Testing, LLC



# Client Sample Results

Client: Groundwater & Environmental Services Inc  
 Project/Site: Carroll - High's #86, Jarrettsville MD

Job ID: 410-88688-1

**Client Sample ID: MW-3**

**Lab Sample ID: 410-88688-2**

Date Collected: 06/22/22 10:25

Matrix: Groundwater

Date Received: 06/23/22 17:04

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
n-Butylbenzene	ND		0.50	0.080	ug/L			06/28/22 16:47	1
N-Propylbenzene	ND		0.50	0.10	ug/L			06/28/22 16:47	1
p-Isopropyltoluene	ND		0.50	0.080	ug/L			06/28/22 16:47	1
sec-Butylbenzene	ND		0.50	0.10	ug/L			06/28/22 16:47	1
t-Amyl methyl ether	ND		0.50	0.20	ug/L			06/28/22 16:47	1
t-Butyl alcohol	ND		10	3.0	ug/L			06/28/22 16:47	1
tert-Butylbenzene	ND		0.50	0.080	ug/L			06/28/22 16:47	1
trans-1,4-Dichloro-2-butene	ND		5.0	2.0	ug/L			06/28/22 16:47	1
<b>Surrogate</b>	<b>%Recovery</b>	<b>Qualifier</b>	<b>Limits</b>				<b>Prepared</b>	<b>Analyzed</b>	<b>Dil Fac</b>
1,2-Dichloroethane-d4 (Surr)	102		80 - 120					06/28/22 16:47	1
Dibromofluoromethane (Surr)	93		80 - 120					06/28/22 16:47	1
4-Bromofluorobenzene (Surr)	94		80 - 120					06/28/22 16:47	1
Toluene-d8 (Surr)	104		80 - 120					06/28/22 16:47	1

**Method: 8015D - Gasoline Range Organics (GRO) (GC)**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
GRO (1C)	ND		0.050	0.023	mg/L			06/28/22 01:03	1
<b>Surrogate</b>	<b>%Recovery</b>	<b>Qualifier</b>	<b>Limits</b>				<b>Prepared</b>	<b>Analyzed</b>	<b>Dil Fac</b>
a,a,a-Trifluorotoluene (fid) (1C)	100		63 - 135					06/28/22 01:03	1

**Method: 8015D - Diesel Range Organics (DRO) (GC)**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
DRO (C10-C28)	ND		110	58	ug/L		06/28/22 05:38	06/28/22 16:14	1
<b>Surrogate</b>	<b>%Recovery</b>	<b>Qualifier</b>	<b>Limits</b>				<b>Prepared</b>	<b>Analyzed</b>	<b>Dil Fac</b>
o-terphenyl (Surr)	118		37 - 153				06/28/22 05:38	06/28/22 16:14	1

**Client Sample ID: MW-4**

**Lab Sample ID: 410-88688-3**

Date Collected: 06/22/22 12:20

Matrix: Groundwater

Date Received: 06/23/22 17:04

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1,2-Tetrachloroethane	ND		0.50	0.070	ug/L			06/28/22 17:09	1
cis-1,3-Dichloropropene	ND		0.50	0.10	ug/L			06/28/22 17:09	1
trans-1,3-Dichloropropene	ND		0.50	0.080	ug/L			06/28/22 17:09	1
Ethylbenzene	ND		0.50	0.080	ug/L			06/28/22 17:09	1
Styrene	ND		0.50	0.070	ug/L			06/28/22 17:09	1
1,4-Dichlorobenzene	ND		0.50	0.070	ug/L			06/28/22 17:09	1
1,2-Dibromoethane	ND		0.50	0.080	ug/L			06/28/22 17:09	1
1,1-Dichloropropene	ND		0.50	0.10	ug/L			06/28/22 17:09	1
1,2-Dichloroethane	ND		0.50	0.070	ug/L			06/28/22 17:09	1
1,2,3-Trichlorobenzene	ND		0.50	0.070	ug/L			06/28/22 17:09	1
1,2,3-Trichloropropane	ND		1.0	0.10	ug/L			06/28/22 17:09	1
Toluene	ND		0.50	0.080	ug/L			06/28/22 17:09	1
Chlorobenzene	ND		0.50	0.070	ug/L			06/28/22 17:09	1
1,2,4-Trimethylbenzene	ND		0.50	0.080	ug/L			06/28/22 17:09	1
1,2,4-Trichlorobenzene	ND		0.50	0.070	ug/L			06/28/22 17:09	1
Dibromochloromethane	ND		0.50	0.080	ug/L			06/28/22 17:09	1

Eurofins Lancaster Laboratories Environment Testing, LLC

# Client Sample Results

Client: Groundwater & Environmental Services Inc  
 Project/Site: Carroll - High's #86, Jarrettsville MD

Job ID: 410-88688-1

**Client Sample ID: MW-4**

**Lab Sample ID: 410-88688-3**

Date Collected: 06/22/22 12:20

Matrix: Groundwater

Date Received: 06/23/22 17:04

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Xylenes, Total	ND		1.0	0.070	ug/L			06/28/22 17:09	1
Tetrachloroethene	ND		0.50	0.20	ug/L			06/28/22 17:09	1
cis-1,2-Dichloroethene	ND		0.50	0.080	ug/L			06/28/22 17:09	1
trans-1,2-Dichloroethene	ND		0.50	0.10	ug/L			06/28/22 17:09	1
<b>Methyl tertiary butyl ether</b>	<b>5.0</b>		0.50	0.080	ug/L			06/28/22 17:09	1
1,3,5-Trimethylbenzene	ND		0.50	0.080	ug/L			06/28/22 17:09	1
1,3-Dichlorobenzene	ND		0.50	0.070	ug/L			06/28/22 17:09	1
1,3-Dichloropropane	ND		0.50	0.080	ug/L			06/28/22 17:09	1
Chloroform	ND		0.50	0.090	ug/L			06/28/22 17:09	1
Benzene	ND		0.50	0.10	ug/L			06/28/22 17:09	1
1,1,1-Trichloroethane	ND	cn	0.50	0.080	ug/L			06/28/22 17:09	1
Bromomethane	ND		0.50	0.10	ug/L			06/28/22 17:09	1
Chloromethane	ND		0.50	0.10	ug/L			06/28/22 17:09	1
Chloroethane	ND		0.50	0.10	ug/L			06/28/22 17:09	1
2,2-Dichloropropane	ND		0.50	0.10	ug/L			06/28/22 17:09	1
Vinyl chloride	ND		0.50	0.10	ug/L			06/28/22 17:09	1
Methylene Chloride	ND		0.50	0.10	ug/L			06/28/22 17:09	1
Carbon disulfide	ND		1.0	0.10	ug/L			06/28/22 17:09	1
Bromoform	ND		1.0	0.30	ug/L			06/28/22 17:09	1
Bromodichloromethane	ND		0.50	0.080	ug/L			06/28/22 17:09	1
1,1-Dichloroethane	ND		0.50	0.10	ug/L			06/28/22 17:09	1
2-Chlorotoluene	ND		0.50	0.080	ug/L			06/28/22 17:09	1
1,1-Dichloroethene	ND		0.50	0.10	ug/L			06/28/22 17:09	1
Trichlorofluoromethane	ND	cn	0.50	0.10	ug/L			06/28/22 17:09	1
4-Chlorotoluene	ND		0.50	0.080	ug/L			06/28/22 17:09	1
Dichlorodifluoromethane	ND		0.50	0.10	ug/L			06/28/22 17:09	1
1,2-Dichloropropane	ND		0.50	0.10	ug/L			06/28/22 17:09	1
1,1,2-Trichloroethane	ND		0.50	0.080	ug/L			06/28/22 17:09	1
Acrylonitrile	ND	cn	5.0	0.40	ug/L			06/28/22 17:09	1
Trichloroethene	ND		0.50	0.080	ug/L			06/28/22 17:09	1
1,1,2,2-Tetrachloroethane	ND	*+	0.50	0.10	ug/L			06/28/22 17:09	1
1,2-Dichlorobenzene	ND		0.50	0.070	ug/L			06/28/22 17:09	1
1,2-Dibromo-3-Chloropropane	ND		0.50	0.10	ug/L			06/28/22 17:09	1
Bromobenzene	ND		0.50	0.080	ug/L			06/28/22 17:09	1
Bromochloromethane	ND		0.50	0.080	ug/L			06/28/22 17:09	1
Isopropylbenzene	ND		0.50	0.080	ug/L			06/28/22 17:09	1
Dibromomethane	ND		0.50	0.080	ug/L			06/28/22 17:09	1
<b>di-Isopropyl ether</b>	<b>2.1</b>		0.50	0.10	ug/L			06/28/22 17:09	1
Ethyl t-butyl ether	ND		0.50	0.080	ug/L			06/28/22 17:09	1
Hexachlorobutadiene	ND		0.50	0.080	ug/L			06/28/22 17:09	1
Naphthalene	ND		0.50	0.080	ug/L			06/28/22 17:09	1
n-Butylbenzene	ND		0.50	0.080	ug/L			06/28/22 17:09	1
N-Propylbenzene	ND		0.50	0.10	ug/L			06/28/22 17:09	1
p-Isopropyltoluene	ND		0.50	0.080	ug/L			06/28/22 17:09	1
sec-Butylbenzene	ND		0.50	0.10	ug/L			06/28/22 17:09	1
t-Amyl methyl ether	ND		0.50	0.20	ug/L			06/28/22 17:09	1
<b>t-Butyl alcohol</b>	<b>9.8 J</b>		10	3.0	ug/L			06/28/22 17:09	1
tert-Butylbenzene	ND		0.50	0.080	ug/L			06/28/22 17:09	1
trans-1,4-Dichloro-2-butene	ND		5.0	2.0	ug/L			06/28/22 17:09	1

# Client Sample Results

Client: Groundwater & Environmental Services Inc  
 Project/Site: Carroll - High's #86, Jarrettsville MD

Job ID: 410-88688-1

**Client Sample ID: MW-4**

**Lab Sample ID: 410-88688-3**

Date Collected: 06/22/22 12:20

Matrix: Groundwater

Date Received: 06/23/22 17:04

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	101		80 - 120		06/28/22 17:09	1
Dibromofluoromethane (Surr)	93		80 - 120		06/28/22 17:09	1
4-Bromofluorobenzene (Surr)	93		80 - 120		06/28/22 17:09	1
Toluene-d8 (Surr)	104		80 - 120		06/28/22 17:09	1

**Method: 8015D - Gasoline Range Organics (GRO) (GC)**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
GRO (1C)	ND		0.050	0.023	mg/L			06/28/22 01:29	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
a,a,a-Trifluorotoluene (fid) (1C)	100		63 - 135		06/28/22 01:29	1

**Method: 8015D - Diesel Range Organics (DRO) (GC)**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
DRO (C10-C28)	ND		110	57	ug/L		06/28/22 05:38	06/28/22 16:38	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
o-terphenyl (Surr)	104		37 - 153	06/28/22 05:38	06/28/22 16:38	1

# Surrogate Summary

Client: Groundwater & Environmental Services Inc  
 Project/Site: Carroll - High's #86, Jarrettsville MD

Job ID: 410-88688-1

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

Matrix: Groundwater

Prep Type: Total/NA

Lab Sample ID	Client Sample ID	Percent Surrogate Recovery (Acceptance Limits)			
		DCA (80-120)	DBFM (80-120)	BFB (80-120)	TOL (80-120)
410-88688-1	MW-1	102	92	94	104
410-88688-2	MW-3	102	93	94	104
410-88688-3	MW-4	101	93	93	104

**Surrogate Legend**

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

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

Matrix: Water

Prep Type: Total/NA

Lab Sample ID	Client Sample ID	Percent Surrogate Recovery (Acceptance Limits)			
		DCA (80-120)	DBFM (80-120)	BFB (80-120)	TOL (80-120)
LCS 410-270122/5	Lab Control Sample	98	90	99	106
LCSD 410-270122/6	Lab Control Sample Dup	97	90	98	107
MB 410-270122/10	Method Blank	103	92	94	103

**Surrogate Legend**

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

## Method: 8015D - Gasoline Range Organics (GRO) (GC)

Matrix: Groundwater

Prep Type: Total/NA

Lab Sample ID	Client Sample ID	Percent Surrogate Recovery (Acceptance Limits)
		TFT-F1 (63-135)
410-88688-1	MW-1	100
410-88688-2	MW-3	100
410-88688-3	MW-4	100

**Surrogate Legend**

TFT-F = a,a,a-Trifluorotoluene (fid)

## Method: 8015D - Gasoline Range Organics (GRO) (GC)

Matrix: Water

Prep Type: Total/NA

Lab Sample ID	Client Sample ID	Percent Surrogate Recovery (Acceptance Limits)
		TFT-F1 (63-135)
LCS 410-269675/7	Lab Control Sample	93
LCSD 410-269675/8	Lab Control Sample Dup	94
MB 410-269675/6	Method Blank	102

**Surrogate Legend**

TFT-F = a,a,a-Trifluorotoluene (fid)

# Surrogate Summary

Client: Groundwater & Environmental Services Inc  
Project/Site: Carroll - High's #86, Jarrettsville MD

Job ID: 410-88688-1

## Method: 8015D - Diesel Range Organics (DRO) (GC)

Matrix: Groundwater

Prep Type: Total/NA

### Percent Surrogate Recovery (Acceptance Limits)

Lab Sample ID	Client Sample ID	OTP (37-153)
410-88688-1	MW-1	121
410-88688-2	MW-3	118
410-88688-3	MW-4	104

#### Surrogate Legend

OTP = o- terphenyl (Surr)

## Method: 8015D - Diesel Range Organics (DRO) (GC)

Matrix: Water

Prep Type: Total/NA

### Percent Surrogate Recovery (Acceptance Limits)

Lab Sample ID	Client Sample ID	OTP (37-153)
LCS 410-270045/2-A	Lab Control Sample	126
MB 410-270045/1-A	Method Blank	131

#### Surrogate Legend

OTP = o- terphenyl (Surr)

# QC Sample Results

Client: Groundwater & Environmental Services Inc  
 Project/Site: Carroll - High's #86, Jarrettsville MD

Job ID: 410-88688-1

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

**Lab Sample ID: MB 410-270122/10**

**Matrix: Water**

**Analysis Batch: 270122**

**Client Sample ID: Method Blank**

**Prep Type: Total/NA**

Analyte	MB	MB	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier							
1,1,1,2-Tetrachloroethane	ND		0.50	0.070	ug/L			06/28/22 12:43	1
cis-1,3-Dichloropropene	ND		0.50	0.10	ug/L			06/28/22 12:43	1
trans-1,3-Dichloropropene	ND		0.50	0.080	ug/L			06/28/22 12:43	1
Ethylbenzene	ND		0.50	0.080	ug/L			06/28/22 12:43	1
Styrene	ND		0.50	0.070	ug/L			06/28/22 12:43	1
1,4-Dichlorobenzene	ND		0.50	0.070	ug/L			06/28/22 12:43	1
1,2-Dibromoethane	ND		0.50	0.080	ug/L			06/28/22 12:43	1
1,1-Dichloropropene	ND		0.50	0.10	ug/L			06/28/22 12:43	1
1,2-Dichloroethane	ND		0.50	0.070	ug/L			06/28/22 12:43	1
1,2,3-Trichlorobenzene	ND		0.50	0.070	ug/L			06/28/22 12:43	1
1,2,3-Trichloropropane	ND		1.0	0.10	ug/L			06/28/22 12:43	1
Toluene	ND		0.50	0.080	ug/L			06/28/22 12:43	1
Chlorobenzene	ND		0.50	0.070	ug/L			06/28/22 12:43	1
1,2,4-Trimethylbenzene	ND		0.50	0.080	ug/L			06/28/22 12:43	1
1,2,4-Trichlorobenzene	ND		0.50	0.070	ug/L			06/28/22 12:43	1
Dibromochloromethane	ND		0.50	0.080	ug/L			06/28/22 12:43	1
Xylenes, Total	ND		1.0	0.070	ug/L			06/28/22 12:43	1
Tetrachloroethene	ND		0.50	0.20	ug/L			06/28/22 12:43	1
cis-1,2-Dichloroethene	ND		0.50	0.080	ug/L			06/28/22 12:43	1
trans-1,2-Dichloroethene	ND		0.50	0.10	ug/L			06/28/22 12:43	1
Methyl tertiary butyl ether	ND		0.50	0.080	ug/L			06/28/22 12:43	1
1,3,5-Trimethylbenzene	ND		0.50	0.080	ug/L			06/28/22 12:43	1
1,3-Dichlorobenzene	ND		0.50	0.070	ug/L			06/28/22 12:43	1
1,3-Dichloropropane	ND		0.50	0.080	ug/L			06/28/22 12:43	1
Chloroform	ND		0.50	0.090	ug/L			06/28/22 12:43	1
Benzene	ND		0.50	0.10	ug/L			06/28/22 12:43	1
1,1,1-Trichloroethane	ND		0.50	0.080	ug/L			06/28/22 12:43	1
Bromomethane	ND		0.50	0.10	ug/L			06/28/22 12:43	1
Chloromethane	ND		0.50	0.10	ug/L			06/28/22 12:43	1
Chloroethane	ND		0.50	0.10	ug/L			06/28/22 12:43	1
2,2-Dichloropropane	ND		0.50	0.10	ug/L			06/28/22 12:43	1
Vinyl chloride	ND		0.50	0.10	ug/L			06/28/22 12:43	1
Methylene Chloride	ND		0.50	0.10	ug/L			06/28/22 12:43	1
Carbon disulfide	ND		1.0	0.10	ug/L			06/28/22 12:43	1
Bromoform	ND		1.0	0.30	ug/L			06/28/22 12:43	1
Bromodichloromethane	ND		0.50	0.080	ug/L			06/28/22 12:43	1
1,1-Dichloroethane	ND		0.50	0.10	ug/L			06/28/22 12:43	1
2-Chlorotoluene	ND		0.50	0.080	ug/L			06/28/22 12:43	1
1,1-Dichloroethene	ND		0.50	0.10	ug/L			06/28/22 12:43	1
Trichlorofluoromethane	ND		0.50	0.10	ug/L			06/28/22 12:43	1
4-Chlorotoluene	ND		0.50	0.080	ug/L			06/28/22 12:43	1
Dichlorodifluoromethane	ND		0.50	0.10	ug/L			06/28/22 12:43	1
1,2-Dichloropropane	ND		0.50	0.10	ug/L			06/28/22 12:43	1
1,1,2-Trichloroethane	ND		0.50	0.080	ug/L			06/28/22 12:43	1
Acrylonitrile	ND		5.0	0.40	ug/L			06/28/22 12:43	1
Trichloroethene	ND		0.50	0.080	ug/L			06/28/22 12:43	1
1,1,2,2-Tetrachloroethane	ND		0.50	0.10	ug/L			06/28/22 12:43	1
1,2-Dichlorobenzene	ND		0.50	0.070	ug/L			06/28/22 12:43	1

Eurofins Lancaster Laboratories Environment Testing, LLC

# QC Sample Results

Client: Groundwater & Environmental Services Inc  
 Project/Site: Carroll - High's #86, Jarrettsville MD

Job ID: 410-88688-1

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

Lab Sample ID: MB 410-270122/10

Client Sample ID: Method Blank

Matrix: Water

Prep Type: Total/NA

Analysis Batch: 270122

Analyte	MB	MB	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier							
1,2-Dibromo-3-Chloropropane	ND		0.50	0.10	ug/L			06/28/22 12:43	1
Bromobenzene	ND		0.50	0.080	ug/L			06/28/22 12:43	1
Bromochloromethane	ND		0.50	0.080	ug/L			06/28/22 12:43	1
Isopropylbenzene	ND		0.50	0.080	ug/L			06/28/22 12:43	1
Dibromomethane	ND		0.50	0.080	ug/L			06/28/22 12:43	1
di-Isopropyl ether	ND		0.50	0.10	ug/L			06/28/22 12:43	1
Ethyl t-butyl ether	ND		0.50	0.080	ug/L			06/28/22 12:43	1
Hexachlorobutadiene	ND		0.50	0.080	ug/L			06/28/22 12:43	1
Naphthalene	ND		0.50	0.080	ug/L			06/28/22 12:43	1
n-Butylbenzene	ND		0.50	0.080	ug/L			06/28/22 12:43	1
N-Propylbenzene	ND		0.50	0.10	ug/L			06/28/22 12:43	1
p-Isopropyltoluene	ND		0.50	0.080	ug/L			06/28/22 12:43	1
sec-Butylbenzene	ND		0.50	0.10	ug/L			06/28/22 12:43	1
t-Amyl methyl ether	ND		0.50	0.20	ug/L			06/28/22 12:43	1
t-Butyl alcohol	ND		10	3.0	ug/L			06/28/22 12:43	1
tert-Butylbenzene	ND		0.50	0.080	ug/L			06/28/22 12:43	1
trans-1,4-Dichloro-2-butene	ND		5.0	2.0	ug/L			06/28/22 12:43	1

Surrogate	MB	MB	Limits	Prepared	Analyzed	Dil Fac
	%Recovery	Qualifier				
1,2-Dichloroethane-d4 (Surr)	103		80 - 120		06/28/22 12:43	1
Dibromofluoromethane (Surr)	92		80 - 120		06/28/22 12:43	1
4-Bromofluorobenzene (Surr)	94		80 - 120		06/28/22 12:43	1
Toluene-d8 (Surr)	103		80 - 120		06/28/22 12:43	1

Lab Sample ID: LCS 410-270122/5

Client Sample ID: Lab Control Sample

Matrix: Water

Prep Type: Total/NA

Analysis Batch: 270122

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
cis-1,3-Dichloropropene	5.00	5.08		ug/L		102	67 - 121
trans-1,3-Dichloropropene	5.00	5.73		ug/L		115	61 - 129
Ethylbenzene	5.00	5.26		ug/L		105	80 - 120
Styrene	5.00	5.18		ug/L		104	80 - 120
1,4-Dichlorobenzene	5.00	4.97		ug/L		99	80 - 120
1,2-Dibromoethane	5.00	5.24		ug/L		105	80 - 120
1,1-Dichloropropene	5.00	4.76		ug/L		95	74 - 120
1,2-Dichloroethane	5.00	4.43		ug/L		89	69 - 122
1,2,3-Trichlorobenzene	5.00	4.65		ug/L		93	68 - 125
1,2,3-Trichloropropane	5.00	5.24		ug/L		105	80 - 125
Toluene	5.00	5.34		ug/L		107	80 - 120
Chlorobenzene	5.00	5.01		ug/L		100	80 - 120
1,2,4-Trimethylbenzene	5.00	5.24		ug/L		105	80 - 120
1,2,4-Trichlorobenzene	5.00	4.62		ug/L		92	68 - 122
Dibromochloromethane	5.00	4.96		ug/L		99	64 - 138
Xylenes, Total	15.0	15.3		ug/L		102	80 - 120
Tetrachloroethene	5.00	4.45		ug/L		89	80 - 120
cis-1,2-Dichloroethene	5.00	4.98		ug/L		100	80 - 122

# QC Sample Results

Client: Groundwater & Environmental Services Inc  
 Project/Site: Carroll - High's #86, Jarrettsville MD

Job ID: 410-88688-1

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

Lab Sample ID: LCS 410-270122/5

Matrix: Water

Analysis Batch: 270122

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
trans-1,2-Dichloroethene	5.00	4.70		ug/L		94	80 - 122
Methyl tertiary butyl ether	5.00	4.84		ug/L		97	69 - 120
1,3,5-Trimethylbenzene	5.00	5.20		ug/L		104	80 - 120
1,3-Dichlorobenzene	5.00	5.00		ug/L		100	80 - 120
1,3-Dichloropropane	5.00	5.69		ug/L		114	80 - 120
Chloroform	5.00	4.56		ug/L		91	80 - 120
Benzene	5.00	5.14		ug/L		103	80 - 120
1,1,1-Trichloroethane	5.00	4.20		ug/L		84	78 - 126
Bromomethane	5.00	4.39		ug/L		88	60 - 136
Chloromethane	5.00	5.72		ug/L		114	56 - 124
Chloroethane	5.00	4.80		ug/L		96	63 - 120
2,2-Dichloropropane	5.00	4.48		ug/L		90	61 - 141
Vinyl chloride	5.00	4.90		ug/L		98	60 - 125
Methylene Chloride	5.00	5.11		ug/L		102	80 - 120
Carbon disulfide	5.00	5.77		ug/L		115	67 - 130
Bromoform	5.00	4.88		ug/L		98	49 - 144
Bromodichloromethane	5.00	4.84		ug/L		97	73 - 124
1,1-Dichloroethane	5.00	4.97		ug/L		99	74 - 120
2-Chlorotoluene	5.00	5.14		ug/L		103	80 - 120
1,1-Dichloroethene	5.00	4.79		ug/L		96	80 - 131
Trichlorofluoromethane	5.00	3.52		ug/L		70	62 - 136
4-Chlorotoluene	5.00	5.21		ug/L		104	80 - 120
Dichlorodifluoromethane	5.00	4.23		ug/L		85	43 - 123
1,2-Dichloropropane	5.00	5.50		ug/L		110	80 - 120
1,1,2-Trichloroethane	5.00	5.49		ug/L		110	80 - 120
Acrylonitrile	25.0	32.6		ug/L		131	64 - 139
Trichloroethene	5.00	4.61		ug/L		92	80 - 120
1,1,1,2-Tetrachloroethane	5.00	6.33	*+	ug/L		127	75 - 123
1,2-Dichlorobenzene	5.00	4.97		ug/L		99	80 - 120
1,2-Dibromo-3-Chloropropane	5.00	5.10		ug/L		102	56 - 148
Bromobenzene	5.00	5.09		ug/L		102	80 - 120
Bromochloromethane	5.00	4.58		ug/L		92	80 - 120
Isopropylbenzene	5.00	5.04		ug/L		101	80 - 120
Dibromomethane	5.00	4.78		ug/L		96	80 - 122
di-Isopropyl ether	5.00	5.65		ug/L		113	58 - 131
Ethyl t-butyl ether	5.00	5.08		ug/L		102	57 - 126
Hexachlorobutadiene	5.00	4.44		ug/L		89	72 - 132
Naphthalene	5.00	5.18		ug/L		104	64 - 122
n-Butylbenzene	5.00	5.57		ug/L		111	74 - 123
N-Propylbenzene	5.00	5.57		ug/L		111	74 - 122
p-Isopropyltoluene	5.00	5.19		ug/L		104	80 - 120
sec-Butylbenzene	5.00	5.48		ug/L		110	80 - 120
t-Amyl methyl ether	5.00	4.89		ug/L		98	65 - 125
t-Butyl alcohol	50.0	54.3		ug/L		109	62 - 138
tert-Butylbenzene	5.00	4.83		ug/L		97	79 - 120
trans-1,4-Dichloro-2-butene	25.0	25.0		ug/L		100	10 - 172



# QC Sample Results

Client: Groundwater & Environmental Services Inc  
 Project/Site: Carroll - High's #86, Jarrettsville MD

Job ID: 410-88688-1

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

Lab Sample ID: LCS 410-270122/5

Matrix: Water

Analysis Batch: 270122

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Surrogate	LCS LCS		Limits
	%Recovery	Qualifier	
1,2-Dichloroethane-d4 (Surr)	98		80 - 120
Dibromofluoromethane (Surr)	90		80 - 120
4-Bromofluorobenzene (Surr)	99		80 - 120
Toluene-d8 (Surr)	106		80 - 120

Lab Sample ID: LCSD 410-270122/6

Matrix: Water

Analysis Batch: 270122

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Analyte	Spike Added	LCSD	LCSD	Unit	D	%Rec	%Rec	RPD	RPD
		Result	Qualifier				Limits		Limit
1,1,1,2-Tetrachloroethane	5.00	4.85		ug/L		97	71 - 134	1	30
cis-1,3-Dichloropropene	5.00	5.02		ug/L		100	67 - 121	1	30
trans-1,3-Dichloropropene	5.00	5.68		ug/L		114	61 - 129	1	30
Ethylbenzene	5.00	5.19		ug/L		104	80 - 120	1	30
Styrene	5.00	5.10		ug/L		102	80 - 120	1	30
1,4-Dichlorobenzene	5.00	4.92		ug/L		98	80 - 120	1	30
1,2-Dibromoethane	5.00	5.21		ug/L		104	80 - 120	1	30
1,1-Dichloropropene	5.00	4.68		ug/L		94	74 - 120	2	30
1,2-Dichloroethane	5.00	4.30		ug/L		86	69 - 122	3	30
1,2,3-Trichlorobenzene	5.00	4.65		ug/L		93	68 - 125	0	30
1,2,3-Trichloropropane	5.00	5.16		ug/L		103	80 - 125	2	30
Toluene	5.00	5.21		ug/L		104	80 - 120	3	30
Chlorobenzene	5.00	5.00		ug/L		100	80 - 120	0	30
1,2,4-Trimethylbenzene	5.00	5.15		ug/L		103	80 - 120	2	30
1,2,4-Trichlorobenzene	5.00	4.54		ug/L		91	68 - 122	2	30
Dibromochloromethane	5.00	4.87		ug/L		97	64 - 138	2	30
Xylenes, Total	15.0	15.2		ug/L		101	80 - 120	0	30
Tetrachloroethene	5.00	4.40		ug/L		88	80 - 120	1	30
cis-1,2-Dichloroethene	5.00	4.87		ug/L		97	80 - 122	2	30
trans-1,2-Dichloroethene	5.00	4.64		ug/L		93	80 - 122	1	30
Methyl tertiary butyl ether	5.00	4.76		ug/L		95	69 - 120	2	30
1,3,5-Trimethylbenzene	5.00	5.09		ug/L		102	80 - 120	2	30
1,3-Dichlorobenzene	5.00	4.89		ug/L		98	80 - 120	2	30
1,3-Dichloropropane	5.00	5.60		ug/L		112	80 - 120	2	30
Chloroform	5.00	4.45		ug/L		89	80 - 120	3	30
Benzene	5.00	5.08		ug/L		102	80 - 120	1	30
1,1,1-Trichloroethane	5.00	4.10		ug/L		82	78 - 126	2	30
Bromomethane	5.00	4.24		ug/L		85	60 - 136	4	30
Chloromethane	5.00	5.48		ug/L		110	56 - 124	4	30
Chloroethane	5.00	4.60		ug/L		92	63 - 120	4	30
2,2-Dichloropropane	5.00	4.39		ug/L		88	61 - 141	2	30
Vinyl chloride	5.00	4.76		ug/L		95	60 - 125	3	30
Methylene Chloride	5.00	4.98		ug/L		100	80 - 120	3	30
Carbon disulfide	5.00	5.69		ug/L		114	67 - 130	1	30
Bromoform	5.00	4.75		ug/L		95	49 - 144	3	30
Bromodichloromethane	5.00	4.80		ug/L		96	73 - 124	1	30
1,1-Dichloroethane	5.00	4.86		ug/L		97	74 - 120	2	30
2-Chlorotoluene	5.00	5.06		ug/L		101	80 - 120	2	30

# QC Sample Results

Client: Groundwater & Environmental Services Inc  
 Project/Site: Carroll - High's #86, Jarrettsville MD

Job ID: 410-88688-1

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

Lab Sample ID: LCSD 410-270122/6

Matrix: Water

Analysis Batch: 270122

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Analyte	Spike	LCSD	LCSD	Unit	D	%Rec	%Rec	RPD	RPD
	Added	Result	Qualifier				Limits		Limit
1,1-Dichloroethene	5.00	4.66		ug/L		93	80 - 131	3	30
Trichlorofluoromethane	5.00	3.30		ug/L		66	62 - 136	6	30
4-Chlorotoluene	5.00	5.13		ug/L		103	80 - 120	2	30
Dichlorodifluoromethane	5.00	4.15		ug/L		83	43 - 123	2	30
1,2-Dichloropropane	5.00	5.47		ug/L		109	80 - 120	1	30
1,1,2-Trichloroethane	5.00	5.42		ug/L		108	80 - 120	1	30
Acrylonitrile	25.0	32.4		ug/L		130	64 - 139	1	30
Trichloroethene	5.00	4.48		ug/L		90	80 - 120	3	30
1,1,1,2-Tetrachloroethane	5.00	6.19	*+	ug/L		124	75 - 123	2	30
1,2-Dichlorobenzene	5.00	4.89		ug/L		98	80 - 120	2	30
1,2-Dibromo-3-Chloropropane	5.00	5.07		ug/L		101	56 - 148	1	30
Bromobenzene	5.00	4.98		ug/L		100	80 - 120	2	30
Bromochloromethane	5.00	4.47		ug/L		89	80 - 120	2	30
Isopropylbenzene	5.00	4.91		ug/L		98	80 - 120	3	30
Dibromomethane	5.00	4.70		ug/L		94	80 - 122	2	30
di-Isopropyl ether	5.00	5.59		ug/L		112	58 - 131	1	30
Ethyl t-butyl ether	5.00	5.08		ug/L		102	57 - 126	0	30
Hexachlorobutadiene	5.00	4.28		ug/L		86	72 - 132	4	30
Naphthalene	5.00	5.11		ug/L		102	64 - 122	1	30
n-Butylbenzene	5.00	5.48		ug/L		110	74 - 123	2	30
N-Propylbenzene	5.00	5.47		ug/L		109	74 - 122	2	30
p-Isopropyltoluene	5.00	5.05		ug/L		101	80 - 120	3	30
sec-Butylbenzene	5.00	5.36		ug/L		107	80 - 120	2	30
t-Amyl methyl ether	5.00	4.84		ug/L		97	65 - 125	1	30
t-Butyl alcohol	50.0	55.3		ug/L		111	62 - 138	2	30
tert-Butylbenzene	5.00	5.05		ug/L		101	79 - 120	4	30
trans-1,4-Dichloro-2-butene	25.0	24.8		ug/L		99	10 - 172	1	30

Surrogate	LCSD	LCSD	Limits
	%Recovery	Qualifier	
1,2-Dichloroethane-d4 (Surr)	97		80 - 120
Dibromofluoromethane (Surr)	90		80 - 120
4-Bromofluorobenzene (Surr)	98		80 - 120
Toluene-d8 (Surr)	107		80 - 120

## Method: 8015D - Gasoline Range Organics (GRO) (GC)

Lab Sample ID: MB 410-269675/6

Matrix: Water

Analysis Batch: 269675

Client Sample ID: Method Blank

Prep Type: Total/NA

Analyte	MB	MB	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier							
GRO (1C)	ND		0.050	0.023	mg/L			06/27/22 15:14	1

Surrogate	MB	MB	Limits	Prepared	Analyzed	Dil Fac
	%Recovery	Qualifier				
a,a,a-Trifluorotoluene (fid) (1C)	102		63 - 135		06/27/22 15:14	1

# QC Sample Results

Client: Groundwater & Environmental Services Inc  
 Project/Site: Carroll - High's #86, Jarrettsville MD

Job ID: 410-88688-1

## Method: 8015D - Gasoline Range Organics (GRO) (GC) (Continued)

**Lab Sample ID: LCS 410-269675/7**  
**Matrix: Water**  
**Analysis Batch: 269675**

**Client Sample ID: Lab Control Sample**  
**Prep Type: Total/NA**

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
GRO (1C)	1.10	1.15		mg/L		104	70 - 123
<b>Surrogate</b>	<b>%Recovery</b>	<b>LCS Qualifier</b>	<b>LCS</b>	<b>Limits</b>			
a,a,a-Trifluorotoluene (fid) (1C)	93			63 - 135			

**Lab Sample ID: LCSD 410-269675/8**  
**Matrix: Water**  
**Analysis Batch: 269675**

**Client Sample ID: Lab Control Sample Dup**  
**Prep Type: Total/NA**

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
GRO (1C)	1.10	1.05		mg/L		95	70 - 123	9	30
<b>Surrogate</b>	<b>%Recovery</b>	<b>LCSD Qualifier</b>	<b>LCSD</b>	<b>Limits</b>					
a,a,a-Trifluorotoluene (fid) (1C)	94			63 - 135					

## Method: 8015D - Diesel Range Organics (DRO) (GC)

**Lab Sample ID: MB 410-270045/1-A**  
**Matrix: Water**  
**Analysis Batch: 270258**

**Client Sample ID: Method Blank**  
**Prep Type: Total/NA**  
**Prep Batch: 270045**

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
DRO (C10-C28)	ND		110	57	ug/L		06/28/22 05:38	06/28/22 14:39	1
<b>Surrogate</b>	<b>%Recovery</b>	<b>MB Qualifier</b>	<b>MB</b>	<b>Limits</b>					
o-terphenyl (Surr)	131			37 - 153					
							<b>Prepared</b>	<b>Analyzed</b>	<b>Dil Fac</b>
							06/28/22 05:38	06/28/22 14:39	1

**Lab Sample ID: LCS 410-270045/2-A**  
**Matrix: Water**  
**Analysis Batch: 270258**

**Client Sample ID: Lab Control Sample**  
**Prep Type: Total/NA**  
**Prep Batch: 270045**

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
DRO (C10-C28)	2670	2380		ug/L		89	70 - 140
<b>Surrogate</b>	<b>%Recovery</b>	<b>LCS Qualifier</b>	<b>LCS</b>	<b>Limits</b>			
o-terphenyl (Surr)	126			37 - 153			

# QC Association Summary

Client: Groundwater & Environmental Services Inc  
 Project/Site: Carroll - High's #86, Jarrettsville MD

Job ID: 410-88688-1

## GC/MS VOA

### Analysis Batch: 270122

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-88688-1	MW-1	Total/NA	Groundwater	8260C LL	
410-88688-2	MW-3	Total/NA	Groundwater	8260C LL	
410-88688-3	MW-4	Total/NA	Groundwater	8260C LL	
MB 410-270122/10	Method Blank	Total/NA	Water	8260C LL	
LCS 410-270122/5	Lab Control Sample	Total/NA	Water	8260C LL	
LCSD 410-270122/6	Lab Control Sample Dup	Total/NA	Water	8260C LL	

## GC VOA

### Analysis Batch: 269675

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-88688-1	MW-1	Total/NA	Groundwater	8015D	
410-88688-2	MW-3	Total/NA	Groundwater	8015D	
410-88688-3	MW-4	Total/NA	Groundwater	8015D	
MB 410-269675/6	Method Blank	Total/NA	Water	8015D	
LCS 410-269675/7	Lab Control Sample	Total/NA	Water	8015D	
LCSD 410-269675/8	Lab Control Sample Dup	Total/NA	Water	8015D	

## GC Semi VOA

### Prep Batch: 270045

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-88688-1	MW-1	Total/NA	Groundwater	3511	
410-88688-2	MW-3	Total/NA	Groundwater	3511	
410-88688-3	MW-4	Total/NA	Groundwater	3511	
MB 410-270045/1-A	Method Blank	Total/NA	Water	3511	
LCS 410-270045/2-A	Lab Control Sample	Total/NA	Water	3511	

### Analysis Batch: 270258

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-88688-1	MW-1	Total/NA	Groundwater	8015D	270045
410-88688-2	MW-3	Total/NA	Groundwater	8015D	270045
410-88688-3	MW-4	Total/NA	Groundwater	8015D	270045
MB 410-270045/1-A	Method Blank	Total/NA	Water	8015D	270045
LCS 410-270045/2-A	Lab Control Sample	Total/NA	Water	8015D	270045

# Lab Chronicle

Client: Groundwater & Environmental Services Inc  
 Project/Site: Carroll - High's #86, Jarrettsville MD

Job ID: 410-88688-1

**Client Sample ID: MW-1**

**Lab Sample ID: 410-88688-1**

Date Collected: 06/22/22 11:20

Matrix: Groundwater

Date Received: 06/23/22 17:04

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C LL		1	270122	06/28/22 16:25	DVW2	ELLE
Total/NA	Analysis	8015D		1	269675	06/28/22 00:37	JJT8	ELLE
Total/NA	Prep	3511			270045	06/28/22 05:38	UMAD	ELLE
Total/NA	Analysis	8015D		1	270258	06/28/22 15:50	IUSB	ELLE

**Client Sample ID: MW-3**

**Lab Sample ID: 410-88688-2**

Date Collected: 06/22/22 10:25

Matrix: Groundwater

Date Received: 06/23/22 17:04

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C LL		1	270122	06/28/22 16:47	DVW2	ELLE
Total/NA	Analysis	8015D		1	269675	06/28/22 01:03	JJT8	ELLE
Total/NA	Prep	3511			270045	06/28/22 05:38	UMAD	ELLE
Total/NA	Analysis	8015D		1	270258	06/28/22 16:14	IUSB	ELLE

**Client Sample ID: MW-4**

**Lab Sample ID: 410-88688-3**

Date Collected: 06/22/22 12:20

Matrix: Groundwater

Date Received: 06/23/22 17:04

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C LL		1	270122	06/28/22 17:09	DVW2	ELLE
Total/NA	Analysis	8015D		1	269675	06/28/22 01:29	JJT8	ELLE
Total/NA	Prep	3511			270045	06/28/22 05:38	UMAD	ELLE
Total/NA	Analysis	8015D		1	270258	06/28/22 16:38	IUSB	ELLE

**Laboratory References:**

ELLE = Eurofins Lancaster Laboratories Environment Testing, LLC, 2425 New Holland Pike, Lancaster, PA 17601, TEL (717)656-2300

# Accreditation/Certification Summary

Client: Groundwater & Environmental Services Inc  
 Project/Site: Carroll - High's #86, Jarrettsville MD

Job ID: 410-88688-1

## Laboratory: Eurofins Lancaster Laboratories Environment Testing, LLC

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

Authority	Program	Identification Number	Expiration Date
Maryland	State	100	06-30-23

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
8015D		Groundwater	GRO (1C)
8015D	3511	Groundwater	DRO (C10-C28)
8260C LL		Groundwater	1,1,1,2-Tetrachloroethane
8260C LL		Groundwater	1,1,1-Trichloroethane
8260C LL		Groundwater	1,1,2,2-Tetrachloroethane
8260C LL		Groundwater	1,1,2-Trichloroethane
8260C LL		Groundwater	1,1-Dichloroethane
8260C LL		Groundwater	1,1-Dichloroethene
8260C LL		Groundwater	1,1-Dichloropropene
8260C LL		Groundwater	1,2,3-Trichlorobenzene
8260C LL		Groundwater	1,2,3-Trichloropropane
8260C LL		Groundwater	1,2,4-Trichlorobenzene
8260C LL		Groundwater	1,2,4-Trimethylbenzene
8260C LL		Groundwater	1,2-Dibromo-3-Chloropropane
8260C LL		Groundwater	1,2-Dibromoethane
8260C LL		Groundwater	1,2-Dichlorobenzene
8260C LL		Groundwater	1,2-Dichloroethane
8260C LL		Groundwater	1,2-Dichloropropane
8260C LL		Groundwater	1,3,5-Trimethylbenzene
8260C LL		Groundwater	1,3-Dichlorobenzene
8260C LL		Groundwater	1,3-Dichloropropane
8260C LL		Groundwater	1,4-Dichlorobenzene
8260C LL		Groundwater	2,2-Dichloropropane
8260C LL		Groundwater	2-Chlorotoluene
8260C LL		Groundwater	4-Chlorotoluene
8260C LL		Groundwater	Acrylonitrile
8260C LL		Groundwater	Benzene
8260C LL		Groundwater	Bromobenzene
8260C LL		Groundwater	Bromochloromethane
8260C LL		Groundwater	Bromodichloromethane
8260C LL		Groundwater	Bromoform
8260C LL		Groundwater	Bromomethane
8260C LL		Groundwater	Carbon disulfide
8260C LL		Groundwater	Chlorobenzene
8260C LL		Groundwater	Chloroethane
8260C LL		Groundwater	Chloroform
8260C LL		Groundwater	Chloromethane
8260C LL		Groundwater	cis-1,2-Dichloroethene
8260C LL		Groundwater	cis-1,3-Dichloropropene
8260C LL		Groundwater	Dibromochloromethane
8260C LL		Groundwater	Dibromomethane
8260C LL		Groundwater	Dichlorodifluoromethane
8260C LL		Groundwater	di-Isopropyl ether
8260C LL		Groundwater	Ethyl t-butyl ether
8260C LL		Groundwater	Ethylbenzene

## Accreditation/Certification Summary

Client: Groundwater & Environmental Services Inc  
 Project/Site: Carroll - High's #86, Jarrettsville MD

Job ID: 410-88688-1

### Laboratory: Eurofins Lancaster Laboratories Environment Testing, LLC (Continued)

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

Authority	Program	Identification Number	Expiration Date
-----------	---------	-----------------------	-----------------

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
8260C LL		Groundwater	Hexachlorobutadiene
8260C LL		Groundwater	Isopropylbenzene
8260C LL		Groundwater	Methyl tertiary butyl ether
8260C LL		Groundwater	Methylene Chloride
8260C LL		Groundwater	Naphthalene
8260C LL		Groundwater	n-Butylbenzene
8260C LL		Groundwater	N-Propylbenzene
8260C LL		Groundwater	p-Isopropyltoluene
8260C LL		Groundwater	sec-Butylbenzene
8260C LL		Groundwater	Styrene
8260C LL		Groundwater	t-Amyl methyl ether
8260C LL		Groundwater	t-Butyl alcohol
8260C LL		Groundwater	tert-Butylbenzene
8260C LL		Groundwater	Tetrachloroethene
8260C LL		Groundwater	Toluene
8260C LL		Groundwater	trans-1,2-Dichloroethene
8260C LL		Groundwater	trans-1,3-Dichloropropene
8260C LL		Groundwater	trans-1,4-Dichloro-2-butene
8260C LL		Groundwater	Trichloroethene
8260C LL		Groundwater	Trichlorofluoromethane
8260C LL		Groundwater	Vinyl chloride
8260C LL		Groundwater	Xylenes, Total



# Method Summary

Client: Groundwater & Environmental Services Inc  
Project/Site: Carroll - High's #86, Jarrettsville MD

Job ID: 410-88688-1

Method	Method Description	Protocol	Laboratory
8260C LL	Volatile Organic Compounds by GC/MS	SW846	ELLE
8015D	Gasoline Range Organics (GRO) (GC)	SW846	ELLE
8015D	Diesel Range Organics (DRO) (GC)	SW846	ELLE
3511	Microextraction of Organic Compounds	SW846	ELLE
5030B	Purge and Trap	SW846	ELLE
5030C	Purge and Trap	SW846	ELLE

**Protocol References:**

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

**Laboratory References:**

ELLE = Eurofins Lancaster Laboratories Environment Testing, LLC, 2425 New Holland Pike, Lancaster, PA 17601, TEL (717)656-2300





# Sample Summary

Client: Groundwater & Environmental Services Inc  
Project/Site: Carroll - High's #86, Jarrettsville MD

Job ID: 410-88688-1

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Lab Sample ID	Client Sample ID	Matrix	Collected	Received
410-88688-1	MW-1	Groundwater	06/22/22 11:20	06/23/22 17:04
410-88688-2	MW-3	Groundwater	06/22/22 10:25	06/23/22 17:04
410-88688-3	MW-4	Groundwater	06/22/22 12:20	06/23/22 17:04

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Lancaster Laboratories Environmental

Envi



410-88688 Chain of Custody

# Request/Chain of Custody

Acct. #

Client: <b>Groundwater &amp; Env. Services, Inc.</b>				<b>Matrix</b>				<b>Analyses Requested</b>										<b>For Lab Use Only</b>						
Project Name/#: High's Store #86 - Jarrettsville		Site ID #: 06		<input type="checkbox"/> Sediment		<input checked="" type="checkbox"/> Ground		<input type="checkbox"/> Surface		<b>Preservation Codes</b>										SF #: _____				
Project Manager: Peter Reichardt		P.O. #: 0403363/08/206		<input type="checkbox"/> Potable		<input type="checkbox"/> NPDES		<input type="checkbox"/> Other:		H H H										SCR #: _____				
Sampler: Jeff Plummer		PWSID #:		<input type="checkbox"/> Soil		<input type="checkbox"/> Water		Total # of Containers		Full Suite VOCs plus oxygenates and Naphthalene (8260)										<b>Preservation Codes</b> H = HCl      T = Thiosulfate N = HNO <sub>3</sub> B = NaOH S = H <sub>2</sub> SO <sub>4</sub> P = H <sub>2</sub> PO <sub>4</sub> O = Other				
Phone #: 800-220-3606 x 3726		Quote #:		State where sample(s) were collected: 3711 Federal Hill Rd, Jarrettsville MD						TPH-GRO (8015)      TPH-DRO (8015)										<b>Remarks</b>				
Sample Identification				Collection		Grab	Composite	Soil	Water	Other:	Total # of Containers	Full Suite VOCs plus oxygenates and Naphthalene (8260)	TPH-GRO (8015)	TPH-DRO (8015)										
MW-1	6-22-22	1120	X				X			7	X	X	X											
MW-3	6-22-22	1025	X				X			7	X	X	X											
MW-4	6-22-22	1210	X				X			7	X	X	X											
Turnaround Time Requested (TAT) (please check): Standard <input checked="" type="checkbox"/> Rush <input type="checkbox"/>				Relinquished by: <i>Jeff Plummer</i>				Date: 6-23-22		Time: 0800		Received by: <i>Denise Woodin</i>				Date: 6-23-22		Time: 0800						
(Rush TAT is subject to laboratory approval and surcharges.)				Relinquished by: <i>Denise Woodin</i>				Date: 6-23-22		Time: 1320		Received by: <i>Jeff</i>				Date: 6/23/22		Time: 13:20						
Date results are needed:				Relinquished by: <i>Jeff</i>				Date: 6/23/22		Time: 16:33		Received by: _____				Date: _____		Time: _____						
Rush results requested by (please check): E-Mail <input checked="" type="checkbox"/> Phone <input type="checkbox"/>				Relinquished by: _____				Date: _____		Time: _____		Received by: _____				Date: _____		Time: _____						
E-mail Address: <a href="mailto:midatlantic@gesonline.com">midatlantic@gesonline.com</a> & <a href="mailto:ges@equisonline.com">ges@equisonline.com</a>				Relinquished by: _____				Date: _____		Time: _____		Received by: _____				Date: _____		Time: _____						
Phone: _____				Relinquished by: _____				Date: _____		Time: _____		Received by: _____				Date: _____		Time: _____						
<b>Data Package Options</b> (please check if required)				Relinquished by: _____				Date: _____		Time: _____		Received by: _____				Date: _____		Time: _____						
Type I (Validation/non-CLP) <input type="checkbox"/> MA MCP <input type="checkbox"/>				Relinquished by: _____				Date: _____		Time: _____		Received by: _____				Date: _____		Time: _____						
Type III (Reduced non-CLP) <input type="checkbox"/> CT RCP <input type="checkbox"/>				Relinquished by: _____				Date: _____		Time: _____		Received by: _____				Date: _____		Time: _____						
Type VI (Raw Data Only) <input type="checkbox"/> TX TRRP-13 <input type="checkbox"/>				Relinquished by: _____				Date: _____		Time: _____		Received by: _____				Date: _____		Time: _____						
NYSDEC Category <input type="checkbox"/> A or <input type="checkbox"/> B				Relinquished by Commercial Carrier:				Date: _____		Time: _____		Received by: _____				Date: _____		Time: _____						
EDD Required? Yes <input type="checkbox"/> No <input type="checkbox"/> If yes, format: <u>GES EQEDD</u>				UPS _____ FedEx _____ Other _____				Date: _____		Time: _____		Received by: _____				Date: _____		Time: _____						
				Temperature upon receipt: <i>4.8</i> °C				Date: _____		Time: _____		Received by: _____				Date: _____		Time: _____						

CL

## Login Sample Receipt Checklist

Client: Groundwater & Environmental Services Inc

Job Number: 410-88688-1

**Login Number: 88688**

**List Source: Eurofins Lancaster Laboratories Environment Testing, LLC**

**List Number: 1**

**Creator: Leakway, Christian**

Question	Answer	Comment
The cooler's custody seal is intact.	N/A	
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 (<math>\leq 6^{\circ}\text{C}</math>, not frozen).	True	
Cooler Temperature is recorded.	True	
WV: Container Temperature is acceptable (<math>\leq 6^{\circ}\text{C}</math>, not frozen).	N/A	
WV: Container Temperature is recorded.	N/A	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
There are no discrepancies between the containers received and the COC.	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	
There is sufficient vol. for all requested analyses.	True	
Is the Field Sampler's name present on COC?	True	
Sample custody seals are intact.	N/A	Not present.
VOA sample vials do not have headspace >6mm in diameter (none, if from WV)?	True	



## ANALYTICAL REPORT

Eurofins Lancaster Laboratories Environment Testing, LLC  
2425 New Holland Pike  
Lancaster, PA 17601  
Tel: (717)656-2300

Laboratory Job ID: 410-88687-1

Client Project/Site: Carroll - High's #86, Jarrettsville MD

**For:**

Groundwater & Environmental Services Inc  
1350 Blair Drive  
Suite H-2  
Odenton, Maryland 21113

Attn: Peter Reichardt



Authorized for release by:  
6/28/2022 6:58:06 PM

Amek Carter, Project Manager  
(717)556-7252

[Loran.Carter@et.eurofinsus.com](mailto:Loran.Carter@et.eurofinsus.com)

### LINKS

Review your project  
results through



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

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

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



Analytical test results meet all requirements of the associated regulatory program (e.g., NELAC (TNI), DoD, and ISO 17025) unless otherwise noted under the individual analysis. Data qualifiers are applied to note exceptions. Noncompliant quality control (QC) is further explained in narrative comments.

- QC results that exceed the upper limits and are associated with non-detect samples are qualified but further narration is not required since the bias is high and does not change a non-detect result. Further narration is also not required with QC blank detection when the associated sample concentration is non-detect or more than ten times the level in the blank.
  - Matrix QC may not be reported if insufficient sample or site-specific QC samples were not submitted. In these situations, to demonstrate precision and accuracy at a batch level, a LCS/LCSD is performed, unless otherwise specified in the method.
  - Surrogate and/or isotope dilution analyte recoveries (if applicable) which are outside of the QC window are confirmed unless attributed to a dilution or otherwise noted in the narrative.
- Regulated compliance samples (e.g. SDWA, NPDES) must comply with the associated agency requirements/permits.

Measurement uncertainty values, as applicable, are available upon request.

Test results relate only to the sample tested. Clients should be aware that a critical step in a chemical or microbiological analysis is the collection of the sample. Unless the sample analyzed is truly representative of the bulk of material involved, the test results will be meaningless. If you have questions regarding the proper techniques of collecting samples, please contact us. We cannot be held responsible for sample integrity, however, unless sampling has been performed by a member of our staff. Times are local to the area of activity. Parameters listed in the 40 CFR Part 136 Table II as "analyze immediately" and tested in the laboratory are not performed within 15 minutes of collection.

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A handwritten signature in cursive script that reads "Amek Carter".

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Amek Carter  
Project Manager  
6/28/2022 6:58:06 PM

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## Definitions/Glossary

Client: Groundwater & Environmental Services Inc  
Project/Site: Carroll - High's #86, Jarrettsville MD

Job ID: 410-88687-1

### Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
▫	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
1C	Result is from the primary column on a dual-column method.
2C	Result is from the confirmation column on a dual-column method.
CFL	Contains Free Liquid
CFU	Colony Forming Unit
CNF	Contains No Free Liquid
DER	Duplicate Error Ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL	Detection Limit (DoD/DOE)
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision Level Concentration (Radiochemistry)
EDL	Estimated Detection Limit (Dioxin)
LOD	Limit of Detection (DoD/DOE)
LOQ	Limit of Quantitation (DoD/DOE)
MCL	EPA recommended "Maximum Contaminant Level"
MDA	Minimum Detectable Activity (Radiochemistry)
MDC	Minimum Detectable Concentration (Radiochemistry)
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
MPN	Most Probable Number
MQL	Method Quantitation Limit
NC	Not Calculated
ND	Not Detected at the reporting limit (or MDL or EDL if shown)
NEG	Negative / Absent
POS	Positive / Present
PQL	Practical Quantitation Limit
PRES	Presumptive
QC	Quality Control
RER	Relative Error Ratio (Radiochemistry)
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)
TNTC	Too Numerous To Count

# Case Narrative

Client: Groundwater & Environmental Services Inc  
Project/Site: Carroll - High's #86, Jarrettsville MD

Job ID: 410-88687-1

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**Job ID: 410-88687-1**

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**Laboratory: Eurofins Lancaster Laboratories Environment Testing, LLC**

**Narrative**

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**Job Narrative**  
**410-88687-1**

**Receipt**

The sample was received on 6/23/2022 5:04 PM. Unless otherwise noted below, the sample arrived in good condition, and, where required, properly preserved and on ice. The temperature of the cooler at receipt time was 4.8°C

**Receipt Exceptions**

A trip blank was not submitted for analysis with this sample shipment; and was not listed on the Chain of Custody (COC).

**GC/MS VOA**

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

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- 2
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# Detection Summary

Client: Groundwater & Environmental Services Inc  
Project/Site: Carroll - High's #86, Jarrettsville MD

Job ID: 410-88687-1

**Client Sample ID: 3711-Federal Hill-INF**

**Lab Sample ID: 410-88687-1**

No Detections.

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This Detection Summary does not include radiochemical test results.

Eurofins Lancaster Laboratories Environment Testing, LLC

# Client Sample Results

Client: Groundwater & Environmental Services Inc  
 Project/Site: Carroll - High's #86, Jarrettsville MD

Job ID: 410-88687-1

**Client Sample ID: 3711-Federal Hill-INF**

**Lab Sample ID: 410-88687-1**

Date Collected: 06/22/22 13:00

Matrix: Potable Water

Date Received: 06/23/22 17:04

**Method: 524.2 - Volatile Organic Compounds (GC/MS)**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1,2-Tetrachloroethane	ND		0.50	0.10	ug/L			06/27/22 17:20	1
1,1,1-Trichloroethane	ND		0.50	0.10	ug/L			06/27/22 17:20	1
1,1,2,2-Tetrachloroethane	ND		0.50	0.10	ug/L			06/27/22 17:20	1
1,1,2-Trichloroethane	ND		0.50	0.10	ug/L			06/27/22 17:20	1
1,1-Dichloroethane	ND		0.50	0.10	ug/L			06/27/22 17:20	1
1,1-Dichloroethene	ND		0.50	0.10	ug/L			06/27/22 17:20	1
1,1-Dichloropropene	ND		0.50	0.10	ug/L			06/27/22 17:20	1
1,2,3-Trichlorobenzene	ND		0.50	0.20	ug/L			06/27/22 17:20	1
1,2,3-Trichloropropane	ND		0.50	0.20	ug/L			06/27/22 17:20	1
1,2,4-Trichlorobenzene	ND		0.50	0.20	ug/L			06/27/22 17:20	1
1,2,4-Trimethylbenzene	ND		0.50	0.10	ug/L			06/27/22 17:20	1
1,2-Dibromo-3-Chloropropane	ND		1.0	0.40	ug/L			06/27/22 17:20	1
1,2-Dibromoethane	ND		0.50	0.10	ug/L			06/27/22 17:20	1
1,2-Dichlorobenzene	ND		0.50	0.10	ug/L			06/27/22 17:20	1
1,2-Dichloroethane	ND		0.50	0.10	ug/L			06/27/22 17:20	1
1,2-Dichloropropane	ND		0.50	0.10	ug/L			06/27/22 17:20	1
1,3,5-Trimethylbenzene	ND		0.50	0.10	ug/L			06/27/22 17:20	1
1,3-Dichlorobenzene	ND		0.50	0.10	ug/L			06/27/22 17:20	1
1,3-Dichloropropane	ND		0.50	0.10	ug/L			06/27/22 17:20	1
1,4-Dichlorobenzene	ND		0.50	0.10	ug/L			06/27/22 17:20	1
2,2-Dichloropropane	ND		0.50	0.20	ug/L			06/27/22 17:20	1
2-Chlorotoluene	ND		0.50	0.10	ug/L			06/27/22 17:20	1
4-Chlorotoluene	ND		0.50	0.20	ug/L			06/27/22 17:20	1
Acrylonitrile	ND		10	2.0	ug/L			06/27/22 17:20	1
Benzene	ND		0.50	0.10	ug/L			06/27/22 17:20	1
Bromobenzene	ND		0.50	0.10	ug/L			06/27/22 17:20	1
Bromochloromethane	ND		0.50	0.10	ug/L			06/27/22 17:20	1
Bromodichloromethane	ND		0.50	0.10	ug/L			06/27/22 17:20	1
Bromoform	ND		0.50	0.20	ug/L			06/27/22 17:20	1
Bromomethane	ND		0.50	0.10	ug/L			06/27/22 17:20	1
Carbon disulfide	ND		2.0	0.40	ug/L			06/27/22 17:20	1
Chlorobenzene	ND		0.50	0.10	ug/L			06/27/22 17:20	1
Chloroethane	ND		0.50	0.20	ug/L			06/27/22 17:20	1
Chloroform	ND		0.50	0.10	ug/L			06/27/22 17:20	1
Chloromethane	ND		0.50	0.20	ug/L			06/27/22 17:20	1
cis-1,2-Dichloroethene	ND		0.50	0.10	ug/L			06/27/22 17:20	1
cis-1,3-Dichloropropene	ND		0.50	0.10	ug/L			06/27/22 17:20	1
Dibromochloromethane	ND		0.50	0.10	ug/L			06/27/22 17:20	1
Dibromomethane	ND		0.50	0.10	ug/L			06/27/22 17:20	1
Dichlorodifluoromethane	ND		0.50	0.20	ug/L			06/27/22 17:20	1
di-Isopropyl ether	ND		0.50	0.10	ug/L			06/27/22 17:20	1
Ethyl t-butyl ether	ND		0.50	0.10	ug/L			06/27/22 17:20	1
Ethylbenzene	ND		0.50	0.10	ug/L			06/27/22 17:20	1
Hexachlorobutadiene	ND		0.50	0.20	ug/L			06/27/22 17:20	1
Isopropylbenzene	ND		0.50	0.10	ug/L			06/27/22 17:20	1
Methyl tertiary butyl ether	ND		0.50	0.10	ug/L			06/27/22 17:20	1
Methylene Chloride	ND		0.50	0.20	ug/L			06/27/22 17:20	1
Naphthalene	ND		0.50	0.20	ug/L			06/27/22 17:20	1
n-Butylbenzene	ND		0.50	0.20	ug/L			06/27/22 17:20	1

# Client Sample Results

Client: Groundwater & Environmental Services Inc  
 Project/Site: Carroll - High's #86, Jarrettsville MD

Job ID: 410-88687-1

**Client Sample ID: 3711-Federal Hill-INF**

**Lab Sample ID: 410-88687-1**

Date Collected: 06/22/22 13:00

Matrix: Potable Water

Date Received: 06/23/22 17:04

**Method: 524.2 - Volatile Organic Compounds (GC/MS) (Continued)**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
N-Propylbenzene	ND		0.50	0.10	ug/L			06/27/22 17:20	1
p-Isopropyltoluene	ND		0.50	0.10	ug/L			06/27/22 17:20	1
sec-Butylbenzene	ND		0.50	0.10	ug/L			06/27/22 17:20	1
Styrene	ND		0.50	0.10	ug/L			06/27/22 17:20	1
t-Amyl methyl ether	ND		0.50	0.10	ug/L			06/27/22 17:20	1
t-Butyl alcohol	ND		25	5.0	ug/L			06/27/22 17:20	1
tert-Butylbenzene	ND		0.50	0.10	ug/L			06/27/22 17:20	1
Tetrachloroethene	ND		0.50	0.10	ug/L			06/27/22 17:20	1
Toluene	ND		0.50	0.10	ug/L			06/27/22 17:20	1
trans-1,2-Dichloroethene	ND		0.50	0.10	ug/L			06/27/22 17:20	1
trans-1,3-Dichloropropene	ND		0.50	0.10	ug/L			06/27/22 17:20	1
trans-1,4-Dichloro-2-butene	ND		5.0	2.0	ug/L			06/27/22 17:20	1
Trichloroethene	ND		0.50	0.10	ug/L			06/27/22 17:20	1
Trichlorofluoromethane	ND		0.50	0.20	ug/L			06/27/22 17:20	1
Vinyl chloride	ND		0.50	0.10	ug/L			06/27/22 17:20	1
Xylenes, Total	ND		0.50	0.10	ug/L			06/27/22 17:20	1
<b>Surrogate</b>	<b>%Recovery</b>	<b>Qualifier</b>	<b>Limits</b>				<b>Prepared</b>	<b>Analyzed</b>	<b>Dil Fac</b>
1,2-Dichlorobenzene-d4 (Surr)	92		80 - 120					06/27/22 17:20	1
4-Bromofluorobenzene (Surr)	88		80 - 120					06/27/22 17:20	1

# Surrogate Summary

Client: Groundwater & Environmental Services Inc  
Project/Site: Carroll - High's #86, Jarrettsville MD

Job ID: 410-88687-1

## Method: 524.2 - Volatile Organic Compounds (GC/MS)

Matrix: Potable Water

Prep Type: Total/NA

### Percent Surrogate Recovery (Acceptance Limits)

Lab Sample ID	Client Sample ID	DCZ (80-120)	BFB (80-120)
410-88687-1	3711-Federal Hill-INF	92	88

#### Surrogate Legend

DCZ = 1,2-Dichlorobenzene-d4 (Surr)

BFB = 4-Bromofluorobenzene (Surr)

## Method: 524.2 - Volatile Organic Compounds (GC/MS)

Matrix: Water

Prep Type: Total/NA

### Percent Surrogate Recovery (Acceptance Limits)

Lab Sample ID	Client Sample ID	DCZ (80-120)	BFB (80-120)
LCS 410-269853/4	Lab Control Sample	98	101
MB 410-269853/6	Method Blank	91	90

#### Surrogate Legend

DCZ = 1,2-Dichlorobenzene-d4 (Surr)

BFB = 4-Bromofluorobenzene (Surr)

# QC Sample Results

Client: Groundwater & Environmental Services Inc  
 Project/Site: Carroll - High's #86, Jarrettsville MD

Job ID: 410-88687-1

## Method: 524.2 - Volatile Organic Compounds (GC/MS)

Lab Sample ID: MB 410-269853/6

Matrix: Water

Analysis Batch: 269853

Client Sample ID: Method Blank

Prep Type: Total/NA

Analyte	MB	MB	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier							
1,1,1,2-Tetrachloroethane	ND		0.50	0.10	ug/L			06/27/22 15:47	1
1,1,1-Trichloroethane	ND		0.50	0.10	ug/L			06/27/22 15:47	1
1,1,2,2-Tetrachloroethane	ND		0.50	0.10	ug/L			06/27/22 15:47	1
1,1,2-Trichloroethane	ND		0.50	0.10	ug/L			06/27/22 15:47	1
1,1-Dichloroethane	ND		0.50	0.10	ug/L			06/27/22 15:47	1
1,1-Dichloroethene	ND		0.50	0.10	ug/L			06/27/22 15:47	1
1,1-Dichloropropene	ND		0.50	0.10	ug/L			06/27/22 15:47	1
1,2,3-Trichlorobenzene	ND		0.50	0.20	ug/L			06/27/22 15:47	1
1,2,3-Trichloropropane	ND		0.50	0.20	ug/L			06/27/22 15:47	1
1,2,4-Trichlorobenzene	ND		0.50	0.20	ug/L			06/27/22 15:47	1
1,2,4-Trimethylbenzene	ND		0.50	0.10	ug/L			06/27/22 15:47	1
1,2-Dibromo-3-Chloropropane	ND		1.0	0.40	ug/L			06/27/22 15:47	1
1,2-Dibromoethane	ND		0.50	0.10	ug/L			06/27/22 15:47	1
1,2-Dichlorobenzene	ND		0.50	0.10	ug/L			06/27/22 15:47	1
1,2-Dichloroethane	ND		0.50	0.10	ug/L			06/27/22 15:47	1
1,2-Dichloropropane	ND		0.50	0.10	ug/L			06/27/22 15:47	1
1,3,5-Trimethylbenzene	ND		0.50	0.10	ug/L			06/27/22 15:47	1
1,3-Dichlorobenzene	ND		0.50	0.10	ug/L			06/27/22 15:47	1
1,3-Dichloropropane	ND		0.50	0.10	ug/L			06/27/22 15:47	1
1,4-Dichlorobenzene	ND		0.50	0.10	ug/L			06/27/22 15:47	1
2,2-Dichloropropane	ND		0.50	0.20	ug/L			06/27/22 15:47	1
2-Chlorotoluene	ND		0.50	0.10	ug/L			06/27/22 15:47	1
4-Chlorotoluene	ND		0.50	0.20	ug/L			06/27/22 15:47	1
Acrylonitrile	ND		10	2.0	ug/L			06/27/22 15:47	1
Benzene	ND		0.50	0.10	ug/L			06/27/22 15:47	1
Bromobenzene	ND		0.50	0.10	ug/L			06/27/22 15:47	1
Bromochloromethane	ND		0.50	0.10	ug/L			06/27/22 15:47	1
Bromodichloromethane	ND		0.50	0.10	ug/L			06/27/22 15:47	1
Bromoform	ND		0.50	0.20	ug/L			06/27/22 15:47	1
Bromomethane	ND		0.50	0.10	ug/L			06/27/22 15:47	1
Carbon disulfide	ND		2.0	0.40	ug/L			06/27/22 15:47	1
Chlorobenzene	ND		0.50	0.10	ug/L			06/27/22 15:47	1
Chloroethane	ND		0.50	0.20	ug/L			06/27/22 15:47	1
Chloroform	ND		0.50	0.10	ug/L			06/27/22 15:47	1
Chloromethane	ND		0.50	0.20	ug/L			06/27/22 15:47	1
cis-1,2-Dichloroethene	ND		0.50	0.10	ug/L			06/27/22 15:47	1
cis-1,3-Dichloropropene	ND		0.50	0.10	ug/L			06/27/22 15:47	1
Dibromochloromethane	ND		0.50	0.10	ug/L			06/27/22 15:47	1
Dibromomethane	ND		0.50	0.10	ug/L			06/27/22 15:47	1
Dichlorodifluoromethane	ND		0.50	0.20	ug/L			06/27/22 15:47	1
di-Isopropyl ether	ND		0.50	0.10	ug/L			06/27/22 15:47	1
Ethyl t-butyl ether	ND		0.50	0.10	ug/L			06/27/22 15:47	1
Ethylbenzene	ND		0.50	0.10	ug/L			06/27/22 15:47	1
Hexachlorobutadiene	ND		0.50	0.20	ug/L			06/27/22 15:47	1
Isopropylbenzene	ND		0.50	0.10	ug/L			06/27/22 15:47	1
Methyl tertiary butyl ether	ND		0.50	0.10	ug/L			06/27/22 15:47	1
Methylene Chloride	ND		0.50	0.20	ug/L			06/27/22 15:47	1
Naphthalene	ND		0.50	0.20	ug/L			06/27/22 15:47	1

# QC Sample Results

Client: Groundwater & Environmental Services Inc  
 Project/Site: Carroll - High's #86, Jarrettsville MD

Job ID: 410-88687-1

## Method: 524.2 - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: MB 410-269853/6

Client Sample ID: Method Blank

Matrix: Water

Prep Type: Total/NA

Analysis Batch: 269853

Analyte	MB	MB	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier							
n-Butylbenzene	ND		0.50	0.20	ug/L			06/27/22 15:47	1
N-Propylbenzene	ND		0.50	0.10	ug/L			06/27/22 15:47	1
p-Isopropyltoluene	ND		0.50	0.10	ug/L			06/27/22 15:47	1
sec-Butylbenzene	ND		0.50	0.10	ug/L			06/27/22 15:47	1
Styrene	ND		0.50	0.10	ug/L			06/27/22 15:47	1
t-Amyl methyl ether	ND		0.50	0.10	ug/L			06/27/22 15:47	1
t-Butyl alcohol	ND		25	5.0	ug/L			06/27/22 15:47	1
tert-Butylbenzene	ND		0.50	0.10	ug/L			06/27/22 15:47	1
Tetrachloroethene	ND		0.50	0.10	ug/L			06/27/22 15:47	1
Toluene	ND		0.50	0.10	ug/L			06/27/22 15:47	1
trans-1,2-Dichloroethene	ND		0.50	0.10	ug/L			06/27/22 15:47	1
trans-1,3-Dichloropropene	ND		0.50	0.10	ug/L			06/27/22 15:47	1
trans-1,4-Dichloro-2-butene	ND		5.0	2.0	ug/L			06/27/22 15:47	1
Trichloroethene	ND		0.50	0.10	ug/L			06/27/22 15:47	1
Trichlorofluoromethane	ND		0.50	0.20	ug/L			06/27/22 15:47	1
Vinyl chloride	ND		0.50	0.10	ug/L			06/27/22 15:47	1
Xylenes, Total	ND		0.50	0.10	ug/L			06/27/22 15:47	1

Surrogate	MB	MB	Limits	Prepared	Analyzed	Dil Fac
	%Recovery	Qualifier				
1,2-Dichlorobenzene-d4 (Surr)	91		80 - 120		06/27/22 15:47	1
4-Bromofluorobenzene (Surr)	90		80 - 120		06/27/22 15:47	1

Lab Sample ID: LCS 410-269853/4

Client Sample ID: Lab Control Sample

Matrix: Water

Prep Type: Total/NA

Analysis Batch: 269853

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
1,1,1-Trichloroethane	5.00	4.27		ug/L		85	70 - 130
1,1,2,2-Tetrachloroethane	5.00	4.37		ug/L		87	70 - 130
1,1,2-Trichloroethane	5.00	4.49		ug/L		90	70 - 130
1,1-Dichloroethane	5.00	4.33		ug/L		87	70 - 130
1,1-Dichloroethene	5.00	4.72		ug/L		94	70 - 130
1,1-Dichloropropene	5.00	4.36		ug/L		87	70 - 130
1,2,3-Trichlorobenzene	5.00	4.21		ug/L		84	70 - 130
1,2,3-Trichloropropene	5.00	4.39		ug/L		88	70 - 130
1,2,4-Trichlorobenzene	5.00	4.26		ug/L		85	70 - 130
1,2,4-Trimethylbenzene	5.00	4.43		ug/L		89	70 - 130
1,2-Dibromo-3-Chloropropane	5.00	4.31		ug/L		86	70 - 130
1,2-Dibromoethane	5.00	4.40		ug/L		88	70 - 130
1,2-Dichlorobenzene	5.00	4.64		ug/L		93	70 - 130
1,2-Dichloroethane	5.00	4.18		ug/L		84	70 - 130
1,2-Dichloropropane	5.00	4.37		ug/L		87	70 - 130
1,3,5-Trimethylbenzene	5.00	4.37		ug/L		87	70 - 130
1,3-Dichlorobenzene	5.00	4.67		ug/L		93	70 - 130
1,3-Dichloropropane	5.00	4.34		ug/L		87	70 - 130
1,4-Dichlorobenzene	5.00	4.74		ug/L		95	70 - 130
2,2-Dichloropropane	5.00	4.46		ug/L		89	70 - 130

# QC Sample Results

Client: Groundwater & Environmental Services Inc  
 Project/Site: Carroll - High's #86, Jarrettsville MD

Job ID: 410-88687-1

## Method: 524.2 - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCS 410-269853/4

Matrix: Water

Analysis Batch: 269853

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Analyte	Spike Added	LCS	LCS	Unit	D	%Rec	%Rec Limits
		Result	Qualifier				
2-Chlorotoluene	5.00	4.50		ug/L		90	70 - 130
4-Chlorotoluene	5.00	4.66		ug/L		93	70 - 130
Acrylonitrile	113	97.2		ug/L		86	70 - 130
Benzene	5.00	4.40		ug/L		88	70 - 130
Bromobenzene	5.00	4.85		ug/L		97	70 - 130
Bromochloromethane	5.00	4.64		ug/L		93	70 - 130
Bromodichloromethane	5.00	4.47		ug/L		89	70 - 130
Bromoform	5.00	4.99		ug/L		100	70 - 130
Bromomethane	2.00	1.93		ug/L		96	70 - 130
Carbon disulfide	5.00	4.96		ug/L		99	70 - 130
Chlorobenzene	5.00	4.64		ug/L		93	70 - 130
Chloroethane	2.00	1.86		ug/L		93	70 - 130
Chloroform	5.00	4.38		ug/L		88	70 - 130
Chloromethane	2.00	1.94		ug/L		97	70 - 130
cis-1,2-Dichloroethene	5.00	4.57		ug/L		91	70 - 130
cis-1,3-Dichloropropene	5.00	4.22		ug/L		84	70 - 130
Dibromochloromethane	5.00	4.57		ug/L		91	70 - 130
Dibromomethane	5.00	4.38		ug/L		88	70 - 130
Dichlorodifluoromethane	2.00	2.05		ug/L		103	70 - 130
di-Isopropyl ether	5.00	4.51		ug/L		90	70 - 130
Ethyl t-butyl ether	5.00	4.26		ug/L		85	70 - 130
Ethylbenzene	5.00	4.49		ug/L		90	70 - 130
Hexachlorobutadiene	5.00	4.76		ug/L		95	70 - 130
Isopropylbenzene	5.00	4.36		ug/L		87	70 - 130
Methyl tertiary butyl ether	5.00	4.35		ug/L		87	70 - 130
Methylene Chloride	5.00	5.16		ug/L		103	70 - 130
Naphthalene	5.00	3.71		ug/L		74	70 - 130
n-Butylbenzene	5.00	4.28		ug/L		86	70 - 130
N-Propylbenzene	5.00	4.45		ug/L		89	70 - 130
p-Isopropyltoluene	5.00	4.48		ug/L		90	70 - 130
sec-Butylbenzene	5.00	4.47		ug/L		89	70 - 130
Styrene	5.00	4.58		ug/L		92	70 - 130
t-Amyl methyl ether	5.00	3.90		ug/L		78	70 - 130
t-Butyl alcohol	50.0	40.1		ug/L		80	70 - 130
tert-Butylbenzene	5.00	4.65		ug/L		93	70 - 130
Tetrachloroethene	5.00	4.80		ug/L		96	70 - 130
Toluene	5.00	4.43		ug/L		89	70 - 130
trans-1,2-Dichloroethene	5.00	4.44		ug/L		89	70 - 130
trans-1,3-Dichloropropene	5.00	4.30		ug/L		86	70 - 130
trans-1,4-Dichloro-2-butene	25.0	23.0		ug/L		92	70 - 130
Trichloroethene	5.00	4.24		ug/L		85	70 - 130
Trichlorofluoromethane	2.00	1.93		ug/L		96	70 - 130
Vinyl chloride	2.00	1.87		ug/L		93	70 - 130
Xylenes, Total	15.0	13.5		ug/L		90	70 - 130

Surrogate	LCS LCS		Limits
	%Recovery	Qualifier	
1,2-Dichlorobenzene-d4 (Surr)	98		80 - 120
4-Bromofluorobenzene (Surr)	101		80 - 120

# QC Association Summary

Client: Groundwater & Environmental Services Inc  
Project/Site: Carroll - High's #86, Jarrettsville MD

Job ID: 410-88687-1

## GC/MS VOA

### Analysis Batch: 269853

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-88687-1	3711-Federal Hill-INF	Total/NA	Potable Water	524.2	
MB 410-269853/6	Method Blank	Total/NA	Water	524.2	
LCS 410-269853/4	Lab Control Sample	Total/NA	Water	524.2	

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# Lab Chronicle

Client: Groundwater & Environmental Services Inc  
Project/Site: Carroll - High's #86, Jarrettsville MD

Job ID: 410-88687-1

**Client Sample ID: 3711-Federal Hill-INF**

**Lab Sample ID: 410-88687-1**

**Date Collected: 06/22/22 13:00**

**Matrix: Potable Water**

**Date Received: 06/23/22 17:04**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	524.2		1	269853	06/27/22 17:20	UJML	ELLE

**Laboratory References:**

ELLE = Eurofins Lancaster Laboratories Environment Testing, LLC, 2425 New Holland Pike, Lancaster, PA 17601, TEL (717)656-2300

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# Accreditation/Certification Summary

Client: Groundwater & Environmental Services Inc  
 Project/Site: Carroll - High's #86, Jarrettsville MD

Job ID: 410-88687-1

## Laboratory: Eurofins Lancaster Laboratories Environment Testing, LLC

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

Authority	Program	Identification Number	Expiration Date
Maryland	State	100	06-30-23

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
524.2		Potable Water	1,1,1,2-Tetrachloroethane
524.2		Potable Water	1,1,2,2-Tetrachloroethane
524.2		Potable Water	1,1-Dichloroethane
524.2		Potable Water	1,1-Dichloropropene
524.2		Potable Water	1,2,3-Trichlorobenzene
524.2		Potable Water	1,2,3-Trichloropropane
524.2		Potable Water	1,2,4-Trimethylbenzene
524.2		Potable Water	1,2-Dibromo-3-Chloropropane
524.2		Potable Water	1,2-Dibromoethane
524.2		Potable Water	1,3,5-Trimethylbenzene
524.2		Potable Water	1,3-Dichlorobenzene
524.2		Potable Water	1,3-Dichloropropane
524.2		Potable Water	2,2-Dichloropropane
524.2		Potable Water	2-Chlorotoluene
524.2		Potable Water	4-Chlorotoluene
524.2		Potable Water	Acrylonitrile
524.2		Potable Water	Bromobenzene
524.2		Potable Water	Bromochloromethane
524.2		Potable Water	Bromomethane
524.2		Potable Water	Carbon disulfide
524.2		Potable Water	Chloroethane
524.2		Potable Water	Chloromethane
524.2		Potable Water	cis-1,3-Dichloropropene
524.2		Potable Water	Dibromomethane
524.2		Potable Water	Dichlorodifluoromethane
524.2		Potable Water	di-Isopropyl ether
524.2		Potable Water	Ethyl t-butyl ether
524.2		Potable Water	Hexachlorobutadiene
524.2		Potable Water	Isopropylbenzene
524.2		Potable Water	Methyl tertiary butyl ether
524.2		Potable Water	Naphthalene
524.2		Potable Water	n-Butylbenzene
524.2		Potable Water	N-Propylbenzene
524.2		Potable Water	p-Isopropyltoluene
524.2		Potable Water	sec-Butylbenzene
524.2		Potable Water	t-Amyl methyl ether
524.2		Potable Water	t-Butyl alcohol
524.2		Potable Water	tert-Butylbenzene
524.2		Potable Water	trans-1,3-Dichloropropene
524.2		Potable Water	trans-1,4-Dichloro-2-butene
524.2		Potable Water	Trichlorofluoromethane

# Method Summary

Client: Groundwater & Environmental Services Inc  
Project/Site: Carroll - High's #86, Jarrettsville MD

Job ID: 410-88687-1

Method	Method Description	Protocol	Laboratory
524.2	Volatile Organic Compounds (GC/MS)	EPA-DW	ELLE

**Protocol References:**

EPA-DW = "Methods For The Determination Of Organic Compounds In Drinking Water", EPA/600/4-88/039, December 1988 And Its Supplements.

**Laboratory References:**

ELLE = Eurofins Lancaster Laboratories Environment Testing, LLC, 2425 New Holland Pike, Lancaster, PA 17601, TEL (717)656-2300



# Sample Summary

Client: Groundwater & Environmental Services Inc  
Project/Site: Carroll - High's #86, Jarrettsville MD

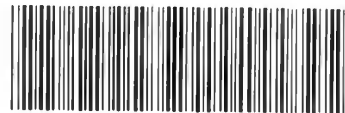
Job ID: 410-88687-1

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Lab Sample ID	Client Sample ID	Matrix	Collected	Received
410-88687-1	3711-Federal Hill-INF	Potable Water	06/22/22 13:00	06/23/22 17:04

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# Environmental Analysis Request/Chain of Custody



410-88687 Chain of Custody



Lancaster Environmental

Acct. # \_\_\_\_\_ Group # \_\_\_\_\_ Sample # \_\_\_\_\_

Client: Groundwater & Env. Services, Inc.				Matrix			Analyses Requested										For Lab Use Only						
Project Name/#: High's Store #86 - Jarrettsville		Site ID #: <i>ole</i>		<input type="checkbox"/> Sediment	<input type="checkbox"/> Ground	<input type="checkbox"/> Surface	Preservation Codes										SF #: _____						
Project Manager: Peter Reichardt		P.O. #: 0403363/06/206		<input type="checkbox"/> Potable	<input checked="" type="checkbox"/> Water	<input type="checkbox"/> NPDES	H										SCR #: _____						
Sampler: Jeff Plummer		PWSID #:		<input type="checkbox"/> Soil	Other:		Total # of Containers	Full Suite VOCs plus oxygenates and Naphthalene (524.2)											Preservation Codes				
Phone #: 800-220-3606 x 3726		Quote #:														H = HCl      T = Thiosulfate N = HNO <sub>3</sub> B = NaOH S = H <sub>2</sub> SO <sub>4</sub> P = H <sub>3</sub> PO <sub>4</sub> O = Other							
State where sample(s) were collected: 3711 Federal Hill Rd, Jarrettsville MD				Collection		<input type="checkbox"/> Grab	<input type="checkbox"/> Composite															Remarks	
Sample Identification		Date	Time															- Ascorbic acid also used.					
3711-Federal Hill-INF		6-22-22	1300																				
Turnaround Time Requested (TAT) (please check): Standard <input checked="" type="checkbox"/> Rush <input type="checkbox"/>				Relinquished by: <i>Jeff Plummer</i>		Date	Time	Received by: <i>Denise Woodring</i>		Date	Time												
(Rush TAT is subject to laboratory approval and surcharges.)						6-23-22	0800	6-23-22		0800													
Date results are needed:				Relinquished by: <i>Denise Woodring</i>		Date	Time	Received by: <i>John</i>		Date	Time												
Rush results requested by (please check): E-Mail <input checked="" type="checkbox"/> Phone <input type="checkbox"/>						6-23-22	1320	6-23-22		13:20													
E-mail Address: <a href="mailto:midatlantic@gesonline.com">midatlantic@gesonline.com</a> & <a href="mailto:ges@equisonline.com">ges@equisonline.com</a>				Relinquished by: <i>John</i>		Date	Time	Received by:		Date	Time												
Phone: _____						6-23-22	16:33																
Data Package Options (please check if required)				Relinquished by:		Date	Time	Received by:		Date	Time												
Type I (Validation/non-CLP) <input type="checkbox"/> MA MCP <input type="checkbox"/>																							
Type III (Reduced non-CLP) <input type="checkbox"/> CT RCP <input type="checkbox"/>				Relinquished by:		Date	Time	Received by: <i>[Signature]</i>		Date	Time												
Type VI (Raw Data Only) <input type="checkbox"/> TX TRRP-13 <input type="checkbox"/>										6/23/22	17:04												
NYSDEC Category <input type="checkbox"/> A or <input type="checkbox"/> B				Relinquished by Commercial Carrier:																			
EDD Required? Yes <input type="checkbox"/> No <input type="checkbox"/> If yes, format: <u>GES EQEDD</u>				UPS _____ FedEx _____ Other _____						Temperature upon receipt <u>4.8</u> °C													

CL

## Login Sample Receipt Checklist

Client: Groundwater & Environmental Services Inc

Job Number: 410-88687-1

**Login Number: 88687**

**List Source: Eurofins Lancaster Laboratories Environment Testing, LLC**

**List Number: 1**

**Creator: Leakway, Christian**

Question	Answer	Comment
The cooler's custody seal is intact.	N/A	Not present
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 (<math>\leq 6^{\circ}\text{C}</math>, not frozen).	True	
Cooler Temperature is recorded.	True	
WV: Container Temperature is acceptable (<math>\leq 6^{\circ}\text{C}</math>, not frozen).	N/A	
WV: Container Temperature is recorded.	N/A	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
There are no discrepancies between the containers received and the COC.	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	
There is sufficient vol. for all requested analyses.	True	
Is the Field Sampler's name present on COC?	True	
Sample custody seals are intact.	N/A	Not present.
VOA sample vials do not have headspace >6mm in diameter (none, if from WV)?	True	

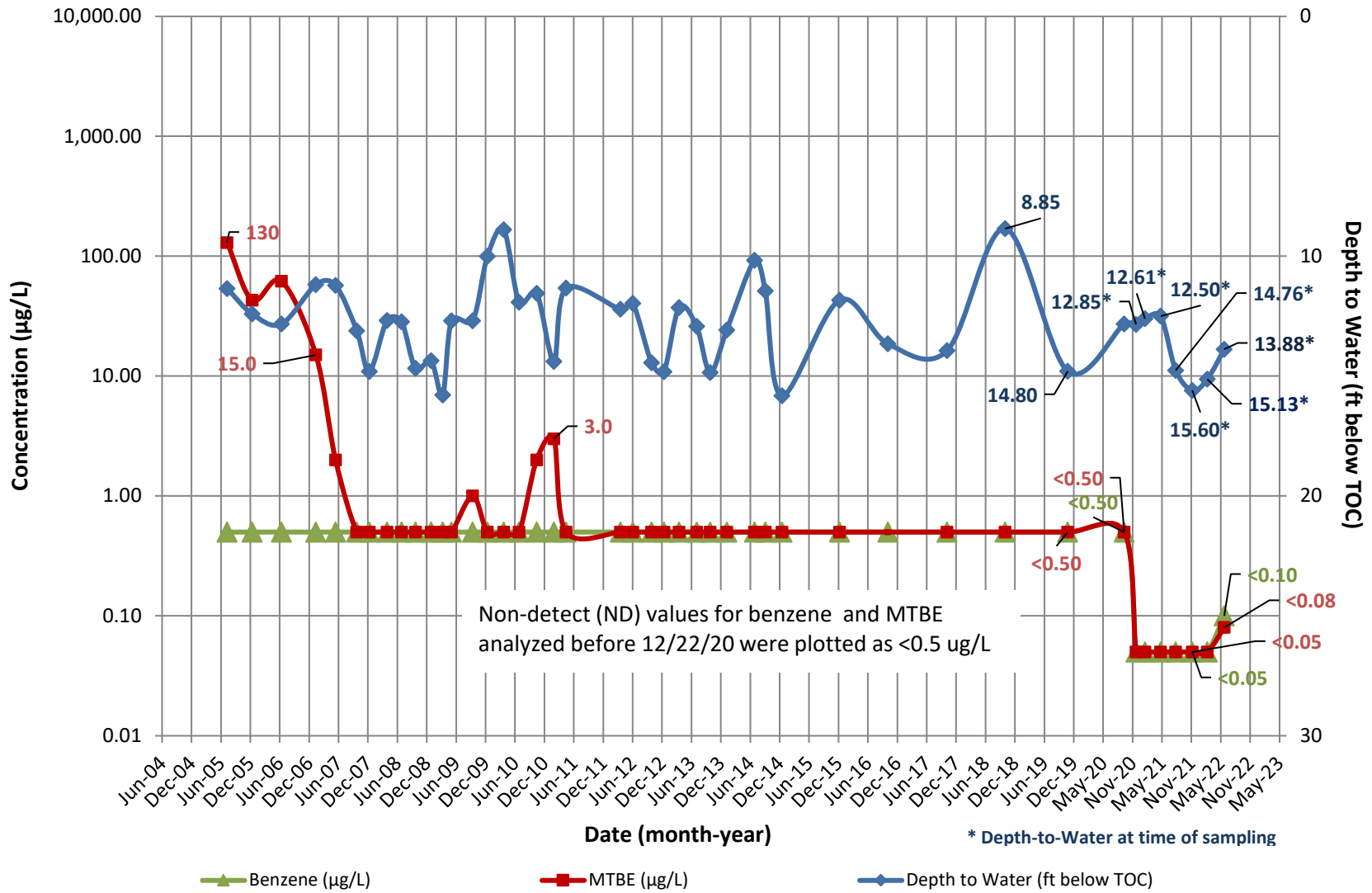


## Appendix C – Concentration Hydrographs

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CONCENTRATION HYDROGRAPH FOR BENZENE AND MTBE - MW-1

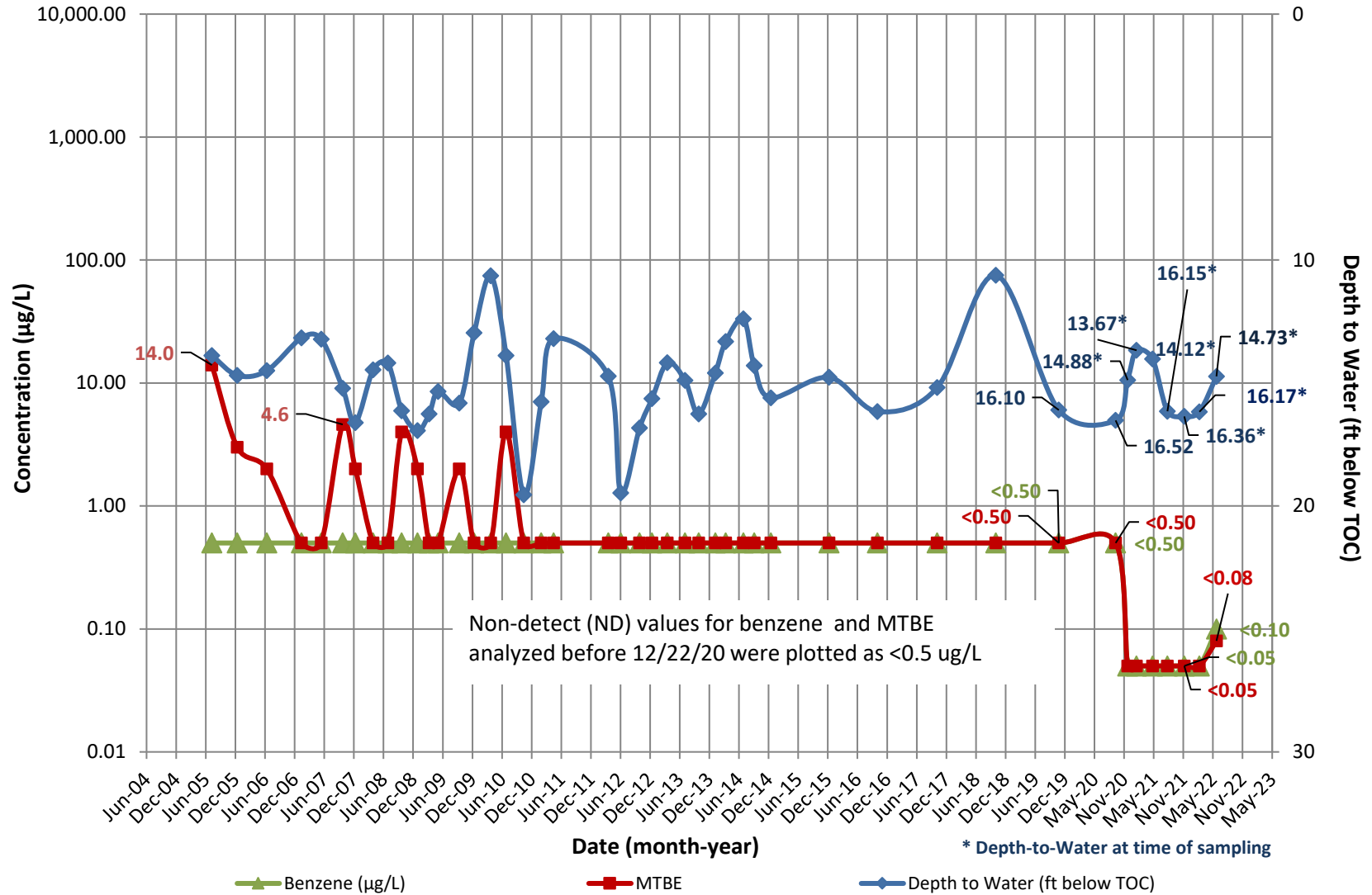
High's Store No. 86  
 3711 Federal Hill Road  
 Jarrettsville, MD





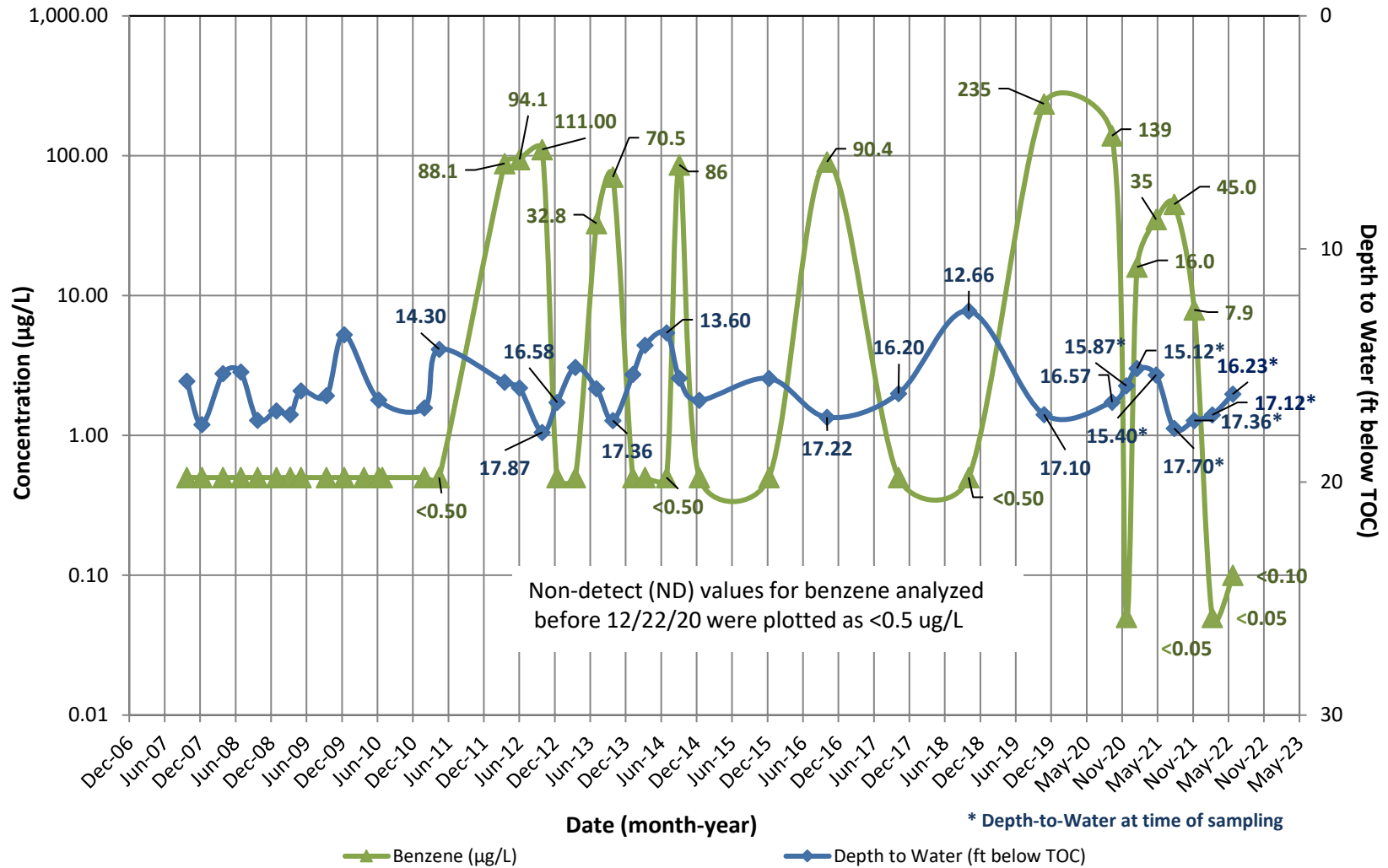
CONCENTRATION HYDROGRAPH FOR BENZENE AND MTBE - MW-3

High's Store No. 86  
 3711 Federal Hill Road  
 Jarrettsville, MD



CONCENTRATION HYDROGRAPH FOR BENZENE - MW-4

High's Store No. 86  
3711 Federal Hill Road  
Jarrettsville, MD



CONCENTRATION HYDROGRAPH FOR MTBE - MW-4

High's Store No. 86  
3711 Federal Hill Road  
Jarrettsville, MD

