Memo

SUBJECT
Fiero Temporary Monitoring Plan
Third Quarter Results

TO
Peter Ramanauskas, USEPA

DATE
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Dave Favero – RACER Trust

FROM
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This memorandum summarizes the results of third quarter (3Q) monitoring event completed as part of the Fiero Temporary Monitoring Plan (FTMP) at the Fiero properties of the Revitalizing Auto Communities Environmental Response Trust (RACER) Pontiac North Campus Site (Site) located in Pontiac, Michigan. The event consisted of gauging and sampling select monitoring wells and sampling soil vapor monitoring points (SVMPs) at the former Fiero property. The monitoring locations included in the 3Q event are shown on **Figure 1**.

On September 19, 2022, Arcadis began monitoring activities by gauging Site monitoring wells. Following the gauging event, soil vapor monitoring points (SVMP) and monitoring wells were sampled for site-specific volatile organic compounds (VOCs) over a 4-day period. All groundwater samples were submitted to Merit Laboratories and analyzed for VOCs via United State Environmental Protection Agency (USEPA) Method 8260 and all soil vapor samples were submitted to Eurofins Air Toxics and analyzed for VOCs via USEPA Method TO-15. The analytical reports from Merit and Eurofins are provided as **Attachment 1**. The results of the gauging and sampling are provided in the attached tables:

- **Table 1** – Summary of Groundwater Elevations
- **Table 2** – Summary of Monitoring Well Analytical Results
- **Table 3** – Summary of Soil Vapor Monitoring Point Results

Groundwater Gauging

Monitoring wells were gauged for depth to water and total depth using an electronic water level meter and were measured to the nearest 0.01-foot. MW-06-20, TW-12-22, MWF15-01, MWF16-05, MWF16-17, and MWF16-20 were inaccessible due to ponding of surface water during the September 19th gauging event but were gauged between September 20th and September 24th when made accessible. The groundwater elevation data was used to create the groundwater elevation contour figure included as **Figure 2**. As shown on **Figure 2**, groundwater generally migrates to the southwest at the Fiero properties with an area of perched/higher groundwater elevation in the east central portion of the Site.

Groundwater Analytical Summary

Groundwater samples were collected from 31 monitoring wells and submitted for analysis of VOCs. A summary of the monitoring wells sampled and exceedances of the residential Site-Specific Volatilization to Indoor Air Criteria (SSVIAC) for groundwater is shown on **Figure 3**. The following is based on the analytical results from the groundwater sampling:

- Monitoring well samples did not exceed the non-residential SSVIAC.
- Elevated VOC detections remain upgradient near the identified source areas in the central portion of the Site and decrease steadily as they approach the southwest property boundary.

- 3rd Quarter groundwater results show the VOC impacts above SSVIAC are defined downgradient by the off-site monitoring well network.

Soil Vapor Analytical Summary

Soil vapor samples were collected from all six SVMP locations on-site and off-site. An analytical summary of the SVMPs sampled is shown on **Figure 3**. The following is based on the analytical results from the soil vapor sampling:

- Analytical results for all SVMP locations, both on-site and off-site, were below the residential SSVIAC.

Closing

The next FTMP monitoring event was completed December 5 through 8, 2022. This event completes the approved FTMP scope of work. Following receipt of the 4th quarter results, a summary report will be prepared to evaluate trends and re-assess the overall Fiero groundwater conceptual site model. Based on the results, additional monitoring may be proposed, as appropriate, and provided to USEPA for review and comment. For any questions or concerns related to the 3rd quarter FTMP results contact Tiffany Linder by phone at 810-225-1928 or by email at Tiffany.Linder@arcadis.com.

Peter Ramanauskas
USEPA
December 14, 2022

Enclosures:

Tables:

Table 1 – Summary of Groundwater Elevations

Table 2 – Summary of Monitoring Well Analytical Results

Table 3 – Summary of Soil Vapor Analytical Results

Figures:

Figure 1 – 2022 Fiero Temporary Monitoring Plan 3Q Monitoring Locations

Figure 2 – Fiero Groundwater Contour Map September 19, 2022

Figure 3 – Summary of Groundwater and Soil Gas Results September 2022

Attachments:

Attachment 1 – Analytical Reports

Tables

Table 1
Summary Groundwater Elevation
Fiero Site Investigation
RACER Trust Pontiac North Campus

ARCADIS

Well ID	Ground Elevation	Well Elevation [1]	Total Depth (ft)	Date	Depth to Water (ft)[2]	Groundwater Elevation
Former Fiero Powerhouse						
MW-02-17	973.53	972.52	29.53	9/19/2022	25.92	946.60
MW-05-18	976.03	975.21	33.49	9/19/2022	27.21	948.00
MW-06-20	975.54	974.97	29.22	9/20/2022	25.94	949.03
MW-07-20	975.48	975.06	30.19	9/19/2022	26.61	948.45
MW-08-21	976.04	975.50	30.25	9/19/2022	26.72	948.78
MW-13-22	973.17	972.62	26.74	9/19/2022	20.06	952.56
MW-14-22	973.21	972.71	34.66	9/19/2022	22.41	950.30
MWF7-02	NA	970.58	22.85	9/19/2022	21.65	948.93
MWF7-03	973.63	973.31	32.07	9/19/2022	21.51	951.80
MWF12-01R	964.97	967.99	22.75	9/19/2022	20.51	947.48
MWF12-02R	962.38	961.91	22.50	9/19/2022	12.72	949.19
MWF15-01	NA	969.35	28.80	9/23/2022	18.91	950.44
MWF16-07	973.36	972.65	17.46	9/30/2022	5.90	966.75
MWF16-15	973.30	972.71	35.50	9/19/2022	21.96	950.75
MWF16-23	973.82	973.39	30.46	9/19/2022	23.89	949.50
Unknown-01	969.51	969.16	24.05	9/19/2022	18.63	950.53
Former Fiero Assembly						
MW-09-22	973.83	973.46	32.85	9/19/2022	20.98	952.48
MW-11-22	977.42	976.75	34.70	9/19/2022	27.48	949.27
MWF8-01	973.41	972.94	27.20	9/19/2022	18.28	954.66
MWF16-01	973.66	973.22	Destroyed	NA	Destroyed	NA
MWF16-05	973.95	973.68	22.73	9/22/2022	20.50	953.18
MWF16-06	974.02	973.77	28.19	9/19/2022	14.26	959.51
MWF16-09	973.50	973.16	Damaged	NA	Damaged	NA
MWF16-12	973.60	973.20	18.90	9/19/2022	13.95	959.25
MWF16-16	973.50	973.22	31.26	9/19/2022	22.48	950.74
MWF16-17	973.70	973.32	31.52	9/21/2022	19.79	953.53
MWF16-18	973.60	973.22	31.52	9/19/2022	20.86	952.36
MWF16-19	973.60	973.19	Buried	NA	Buried	NA
MWF16-20	973.55	973.32	24.57	9/21/2022	14.69	958.63
MWF16-22	973.50	973.18	33.59	9/19/2022	23.31	949.87
MWF16-24	973.64	973.38	29.86	9/19/2022	23.00	950.38
MWF16-25	NA	975.24	37.18	9/19/2022	25.93	949.31
MWF16-26	NA	974.14	35.84	9/19/2022	24.36	949.78
TW-12-22	973.52	973.39	32.68	9/22/2022	22.82	950.57
Offsite						
MWOS-08	975.55	975.09	28.80	9/19/2022	25.93	949.16
MWOS-09R	976.68	976.18	32.20	9/19/2022	27.20	948.98
MWOS-10	977.01	976.55	32.75	9/19/2022	28.42	948.13
Former Fiero Parking Lot						
PZF17-02	977.70	977.43	31.50	9/19/2022	23.65	953.78
PZF17-04	972.90	972.47	28.87	9/19/2022	19.76	952.71
PZF17-05	976.43	975.97	34.00	9/19/2022	25.92	950.05

Abbreviations:
ft - feet
NA - Not Applicable

Footnotes:
[1] Top of Temporary Well Casing/Stickup Elevation is in feet National Vertical Geodetic Datum (1988).
[2] Depth to water measurements collected from top of temporary well casing/stickup.
[3] Several wells were under water when initial gauging took place. They were gauged at a later date when water had receeded.

Table 2
Summary of Groundwater Analytical Results
RACER Trust Pontiac North Campus
Pontiac, Michigan

Location ID:					MW-02-17	MW-02-17	MW-02-17	MW-05-18	MW-05-18	MW-05-18	MW-06-20	MW-06-20	MW-06-20
Date Collected:		Res Fiero	NR Fiero		03/22/22	05/31/22	09/22/22	03/22/22	05/31/22	09/20/22	03/24/22	05/31/22	09/20/22
Sample Name:	Res Fiero SSVIAC SOG	SSVIAC BASE	SSVIAC <50k SOG	Units	MW-02-17_GW-032222	MW-02-17-GW_053122	MW-02-17_GW-092222	MW-05-18_GW-032222	MW-05-18-GW_053122	MW-05-18_GW-092022	MW-06-20_GW-032422	MW-06-20_GW-053122	MW-06-20_GW-092022
Volatile Organics													
Acetone	***32,000,000***	***18,000,000***	240,000,000	ug/L	< 50 U [< 50 U]	< 50 U	< 50 U	< 50 U	< 50 U	< 50 U	< 50 U	< 50 U	< 50 U [< 50 U]
Benzene	***34***	***18***	1,100	ug/L	< 1 U [< 1 U]	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U [< 1 U]
Bromodichloromethane	***60***	***31***	1,700	ug/L	< 1 U [< 1 U]	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U [< 1 U]
Bromoform	***6,400***	***3,200***	200,000	ug/L	< 1 U [< 1 U]	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U [< 1 U]
Bromomethane	***59***	***33***	1,200	ug/L	< 5 U [< 5 U]	< 5 U	< 5 U	< 5 U	< 5 U	< 5 U	< 5 U	< 5 U	< 5 U [< 5 U]
2-Butanone	***4,000,000***	***2,200,000***	59,000,000	ug/L	< 25 U [< 25 U]	< 25 U	< 25 U	< 25 U	< 25 U	< 25 U	< 25 U	< 25 U	< 25 U [< 25 U]
Carbon Disulfide	***2,200***	***1,200***	46,000	ug/L	< 5 U [< 5 U]	< 5 U	< 5 U	< 5 U	< 5 U	< 5 U	< 5 U	< 5 U	< 5 U [< 5 U]
Carbon Tetrachloride	***14***	***7.2***	440	ug/L	< 1 U [< 1 U]	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U [< 1 U]
CFC-11	***300***	***160***	6,000	ug/L	< 1 U [< 1 U]	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U [< 1 U]
CFC-12	***71***	***38***	1,400	ug/L	< 5 U [< 5 U]	< 5 U	< 5 U	< 5 U	< 5 U	< 5 U	< 5 U	< 5 U	< 5 U [< 5 U]
Chlorobenzene	***1,300***	***720***	27,000	ug/L	< 1 U [< 1 U]	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U [< 1 U]
Chlorodibromomethane	***58***	***29***	4,400	ug/L	< 5 U [< 5 U]	< 5 U	< 5 U	< 5 U	< 5 U	< 5 U	< 5 U	< 5 U	< 5 U [< 5 U]
Chloroethane	***15,000***	***8,600***	320,000	ug/L	< 5 U [< 5 U]	< 5 U	< 5 U	< 5 U	< 5 U	< 5 U	< 5 U	< 5 U	< 5 U [< 5 U]
Chloroform	***19***	***10***	610	ug/L	< 1 U [< 1 U]	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U [< 1 U]
Chloromethane	***340***	***200***	7,400	ug/L	< 5 U [< 5 U]	< 5 U	< 5 U	< 5 U	< 5 U	< 5 U	< 5 U	< 5 U	< 5 U [< 5 U]
Cyclohexane	***2,600***	***1,400***	53,000	ug/L	< 1 U [< 1 U]	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U [< 1 U]
1,2-Dibromo-3-chloropropane	***0.00045***	***0.00045***	0.042	ug/L	< 5 U [< 5 U]	< 5 U	< 5 U	< 5 U	< 5 U	< 5 U	< 5 U	< 5 U	< 5 U [< 5 U]
1,2-Dibromoethane	***8***	***4***	250	ug/L	< 1 U [< 1 U]	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U [< 1 U]
1,2-Dichlorobenzene	***19,000***	***9,900***	160,000	ug/L	< 1 U [< 1 U]	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U [< 1 U]
1,3-Dichlorobenzene	***130***	***70***	2,700	ug/L	< 1 U [< 1 U]	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U [< 1 U]
1,4-Dichlorobenzene	***310***	***160***	9,800	ug/L	< 1 U [< 1 U]	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U [< 1 U]
1,1-Dichloroethane	***160***	***88***	5,300	ug/L	2 [2]	2	2	4	5	5	5	7	6 [5]
1,2-Dichloroethane	***50***	***27***	1,600	ug/L	< 1 U [< 1 U]	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U [< 1 U]
1,1-Dichloroethene	***410***	***220***	8,300	ug/L	< 1 U [< 1 U]	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U [< 1 U]
cis-1,2-Dichloroethene	***110***	***62***	2,300	ug/L	< 1 U [< 1 U]	< 1 U	< 1 U	7	8	11	6	7	6 [6]
trans-1,2-Dichloroethene	***480***	***260***	9,800	ug/L	< 1 U [< 1 U]	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U	1 [1]
Dichloromethane	***9,100***	***5,000***	190,000	ug/L	< 5 U [< 5 U]	< 5 U	< 5 U	< 5 U	< 5 U	< 5 U	< 5 U	< 5 U	< 5 U [< 5 U]
1,2-Dichloropropane	***100***	***56***	2,100	ug/L	< 1 U [< 1 U]	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U [< 1 U]
cis-1,3-Dichloropropene	***- -***	***- -***	- -	ug/L	< 1 U [< 1 U]	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U [< 1 U]
trans-1,3-Dichloropropene	***- -***	***- -***	- -	ug/L	< 1 U [< 1 U]	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U [< 1 U]
Ethylbenzene	***110***	***60***	3,600	ug/L	< 1 U [< 1 U]	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U [< 1 U]
Isopropylbenzene	***26***	***13***	810	ug/L	< 1 U [< 1 U]	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U [< 1 U]
Methyl acetate	***- -***	***- -***	- -	ug/L	< 10 U [< 10 U]	< 10 U	< 10 U	< 10 U	< 10 U	< 10 U	< 10 U	< 10 U	< 10 U [< 10 U]
Methyl N-Butyl Ketone	***24,000***	***12,000***	490,000	ug/L	< 50 U [< 50 U]	< 50 U	< 50 U	< 50 U	< 50 U	< 50 U	< 50 U	< 50 U	< 50 U [< 50 U]
Methylcyclohexane	***- -***	***- -***	- -	ug/L	< 1 U [< 1 U]	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U [< 1 U]
4-Methyl-2-pentanone	***1,600,000***	***810,000***	19,000,000	ug/L	< 50 U [< 50 U]	< 50 U	< 50 U	< 50 U	< 50 U	< 50 U	< 50 U	< 50 U	< 50 U [< 50 U]
Methyl tert-butyl ether	***10,000***	***5,300***	320,000	ug/L	< 5 U [< 5 U]	< 5 U	< 5 U	< 5 U	< 5 U	< 5 U	< 5 U	< 5 U	< 5 U [< 5 U]
Styrene	***1,400***	***740***	45,000	ug/L	< 1 U [< 1 U]	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U [< 1 U]
1,1,2,2-Tetrachloroethane	***130***	***66***	4,100	ug/L	< 1 U [< 1 U]	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U [< 1 U]
Tetrachloroethene	***250***	***130***	3,400	ug/L	3 [4]	3	8	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U [< 1 U]
Toluene	***56,000***	***30,000***	530,000	ug/L	< 1 U [< 1 U]	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U [< 1 U]
1,2,4-Trichlorobenzene	***270***	***130***	5,100	ug/L	< 5 U [< 5 U]	< 5 U	< 5 U	< 5 U	< 5 U	< 5 U	< 5 U	< 5 U	< 5 U [< 5 U]
1,1,1-Trichloroethane	***22,000***	***11,000***	210,000	ug/L	2 [2]	< 1 U	6	5	< 1 U	7	3	3	3 [3]
1,1,2-Trichloroethane	***21***	***11***	410	ug/L	< 1 U [< 1 U]	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U [< 1 U]
Trichloroethene	***15***	***8.1***	210	ug/L	5 [5]	5	2	< 1 U	< 1 U	1	8	***9***	***9 [9]***
1,1,2-trichloro-1,2,2-trifluoroethane	***7,100***	***3,600***	140,000	ug/L	< 1 U [< 1 U]	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U [< 1 U]
Vinyl Chloride	***2.2***	***1.2***	260	ug/L	< 1 U [< 1 U]	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U [< 1 U]
m&p-Xylene	***- -***	***- -***	- -	ug/L	< 2 U [< 2 U]	< 2 U	< 2 U	< 2 U	< 2 U	< 2 U	< 2 U	< 2 U	< 2 U [< 2 U]
o-Xylene	***- -***	***- -***	- -	ug/L	< 1 U [< 1 U]	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U [< 1 U]
Total Xylenes	***3,000***	***1,600***	60,000	ug/L	< 2 U [< 2 U]	< 2 U	< 2 U	< 2 U	< 2 U	< 2 U	< 2 U	< 2 U	< 2 U [< 2 U]

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Table 2
Summary of Groundwater Analytical Results
RACER Trust Pontiac North Campus
Pontiac, Michigan

Location ID:					MW-07-20	MW-07-20	MW-07-20	MW-08-21	MW-08-21	MW-08-21	MW-09-22	MW-09-22	MW-09-22
Date Collected:		Res Fiero	NR Fiero		03/22/22	05/31/22	09/20/22	03/22/22	06/01/22	09/20/22	03/24/22	06/02/22	09/21/22
Sample Name:	Res Fiero SSVIAC SOG	SSVIAC BASE	SSVIAC <50k SOG	Units	MW-07-20_GW-032222	MW-07-20_GW-053122	MW-07-20_GW-092022	MW-08-21_GW-032222	MW-08-21_GW_060122	MW-08-21_GW-092022	MW-09-22_GW-032422	MW-09-22_GW-060222	MW-09-22_GW-092122
Volatile Organics													
Acetone	***32,000,000***	***18,000,000***	240,000,000	ug/L	< 50 U	< 50 U	< 50 U	< 50 U	< 50 U	< 50 U	< 50 U	< 500 UY	< 50 U
Benzene	***34***	***18***	1,100	ug/L	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U	< 10 UY	< 1 U
Bromodichloromethane	***60***	***31***	1,700	ug/L	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U	< 10 UY	< 1 U
Bromoform	***6,400***	***3,200***	200,000	ug/L	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U	< 10 UY	< 1 U
Bromomethane	***59***	***33***	1,200	ug/L	< 5 U	< 5 U	< 5 U	< 5 U	< 5 U	< 5 U	< 5 U	< 50 UY	< 5 U
2-Butanone	***4,000,000***	***2,200,000***	59,000,000	ug/L	< 25 U	< 25 U	< 25 U	< 25 U	< 25 U	< 25 U	< 25 U	< 250 UY	< 25 U
Carbon Disulfide	***2,200***	***1,200***	46,000	ug/L	< 5 U	< 5 U	< 5 U	< 5 U	< 5 U	< 5 U	< 5 U	< 50 UY	< 5 U
Carbon Tetrachloride	***14***	***7.2***	440	ug/L	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U	< 10 UY	2
CFC-11	***300***	***160***	6,000	ug/L	< 1 U	< 1 U	2	< 1 U	< 1 U	< 1 U	< 1 U	< 10 UY	< 1 U
CFC-12	***71***	***38***	1,400	ug/L	< 5 U	< 5 U	< 5 U	< 5 U	< 5 U	< 5 U	< 5 U	< 50 UY	< 5 U
Chlorobenzene	***1,300***	***720***	27,000	ug/L	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U	< 10 UY	< 1 U
Chlorodibromomethane	***58***	***29***	4,400	ug/L	< 5 U	< 5 U	< 5 U	< 5 U	< 5 U	< 5 U	< 5 U	< 50 UY	< 5 U
Chloroethane	***15,000***	***8,600***	320,000	ug/L	< 5 U	< 5 U	< 5 U	< 5 U	< 5 U	< 5 U	< 5 U	< 50 UY	< 5 U
Chloroform	***19***	***10***	610	ug/L	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U	1	< 10 UY	2
Chloromethane	***340***	***200***	7,400	ug/L	< 5 U	< 5 U	< 5 U	< 5 U	< 5 U	< 5 U	< 5 U	< 50 UY	< 5 U
Cyclohexane	***2,600***	***1,400***	53,000	ug/L	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U	< 10 UY	< 1 U
1,2-Dibromo-3-chloropropane	***0.00045***	***0.00045***	0.042	ug/L	< 5 U	< 5 U	< 5 U	< 5 U	< 5 U	< 5 U	< 5 U	< 50 UY	< 5 U
1,2-Dibromoethane	***8***	***4***	250	ug/L	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U	< 10 UY	< 1 U
1,2-Dichlorobenzene	***19,000***	***9,900***	160,000	ug/L	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U	< 10 UY	< 1 U
1,3-Dichlorobenzene	***130***	***70***	2,700	ug/L	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U	< 10 UY	< 1 U
1,4-Dichlorobenzene	***310***	***160***	9,800	ug/L	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U	< 10 UY	< 1 U
1,1-Dichloroethane	***160***	***88***	5,300	ug/L	7	8	7	2	3	6	< 1 U	< 10 UY	< 1 U
1,2-Dichloroethane	***50***	***27***	1,600	ug/L	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U	< 10 UY	< 1 U
1,1-Dichloroethene	***410***	***220***	8,300	ug/L	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U	< 10 UY	< 1 U
cis-1,2-Dichloroethene	***110***	***62***	2,300	ug/L	10	15	9	< 1 U	3	5	1	< 10 UY	1
trans-1,2-Dichloroethene	***480***	***260***	9,800	ug/L	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U	< 10 UY	< 1 U
Dichloromethane	***9,100***	***5,000***	190,000	ug/L	< 5 U	< 5 U	< 5 U	< 5 U	< 5 U	< 5 U	< 5 U	< 50 UY	< 5 U
1,2-Dichloropropane	***100***	***56***	2,100	ug/L	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U	< 10 UY	< 1 U
cis-1,3-Dichloropropene	***- -***	***- -***	- -	ug/L	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U	< 10 UY	< 1 U
trans-1,3-Dichloropropene	***- -***	***- -***	- -	ug/L	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U	< 10 UY	< 1 U
Ethylbenzene	***110***	***60***	3,600	ug/L	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U	< 10 UY	< 1 U
Isopropylbenzene	***26***	***13***	810	ug/L	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U	< 10 UY	< 1 U
Methyl acetate	***- -***	***- -***	- -	ug/L	< 10 U	< 10 U	< 10 U	< 10 U	< 10 U	< 10 U	< 10 U	< 100 UY	< 10 U
Methyl N-Butyl Ketone	***24,000***	***12,000***	490,000	ug/L	< 50 U	< 50 U	< 50 U	< 50 U	< 50 U	< 50 U	< 50 U	< 500 UY	< 50 U
Methylcyclohexane	***- -***	***- -***	- -	ug/L	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U	< 10 UY	< 1 U
4-Methyl-2-pentanone	***1,600,000***	***810,000***	19,000,000	ug/L	< 50 U	< 50 U	< 50 U	< 50 U	< 50 U	< 50 U	< 50 U	< 500 UY	< 50 U
Methyl tert-butyl ether	***10,000***	***5,300***	320,000	ug/L	< 5 U	< 5 U	< 5 U	< 5 U	< 5 U	< 5 U	< 5 U	< 50 UY	< 5 U
Styrene	***1,400***	***740***	45,000	ug/L	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U	< 10 UY	< 1 U
1,1,2,2-Tetrachloroethane	***130***	***66***	4,100	ug/L	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U	< 10 UY	< 1 U
Tetrachloroethene	***250***	***130***	3,400	ug/L	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U	95	***150 Y***	***195***
Toluene	***56,000***	***30,000***	530,000	ug/L	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U	< 10 UY	< 1 U
1,2,4-Trichlorobenzene	***270***	***130***	5,100	ug/L	< 5 U	< 5 U	< 5 U	< 5 U	< 5 U	< 5 U	< 5 U	< 50 UY	< 5 U
1,1,1-Trichloroethane	***22,000***	***11,000***	210,000	ug/L	5	5	5	3	< 1 U	3	< 1 U	< 10 UY	< 1 U
1,1,2-Trichloroethane	***21***	***11***	410	ug/L	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U	< 10 UY	< 1 U
Trichloroethene	***15***	***8.1***	210	ug/L	2	3	2	***9***	***9***	***10***	3	< 10 UY	4
1,1,2-trichloro-1,2,2-trifluoroethane	***7,100***	***3,600***	140,000	ug/L	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U	< 10 UY	< 1 U
Vinyl Chloride	***2.2***	***1.2***	260	ug/L	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U	< 10 UY	< 1 U
m&p-Xylene	***- -***	***- -***	- -	ug/L	< 2 U	< 2 U	< 2 U	< 2 U	< 2 U	< 2 U	< 2 U	< 20 UY	< 2 U
o-Xylene	***- -***	***- -***	- -	ug/L	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U	< 10 UY	< 1 U
Total Xylenes	***3,000***	***1,600***	60,000	ug/L	< 2 U	< 2 U	< 2 U	< 2 U	< 2 U	< 2 U	< 2 U	< 20 UY	< 2 U

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Table 2
Summary of Groundwater Analytical Results
RACER Trust Pontiac North Campus
Pontiac, Michigan

Location ID:					MW-11-22	MW-11-22	MW-13-22	MW-13-22	MW-13-22	MW-14-22	MW-14-22	MW-14-22	MWF12-01R	MWF12-01R
Date Collected:		Res Fiero	NR Fiero		03/24/22	09/23/22	03/23/22	06/01/22	09/21/22	03/23/22	06/01/22	09/21/22	03/22/22	09/22/22
Sample Name:	Res Fiero SSVIAC SOG	SSVIAC BASE	SSVIAC <50k SOG	Units	MW-11-22_GW-032422	MW-11-22_GW092322	MW-13-22_GW-032322	MW-13-22-GW_060122	MW-13-22_GW-092122	MW-14-22_GW-032322	MW-14-22-GW_060122	MW-14-22_GW-092122	MWF12-01R_GW-032222	MWF12-01R_GW-092222
Volatile Organics														
Acetone	***32,000,000***	***18,000,000***	240,000,000	ug/L	< 50 U	< 50 U	< 50 U	< 50 U	< 50 U	< 50 U	< 50 U	< 50 U	< 50 U	< 50 U
Benzene	***34***	***18***	1,100	ug/L	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U
Bromodichloromethane	***60***	***31***	1,700	ug/L	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U
Bromoform	***6,400***	***3,200***	200,000	ug/L	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U
Bromomethane	***59***	***33***	1,200	ug/L	< 5 U	< 5 U	< 5 U	< 5 U	< 5 U	< 5 U	< 5 U	< 5 U	< 5 U	< 5 U
2-Butanone	***4,000,000***	***2,200,000***	59,000,000	ug/L	< 25 U	< 25 U	< 25 U	< 25 U	< 25 U	< 25 U	< 25 U	< 25 U	< 25 U	< 25 U
Carbon Disulfide	***2,200***	***1,200***	46,000	ug/L	< 5 U	< 5 U	< 5 U	< 5 U	< 5 U	< 5 U	< 5 U	< 5 U	< 5 U	< 5 U
Carbon Tetrachloride	***14***	***7.2***	440	ug/L	1	1	< 1 U	< 1 U	< 1 U	1	2	2	< 1 U	< 1 U
CFC-11	***300***	***160***	6,000	ug/L	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U
CFC-12	***71***	***38***	1,400	ug/L	< 5 U	< 5 U	< 5 U	< 5 U	< 5 U	< 5 U	< 5 U	< 5 U	< 5 U	< 5 U
Chlorobenzene	***1,300***	***720***	27,000	ug/L	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U
Chlorodibromomethane	***58***	***29***	4,400	ug/L	< 5 U	< 5 U	< 5 U	< 5 U	< 5 U	< 5 U	< 5 U	< 5 U	< 5 U	< 5 U
Chloroethane	***15,000***	***8,600***	320,000	ug/L	< 5 U	< 5 U	< 5 U	< 5 U	< 5 U	< 5 U	< 5 U	< 5 U	< 5 U	< 5 U
Chloroform	***19***	***10***	610	ug/L	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U
Chloromethane	***340***	***200***	7,400	ug/L	< 5 U	< 5 U	< 5 U	< 5 U	< 5 U	< 5 U	< 5 U	< 5 U	< 5 U	< 5 U
Cyclohexane	***2,600***	***1,400***	53,000	ug/L	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U
1,2-Dibromo-3-chloropropane	***0.00045***	***0.00045***	0.042	ug/L	< 5 U	< 5 U	< 5 U	< 5 U	< 5 U	< 5 U	< 5 U	< 5 U	< 5 U	< 5 U
1,2-Dibromoethane	***8***	***4***	250	ug/L	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U
1,2-Dichlorobenzene	***19,000***	***9,900***	160,000	ug/L	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U
1,3-Dichlorobenzene	***130***	***70***	2,700	ug/L	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U
1,4-Dichlorobenzene	***310***	***160***	9,800	ug/L	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U
1,1-Dichloroethane	***160***	***88***	5,300	ug/L	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U	5	6	4	5	5
1,2-Dichloroethane	***50***	***27***	1,600	ug/L	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U
1,1-Dichloroethene	***410***	***220***	8,300	ug/L	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U	1
cis-1,2-Dichloroethene	***110***	***62***	2,300	ug/L	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U	10	13	12	< 1 U	< 1 U
trans-1,2-Dichloroethene	***480***	***260***	9,800	ug/L	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U	2	2	1	< 1 U	< 1 U
Dichloromethane	***9,100***	***5,000***	190,000	ug/L	< 5 U	< 5 U	< 5 U	< 5 U	< 5 U	< 5 U	< 5 U	< 5 U	< 5 U	< 5 U
1,2-Dichloropropane	***100***	***56***	2,100	ug/L	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U
cis-1,3-Dichloropropene	**- -**	**- -**	- -	ug/L	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U
trans-1,3-Dichloropropene	**- -**	**- -**	- -	ug/L	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U
Ethylbenzene	***110***	***60***	3,600	ug/L	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U
Isopropylbenzene	***26***	***13***	810	ug/L	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U
Methyl acetate	**- -**	**- -**	- -	ug/L	< 10 U	< 10 U	< 10 U	< 10 U	< 10 U	< 10 U	< 10 U	< 10 U	< 10 U	< 10 U
Methyl N-Butyl Ketone	***24,000***	***12,000***	490,000	ug/L	< 50 U	< 50 U	< 50 U	< 50 U	< 50 U	< 50 U	< 50 U	< 50 U	< 50 U	< 50 U
Methylcyclohexane	**- -**	**- -**	- -	ug/L	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U
4-Methyl-2-pentanone	***1,600,000***	***810,000***	19,000,000	ug/L	< 50 U	< 50 U	< 50 U	< 50 U	< 50 U	< 50 U	< 50 U	< 50 U	< 50 U	< 50 U
Methyl tert-butyl ether	***10,000***	***5,300***	320,000	ug/L	< 5 U	< 5 U	< 5 U	< 5 U	< 5 U	< 5 U	< 5 U	< 5 U	< 5 U	< 5 U
Styrene	***1,400***	***740***	45,000	ug/L	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U
1,1,2,2-Tetrachloroethane	***130***	***66***	4,100	ug/L	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U
Tetrachloroethene	***250***	***130***	3,400	ug/L	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U	52	67	89	< 1 U	< 1 U
Toluene	***56,000***	***30,000***	530,000	ug/L	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U
1,2,4-Trichlorobenzene	***270***	***130***	5,100	ug/L	< 5 U	< 5 U	< 5 U	< 5 U	< 5 U	< 5 U	< 5 U	< 5 U	< 5 U	< 5 U
1,1,1-Trichloroethane	***22,000***	***11,000***	210,000	ug/L	2	2	< 1 U	< 1 U	< 1 U	10	< 1 U	10	36	47
1,1,2-Trichloroethane	***21***	***11***	410	ug/L	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U
Trichloroethene	***15***	***8.1***	210	ug/L	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U	***12***	***16***	***19***	< 1 U	< 1 U
1,1,2-trichloro-1,2,2-trifluoroethane	***7,100***	***3,600***	140,000	ug/L	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U
Vinyl Chloride	***2.2***	***1.2***	260	ug/L	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U
m&p-Xylene	**- -**	**- -**	- -	ug/L	< 2 U	< 2 U	< 2 U	< 2 U	< 2 U	< 2 U	< 2 U	< 2 U	< 2 U	< 2 U
o-Xylene	**- -**	**- -**	- -	ug/L	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U
Total Xylenes	***3,000***	***1,600***	60,000	ug/L	< 2 U	< 2 U	< 2 U	< 2 U	< 2 U	< 2 U	< 2 U	< 2 U	< 2 U	< 2 U

.

Table 2
Summary of Groundwater Analytical Results
RACER Trust Pontiac North Campus
Pontiac, Michigan

Location ID:					MWF12-02R	MWF12-02R	MWF16-05	MWF16-05	MWF16-05	MWF16-06	MWF16-06	MWF16-06	MWF16-07	MWF16-12
Date Collected:		Res Fiero	NR Fiero		03/22/22	09/21/22	03/24/22	06/02/22	09/22/22	03/23/22	06/02/22	09/22/22	09/30/22	03/24/22
Sample Name:	Res Fiero SSVIAC SOG	SSVIAC BASE	SSVIAC <50k SOG	Units	MWF12-02R_GW-032222	MWF12-02R_GW-092122	MWF16-05_GW-032422	MWF16-05-GW_060222	MWF16-05_GW-092222	MWF16-06_GW-032322	MWF16-06_GW-060222	MWF16-06_GW-092222	MWF16-07_GW-093022	MWF16-12_GW-032422
Volatile Organics														
Acetone	***32,000,000***	***18,000,000***	240,000,000	ug/L	< 50 U	< 50 U [< 50 U]	< 500 UY	< 1000 UY	< 1000 UY	< 50 U	< 50 U	< 50 U	< 50 U	< 50 U
Benzene	***34***	***18***	1,100	ug/L	< 1 U	< 1 U [< 1 U]	< 10 UY	< 20 UY	< 20 UY	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U
Bromodichloromethane	***60***	***31***	1,700	ug/L	< 1 U	< 1 U [< 1 U]	< 10 UY	< 20 UY	< 20 UY	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U
Bromoform	***6,400***	***3,200***	200,000	ug/L	< 1 U	< 1 U [< 1 U]	< 10 UY	< 20 UY	< 20 UY	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U
Bromomethane	***59***	***33***	1,200	ug/L	< 5 U	< 5 U [< 5 U]	< 50 UY	< 100 UY	< 100 UY	< 5 U	< 5 U	< 5 U	< 5 U	< 5 U
2-Butanone	***4,000,000***	***2,200,000***	59,000,000	ug/L	< 25 U	< 25 U [< 25 U]	< 250 UY	< 500 UY	< 500 UY	< 25 U	< 25 U	< 25 U	< 25 U	< 25 U
Carbon Disulfide	***2,200***	***1,200***	46,000	ug/L	< 5 U	< 5 U [< 5 U]	< 50 UY	< 100 UY	< 100 UY	< 5 U	< 5 U	< 5 U	< 5 U	< 5 U
Carbon Tetrachloride	***14***	***7.2***	440	ug/L	< 1 U	< 1 U [< 1 U]	< 10 UY	< 20 UY	< 20 UY	7	***9***	***9***	< 1 U	< 1 U
CFC-11	***300***	***160***	6,000	ug/L	< 1 U	< 1 U [< 1 U]	< 10 UY	< 20 UY	< 20 UY	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U
CFC-12	***71***	***38***	1,400	ug/L	< 5 U	< 5 U [< 5 U]	< 50 UY	< 100 UY	< 100 UY	< 5 U	< 5 U	< 5 U	< 5 U	< 5 U
Chlorobenzene	***1,300***	***720***	27,000	ug/L	< 1 U	< 1 U [< 1 U]	< 10 UY	< 20 UY	< 20 UY	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U
Chlorodibromomethane	***58***	***29***	4,400	ug/L	< 5 U	< 5 U [< 5 U]	< 50 UY	< 100 UY	< 100 UY	< 5 U	< 5 U	< 5 U	< 5 U	< 5 U
Chloroethane	***15,000***	***8,600***	320,000	ug/L	< 5 U	< 5 U [< 5 U]	< 50 UY	< 100 UY	< 100 UY	< 5 U	< 5 U	< 5 U	< 5 U	< 5 U
Chloroform	***19***	***10***	610	ug/L	< 1 U	< 1 U [< 1 U]	< 10 UY	< 20 UY	< 20 UY	***15***	***17***	***15***	< 1 U	< 1 U
Chloromethane	***340***	***200***	7,400	ug/L	< 5 U	< 5 U [< 5 U]	< 50 UY	< 100 UY	< 100 UY	< 5 U	< 5 U	< 5 U	< 5 U	< 5 U
Cyclohexane	***2,600***	***1,400***	53,000	ug/L	< 1 U	< 1 U [< 1 U]	< 10 UY	< 20 UY	< 20 UY	< 1 U	< 1 U	1	< 1 U	< 1 U
1,2-Dibromo-3-chloropropane	***0.00045***	***0.00045***	0.042	ug/L	< 5 U	< 5 U [< 5 U]	< 50 UY	< 100 UY	< 100 UY	< 5 U	< 5 U	< 5 U	< 5 U	< 5 U
1,2-Dibromoethane	***8***	***4***	250	ug/L	< 1 U	< 1 U [< 1 U]	< 10 UY	< 20 UY	< 20 UY	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U
1,2-Dichlorobenzene	***19,000***	***9,900***	160,000	ug/L	< 1 U	< 1 U [< 1 U]	< 10 UY	< 20 UY	< 20 UY	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U
1,3-Dichlorobenzene	***130***	***70***	2,700	ug/L	< 1 U	< 1 U [< 1 U]	< 10 UY	< 20 UY	< 20 UY	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U
1,4-Dichlorobenzene	***310***	***160***	9,800	ug/L	< 1 U	< 1 U [< 1 U]	< 10 UY	< 20 UY	< 20 UY	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U
1,1-Dichloroethane	***160***	***88***	5,300	ug/L	< 1 U	< 1 U [< 1 U]	< 10 UY	< 20 UY	< 20 UY	72	***133***	***95***	< 1 U	< 1 U
1,2-Dichloroethane	***50***	***27***	1,600	ug/L	< 1 U	< 1 U [< 1 U]	< 10 UY	< 20 UY	< 20 UY	1	2	2	< 1 U	< 1 U
1,1-Dichloroethene	***410***	***220***	8,300	ug/L	< 1 U	< 1 U [< 1 U]	< 10 UY	< 20 UY	< 20 UY	8	12	10	< 1 U	< 1 U
cis-1,2-Dichloroethene	***110***	***62***	2,300	ug/L	< 1 U	< 1 U [< 1 U]	< 10 UY	< 20 UY	< 20 UY	21	53	29	< 1 U	< 1 U
trans-1,2-Dichloroethene	***480***	***260***	9,800	ug/L	< 1 U	< 1 U [< 1 U]	< 10 UY	< 20 UY	< 20 UY	< 1 U	1	< 1 U	< 1 U	< 1 U
Dichloromethane	***9,100***	***5,000***	190,000	ug/L	< 5 U	< 5 U [< 5 U]	< 50 UY	< 100 UY	< 100 UY	< 5 U	< 5 U	< 5 U	< 5 U	< 5 U
1,2-Dichloropropane	***100***	***56***	2,100	ug/L	< 1 U	< 1 U [< 1 U]	< 10 UY	< 20 UY	< 20 UY	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U
cis-1,3-Dichloropropene	***- -***	***- -***	- -	ug/L	< 1 U	< 1 U [< 1 U]	< 10 UY	< 20 UY	< 20 UY	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U
trans-1,3-Dichloropropene	***- -***	***- -***	- -	ug/L	< 1 U	< 1 U [< 1 U]	< 10 UY	< 20 UY	< 20 UY	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U
Ethylbenzene	***110***	***60***	3,600	ug/L	< 1 U	< 1 U [< 1 U]	< 10 UY	< 20 UY	< 20 UY	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U
Isopropylbenzene	***26***	***13***	810	ug/L	< 1 U	< 1 U [< 1 U]	< 10 UY	< 20 UY	< 20 UY	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U
Methyl acetate	***- -***	***- -***	- -	ug/L	< 10 U	< 10 U [< 10 U]	< 100 UY	< 200 UY	< 200 UY	< 10 U	< 10 U	< 10 U	< 10 U	< 10 U
Methyl N-Butyl Ketone	***24,000***	***12,000***	490,000	ug/L	< 50 U	< 50 U [< 50 U]	< 500 UY	< 1000 UY	< 1000 UY	< 50 U	< 50 U	< 50 U	< 50 U	< 50 U
Methylcyclohexane	***- -***	***- -***	- -	ug/L	< 1 U	< 1 U [< 1 U]	< 10 UY	< 20 UY	< 20 UY	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U
4-Methyl-2-pentanone	***1,600,000***	***810,000***	19,000,000	ug/L	< 50 U	< 50 U [< 50 U]	< 500 UY	< 1000 UY	< 1000 UY	< 50 U	< 50 U	< 50 U	< 50 U	< 50 U
Methyl tert-butyl ether	***10,000***	***5,300***	320,000	ug/L	< 5 U	< 5 U [< 5 U]	< 50 UY	< 100 UY	< 100 UY	< 5 U	< 5 U	< 5 U	< 5 U	< 5 U
Styrene	***1,400***	***740***	45,000	ug/L	< 1 U	< 1 U [< 1 U]	< 10 UY	< 20 UY	< 20 UY	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U
1,1,2,2-Tetrachloroethane	***130***	***66***	4,100	ug/L	< 1 U	< 1 U [< 1 U]	< 10 UY	< 20 UY	< 20 UY	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U
Tetrachloroethene	***250***	***130***	3,400	ug/L	< 1 U	< 1 U [< 1 U]	***480 Y***	***420 Y***	***680 Y***	53	66	63	< 1 U	36
Toluene	***56,000***	***30,000***	530,000	ug/L	< 1 U	< 1 U [< 1 U]	< 10 UY	< 20 UY	< 20 UY	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U
1,2,4-Trichlorobenzene	***270***	***130***	5,100	ug/L	< 5 U	< 5 U [< 5 U]	< 50 UY	< 100 UY	< 100 UY	< 5 U	< 5 U	< 5 U	< 5 U	< 5 U
1,1,1-Trichloroethane	***22,000***	***11,000***	210,000	ug/L	< 1 U	< 1 U [< 1 U]	< 10 UY	< 20 UY	< 20 UY	111	134	135	< 1 U	< 1 U
1,1,2-Trichloroethane	***21***	***11***	410	ug/L	< 1 U	< 1 U [< 1 U]	< 10 UY	< 20 UY	< 20 UY	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U
Trichloroethene	***15***	***8.1***	210	ug/L	< 1 U	< 1 U [< 1 U]	***20 Y***	< 20 UY	***30 Y***	7	***10***	***9***	< 1 U	< 1 U
1,1,2-trichloro-1,2,2-trifluoroethane	***7,100***	***3,600***	140,000	ug/L	< 1 U	< 1 U [< 1 U]	< 10 UY	< 20 UY	< 20 UY	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U
Vinyl Chloride	***2.2***	***1.2***	260	ug/L	< 1 U	< 1 U [< 1 U]	< 10 UY	< 20 UY	< 20 UY	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U
m&p-Xylene	***- -***	***- -***	- -	ug/L	< 2 U	< 2 U [< 2 U]	< 20 UY	< 40 UY	< 40 UY	< 2 U	< 2 U	< 2 U	< 2 U	< 2 U
o-Xylene	***- -***	***- -***	- -	ug/L	< 1 U	< 1 U [< 1 U]	< 10 UY	< 20 UY	< 20 UY	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U
Total Xylenes	***3,000***	***1,600***	60,000	ug/L	< 2 U	< 2 U [< 2 U]	< 20 UY	< 40 UY	< 40 UY	< 2 U	< 2 U	< 2 U	< 2 U	< 2 U

.

Table 2
Summary of Groundwater Analytical Results
RACER Trust Pontiac North Campus
Pontiac, Michigan

Location ID:					MWF16-12	MWF16-15	MWF16-15	MWF16-16	MWF16-16	MWF16-16	MWF16-17	MWF16-17	MWF16-18	MWF16-18
Date Collected:		Res Fiero	NR Fiero		09/21/22	03/23/22	09/21/22	03/23/22	06/02/22	09/22/22	03/24/22	09/21/22	03/24/22	06/02/22
Sample Name:	Res Fiero SSVIAC SOG	SSVIAC BASE	SSVIAC <50k SOG	Units	MWF16-12_GW-092122	MWF16-15_GW-032322	MWF16-15_GW-092122	MWF16-16_GW-032322	MWF16-16-GW_060222	MWF16-16_GW-092222	MWF16-17_GW-032422	MWF16-17_GW-092122	MWF16-18_GW-032422	MWF16-18_GW-060222
Volatile Organics														
Acetone	***32,000,000***	***18,000,000***	240,000,000	ug/L	< 50 U	< 50 U	< 50 U	< 500 UY [< 500 UY]	< 1000 UY [< 1000 UY]	< 1000 UY	< 50 U	< 50 U	< 500 UY [< 500 UY]	< 500 UY [< 500 UY]
Benzene	***34***	***18***	1,100	ug/L	< 1 U	< 1 U	< 1 U	< 10 UY [< 10 UY]	< 20 UY [< 20 UY]	< 20 UY	< 1 U	< 1 U	< 10 UY [< 10 UY]	< 10 UY [< 10 UY]
Bromodichloromethane	***60***	***31***	1,700	ug/L	< 1 U	< 1 U	< 1 U	< 10 UY [< 10 UY]	< 20 UY [< 20 UY]	< 20 UY	< 1 U	< 1 U	< 10 UY [< 10 UY]	< 10 UY [< 10 UY]
Bromoform	***6,400***	***3,200***	200,000	ug/L	< 1 U	< 1 U	< 1 U	< 10 UY [< 10 UY]	< 20 UY [< 20 UY]	< 20 UY	< 1 U	< 1 U	< 10 UY [< 10 UY]	< 10 UY [< 10 UY]
Bromomethane	***59***	***33***	1,200	ug/L	< 5 U	< 5 U	< 5 U	< 50 UY [< 50 UY]	< 100 UY [< 100 UY]	< 100 UY	< 5 U	< 5 U	< 50 UY [< 50 UY]	< 50 UY [< 50 UY]
2-Butanone	***4,000,000***	***2,200,000***	59,000,000	ug/L	< 25 U	< 25 U	< 25 U	< 250 UY [< 250 UY]	< 500 UY [< 500 UY]	< 500 UY	< 25 U	< 25 U	< 250 UY [< 250 UY]	< 250 UY [< 250 UY]
Carbon Disulfide	***2,200***	***1,200***	46,000	ug/L	< 5 U	< 5 U	< 5 U	< 50 UY [< 50 UY]	< 100 UY [< 100 UY]	< 100 UY	< 5 U	< 5 U	< 50 UY [< 50 UY]	< 50 UY [< 50 UY]
Carbon Tetrachloride	***14***	***7.2***	440	ug/L	< 1 U	< 1 U	< 1 U	< 10 UY [< 10 UY]	< 20 UY [< 20 UY]	< 20 UY	< 1 U	< 1 U	< 10 UY [< 10 UY]	< 10 UY [< 10 UY]
CFC-11	***300***	***160***	6,000	ug/L	< 1 U	< 1 U	< 1 U	< 10 UY [< 10 UY]	< 20 UY [< 20 UY]	< 20 UY	< 1 U	< 1 U	< 10 UY [< 10 UY]	< 10 UY [< 10 UY]
CFC-12	***71***	***38***	1,400	ug/L	< 5 U	< 5 U	< 5 U	< 50 UY [< 50 UY]	< 100 UY [< 100 UY]	< 100 UY	< 5 U	< 5 U	< 50 UY [< 50 UY]	< 50 UY [< 50 UY]
Chlorobenzene	***1,300***	***720***	27,000	ug/L	< 1 U	< 1 U	< 1 U	< 10 UY [< 10 UY]	< 20 UY [< 20 UY]	< 20 UY	< 1 U	< 1 U	< 10 UY [< 10 UY]	< 10 UY [< 10 UY]
Chlorodibromomethane	***58***	***29***	4,400	ug/L	< 5 U	< 5 U	< 5 U	< 50 UY [< 50 UY]	< 100 UY [< 100 UY]	< 100 UY	< 5 U	< 5 U	< 50 UY [< 50 UY]	< 50 UY [< 50 UY]
Chloroethane	***15,000***	***8,600***	320,000	ug/L	< 5 U	< 5 U	< 5 U	< 50 UY [< 50 UY]	< 100 UY [< 100 UY]	< 100 UY	< 5 U	< 5 U	< 50 UY [< 50 UY]	< 50 UY [< 50 UY]
Chloroform	***19***	***10***	610	ug/L	< 1 U	< 1 U	< 1 U	< 10 UY [< 10 UY]	< 20 UY [< 20 UY]	< 20 UY	< 1 U	< 1 U	< 10 UY [< 10 UY]	< 10 UY [< 10 UY]
Chloromethane	***340***	***200***	7,400	ug/L	< 5 U	< 5 U	< 5 U	< 50 UY [< 50 UY]	< 100 UY [< 100 UY]	< 100 UY	< 5 U	< 5 U	< 50 UY [< 50 UY]	< 50 UY [< 50 UY]
Cyclohexane	***2,600***	***1,400***	53,000	ug/L	< 1 U	< 1 U	< 1 U	< 10 UY [< 10 UY]	< 20 UY [< 20 UY]	< 20 UY	< 1 U	< 1 U	< 10 UY [< 10 UY]	< 10 UY [< 10 UY]
1,2-Dibromo-3-chloropropane	***0.00045***	***0.00045***	0.042	ug/L	< 5 U	< 5 U	< 5 U	< 50 UY [< 50 UY]	< 100 UY [< 100 UY]	< 100 UY	< 5 U	< 5 U	< 50 UY [< 50 UY]	< 50 UY [< 50 UY]
1,2-Dibromoethane	***8***	***4***	250	ug/L	< 1 U	< 1 U	< 1 U	< 10 UY [< 10 UY]	< 20 UY [< 20 UY]	< 20 UY	< 1 U	< 1 U	< 10 UY [< 10 UY]	< 10 UY [< 10 UY]
1,2-Dichlorobenzene	***19,000***	***9,900***	160,000	ug/L	< 1 U	< 1 U	< 1 U	< 10 UY [< 10 UY]	< 20 UY [< 20 UY]	< 20 UY	< 1 U	< 1 U	< 10 UY [< 10 UY]	< 10 UY [< 10 UY]
1,3-Dichlorobenzene	***130***	***70***	2,700	ug/L	< 1 U	< 1 U	< 1 U	< 10 UY [< 10 UY]	< 20 UY [< 20 UY]	< 20 UY	< 1 U	< 1 U	< 10 UY [< 10 UY]	< 10 UY [< 10 UY]
1,4-Dichlorobenzene	***310***	***160***	9,800	ug/L	< 1 U	< 1 U	< 1 U	< 10 UY [< 10 UY]	< 20 UY [< 20 UY]	< 20 UY	< 1 U	< 1 U	< 10 UY [< 10 UY]	< 10 UY [< 10 UY]
1,1-Dichloroethane	***160***	***88***	5,300	ug/L	< 1 U	2	1	< 10 UY [< 10 UY]	< 20 UY [< 20 UY]	< 20 UY	< 1 U	< 1 U	< 10 UY [< 10 UY]	< 10 UY [< 10 UY]
1,2-Dichloroethane	***50***	***27***	1,600	ug/L	< 1 U	< 1 U	< 1 U	< 10 UY [< 10 UY]	< 20 UY [< 20 UY]	< 20 UY	< 1 U	< 1 U	< 10 UY [< 10 UY]	< 10 UY [< 10 UY]
1,1-Dichloroethene	***410***	***220***	8,300	ug/L	< 1 U	< 1 U	< 1 U	< 10 UY [< 10 UY]	< 20 UY [< 20 UY]	< 20 UY	< 1 U	< 1 U	< 10 UY [< 10 UY]	< 10 UY [< 10 UY]
cis-1,2-Dichloroethene	***110***	***62***	2,300	ug/L	< 1 U	4	5	10 Y [10 Y]	20 Y [20 Y]	< 20 UY	< 1 U	< 1 U	***70 Y [70 Y]***	***70 Y [80 Y]***
trans-1,2-Dichloroethene	***480***	***260***	9,800	ug/L	< 1 U	< 1 U	< 1 U	< 10 UY [< 10 UY]	< 20 UY [< 20 UY]	< 20 UY	< 1 U	< 1 U	< 10 UY [< 10 UY]	< 10 UY [< 10 UY]
Dichloromethane	***9,100***	***5,000***	190,000	ug/L	< 5 U	< 5 U	< 5 U	< 50 UY [< 50 UY]	< 100 UY [< 100 UY]	< 100 UY	< 5 U	< 5 U	< 50 UY [< 50 UY]	< 50 UY [< 50 UY]
1,2-Dichloropropane	***100***	***56***	2,100	ug/L	< 1 U	< 1 U	< 1 U	< 10 UY [< 10 UY]	< 20 UY [< 20 UY]	< 20 UY	< 1 U	< 1 U	< 10 UY [< 10 UY]	< 10 UY [< 10 UY]
cis-1,3-Dichloropropene	***- -***	***- -***	- -	ug/L	< 1 U	< 1 U	< 1 U	< 10 UY [< 10 UY]	< 20 UY [< 20 UY]	< 20 UY	< 1 U	< 1 U	< 10 UY [< 10 UY]	< 10 UY [< 10 UY]
trans-1,3-Dichloropropene	***- -***	***- -***	- -	ug/L	< 1 U	< 1 U	< 1 U	< 10 UY [< 10 UY]	< 20 UY [< 20 UY]	< 20 UY	< 1 U	< 1 U	< 10 UY [< 10 UY]	< 10 UY [< 10 UY]
Ethylbenzene	***110***	***60***	3,600	ug/L	< 1 U	< 1 U	< 1 U	< 10 UY [< 10 UY]	< 20 UY [< 20 UY]	< 20 UY	< 1 U	< 1 U	< 10 UY [< 10 UY]	< 10 UY [< 10 UY]
Isopropylbenzene	***26***	***13***	810	ug/L	< 1 U	< 1 U	< 1 U	< 10 UY [< 10 UY]	< 20 UY [< 20 UY]	< 20 UY	< 1 U	< 1 U	< 10 UY [< 10 UY]	< 10 UY [< 10 UY]
Methyl acetate	***- -***	***- -***	- -	ug/L	< 10 U	< 10 U	< 10 U	< 100 UY [< 100 UY]	< 200 UY [< 200 UY]	< 200 UY	< 10 U	< 10 U	< 100 UY [< 100 UY]	< 100 UY [< 100 UY]
Methyl N-Butyl Ketone	***24,000***	***12,000***	490,000	ug/L	< 50 U	< 50 U	< 50 U	< 500 UY [< 500 UY]	< 1000 UY [< 1000 UY]	< 1000 UY	< 50 U	< 50 U	< 500 UY [< 500 UY]	< 500 UY [< 500 UY]
Methylcyclohexane	***- -***	***- -***	- -	ug/L	< 1 U	< 1 U	< 1 U	< 10 UY [< 10 UY]	< 20 UY [< 20 UY]	< 20 UY	< 1 U	< 1 U	< 10 UY [< 10 UY]	< 10 UY [< 10 UY]
4-Methyl-2-pentanone	***1,600,000***	***810,000***	19,000,000	ug/L	< 50 U	< 50 U	< 50 U	< 500 UY [< 500 UY]	< 1000 UY [< 1000 UY]	< 1000 UY	< 50 U	< 50 U	< 500 UY [< 500 UY]	< 500 UY [< 500 UY]
Methyl tert-butyl ether	***10,000***	***5,300***	320,000	ug/L	< 5 U	< 5 U	< 5 U	< 50 UY [< 50 UY]	< 100 UY [< 100 UY]	< 100 UY	< 5 U	< 5 U	< 50 UY [< 50 UY]	< 50 UY [< 50 UY]
Styrene	***1,400***	***740***	45,000	ug/L	< 1 U	< 1 U	< 1 U	< 10 UY [< 10 UY]	< 20 UY [< 20 UY]	< 20 UY	< 1 U	< 1 U	< 10 UY [< 10 UY]	< 10 UY [< 10 UY]
1,1,2,2-Tetrachloroethane	***130***	***66***	4,100	ug/L	< 1 U	< 1 U	< 1 U	< 10 UY [< 10 UY]	< 20 UY [< 20 UY]	< 20 UY	< 1 U	< 1 U	< 10 UY [< 10 UY]	< 10 UY [< 10 UY]
Tetrachloroethene	***250***	***130***	3,400	ug/L	50	< 1 U	< 1 U	***470 Y [490 Y]***	***340 Y [330 Y]***	***380 Y***	< 1 U	4	***1150 Y [1180 Y]***	***930 Y [1090 Y]***
Toluene	***56,000***	***30,000***	530,000	ug/L	< 1 U	< 1 U	< 1 U	< 10 UY [< 10 UY]	< 20 UY [< 20 UY]	< 20 UY	< 1 U	< 1 U	< 10 UY [< 10 UY]	< 10 UY [< 10 UY]
1,2,4-Trichlorobenzene	***270***	***130***	5,100	ug/L	< 5 U	< 5 U	< 5 U	< 50 UY [< 50 UY]	< 100 UY [< 100 UY]	< 100 UY	< 5 U	< 5 U	< 50 UY [< 50 UY]	< 50 UY [< 50 UY]
1,1,1-Trichloroethane	***22,000***	***11,000***	210,000	ug/L	< 1 U	9	11	< 10 UY [< 10 UY]	< 20 UY [< 20 UY]	< 20 UY	1	4	< 10 UY [< 10 UY]	< 10 UY [< 10 UY]
1,1,2-Trichloroethane	***21***	***11***	410	ug/L	< 1 U	< 1 U	< 1 U	< 10 UY [< 10 UY]	< 20 UY [< 20 UY]	< 20 UY	< 1 U	< 1 U	< 10 UY [< 10 UY]	< 10 UY [< 10 UY]
Trichloroethene	***15***	***8.1***	210	ug/L	< 1 U	3	3	< 10 UY [< 10 UY]	< 20 UY [< 20 UY]	< 20 UY	< 1 U	< 1 U	***20 Y [20 Y]***	***20 Y [20 Y]***
1,1,2-trichloro-1,2,2-trifluoroethane	***7,100***	***3,600***	140,000	ug/L	< 1 U	< 1 U	< 1 U	< 10 UY [< 10 UY]	< 20 UY [< 20 UY]	< 20 UY	< 1 U	< 1 U	< 10 UY [< 10 UY]	< 10 UY [< 10 UY]
Vinyl Chloride	***2.2***	***1.2***	260	ug/L	< 1 U	< 1 U	< 1 U	< 10 UY [< 10 UY]	< 20 UY [< 20 UY]	< 20 UY	< 1 U	< 1 U	< 10 UY [< 10 UY]	< 10 UY [< 10 UY]
m&p-Xylene	***- -***	***- -***	- -	ug/L	< 2 U	< 2 U	< 2 U	< 20 UY [< 20 UY]	< 40 UY [< 40 UY]	< 40 UY	< 2 U	< 2 U	< 20 UY [< 20 UY]	< 20 UY [< 20 UY]
o-Xylene	***- -***	***- -***	- -	ug/L	< 1 U	< 1 U	< 1 U	< 10 UY [< 10 UY]	< 20 UY [< 20 UY]	< 20 UY	< 1 U	< 1 U	< 10 UY [< 10 UY]	< 10 UY [< 10 UY]
Total Xylenes	***3,000***	***1,600***	60,000	ug/L	< 2 U	< 2 U	< 2 U	< 20 UY [< 20 UY]	< 40 UY [< 40 UY]	< 40 UY	< 2 U	< 2 U	< 20 UY [< 20 UY]	< 20 UY [< 20 UY]

.

Table 2
Summary of Groundwater Analytical Results
RACER Trust Pontiac North Campus
Pontiac, Michigan

Location ID:					MWF16-18	MWF16-20	MWF16-22	MWF16-22	MWF16-22	MWF16-23	MWF16-23	MWF16-23	MWF16-24	MWF16-24
Date Collected:					09/22/22	09/21/22	03/23/22	06/01/22	09/22/22	03/24/22	06/01/22	09/20/22	03/24/22	09/22/22
Sample Name:	Res Fiero SSVIAC SOG	Res Fiero SSVIAC BASE	NR Fiero SSVIAC <50k SOG	Units	MWF16-18_GW-092222	MWF16-20_GW-092122	MWF16-22_GW-032322	MWF16-22-GW_060122	MWF16-22_GW-092222	MWF16-23_GW-032422	MWF16-23_GW_060122	MWF16-23_GW-092022	MWF16-24_GW-032422	MWF16-24_GW-092222
Volatile Organics														
Acetone	***32,000,000***	***18,000,000***	240,000,000	ug/L	< 500 UY	< 50 U	< 50 U	< 50 U	< 50 U	< 50 U	< 50 U	< 50 U [< 50 U]	< 50 U	< 50 U
Benzene	***34***	***18***	1,100	ug/L	< 10 UY	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U [< 1 U]	< 1 U	< 1 U
Bromodichloromethane	***60***	***31***	1,700	ug/L	< 10 UY	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U [< 1 U]	< 1 U	< 1 U
Bromoform	***6,400***	***3,200***	200,000	ug/L	< 10 UY	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U [< 1 U]	< 1 U	< 1 U
Bromomethane	***59***	***33***	1,200	ug/L	< 50 UY	< 5 U	< 5 U	< 5 U	< 5 U	< 5 U	< 5 U	< 5 U [< 5 U]	< 5 U	< 5 U
2-Butanone	***4,000,000***	***2,200,000***	59,000,000	ug/L	< 250 UY	< 25 U	< 25 U	< 25 U	< 25 U	< 25 U	< 25 U	< 25 U [< 25 U]	< 25 U	< 25 U
Carbon Disulfide	***2,200***	***1,200***	46,000	ug/L	< 50 UY	< 5 U	< 5 U	< 5 U	< 5 U	< 5 U	< 5 U	< 5 U [< 5 U]	< 5 U	< 5 U
Carbon Tetrachloride	***14***	***7.2***	440	ug/L	< 10 UY	***57***	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U [< 1 U]	< 1 U	< 1 U
CFC-11	***300***	***160***	6,000	ug/L	< 10 UY	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U [< 1 U]	< 1 U	< 1 U
CFC-12	***71***	***38***	1,400	ug/L	< 50 UY	< 5 U	< 5 U	< 5 U	< 5 U	< 5 U	< 5 U	< 5 U [< 5 U]	< 5 U	< 5 U
Chlorobenzene	***1,300***	***720***	27,000	ug/L	< 10 UY	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U [< 1 U]	< 1 U	< 1 U
Chlorodibromomethane	***58***	***29***	4,400	ug/L	< 50 UY	< 5 U	< 5 U	< 5 U	< 5 U	< 5 U	< 5 U	< 5 U [< 5 U]	< 5 U	< 5 U
Chloroethane	***15,000***	***8,600***	320,000	ug/L	< 50 UY	< 5 U	< 5 U	< 5 U	< 5 U	< 5 U	< 5 U	< 5 U [< 5 U]	< 5 U	< 5 U
Chloroform	***19***	***10***	610	ug/L	< 10 UY	***180***	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U [< 1 U]	< 1 U	< 1 U
Chloromethane	***340***	***200***	7,400	ug/L	< 50 UY	< 5 U	< 5 U	< 5 U	< 5 U	< 5 U	< 5 U	< 5 U [< 5 U]	< 5 U	< 5 U
Cyclohexane	***2,600***	***1,400***	53,000	ug/L	< 10 UY	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U [< 1 U]	< 1 U	< 1 U
1,2-Dibromo-3-chloropropane	***0.00045***	***0.00045***	0.042	ug/L	< 50 UY	< 5 U	< 5 U	< 5 U	< 5 U	< 5 U	< 5 U	< 5 U [< 5 U]	< 5 U	< 5 U
1,2-Dibromoethane	***8***	***4***	250	ug/L	< 10 UY	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U [< 1 U]	< 1 U	< 1 U
1,2-Dichlorobenzene	***19,000***	***9,900***	160,000	ug/L	< 10 UY	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U [< 1 U]	< 1 U	< 1 U
1,3-Dichlorobenzene	***130***	***70***	2,700	ug/L	< 10 UY	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U [< 1 U]	< 1 U	< 1 U
1,4-Dichlorobenzene	***310***	***160***	9,800	ug/L	< 10 UY	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U [< 1 U]	< 1 U	< 1 U
1,1-Dichloroethane	***160***	***88***	5,300	ug/L	< 10 UY	45	1	< 1 U	< 1 U	5	5	7 [7]	< 1 U	< 1 U
1,2-Dichloroethane	***50***	***27***	1,600	ug/L	< 10 UY	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U [< 1 U]	< 1 U	< 1 U
1,1-Dichloroethene	***410***	***220***	8,300	ug/L	< 10 UY	9	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U [< 1 U]	< 1 U	< 1 U
cis-1,2-Dichloroethene	***110***	***62***	2,300	ug/L	***100 Y***	2	10	6	7	5	5	12 [12]	< 1 U	< 1 U
trans-1,2-Dichloroethene	***480***	***260***	9,800	ug/L	< 10 UY	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U	2	2 [2]	< 1 U	< 1 U
Dichloromethane	***9,100***	***5,000***	190,000	ug/L	< 50 UY	< 5 U	< 5 U	< 5 U	< 5 U	< 5 U	< 5 U	< 5 U [< 5 U]	< 5 U	< 5 U
1,2-Dichloropropane	***100***	***56***	2,100	ug/L	< 10 UY	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U [< 1 U]	< 1 U	< 1 U
cis-1,3-Dichloropropene	***- -***	***- -***	- -	ug/L	< 10 UY	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U [< 1 U]	< 1 U	< 1 U
trans-1,3-Dichloropropene	***- -***	***- -***	- -	ug/L	< 10 UY	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U [< 1 U]	< 1 U	< 1 U
Ethylbenzene	***110***	***60***	3,600	ug/L	< 10 UY	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U [< 1 U]	< 1 U	< 1 U
Isopropylbenzene	***26***	***13***	810	ug/L	< 10 UY	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U [< 1 U]	< 1 U	< 1 U
Methyl acetate	***- -***	***- -***	- -	ug/L	< 100 UY	< 10 U	< 10 U	< 10 U	< 10 U	< 10 U	< 10 U	< 10 U [< 10 U]	< 10 U	< 10 U
Methyl N-Butyl Ketone	***24,000***	***12,000***	490,000	ug/L	< 500 UY	< 50 U	< 50 U	< 50 U	< 50 U	< 50 U	< 50 U	< 50 U [< 50 U]	< 50 U	< 50 U
Methylcyclohexane	***- -***	***- -***	- -	ug/L	< 10 UY	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U [< 1 U]	< 1 U	< 1 U
4-Methyl-2-pentanone	***1,600,000***	***810,000***	19,000,000	ug/L	< 500 UY	< 50 U	< 50 U	< 50 U	< 50 U	< 50 U	< 50 U	< 50 U [< 50 U]	< 50 U	< 50 U
Methyl tert-butyl ether	***10,000***	***5,300***	320,000	ug/L	< 50 UY	< 5 U	< 5 U	< 5 U	< 5 U	< 5 U	< 5 U	< 5 U [< 5 U]	< 5 U	< 5 U
Styrene	***1,400***	***740***	45,000	ug/L	< 10 UY	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U [< 1 U]	< 1 U	< 1 U
1,1,2,2-Tetrachloroethane	***130***	***66***	4,100	ug/L	< 10 UY	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U [< 1 U]	< 1 U	< 1 U
Tetrachloroethene	***250***	***130***	3,400	ug/L	***1350 Y***	11	76	69	76	< 1 U	< 1 U	< 1 U [< 1 U]	< 1 U	< 1 U
Toluene	***56,000***	***30,000***	530,000	ug/L	< 10 UY	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U [< 1 U]	< 1 U	< 1 U
1,2,4-Trichlorobenzene	***270***	***130***	5,100	ug/L	< 50 UY	< 5 U	< 5 U	< 5 U	< 5 U	< 5 U	< 5 U	< 5 U [< 5 U]	< 5 U	< 5 U
1,1,1-Trichloroethane	***22,000***	***11,000***	210,000	ug/L	< 10 UY	120	2	< 1 U	2	8	< 1 U	13 [13]	2	2
1,1,2-Trichloroethane	***21***	***11***	410	ug/L	< 10 UY	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U [< 1 U]	< 1 U	< 1 U
Trichloroethene	***15***	***8.1***	210	ug/L	***20 Y***	6	2	2	2	***13***	***16***	***17 [18]***	< 1 U	< 1 U
1,1,2-trichloro-1,2,2-trifluoroethane	***7,100***	***3,600***	140,000	ug/L	< 10 UY	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U [< 1 U]	< 1 U	< 1 U
Vinyl Chloride	***2.2***	***1.2***	260	ug/L	< 10 UY	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U [< 1 U]	< 1 U	< 1 U
m&p-Xylene	***- -***	***- -***	- -	ug/L	< 20 UY	< 2 U	< 2 U	< 2 U	< 2 U	< 2 U	< 2 U	< 2 U [< 2 U]	< 2 U	< 2 U
o-Xylene	***- -***	***- -***	- -	ug/L	< 10 UY	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U [< 1 U]	< 1 U	< 1 U
Total Xylenes	***3,000***	***1,600***	60,000	ug/L	< 20 UY	< 2 U	< 2 U	< 2 U	< 2 U	< 2 U	< 2 U	< 2 U [< 2 U]	< 2 U	< 2 U

.

Table 2
Summary of Groundwater Analytical Results
RACER Trust Pontiac North Campus
Pontiac, Michigan

Location ID:					MWF16-25	MWF16-25	MWF16-25	MWF7-02	MWF7-02	MWF7-02	MWF7-03	MWF7-03	MWOS-08	MWOS-08
Date Collected:		Res Fiero	NR Fiero		03/24/22	06/01/22	09/23/22	03/23/22	06/01/22	09/20/22	03/23/22	09/20/22	03/25/22	06/02/22
Sample Name:	Res Fiero SSVIAC SOG	SSVIAC BASE	SSVIAC <50k SOG	Units	MWF16-25_GW-032422	MWF16-25_GW-060122	MWF16-25_GW092322	MWF7-02_GW-032322	MWF7-02_GW-060122	MWF7-02_GW-092022	MWF7-03_GW-032322	MWF7-03_GW-092022	MWOS-08_GW-032522	MWOS-08-GW_060222
Volatile Organics														
Acetone	***32,000,000***	***18,000,000***	240,000,000	ug/L	< 50 U	< 50 U	< 50 U	< 50 U	< 50 U	< 50 U	< 50 U	< 50 U	< 50 U	< 50 U
Benzene	***34***	***18***	1,100	ug/L	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U
Bromodichloromethane	***60***	***31***	1,700	ug/L	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U
Bromoform	***6,400***	***3,200***	200,000	ug/L	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U
Bromomethane	***59***	***33***	1,200	ug/L	< 5 U	< 5 U	< 5 U	< 5 U	< 5 U	< 5 U	< 5 U	< 5 U	< 5 U	< 5 U
2-Butanone	***4,000,000***	***2,200,000***	59,000,000	ug/L	< 25 U	< 25 U	< 25 U	< 25 U	< 25 U	< 25 U	< 25 U	< 25 U	< 25 U	< 25 U
Carbon Disulfide	***2,200***	***1,200***	46,000	ug/L	< 5 U	< 5 U	< 5 U	< 5 U	< 5 U	< 5 U	< 5 U	< 5 U	< 5 U	< 5 U
Carbon Tetrachloride	***14***	***7.2***	440	ug/L	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U
CFC-11	***300***	***160***	6,000	ug/L	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U
CFC-12	***71***	***38***	1,400	ug/L	< 5 U	< 5 U	< 5 U	< 5 U	< 5 U	< 5 U	< 5 U	< 5 U	< 5 U	< 5 U
Chlorobenzene	***1,300***	***720***	27,000	ug/L	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U
Chlorodibromomethane	***58***	***29***	4,400	ug/L	< 5 U	< 5 U	< 5 U	< 5 U	< 5 U	< 5 U	< 5 U	< 5 U	< 5 U	< 5 U
Chloroethane	***15,000***	***8,600***	320,000	ug/L	< 5 U	< 5 U	< 5 U	< 5 U	< 5 U	< 5 U	< 5 U	< 5 U	< 5 U	< 5 U
Chloroform	***19***	***10***	610	ug/L	4	3	3	1	< 1 U	1	< 1 U	< 1 U	< 1 U	< 1 U
Chloromethane	***340***	***200***	7,400	ug/L	< 5 U	< 5 U	< 5 U	< 5 U	< 5 U	< 5 U	< 5 U	< 5 U	< 5 U	< 5 U
Cyclohexane	***2,600***	***1,400***	53,000	ug/L	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U
1,2-Dibromo-3-chloropropane	***0.00045***	***0.00045***	0.042	ug/L	< 5 U	< 5 U	< 5 U	< 5 U	< 5 U	< 5 U	< 5 U	< 5 U	< 5 U	< 5 U
1,2-Dibromoethane	***8***	***4***	250	ug/L	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U
1,2-Dichlorobenzene	***19,000***	***9,900***	160,000	ug/L	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U
1,3-Dichlorobenzene	***130***	***70***	2,700	ug/L	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U
1,4-Dichlorobenzene	***310***	***160***	9,800	ug/L	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U
1,1-Dichloroethane	***160***	***88***	5,300	ug/L	5	5	4	12	13	12	< 1 U	< 1 U	< 1 U	< 1 U
1,2-Dichloroethane	***50***	***27***	1,600	ug/L	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U	1	< 1 U	< 1 U	< 1 U	< 1 U
1,1-Dichloroethene	***410***	***220***	8,300	ug/L	< 1 U	< 1 U	< 1 U	13	11	15	< 1 U	< 1 U	< 1 U	< 1 U
cis-1,2-Dichloroethene	***110***	***62***	2,300	ug/L	27	35	38	2	2	2	< 1 U	< 1 U	1	2
trans-1,2-Dichloroethene	***480***	***260***	9,800	ug/L	2	2	3	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U
Dichloromethane	***9,100***	***5,000***	190,000	ug/L	< 5 U	< 5 U	< 5 U	< 5 U	< 5 U	< 5 U	< 5 U	< 5 U	< 5 U	< 5 U
1,2-Dichloropropane	***100***	***56***	2,100	ug/L	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U
cis-1,3-Dichloropropene	***- -***	***- -***	- -	ug/L	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U
trans-1,3-Dichloropropene	***- -***	***- -***	- -	ug/L	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U
Ethylbenzene	***110***	***60***	3,600	ug/L	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U
Isopropylbenzene	***26***	***13***	810	ug/L	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U
Methyl acetate	***- -***	***- -***	- -	ug/L	< 10 U	< 10 U	< 10 U	< 10 U	< 10 U	< 10 U	< 10 U	< 10 U	< 10 U	< 10 U
Methyl N-Butyl Ketone	***24,000***	***12,000***	490,000	ug/L	< 50 U	< 50 U	< 50 U	< 50 U	< 50 U	< 50 U	< 50 U	< 50 U	< 50 U	< 50 U
Methylcyclohexane	***- -***	***- -***	- -	ug/L	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U
4-Methyl-2-pentanone	***1,600,000***	***810,000***	19,000,000	ug/L	< 50 U	< 50 U	< 50 U	< 50 U	< 50 U	< 50 U	< 50 U	< 50 U	< 50 U	< 50 U
Methyl tert-butyl ether	***10,000***	***5,300***	320,000	ug/L	< 5 U	< 5 U	< 5 U	< 5 U	< 5 U	< 5 U	< 5 U	< 5 U	< 5 U	< 5 U
Styrene	***1,400***	***740***	45,000	ug/L	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U
1,1,2,2-Tetrachloroethane	***130***	***66***	4,100	ug/L	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U
Tetrachloroethene	***250***	***130***	3,400	ug/L	< 1 U	< 1 U	< 1 U	95	77	115	< 1 U	< 1 U	< 1 U	< 1 U
Toluene	***56,000***	***30,000***	530,000	ug/L	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U
1,2,4-Trichlorobenzene	***270***	***130***	5,100	ug/L	< 5 U	< 5 U	< 5 U	< 5 U	< 5 U	< 5 U	< 5 U	< 5 U	< 5 U	< 5 U
1,1,1-Trichloroethane	***22,000***	***11,000***	210,000	ug/L	4	3	3	88	76	115	< 1 U	< 1 U	4	< 1 U
1,1,2-Trichloroethane	***21***	***11***	410	ug/L	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U	1	< 1 U	< 1 U	< 1 U	< 1 U
Trichloroethene	***15***	***8.1***	210	ug/L	< 1 U	< 1 U	< 1 U	4	3	5	< 1 U	< 1 U	< 1 U	< 1 U
1,1,2-trichloro-1,2,2-trifluoroethane	***7,100***	***3,600***	140,000	ug/L	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U
Vinyl Chloride	***2.2***	***1.2***	260	ug/L	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U
m&p-Xylene	***- -***	***- -***	- -	ug/L	< 2 U	< 2 U	< 2 U	< 2 U	< 2 U	< 2 U	< 2 U	< 2 U	< 2 U	< 2 U
o-Xylene	***- -***	***- -***	- -	ug/L	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U
Total Xylenes	***3,000***	***1,600***	60,000	ug/L	< 2 U	< 2 U	< 2 U	< 2 U	< 2 U	< 2 U	< 2 U	< 2 U	< 2 U	< 2 U

.

Table 2
Summary of Groundwater Analytical Results
RACER Trust Pontiac North Campus
Pontiac, Michigan

Location ID:					MWOS-08	MWOS-09R	MWOS-09R	MWOS-09R	MWOS-10	MWOS-10	MWOS-10	TW-12-22	TW-12-22
Date Collected:		Res Fiero	NR Fiero		09/22/22	03/22/22	06/01/22	09/22/22	03/22/22	06/02/22	09/22/22	03/24/22	06/02/22
Sample Name:	Res Fiero SSVIAC SOG	SSVIAC BASE	SSVIAC <50k SOG	Units	MWOS-08_GW-092222	MWOS-09_GW-032222	MWOS-09R_GW-060122	WOS-09R_GW-09222	WOS-10_GW-03222	MWOS-10-GW_060222	MWOS-10_GW-092222	TW-12-22_GW-032422	TW-12-22_GW-060222
Volatile Organics													
Acetone	***32,000,000***	***18,000,000***	240,000,000	ug/L	< 50 U	< 50 U	< 50 U	< 50 U	< 50 U	< 50 U	< 50 U	< 50 U	< 50 U
Benzene	***34***	***18***	1,100	ug/L	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U
Bromodichloromethane	***60***	***31***	1,700	ug/L	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U
Bromoform	***6,400***	***3,200***	200,000	ug/L	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U
Bromomethane	***59***	***33***	1,200	ug/L	< 5 U	< 5 U	< 5 U	< 5 U	< 5 U	< 5 U	< 5 U	< 5 U	< 5 U
2-Butanone	***4,000,000***	***2,200,000***	59,000,000	ug/L	< 25 U	< 25 U	< 25 U	< 25 U	< 25 U	< 25 U	< 25 U	< 25 U	< 25 U
Carbon Disulfide	***2,200***	***1,200***	46,000	ug/L	< 5 U	< 5 U	< 5 U	< 5 U	< 5 U	< 5 U	< 5 U	< 5 U	< 5 U
Carbon Tetrachloride	***14***	***7.2***	440	ug/L	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U
CFC-11	***300***	***160***	6,000	ug/L	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U
CFC-12	***71***	***38***	1,400	ug/L	< 5 U	< 5 U	< 5 U	< 5 U	< 5 U	< 5 U	< 5 U	< 5 U	< 5 U
Chlorobenzene	***1,300***	***720***	27,000	ug/L	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U
Chlorodibromomethane	***58***	***29***	4,400	ug/L	< 5 U	< 5 U	< 5 U	< 5 U	< 5 U	< 5 U	< 5 U	< 5 U	< 5 U
Chloroethane	***15,000***	***8,600***	320,000	ug/L	< 5 U	< 5 U	< 5 U	< 5 U	< 5 U	< 5 U	< 5 U	< 5 U	< 5 U
Chloroform	***19***	***10***	610	ug/L	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U	8	7
Chloromethane	***340***	***200***	7,400	ug/L	< 5 U	< 5 U	< 5 U	< 5 U	< 5 U	< 5 U	< 5 U	< 5 U	< 5 U
Cyclohexane	***2,600***	***1,400***	53,000	ug/L	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U
1,2-Dibromo-3-chloropropane	***0.00045***	***0.00045***	0.042	ug/L	< 5 U	< 5 U	< 5 U	< 5 U	< 5 U	< 5 U	< 5 U	< 5 U	< 5 U
1,2-Dibromoethane	***8***	***4***	250	ug/L	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U
1,2-Dichlorobenzene	***19,000***	***9,900***	160,000	ug/L	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U
1,3-Dichlorobenzene	***130***	***70***	2,700	ug/L	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U
1,4-Dichlorobenzene	***310***	***160***	9,800	ug/L	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U
1,1-Dichloroethane	***160***	***88***	5,300	ug/L	< 1 U	4	5	4	7	6	4	9	9
1,2-Dichloroethane	***50***	***27***	1,600	ug/L	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U
1,1-Dichloroethene	***410***	***220***	8,300	ug/L	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U
cis-1,2-Dichloroethene	***110***	***62***	2,300	ug/L	3	28	28	22	6	7	4	***67***	***85***
trans-1,2-Dichloroethene	***480***	***260***	9,800	ug/L	< 1 U	2	2	2	< 1 U	< 1 U	< 1 U	3	3
Dichloromethane	***9,100***	***5,000***	190,000	ug/L	< 5 U	< 5 U	< 5 U	< 5 U	< 5 U	< 5 U	< 5 U	< 5 U	< 5 U
1,2-Dichloropropane	***100***	***56***	2,100	ug/L	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U
cis-1,3-Dichloropropene	***- -***	***- -***	- -	ug/L	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U
trans-1,3-Dichloropropene	***- -***	***- -***	- -	ug/L	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U
Ethylbenzene	***110***	***60***	3,600	ug/L	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U
Isopropylbenzene	***26***	***13***	810	ug/L	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U
Methyl acetate	***- -***	***- -***	- -	ug/L	< 10 U	< 10 U	< 10 U	< 10 U	< 10 U	< 10 U	< 10 U	< 10 U	< 10 U
Methyl N-Butyl Ketone	***24,000***	***12,000***	490,000	ug/L	< 50 U	< 50 U	< 50 U	< 50 U	< 50 U	< 50 U	< 50 U	< 50 U	< 50 U
Methylcyclohexane	***- -***	***- -***	- -	ug/L	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U
4-Methyl-2-pentanone	***1,600,000***	***810,000***	19,000,000	ug/L	< 50 U	< 50 U	< 50 U	< 50 U	< 50 U	< 50 U	< 50 U	< 50 U	< 50 U
Methyl tert-butyl ether	***10,000***	***5,300***	320,000	ug/L	< 5 U	< 5 U	< 5 U	< 5 U	< 5 U	< 5 U	< 5 U	< 5 U	< 5 U
Styrene	***1,400***	***740***	45,000	ug/L	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U
1,1,2,2-Tetrachloroethane	***130***	***66***	4,100	ug/L	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U
Tetrachloroethene	***250***	***130***	3,400	ug/L	< 1 U	10	13	15	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U
Toluene	***56,000***	***30,000***	530,000	ug/L	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U
1,2,4-Trichlorobenzene	***270***	***130***	5,100	ug/L	< 5 U	< 5 U	< 5 U	< 5 U	< 5 U	< 5 U	< 5 U	< 5 U	< 5 U
1,1,1-Trichloroethane	***22,000***	***11,000***	210,000	ug/L	4	3	3	3	4	< 1 U	4	5	< 1 U
1,1,2-Trichloroethane	***21***	***11***	410	ug/L	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U
Trichloroethene	***15***	***8.1***	210	ug/L	< 1 U	3	4	3	7	***9***	8	6	7
1,1,2-trichloro-1,2,2-trifluoroethane	***7,100***	***3,600***	140,000	ug/L	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U
Vinyl Chloride	***2.2***	***1.2***	260	ug/L	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U
m&p-Xylene	***- -***	***- -***	- -	ug/L	< 2 U	< 2 U	< 2 U	< 2 U	< 2 U	< 2 U	< 2 U	< 2 U	< 2 U
o-Xylene	***- -***	***- -***	- -	ug/L	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U
Total Xylenes	***3,000***	***1,600***	60,000	ug/L	< 2 U	< 2 U	< 2 U	< 2 U	< 2 U	< 2 U	< 2 U	< 2 U	< 2 U

.

Table 3
Summary of Soil Vapor Analytical Results
RACER Trust Pontiac North Campus
Pontiac, Michigan

Location ID: / Sample Depth: / Date Collected:	Fiero SSVIAC Soil Gas Residential SOG Criteria	Fiero SSVIAC Soil Gas Residential Basement Criteria	Units	SV-01-21 14-14.5 3/22/2022	SV-01-21 14-14.5 6/8/2022	SV-01-21 14-14.5 9/22/2022	SV-02-21 23.25-23.75 6/8/2022	SV-02-21 23.25-23.75 9/22/2022	SV-03-21 11.5-12 3/22/2022	SV-03-21 11.5-12 6/8/2022	SV-03-21 11.5-12 9/22/2022	SV-04-21 22.5-23 3/22/2022	SV-04-21 22.5-23 6/8/2022	SV-04-21 22.5-23 9/22/2022	SV-05-21 11.5-12 3/22/2022	SV-05-21 11.5-12 6/8/2022	SV-05-21 11.5-12 9/22/2022	SV-06-21 22.5-23 6/8/2022	SV-06-21 22.5-23 9/22/2022
Analyte																			
1,1-Dichloroethylene	**7,000**	7,000	ug/m^3	ND	ND	ND	ND [ND]	ND [ND]	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
cis-1,2-Dichloroethylene	**280**	280	ug/m^3	ND	ND	ND	ND [ND]	ND [ND]	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
trans-1,2-Dichloroethylene	**2,800**	2,800	ug/m^3	ND	ND	ND	ND [ND]	ND [ND]	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Tetrachloroethylene	**1,400**	1,400	ug/m^3	ND	10	13	8.2 [12]	ND [ND]	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Trichloroethylene	**67**	67	ug/m^3	8.6	23	11	55 [57]	55 [56]	ND	ND	ND	11	12	14	ND	ND	ND	14	16
Vinyl Chloride	**54**	54	ug/m^3	ND	ND	ND	ND [ND]	ND [ND]	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND

NOTES:

1) Criteria listed are from the EGLE Former Fiero Assembly Site-Specific Criteria Evaluation dated April 21, 2020.
2) Values in bold denotes exceedance and/or equal to Residential Site-Specific Volatilization to Indoor Air soil gas SOG criteria .
3) Values in red type denotes exceedance and/or equal to Residential Site-Specific Volatilization to Indoor Air soil gas basement criteria.

Abbreviations:
µg/m^3 - Micrograms per cubic meter.
SSVIAC - Site-Specific Volatilization to Indoor Air Criteria
ND - Non detect
SOG - Slab-On-Grade scenario.

Figures

Service Layer Credits: Google Earth Pro Aerial Dated March 19, 2021

PZF17-01
PZF17-02
PZF17-03
PZF17-04
PZF17-05
MWF2
MWF8-01
MWF16-02
MWF16-01
MWF16-09
MWF16-17
MWF16-05
MW-09-22
MWF16-12
MWF16-18
MWF16-24
TW-12-22
MWF16-26
MWF16-06
MWF16-20
MWF16-22
MW-16-22
MW-14-22
MWF16-16
MWF16-19
MW-13-22
MW-15-22
MW-11-22
MWF16-25
MW-10-22
MWF16-07
MWF16-15
MWF7-03
MWOS-08
MWF16-23
MWOS-09R
MW-06-20
MWF7-02
SV-01-21
SV-02-21
MW-08-21
UNKNOWN-01
MWF15-01
SV-05-21
SV-06-21
MW-07-20
MWOS-10
SV-03-21
SV-04-21
MW-05-18
MW-02-17
MWF12-01R
MWF12-02R

LEGEND

- EXISTING MONITORING WELL
- SOIL VAPOR MONITORING POINT
- ABANDONED OR DESTROYED MONITORING WELL
- SAMPLED ONLY
- GAUGED ONLY
- GAUGED AND SAMPLED
- CURRENT OR FORMER RACER PROPERTY

NOTES:

1. MWF16-17, MWF16-05, MWF16-20, TW-12-22, MW-06-20, AND MWF15-01 WERE INACCESSIBLE DURING THE 9/19/22 GAUGING EVENT, BUT WERE GAUGED BETWEEN 9/20/22 AND 9/24/22 WHEN MADE ACCESSIBLE.

2. MWF16-01 AND MWF16-02 WERE DESTROYED DURING GFL CONSTRUCTION ACTIVITIES.

3. MWF16-19 IS COVERED WITH A LARGE PILE OF DEBRIS FROM GFL CONSTRUCTION ACTIVITIES AND COULD NOT BE ACCESSED FOR GAUGING OR SAMPLING.

4. MWF16-09 IS DAMAGED.

0 200 400
SCALE IN FEET

RACER TRUST
PONTIAC NORTH CAMPUS
PONTIAC, MICHIGAN

2022 FIERO TEMPORARY MONITORING PLAN - 3Q MONITORING LOCATIONS

ARCADIS

FIGURE
1

E Beverly Ave
Price
Hollywood
W Tennyson
MWF2
MWF8-01
954.66
MWF16-02
DESTROYED
MWF16-01
DESTROYED
MWF16-09
PZF17-01
PZF17-02
953.78
954
FORMER FIERO PARKING LOT
PZF17-03
PZF17-04
952.71
MWF16-17
953.53**
FORMER FIERO PLANT 17
MWF16-05
953.18**
Saint Louis Ave
MW-09-22
952.48
MWF16-12
959.25
PZF17-05
950.05
952
MWF16-18
952.36
954
956
958
MWF16-24
950.38
TW-12-22
950.57**
MWF16-06
959.51
MWF16-20
958.63**
W Kennett Rd
MWF16-26
949.78
MW-14-22
950.30
MWF16-16
950.74
MWF16-19
MW-16-22
MWF16-22
949.87
Parkdale Ave
MWF16-07
966.75*
MWF16-15
950.75
MWF7-03
951.80
MW-11-22
949.27
E Kennett Rd
MW-13-22
952.56*
MW-15-22
950
POWER HOUSE
MWF16-25
949.31
MWF16-23
949.50
MWF7-02
948.93*
MWOS-08
949.16
MW-06-20
949.03**
UNKNOWN-01
950.53
Baldwin Ave
MWOS-09R
948.98
MW-08-21
948.78
MWF15-01
950.44**
N Merrimac St
MWOS-10
948.13
MW-07-20
948.45
N Merrimac St
MW-05-18
948.00
948
S Merrimac
MW-02-17
946.60
MWF12-01R
947.48
MWF12-02R
949.19
Owens St
Saint Clair St
Young
Wing
Portland
MWOS-01
E Montcalm
MWOS-02
Rd

LEGEND

- MONITORING WELL
- MONITORING WELL (DESTROYED)
- 947.09 GROUNDWATER ELEVATION
- GROUNDWATER CONTOUR
- INFERRED GROUNDWATER CONTOUR
- APPROXIMATE GROUNDWATER FLOW DIRECTION
- * ELEVATION NOT USED FOR CONTOURING
- ** GAUGED AT LATER DATE
- RACER TRUST PROPERTY SUBJECT TO AOC (9/29/11)

NOTE: MWF16-17, MWF16-05, MWF16-20, TW-12-22, MW-06-20, AND MWF15-01 WERE INACCESSIBLE DURING THE 9/19/22 GAUGING EVENT, BUT WERE GAUGED BETWEEN 9/20/22 AND 9/24/22 WHEN MADE ACCESSIBLE.

0 210 420

SCALE IN FEET

RACER TRUST
PONTIAC NORTH CAMPUS
PONTIAC, MICHIGAN

FIERO GROUNDWATER CONTOUR MAP
SEPTEMBER 19, 2022

ARCADIS

FIGURE
2

CITY: NOVI, MI DIV: ENV DB: TRY PIC: PM: TM: TR: PROJECT NUMBER: 30112891.00005 COORDINATE SYSTEM: NAD 1983 StatePlane Michigan South FIPS 2113 Feet Intl
D:\GIS\Project Files\MotorsLiquidationCompany\PontiacNorthCampus\Documents\Former_Fiero_Property\DataPackage_2022_3Q\FieroProperty_GWE_Q3.mxd PLOTTED: 11/7/2022 5:09:47 PM BY: TYarbrough

Service Layer Credits: Google Earth Pro Aerial Dated March 19, 2021

PZF17-01
PZF17-02
PZF17-03
PZF17-04
PZF17-05
MWF2
MWF8-01
MWF16-02
MWF16-01
MWF16-03
MWF16-09
MWF16-10
MWF16-17
MWF16-11
MWF16-05
MW-09-22
MWF16-12
MWF16-18
MWF16-24
MWF16-26
TW-12-22
MWF16-06
MWF16-20
MWF16-22
MWF16-16
MWF16-19
MW-13-22
MW-11-22
MW-16-22
MW-10-22
MWF16-07
MWF16-25
MW-14-22
MW-15-22
MWF16-15
MWF7-03
MWOS-08
MWF16-23
MWF7-02
MWOS-09R
MW-06-20
UNKNOWN-01
SV-01-21
MW-08-21
MWF15-01
SV-02-21
SV-06-21
MW-07-20
SV-05-21
MWOS-10
SV-03-21
SV-04-21
MW-05-18
MW-02-17
MWF12-01R
MWF12-02R

CITY: NOVI DIV: ENV DB: TRY PIC:S.INSALACO PM: T. LINDER TM: L. CRISP TR: PROJECT NUMBER: 30075936.0005 COORDINATE SYSTEM: NAD 1983 StatePlane Michigan South FIPS 2113 Feet Intl
D:\GIS\Project Files\MotorsLiquidationCompany\PontiacNorthCampus\Documents\Former_Fiero_Property\DataPackage_2022_3Q\FormerFiero_SoilGasSummary_Q3.mxd PLOTTED: 11/11/2022 11:53:00 AM BY: TYarbrough

LEGEND

- EXISTING MONITORING WELL
- SOIL VAPOR MONITORING POINT
- ABANDONED OR DESTROYED MONITORING WELL
- EXCEEDS RESIDENTIAL SSVIAC
- DOES NOT EXCEED RESIDENTIAL SSVIAC
- CURRENT OR FORMER RACER PROPERTY

NOTES:

1. SSVIAC - SITE SPECIFIC VOLATILIZATION TO INDOOR AIR CRITERIA

2. GROUNDWATER AND SOIL GAS DATA DOES NOT EXCEED NONRESIDENTIAL SSVIAC.

3. CRITERIA FROM DEPARTMENT OF ENVIRONMENT, GREAT LAKES AND ENERGY (EGLE) DEVELOPED SITE-SPECIFIC VOLATILIZATION TO INDOOR AIR CRITERIA FOR THE FORMER FIERO ASSEMBLY, APRIL 21, 2020.

0 200 400

SCALE IN FEET

RACER TRUST
PONTIAC NORTH CAMPUS
PONTIAC, MICHIGAN

SUMMARY OF GROUNDWATER AND SOIL GAS RESULTS SEPTEMBER 2022

ARCADIS

FIGURE
3

Attachment 1

Analytical Reports

Analytical Laboratory Report

Report ID: S40667.01(01)
Generated on 09/29/2022

Report to

Attention: Alexis Crisp
Arcadis US, Inc.
28550 Cabot Drive
Suite 500
Novi, MI 48377

Phone: 810-225-1909 FAX:
Email: Alexis.Crisp@arcadis.com

Addtional Contacts: Tiffany Linder, Ian Drost

Report produced by

Merit Laboratories, Inc.
2680 East Lansing Drive
East Lansing, MI 48823

Phone: (517) 332-0167 FAX: (517) 332-6333

Contacts for report questions:
John Laverty (johnlaverty@meritlabs.com)
Barbara Ball (bball@meritlabs.com)

Report Summary

Lab Sample ID(s): S40667.01-S40667.08
Project: 30112891.00005 / Racer PNC
Collected Date(s): 09/20/2022 - 09/23/2022
Submitted Date/Time: 09/23/2022 16:00
Sampled by: Christina Weaver
P.O. #: 30112891.00005

Table of Contents

Maya Murshak
Technical Director

General Report Notes

Analytical results relate only to the samples tested, in the condition received by the laboratory.
Methods may be modified for improved performance.
Results reported on a dry weight basis where applicable.
'Not detected' indicates that parameter was not found at a level equal to or greater than the reporting limit (RL).
When MDL results are provided, then 'Not detected' indicates that parameter was not found at a level equal to or greater than the MDL.
40 CFR Part 136 Table II Required Containers, Preservation Techniques and Holding Times for the Clean Water Act specify that samples for acrolein and acrylonitrile, and 2-chloroethylvinyl ether need to be preserved at a pH in the range of 4 to 5 or if not preserved, analyzed within 3 days of sampling.
QA/QC corresponding to this analytical report is a separate document with the same Merit ID reference and is available upon request.
Full accreditation certificates are available upon request. Starred (*) analytes are not NELAP accredited.
Samples are held by the lab for 30 days from the final report date unless a written request to hold longer is provided by the client.

Limits for drinking water samples, are listed as the MCL Limits (Maximum Contaminant Level Concentrations)
PFAS requirement: Section 9.3.8 of U.S. EPA Method 537.1 states "If the method analyte(s) found in the Field Sample is present in the FRB at a concentration greater than 1/3 the MRL, then all samples collected with that FRB are invalid and must be recollected and reanalyzed."
Samples submitted without an accompanying FRB may not be acceptable for compliance purposes.
Wisconsin PFAs analysis: MDL = LOD; RL = LOQ. LOD and LOQ are adjusted for dilution.

Report Narrative

There is no additional narrative for this analytical report

Laboratory Certifications

Authority	Certification ID
Michigan DEQ	#9956
DOD ELAP/ISO 17025	#69699
WBENC	#2005110032
Ohio VAP	#CL0002
Indiana DOH	#C-MI-07
New York NELAC	#11814
North Carolina DENR	#680
North Carolina DOH	#26702
Alaska CSLAP	#17-001
Pennsylvania DEP	#68-05884
Wisconsin DNR	FID# 399147320

Qualifier Descriptions

Qualifier	Description
!	Result is outside of stated limit criteria
B	Compound also found in associated method blank
E	Concentration exceeds calibration range
F	Analysis run outside of holding time
G	Estimated result due to extraction run outside of holding time
H	Sample submitted and run outside of holding time
I	Matrix interference with internal standard
J	Estimated value less than reporting limit, but greater than MDL
L	Elevated reporting limit due to low sample amount
M	Result reported to MDL not RDL
O	Analysis performed by outside laboratory. See attached report.
R	Preliminary result
S	Surrogate recovery outside of control limits
T	No correction for total solids
X	Elevated reporting limit due to matrix interference
Y	Elevated reporting limit due to high target concentration
b	Value detected less than reporting limit, but greater than MDL
e	Reported value estimated due to interference
j	Analyte also found in associated method blank
p	Benzo(b)Fluoranthene and Benzo(k)Fluoranthene integrated as one peak.
x	Preserved from bulk sample

Glossary of Abbreviations

Abbreviation	Description
RL/RDL	Reporting Limit
MDL	Method Detection Limit
MS	Matrix Spike
MSD	Matrix Spike Duplicate
SW	EPA SW 846 (Soil and Wastewater) Methods
E	EPA Methods
SM	Standard Methods
LN	Linear
BR	Branched

Method Summary

Method	Version
N/A	Not Applicable
SW5030C/8260C	SW 846 Method 8260C Revision 3 August 2006 / 5030C Revision 3 May 2003
SW8260B - SIM	SW 846 Method 8260B Revision 2 December 1996 SIMs

Sample Summary (8 samples)

Sample ID	Sample Tag	Matrix	Collected Date/Time
S40667.01	Trip Blank	Water	09/20/22 00:01
S40667.02	MW-08-21_GW-092022	Groundwater	09/20/22 12:55
S40667.03	MW-06-20_GW-092022	Groundwater	09/20/22 13:45
S40667.04	MWF16-23_GW-092022	Groundwater	09/20/22 14:55
S40667.05	DUP-05_GW-092022	Groundwater	09/20/22 00:01
S40667.06	DUP-06_GW-092022	Groundwater	09/20/22 00:01
S40667.07	MWF16-25_GW092322	Groundwater	09/23/22 10:38
S40667.08	MW-11-22_GW092322	Groundwater	09/23/22 12:03

Lab Sample ID: S40667.01
Sample Tag: Trip Blank
Collected Date/Time: 09/20/2022 00:01
Matrix: Water
COC Reference: 154494

Sample Containers

#	Type	Preservative(s)	Refrigerated?	Arrival Temp. (C)	Thermometer #
1	40ml Glass	HCL	Yes	3.2	IR

Extraction / Prep.

Parameter	Result	Method	Run Date	Analyst	Flags
pH check for VOCs*	<2	N/A	09/28/22 12:00	BML	

Organics - Volatiles

Volatile Organics - Arcadis, Method: SW5030C/8260C, Run Date: 09/27/22 15:09, Analyst: BML

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
Acetone	Not detected	50		ug/L	1	67-64-1	
2-Butanone (MEK)	Not detected	25		ug/L	1	78-93-3	
Benzene	Not detected	1		ug/L	1	71-43-2	
Bromodichloromethane	Not detected	1		ug/L	1	75-27-4	
Bromoform	Not detected	1		ug/L	1	75-25-2	
Bromomethane	Not detected	5		ug/L	1	74-83-9	
Carbon disulfide	Not detected	5		ug/L	1	75-15-0	
Carbon tetrachloride	Not detected	1		ug/L	1	56-23-5	
Chlorobenzene	Not detected	1		ug/L	1	108-90-7	
Chloroethane	Not detected	5		ug/L	1	75-00-3	
Chloroform	Not detected	1		ug/L	1	67-66-3	
Chloromethane	Not detected	5		ug/L	1	74-87-3	
1,2-Dibromo-3-chloropropane	Not detected	5		ug/L	1	96-12-8	
1,2-Dichlorobenzene	Not detected	1		ug/L	1	95-50-1	
1,2-Dichloroethane	Not detected	1		ug/L	1	107-06-2	
1,2-Dichloropropane	Not detected	1		ug/L	1	78-87-5	
1,3-Dichlorobenzene	Not detected	1		ug/L	1	541-73-1	
1,4-Dichlorobenzene	Not detected	1		ug/L	1	106-46-7	
cis-1,2-Dichloroethene	Not detected	1		ug/L	1	156-59-2	
Dibromochloromethane	Not detected	5		ug/L	1	124-48-1	
Dichlorodifluoromethane	Not detected	5		ug/L	1	75-71-8	
trans-1,2-Dichloroethene	Not detected	1		ug/L	1	156-60-5	
Ethylbenzene	Not detected	1		ug/L	1	100-41-4	
2-Hexanone	Not detected	50		ug/L	1	591-78-6	
4-Methyl-2-pentanone (MIBK)	Not detected	50		ug/L	1	108-10-1	
tert-Methyl butyl ether (MTBE)	Not detected	5		ug/L	1	1634-04-4	
Methylene chloride	Not detected	5		ug/L	1	75-09-2	
Styrene	Not detected	1		ug/L	1	100-42-5	
1,1,1-Trichloroethane	Not detected	1		ug/L	1	71-55-6	
1,1,2-Trichloroethane	Not detected	1		ug/L	1	79-00-5	
1,2,4-Trichlorobenzene	Not detected	5		ug/L	1	120-82-1	
Tetrachloroethene	Not detected	1		ug/L	1	127-18-4	
Toluene	Not detected	1		ug/L	1	108-88-3	
Trichloroethene	Not detected	1		ug/L	1	79-01-6	
Trichlorofluoromethane	Not detected	1		ug/L	1	75-69-4	
Vinyl chloride	Not detected	1		ug/L	1	75-01-4	
o-Xylene	Not detected	1		ug/L	1	95-47-6	

Lab Sample ID: S40667.01 (continued)
Sample Tag: Trip Blank

Volatile Organics - Arcadis, Method: SW5030C/8260C, Run Date: 09/27/22 15:09, Analyst: BML (continued)

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
p,m-Xylene*	Not detected	2		ug/L	1		
Isopropylbenzene	Not detected	1		ug/L	1	98-82-8	
Cyclohexane	Not detected	1		ug/L	1	110-82-7	
1,1-Dichloroethane	Not detected	1		ug/L	1	75-34-3	
1,1-Dichloroethene	Not detected	1		ug/L	1	75-35-4	
Methyl Acetate	Not detected	10		ug/L	1	79-20-9	
Methyl cyclohexane	Not detected	1		ug/L	1	108-87-2	
1,1,2-Trichloro-1,2,2-trifluoroethane	Not detected	1		ug/L	1	76-13-1	
1,2-Dibromoethane	Not detected	1		ug/L	1	106-93-4	
1,1,2,2-Tetrachloroethane	Not detected	1		ug/L	1	79-34-5	
cis-1,3-Dichloropropene	Not detected	1		ug/L	1	10061-01-5	
trans-1,3-Dichloropropene	Not detected	1		ug/L	1	10061-02-6	

Lab Sample ID: S40667.02
Sample Tag: MW-08-21_GW-092022
Collected Date/Time: 09/20/2022 12:55
Matrix: Groundwater
COC Reference: 154494

Sample Containers

#	Type	Preservative(s)	Refrigerated?	Arrival Temp. (C)	Thermometer #
3	40ml Glass	HCL	Yes	3.2	IR

Extraction / Prep.

Parameter	Result	Method	Run Date	Analyst	Flags
pH check for VOCs*	<2	N/A	09/28/22 12:00	BML	

Organics - Volatiles

Volatile Organics - Arcadis, Method: SW5030C/8260C, Run Date: 09/27/22 16:06, Analyst: BML

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
Acetone	Not detected	50		ug/L	1	67-64-1	
2-Butanone (MEK)	Not detected	25		ug/L	1	78-93-3	
Benzene	Not detected	1		ug/L	1	71-43-2	
Bromodichloromethane	Not detected	1		ug/L	1	75-27-4	
Bromoform	Not detected	1		ug/L	1	75-25-2	
Bromomethane	Not detected	5		ug/L	1	74-83-9	
Carbon disulfide	Not detected	5		ug/L	1	75-15-0	
Carbon tetrachloride	Not detected	1		ug/L	1	56-23-5	
Chlorobenzene	Not detected	1		ug/L	1	108-90-7	
Chloroethane	Not detected	5		ug/L	1	75-00-3	
Chloroform	Not detected	1		ug/L	1	67-66-3	
Chloromethane	Not detected	5		ug/L	1	74-87-3	
1,2-Dibromo-3-chloropropane	Not detected	5		ug/L	1	96-12-8	
1,2-Dichlorobenzene	Not detected	1		ug/L	1	95-50-1	
1,2-Dichloroethane	Not detected	1		ug/L	1	107-06-2	
1,2-Dichloropropane	Not detected	1		ug/L	1	78-87-5	
1,3-Dichlorobenzene	Not detected	1		ug/L	1	541-73-1	
1,4-Dichlorobenzene	Not detected	1		ug/L	1	106-46-7	
cis-1,2-Dichloroethene	5	1		ug/L	1	156-59-2	
Dibromochloromethane	Not detected	5		ug/L	1	124-48-1	
Dichlorodifluoromethane	Not detected	5		ug/L	1	75-71-8	
trans-1,2-Dichloroethene	Not detected	1		ug/L	1	156-60-5	
Ethylbenzene	Not detected	1		ug/L	1	100-41-4	
2-Hexanone	Not detected	50		ug/L	1	591-78-6	
4-Methyl-2-pentanone (MIBK)	Not detected	50		ug/L	1	108-10-1	
tert-Methyl butyl ether (MTBE)	Not detected	5		ug/L	1	1634-04-4	
Methylene chloride	Not detected	5		ug/L	1	75-09-2	
Styrene	Not detected	1		ug/L	1	100-42-5	
1,1,1-Trichloroethane	3	1		ug/L	1	71-55-6	
1,1,2-Trichloroethane	Not detected	1		ug/L	1	79-00-5	
1,2,4-Trichlorobenzene	Not detected	5		ug/L	1	120-82-1	
Tetrachloroethene	Not detected	1		ug/L	1	127-18-4	
Toluene	Not detected	1		ug/L	1	108-88-3	
Trichloroethene	10	1		ug/L	1	79-01-6	
Trichlorofluoromethane	Not detected	1		ug/L	1	75-69-4	
Vinyl chloride	Not detected	1		ug/L	1	75-01-4	
o-Xylene	Not detected	1		ug/L	1	95-47-6	

Lab Sample ID: S40667.02 (continued)
Sample Tag: MW-08-21_GW-092022

Volatile Organics - Arcadis, Method: SW5030C/8260C, Run Date: 09/27/22 16:06, Analyst: BML (continued)

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
p,m-Xylene*	Not detected	2		ug/L	1		
Isopropylbenzene	Not detected	1		ug/L	1	98-82-8	
Cyclohexane	Not detected	1		ug/L	1	110-82-7	
1,1-Dichloroethane	6	1		ug/L	1	75-34-3	
1,1-Dichloroethene	Not detected	1		ug/L	1	75-35-4	
Methyl Acetate	Not detected	10		ug/L	1	79-20-9	
Methyl cyclohexane	Not detected	1		ug/L	1	108-87-2	
1,1,2-Trichloro-1,2,2-trifluoroethane	Not detected	1		ug/L	1	76-13-1	
1,2-Dibromoethane	Not detected	1		ug/L	1	106-93-4	
1,1,2,2-Tetrachloroethane	Not detected	1		ug/L	1	79-34-5	
cis-1,3-Dichloropropene	Not detected	1		ug/L	1	10061-01-5	
trans-1,3-Dichloropropene	Not detected	1		ug/L	1	10061-02-6	

Lab Sample ID: S40667.03
Sample Tag: MW-06-20_GW-092022
Collected Date/Time: 09/20/2022 13:45
Matrix: Groundwater
COC Reference: 154494

Sample Containers

#	Type	Preservative(s)	Refrigerated?	Arrival Temp. (C)	Thermometer #
3	40ml Glass	HCL	Yes	3.2	IR

Extraction / Prep.

Parameter	Result	Method	Run Date	Analyst	Flags
pH check for VOCs*	<2	N/A	09/28/22 12:00	BML	

Organics - Volatiles

Volatile Organics - Arcadis, Method: SW5030C/8260C, Run Date: 09/27/22 16:25, Analyst: BML

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
Acetone	Not detected	50		ug/L	1	67-64-1	
2-Butanone (MEK)	Not detected	25		ug/L	1	78-93-3	
Benzene	Not detected	1		ug/L	1	71-43-2	
Bromodichloromethane	Not detected	1		ug/L	1	75-27-4	
Bromoform	Not detected	1		ug/L	1	75-25-2	
Bromomethane	Not detected	5		ug/L	1	74-83-9	
Carbon disulfide	Not detected	5		ug/L	1	75-15-0	
Carbon tetrachloride	Not detected	1		ug/L	1	56-23-5	
Chlorobenzene	Not detected	1		ug/L	1	108-90-7	
Chloroethane	Not detected	5		ug/L	1	75-00-3	
Chloroform	Not detected	1		ug/L	1	67-66-3	
Chloromethane	Not detected	5		ug/L	1	74-87-3	
1,2-Dibromo-3-chloropropane	Not detected	5		ug/L	1	96-12-8	
1,2-Dichlorobenzene	Not detected	1		ug/L	1	95-50-1	
1,2-Dichloroethane	Not detected	1		ug/L	1	107-06-2	
1,2-Dichloropropane	Not detected	1		ug/L	1	78-87-5	
1,3-Dichlorobenzene	Not detected	1		ug/L	1	541-73-1	
1,4-Dichlorobenzene	Not detected	1		ug/L	1	106-46-7	
cis-1,2-Dichloroethene	6	1		ug/L	1	156-59-2	
Dibromochloromethane	Not detected	5		ug/L	1	124-48-1	
Dichlorodifluoromethane	Not detected	5		ug/L	1	75-71-8	
trans-1,2-Dichloroethene	1	1		ug/L	1	156-60-5	
Ethylbenzene	Not detected	1		ug/L	1	100-41-4	
2-Hexanone	Not detected	50		ug/L	1	591-78-6	
4-Methyl-2-pentanone (MIBK)	Not detected	50		ug/L	1	108-10-1	
tert-Methyl butyl ether (MTBE)	Not detected	5		ug/L	1	1634-04-4	
Methylene chloride	Not detected	5		ug/L	1	75-09-2	
Styrene	Not detected	1		ug/L	1	100-42-5	
1,1,1-Trichloroethane	3	1		ug/L	1	71-55-6	
1,1,2-Trichloroethane	Not detected	1		ug/L	1	79-00-5	
1,2,4-Trichlorobenzene	Not detected	5		ug/L	1	120-82-1	
Tetrachloroethene	Not detected	1		ug/L	1	127-18-4	
Toluene	Not detected	1		ug/L	1	108-88-3	
Trichloroethene	9	1		ug/L	1	79-01-6	
Trichlorofluoromethane	Not detected	1		ug/L	1	75-69-4	
Vinyl chloride	Not detected	1		ug/L	1	75-01-4	
o-Xylene	Not detected	1		ug/L	1	95-47-6	

Lab Sample ID: S40667.03 (continued)
Sample Tag: MW-06-20_GW-092022

Volatile Organics - Arcadis, Method: SW5030C/8260C, Run Date: 09/27/22 16:25, Analyst: BML (continued)

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
p,m-Xylene*	Not detected	2		ug/L	1		
Isopropylbenzene	Not detected	1		ug/L	1	98-82-8	
Cyclohexane	Not detected	1		ug/L	1	110-82-7	
1,1-Dichloroethane	6	1		ug/L	1	75-34-3	
1,1-Dichloroethene	Not detected	1		ug/L	1	75-35-4	
Methyl Acetate	Not detected	10		ug/L	1	79-20-9	
Methyl cyclohexane	Not detected	1		ug/L	1	108-87-2	
1,1,2-Trichloro-1,2,2-trifluoroethane	Not detected	1		ug/L	1	76-13-1	
1,2-Dibromoethane	Not detected	1		ug/L	1	106-93-4	
1,1,2,2-Tetrachloroethane	Not detected	1		ug/L	1	79-34-5	
cis-1,3-Dichloropropene	Not detected	1		ug/L	1	10061-01-5	
trans-1,3-Dichloropropene	Not detected	1		ug/L	1	10061-02-6	

Lab Sample ID: S40667.04
Sample Tag: MWF16-23_GW-092022
Collected Date/Time: 09/20/2022 14:55
Matrix: Groundwater
COC Reference: 154494

Sample Containers

#	Type	Preservative(s)	Refrigerated?	Arrival Temp. (C)	Thermometer #
3	40ml Glass	HCL	Yes	3.2	IR

Extraction / Prep.

Parameter	Result	Method	Run Date	Analyst	Flags
pH check for VOCs*	<2	N/A	09/27/22 10:00	BML	

Organics - Volatiles

Method: SW8260B - SIM, Run Date: 09/26/22 21:25, Analyst: KAG

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
1,4-Dioxane*	2	1		ug/L	1	123-91-1	

Volatile Organics - Arcadis, Method: SW5030C/8260C, Run Date: 09/27/22 16:45, Analyst: BML

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
Acetone	Not detected	50		ug/L	1	67-64-1	
2-Butanone (MEK)	Not detected	25		ug/L	1	78-93-3	
Benzene	Not detected	1		ug/L	1	71-43-2	
Bromodichloromethane	Not detected	1		ug/L	1	75-27-4	
Bromoform	Not detected	1		ug/L	1	75-25-2	
Bromomethane	Not detected	5		ug/L	1	74-83-9	
Carbon disulfide	Not detected	5		ug/L	1	75-15-0	
Carbon tetrachloride	Not detected	1		ug/L	1	56-23-5	
Chlorobenzene	Not detected	1		ug/L	1	108-90-7	
Chloroethane	Not detected	5		ug/L	1	75-00-3	
Chloroform	Not detected	1		ug/L	1	67-66-3	
Chloromethane	Not detected	5		ug/L	1	74-87-3	
1,2-Dibromo-3-chloropropane	Not detected	5		ug/L	1	96-12-8	
1,2-Dichlorobenzene	Not detected	1		ug/L	1	95-50-1	
1,2-Dichloroethane	Not detected	1		ug/L	1	107-06-2	
1,2-Dichloropropane	Not detected	1		ug/L	1	78-87-5	
1,3-Dichlorobenzene	Not detected	1		ug/L	1	541-73-1	
1,4-Dichlorobenzene	Not detected	1		ug/L	1	106-46-7	
cis-1,2-Dichloroethene	12	1		ug/L	1	156-59-2	
Dibromochloromethane	Not detected	5		ug/L	1	124-48-1	
Dichlorodifluoromethane	Not detected	5		ug/L	1	75-71-8	
trans-1,2-Dichloroethene	2	1		ug/L	1	156-60-5	
Ethylbenzene	Not detected	1		ug/L	1	100-41-4	
2-Hexanone	Not detected	50		ug/L	1	591-78-6	
4-Methyl-2-pentanone (MIBK)	Not detected	50		ug/L	1	108-10-1	
tert-Methyl butyl ether (MTBE)	Not detected	5		ug/L	1	1634-04-4	
Methylene chloride	Not detected	5		ug/L	1	75-09-2	
Styrene	Not detected	1		ug/L	1	100-42-5	
1,1,1-Trichloroethane	13	1		ug/L	1	71-55-6	
1,1,2-Trichloroethane	Not detected	1		ug/L	1	79-00-5	
1,2,4-Trichlorobenzene	Not detected	5		ug/L	1	120-82-1	
Tetrachloroethene	Not detected	1		ug/L	1	127-18-4	
Toluene	Not detected	1		ug/L	1	108-88-3	

Lab Sample ID: S40667.04 (continued)
Sample Tag: MWF16-23_GW-092022

Volatile Organics - Arcadis, Method: SW5030C/8260C, Run Date: 09/27/22 16:45, Analyst: BML (continued)

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
Trichloroethene	17	1		ug/L	1	79-01-6	
Trichlorofluoromethane	Not detected	1		ug/L	1	75-69-4	
Vinyl chloride	Not detected	1		ug/L	1	75-01-4	
o-Xylene	Not detected	1		ug/L	1	95-47-6	
p,m-Xylene*	Not detected	2		ug/L	1		
Isopropylbenzene	Not detected	1		ug/L	1	98-82-8	
Cyclohexane	Not detected	1		ug/L	1	110-82-7	
1,1-Dichloroethane	7	1		ug/L	1	75-34-3	
1,1-Dichloroethene	Not detected	1		ug/L	1	75-35-4	
Methyl Acetate	Not detected	10		ug/L	1	79-20-9	
Methyl cyclohexane	Not detected	1		ug/L	1	108-87-2	
1,1,2-Trichloro-1,2,2-trifluoroethane	Not detected	1		ug/L	1	76-13-1	
1,2-Dibromoethane	Not detected	1		ug/L	1	106-93-4	
1,1,2,2-Tetrachloroethane	Not detected	1		ug/L	1	79-34-5	
cis-1,3-Dichloropropene	Not detected	1		ug/L	1	10061-01-5	
trans-1,3-Dichloropropene	Not detected	1		ug/L	1	10061-02-6	

Lab Sample ID: S40667.05
Sample Tag: DUP-05_GW-092022
Collected Date/Time: 09/20/2022 00:01
Matrix: Groundwater
COC Reference: 154494

Sample Containers

#	Type	Preservative(s)	Refrigerated?	Arrival Temp. (C)	Thermometer #
3	40ml Glass	HCL	Yes	3.2	IR

Extraction / Prep.

Parameter	Result	Method	Run Date	Analyst	Flags
pH check for VOCs*	<2	N/A	09/28/22 12:00	BML	

Organics - Volatiles

Volatile Organics - Arcadis, Method: SW5030C/8260C, Run Date: 09/27/22 17:04, Analyst: BML

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
Acetone	Not detected	50		ug/L	1	67-64-1	
2-Butanone (MEK)	Not detected	25		ug/L	1	78-93-3	
Benzene	Not detected	1		ug/L	1	71-43-2	
Bromodichloromethane	Not detected	1		ug/L	1	75-27-4	
Bromoform	Not detected	1		ug/L	1	75-25-2	
Bromomethane	Not detected	5		ug/L	1	74-83-9	
Carbon disulfide	Not detected	5		ug/L	1	75-15-0	
Carbon tetrachloride	Not detected	1		ug/L	1	56-23-5	
Chlorobenzene	Not detected	1		ug/L	1	108-90-7	
Chloroethane	Not detected	5		ug/L	1	75-00-3	
Chloroform	Not detected	1		ug/L	1	67-66-3	
Chloromethane	Not detected	5		ug/L	1	74-87-3	
1,2-Dibromo-3-chloropropane	Not detected	5		ug/L	1	96-12-8	
1,2-Dichlorobenzene	Not detected	1		ug/L	1	95-50-1	
1,2-Dichloroethane	Not detected	1		ug/L	1	107-06-2	
1,2-Dichloropropane	Not detected	1		ug/L	1	78-87-5	
1,3-Dichlorobenzene	Not detected	1		ug/L	1	541-73-1	
1,4-Dichlorobenzene	Not detected	1		ug/L	1	106-46-7	
cis-1,2-Dichloroethene	6	1		ug/L	1	156-59-2	
Dibromochloromethane	Not detected	5		ug/L	1	124-48-1	
Dichlorodifluoromethane	Not detected	5		ug/L	1	75-71-8	
trans-1,2-Dichloroethene	1	1		ug/L	1	156-60-5	
Ethylbenzene	Not detected	1		ug/L	1	100-41-4	
2-Hexanone	Not detected	50		ug/L	1	591-78-6	
4-Methyl-2-pentanone (MIBK)	Not detected	50		ug/L	1	108-10-1	
tert-Methyl butyl ether (MTBE)	Not detected	5		ug/L	1	1634-04-4	
Methylene chloride	Not detected	5		ug/L	1	75-09-2	
Styrene	Not detected	1		ug/L	1	100-42-5	
1,1,1-Trichloroethane	3	1		ug/L	1	71-55-6	
1,1,2-Trichloroethane	Not detected	1		ug/L	1	79-00-5	
1,2,4-Trichlorobenzene	Not detected	5		ug/L	1	120-82-1	
Tetrachloroethene	Not detected	1		ug/L	1	127-18-4	
Toluene	Not detected	1		ug/L	1	108-88-3	
Trichloroethene	9	1		ug/L	1	79-01-6	
Trichlorofluoromethane	Not detected	1		ug/L	1	75-69-4	
Vinyl chloride	Not detected	1		ug/L	1	75-01-4	
o-Xylene	Not detected	1		ug/L	1	95-47-6	

Lab Sample ID: S40667.05 (continued)
Sample Tag: DUP-05_GW-092022

Volatile Organics - Arcadis, Method: SW5030C/8260C, Run Date: 09/27/22 17:04, Analyst: BML (continued)

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
p,m-Xylene*	Not detected	2		ug/L	1		
Isopropylbenzene	Not detected	1		ug/L	1	98-82-8	
Cyclohexane	Not detected	1		ug/L	1	110-82-7	
1,1-Dichloroethane	5	1		ug/L	1	75-34-3	
1,1-Dichloroethene	Not detected	1		ug/L	1	75-35-4	
Methyl Acetate	Not detected	10		ug/L	1	79-20-9	
Methyl cyclohexane	Not detected	1		ug/L	1	108-87-2	
1,1,2-Trichloro-1,2,2-trifluoroethane	Not detected	1		ug/L	1	76-13-1	
1,2-Dibromoethane	Not detected	1		ug/L	1	106-93-4	
1,1,2,2-Tetrachloroethane	Not detected	1		ug/L	1	79-34-5	
cis-1,3-Dichloropropene	Not detected	1		ug/L	1	10061-01-5	
trans-1,3-Dichloropropene	Not detected	1		ug/L	1	10061-02-6	

Lab Sample ID: S40667.06
Sample Tag: DUP-06_GW-092022
Collected Date/Time: 09/20/2022 00:01
Matrix: Groundwater
COC Reference: 154494

Sample Containers

#	Type	Preservative(s)	Refrigerated?	Arrival Temp. (C)	Thermometer #
3	40ml Glass	HCL	Yes	3.2	IR

Extraction / Prep.

Parameter	Result	Method	Run Date	Analyst	Flags
pH check for VOCs*	<2	N/A	09/27/22 10:00	BML	

Organics - Volatiles

Method: SW8260B - SIM, Run Date: 09/26/22 21:46, Analyst: KAG

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
1,4-Dioxane*	1	1		ug/L	1	123-91-1	

Volatile Organics - Arcadis, Method: SW5030C/8260C, Run Date: 09/27/22 17:23, Analyst: BML

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
Acetone	Not detected	50		ug/L	1	67-64-1	
2-Butanone (MEK)	Not detected	25		ug/L	1	78-93-3	
Benzene	Not detected	1		ug/L	1	71-43-2	
Bromodichloromethane	Not detected	1		ug/L	1	75-27-4	
Bromoform	Not detected	1		ug/L	1	75-25-2	
Bromomethane	Not detected	5		ug/L	1	74-83-9	
Carbon disulfide	Not detected	5		ug/L	1	75-15-0	
Carbon tetrachloride	Not detected	1		ug/L	1	56-23-5	
Chlorobenzene	Not detected	1		ug/L	1	108-90-7	
Chloroethane	Not detected	5		ug/L	1	75-00-3	
Chloroform	Not detected	1		ug/L	1	67-66-3	
Chloromethane	Not detected	5		ug/L	1	74-87-3	
1,2-Dibromo-3-chloropropane	Not detected	5		ug/L	1	96-12-8	
1,2-Dichlorobenzene	Not detected	1		ug/L	1	95-50-1	
1,2-Dichloroethane	Not detected	1		ug/L	1	107-06-2	
1,2-Dichloropropane	Not detected	1		ug/L	1	78-87-5	
1,3-Dichlorobenzene	Not detected	1		ug/L	1	541-73-1	
1,4-Dichlorobenzene	Not detected	1		ug/L	1	106-46-7	
cis-1,2-Dichloroethene	12	1		ug/L	1	156-59-2	
Dibromochloromethane	Not detected	5		ug/L	1	124-48-1	
Dichlorodifluoromethane	Not detected	5		ug/L	1	75-71-8	
trans-1,2-Dichloroethene	2	1		ug/L	1	156-60-5	
Ethylbenzene	Not detected	1		ug/L	1	100-41-4	
2-Hexanone	Not detected	50		ug/L	1	591-78-6	
4-Methyl-2-pentanone (MIBK)	Not detected	50		ug/L	1	108-10-1	
tert-Methyl butyl ether (MTBE)	Not detected	5		ug/L	1	1634-04-4	
Methylene chloride	Not detected	5		ug/L	1	75-09-2	
Styrene	Not detected	1		ug/L	1	100-42-5	
1,1,1-Trichloroethane	13	1		ug/L	1	71-55-6	
1,1,2-Trichloroethane	Not detected	1		ug/L	1	79-00-5	
1,2,4-Trichlorobenzene	Not detected	5		ug/L	1	120-82-1	
Tetrachloroethene	Not detected	1		ug/L	1	127-18-4	
Toluene	Not detected	1		ug/L	1	108-88-3	

Lab Sample ID: S40667.06 (continued)
Sample Tag: DUP-06_GW-092022

Volatile Organics - Arcadis, Method: SW5030C/8260C, Run Date: 09/27/22 17:23, Analyst: BML (continued)

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
Trichloroethene	18	1		ug/L	1	79-01-6	
Trichlorofluoromethane	Not detected	1		ug/L	1	75-69-4	
Vinyl chloride	Not detected	1		ug/L	1	75-01-4	
o-Xylene	Not detected	1		ug/L	1	95-47-6	
p,m-Xylene*	Not detected	2		ug/L	1		
Isopropylbenzene	Not detected	1		ug/L	1	98-82-8	
Cyclohexane	Not detected	1		ug/L	1	110-82-7	
1,1-Dichloroethane	7	1		ug/L	1	75-34-3	
1,1-Dichloroethene	Not detected	1		ug/L	1	75-35-4	
Methyl Acetate	Not detected	10		ug/L	1	79-20-9	
Methyl cyclohexane	Not detected	1		ug/L	1	108-87-2	
1,1,2-Trichloro-1,2,2-trifluoroethane	Not detected	1		ug/L	1	76-13-1	
1,2-Dibromoethane	Not detected	1		ug/L	1	106-93-4	
1,1,2,2-Tetrachloroethane	Not detected	1		ug/L	1	79-34-5	
cis-1,3-Dichloropropene	Not detected	1		ug/L	1	10061-01-5	
trans-1,3-Dichloropropene	Not detected	1		ug/L	1	10061-02-6	

Lab Sample ID: S40667.07
Sample Tag: MWF16-25_GW092322
Collected Date/Time: 09/23/2022 10:38
Matrix: Groundwater
COC Reference: 154494

Sample Containers

#	Type	Preservative(s)	Refrigerated?	Arrival Temp. (C)	Thermometer #
3	40ml Glass	HCL	Yes	3.2	IR

Extraction / Prep.

Parameter	Result	Method	Run Date	Analyst	Flags
pH check for VOCs*	<2	N/A	09/27/22 10:00	BML	

Organics - Volatiles

Method: SW8260B - SIM, Run Date: 09/26/22 22:07, Analyst: KAG

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
1,4-Dioxane*	Not detected	1		ug/L	1	123-91-1	

Volatile Organics - Arcadis, Method: SW5030C/8260C, Run Date: 09/27/22 17:42, Analyst: BML

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
Acetone	Not detected	50		ug/L	1	67-64-1	
2-Butanone (MEK)	Not detected	25		ug/L	1	78-93-3	
Benzene	Not detected	1		ug/L	1	71-43-2	
Bromodichloromethane	Not detected	1		ug/L	1	75-27-4	
Bromoform	Not detected	1		ug/L	1	75-25-2	
Bromomethane	Not detected	5		ug/L	1	74-83-9	
Carbon disulfide	Not detected	5		ug/L	1	75-15-0	
Carbon tetrachloride	Not detected	1		ug/L	1	56-23-5	
Chlorobenzene	Not detected	1		ug/L	1	108-90-7	
Chloroethane	Not detected	5		ug/L	1	75-00-3	
Chloroform	3	1		ug/L	1	67-66-3	
Chloromethane	Not detected	5		ug/L	1	74-87-3	
1,2-Dibromo-3-chloropropane	Not detected	5		ug/L	1	96-12-8	
1,2-Dichlorobenzene	Not detected	1		ug/L	1	95-50-1	
1,2-Dichloroethane	Not detected	1		ug/L	1	107-06-2	
1,2-Dichloropropane	Not detected	1		ug/L	1	78-87-5	
1,3-Dichlorobenzene	Not detected	1		ug/L	1	541-73-1	
1,4-Dichlorobenzene	Not detected	1		ug/L	1	106-46-7	
cis-1,2-Dichloroethene	38	1		ug/L	1	156-59-2	
Dibromochloromethane	Not detected	5		ug/L	1	124-48-1	
Dichlorodifluoromethane	Not detected	5		ug/L	1	75-71-8	
trans-1,2-Dichloroethene	3	1		ug/L	1	156-60-5	
Ethylbenzene	Not detected	1		ug/L	1	100-41-4	
2-Hexanone	Not detected	50		ug/L	1	591-78-6	
4-Methyl-2-pentanone (MIBK)	Not detected	50		ug/L	1	108-10-1	
tert-Methyl butyl ether (MTBE)	Not detected	5		ug/L	1	1634-04-4	
Methylene chloride	Not detected	5		ug/L	1	75-09-2	
Styrene	Not detected	1		ug/L	1	100-42-5	
1,1,1-Trichloroethane	3	1		ug/L	1	71-55-6	
1,1,2-Trichloroethane	Not detected	1		ug/L	1	79-00-5	
1,2,4-Trichlorobenzene	Not detected	5		ug/L	1	120-82-1	
Tetrachloroethene	Not detected	1		ug/L	1	127-18-4	
Toluene	Not detected	1		ug/L	1	108-88-3	

Lab Sample ID: S40667.07 (continued)
Sample Tag: MWF16-25_GW092322

Volatile Organics - Arcadis, Method: SW5030C/8260C, Run Date: 09/27/22 17:42, Analyst: BML (continued)

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
Trichloroethene	Not detected	1		ug/L	1	79-01-6	
Trichlorofluoromethane	Not detected	1		ug/L	1	75-69-4	
Vinyl chloride	Not detected	1		ug/L	1	75-01-4	
o-Xylene	Not detected	1		ug/L	1	95-47-6	
p,m-Xylene*	Not detected	2		ug/L	1		
Isopropylbenzene	Not detected	1		ug/L	1	98-82-8	
Cyclohexane	Not detected	1		ug/L	1	110-82-7	
1,1-Dichloroethane	4	1		ug/L	1	75-34-3	
1,1-Dichloroethene	Not detected	1		ug/L	1	75-35-4	
Methyl Acetate	Not detected	10		ug/L	1	79-20-9	
Methyl cyclohexane	Not detected	1		ug/L	1	108-87-2	
1,1,2-Trichloro-1,2,2-trifluoroethane	Not detected	1		ug/L	1	76-13-1	
1,2-Dibromoethane	Not detected	1		ug/L	1	106-93-4	
1,1,2,2-Tetrachloroethane	Not detected	1		ug/L	1	79-34-5	
cis-1,3-Dichloropropene	Not detected	1		ug/L	1	10061-01-5	
trans-1,3-Dichloropropene	Not detected	1		ug/L	1	10061-02-6	

Lab Sample ID: S40667.08
Sample Tag: MW-11-22_GW092322
Collected Date/Time: 09/23/2022 12:03
Matrix: Groundwater
COC Reference: 154494

Sample Containers

#	Type	Preservative(s)	Refrigerated?	Arrival Temp. (C)	Thermometer #
3	40ml Glass	HCL	Yes	3.2	IR

Extraction / Prep.

Parameter	Result	Method	Run Date	Analyst	Flags
pH check for VOCs*	<2	N/A	09/28/22 12:00	BML	

Organics - Volatiles

Volatile Organics - Arcadis, Method: SW5030C/8260C, Run Date: 09/27/22 18:01, Analyst: BML

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
Acetone	Not detected	50		ug/L	1	67-64-1	
2-Butanone (MEK)	Not detected	25		ug/L	1	78-93-3	
Benzene	Not detected	1		ug/L	1	71-43-2	
Bromodichloromethane	Not detected	1		ug/L	1	75-27-4	
Bromoform	Not detected	1		ug/L	1	75-25-2	
Bromomethane	Not detected	5		ug/L	1	74-83-9	
Carbon disulfide	Not detected	5		ug/L	1	75-15-0	
Carbon tetrachloride	1	1		ug/L	1	56-23-5	
Chlorobenzene	Not detected	1		ug/L	1	108-90-7	
Chloroethane	Not detected	5		ug/L	1	75-00-3	
Chloroform	Not detected	1		ug/L	1	67-66-3	
Chloromethane	Not detected	5		ug/L	1	74-87-3	
1,2-Dibromo-3-chloropropane	Not detected	5		ug/L	1	96-12-8	
1,2-Dichlorobenzene	Not detected	1		ug/L	1	95-50-1	
1,2-Dichloroethane	Not detected	1		ug/L	1	107-06-2	
1,2-Dichloropropane	Not detected	1		ug/L	1	78-87-5	
1,3-Dichlorobenzene	Not detected	1		ug/L	1	541-73-1	
1,4-Dichlorobenzene	Not detected	1		ug/L	1	106-46-7	
cis-1,2-Dichloroethene	Not detected	1		ug/L	1	156-59-2	
Dibromochloromethane	Not detected	5		ug/L	1	124-48-1	
Dichlorodifluoromethane	Not detected	5		ug/L	1	75-71-8	
trans-1,2-Dichloroethene	Not detected	1		ug/L	1	156-60-5	
Ethylbenzene	Not detected	1		ug/L	1	100-41-4	
2-Hexanone	Not detected	50		ug/L	1	591-78-6	
4-Methyl-2-pentanone (MIBK)	Not detected	50		ug/L	1	108-10-1	
tert-Methyl butyl ether (MTBE)	Not detected	5		ug/L	1	1634-04-4	
Methylene chloride	Not detected	5		ug/L	1	75-09-2	
Styrene	Not detected	1		ug/L	1	100-42-5	
1,1,1-Trichloroethane	2	1		ug/L	1	71-55-6	
1,1,2-Trichloroethane	Not detected	1		ug/L	1	79-00-5	
1,2,4-Trichlorobenzene	Not detected	5		ug/L	1	120-82-1	
Tetrachloroethene	Not detected	1		ug/L	1	127-18-4	
Toluene	Not detected	1		ug/L	1	108-88-3	
Trichloroethene	Not detected	1		ug/L	1	79-01-6	
Trichlorofluoromethane	Not detected	1		ug/L	1	75-69-4	
Vinyl chloride	Not detected	1		ug/L	1	75-01-4	
o-Xylene	Not detected	1		ug/L	1	95-47-6	

Lab Sample ID: S40667.08 (continued)
Sample Tag: MW-11-22_GW092322

Volatile Organics - Arcadis, Method: SW5030C/8260C, Run Date: 09/27/22 18:01, Analyst: BML (continued)

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
p,m-Xylene*	Not detected	2		ug/L	1		
Isopropylbenzene	Not detected	1		ug/L	1	98-82-8	
Cyclohexane	Not detected	1		ug/L	1	110-82-7	
1,1-Dichloroethane	Not detected	1		ug/L	1	75-34-3	
1,1-Dichloroethene	Not detected	1		ug/L	1	75-35-4	
Methyl Acetate	Not detected	10		ug/L	1	79-20-9	
Methyl cyclohexane	Not detected	1		ug/L	1	108-87-2	
1,1,2-Trichloro-1,2,2-trifluoroethane	Not detected	1		ug/L	1	76-13-1	
1,2-Dibromoethane	Not detected	1		ug/L	1	106-93-4	
1,1,2,2-Tetrachloroethane	Not detected	1		ug/L	1	79-34-5	
cis-1,3-Dichloropropene	Not detected	1		ug/L	1	10061-01-5	
trans-1,3-Dichloropropene	Not detected	1		ug/L	1	10061-02-6	

Merit Laboratories Login Checklist

Lab Set ID: S40667
Client: ARCADIS_NOVI (ARCADIS U.S., Inc.)
Project: 30112891.00005 / Racer PNC
Submitted: 09/23/2022 16:00 Login User: PFD

Attention: Alexis Crisp
Address: Arcadis US, Inc.
28550 Cabot Drive
Suite 500
Novi, MI 48377

Phone: 810-225-1909 FAX:
Email: Alexis.Crisp@arcadis.com

Selection				Description	Note
Sample Receiving					
01.	[X] Yes	[ ] No	[ ] N/A	Samples are received at 4C +/- 2C Thermometer #	IR 3.2
02.	[X] Yes	[ ] No	[ ] N/A	Received on ice/ cooling process begun	
03.	[ ] Yes	[X] No	[ ] N/A	Samples shipped	
04.	[ ] Yes	[X] No	[ ] N/A	Samples left in 24 hr. drop box	
05.	[ ] Yes	[ ] No	[X] N/A	Are there custody seals/tape or is the drop box locked	
Chain of Custody					
06.	[X] Yes	[ ] No	[ ] N/A	COC adequately filled out	
07.	[X] Yes	[ ] No	[ ] N/A	COC signed and relinquished to the lab	
08.	[X] Yes	[ ] No	[ ] N/A	Sample tag on bottles match COC	
09.	[ ] Yes	[X] No	[ ] N/A	Subcontracting needed? Subcontacted to:	
Preservation					
10.	[X] Yes	[ ] No	[ ] N/A	Do sample have correct chemical preservation	
11.	[ ] Yes	[ ] No	[X] N/A	Completed pH checks on preserved samples? (no VOAs)	
12.	[ ] Yes	[X] No	[ ] N/A	Did any samples need to be preserved in the lab?	
Bottle Conditions					
13.	[X] Yes	[ ] No	[ ] N/A	All bottles intact	
14.	[X] Yes	[ ] No	[ ] N/A	Appropriate analytical bottles are used	
15.	[X] Yes	[ ] No	[ ] N/A	Merit bottles used	
16.	[X] Yes	[ ] No	[ ] N/A	Sufficient sample volume received	
17.	[ ] Yes	[X] No	[ ] N/A	Samples require laboratory filtration	
18.	[X] Yes	[ ] No	[ ] N/A	Samples submitted within holding time	
19.	[ ] Yes	[X] No	[ ] N/A	Do water VOC or TOX bottles contain headspace	

Corrective action for all exceptions is to call the client and to notify the project manager.

Client Review By: _____ Date: _____

Merit Laboratories, Inc.

2680 East Lansing Dr., East Lansing, MI 48823
Phone (517) 332-0167 Fax (517) 332-4034
www.meritlabs.com

C.O.C. PAGE # 1 OF 1

154494

CHAIN OF CUSTODY RECORD

REPORT TO

CONTACT NAME: ALEXIS CRISP
COMPANY: ARCADIS
ADDRESS: 28550 CABOT DRIVE #500
CITY: NOVI STATE: MI ZIP CODE: 48377
PHONE NO.: — CELL NO.: —
P.O. NO.: 30112891.00005
E-MAIL ADDRESS: TIFANY.LINDER@ARCADIS.COM ALEXIS.CRISP@ARCADIS.COM
QUOTE NO.: —

INVOICE TO

CONTACT NAME: ACCOUNTS PAYABLE ☐ SAME
COMPANY: ARCADIS
ADDRESS: 630 PLAZA DRIVE #600
CITY: HIGHLANDS RANCH STATE: CO ZIP CODE: 80129
PHONE NO.: — E-MAIL ADDRESS: ACCOUNTSPAYABLE.ADMINISTRATION@ARCADIS.COM

PROJECT NO./NAME: 30112891.00005 / RACER PNC
SAMPLER(S) - PLEASE PRINT/SIGN NAME: CHRISTINA WEAVER

TURNAROUND TIME REQUIRED ☐ 1 DAY ☐ 2 DAYS ☐ 3 DAYS ☒ STANDARD ☐ OTHER

DELIVERABLES REQUIRED ☐ STD ☒ LEVEL II ☐ LEVEL III ☐ LEVEL IV ☒ EDD ☐ OTHER

MATRIX CODE: W=WATER GW=GROUNDWATER WW=WASTEWATER S=SOIL L=LIQUID SD=SOLID SL=SLUDGE DW=DRINKING WATER O=OIL WP=WIPE A=AIR WS=WASTE

ANALYSIS (ATTACH LIST IF MORE SPACE IS REQUIRED)

Certifications: ☐ OHIO VAP ☐ Drinking Water ☐ DoD ☐ NPDES

Project Locations: ☐ Detroit ☐ New York ☐ Other

MERIT LAB NO. (FOR LAB USE ONLY)	COLLECTION DATE	COLLECTION TIME	SAMPLE TAG IDENTIFICATION-DESCRIPTION	MATRIX	# OF BOTTLES	# Containers & Preservatives: NONE	HCl	HNO_3	H_2SO_4	NaOH	MeOH	OTHER	SITE SPECIFIC VOCs BY 8260	1,4-DIOXANE BY 8260 SIM	Special Instructions
40667.01	9/20/22	—	TRIP BLANK	—	1		1						X		TRIP BLANK
.02		1255	MW-08-21_GW-092022	GW	3		3						X		
.03		1345	MW-06-20_GW-092022	GW	3		3						X		
.04		1455	MWF16-23_GW-092022	GW	3		3						X	X	
.05		—	DUP-05_GW-092022	GW	3		3						X		
.06		—	DUP-06_GW-092022	GW	3		3						X		
.07	9/23/22	1038	MWF16-25_GW-092322	GW	3		3						X	X	
.08	9/23/22	1203	MW-11-22_GW-092322	GW	3		3						X		

RELINQUISHED BY: SIGNATURE/ORGANIZATION		DATE	TIME
	☒ Sampler	9/23/22	18:02
RECEIVED BY: SIGNATURE/ORGANIZATION		DATE	TIME
		9/23/22	1300
RELINQUISHED BY: SIGNATURE/ORGANIZATION		DATE	TIME
		9/23/22	16:00
RECEIVED BY: SIGNATURE/ORGANIZATION		DATE	TIME
		9/23/22	1800

RELINQUISHED BY: SIGNATURE/ORGANIZATION	DATE	TIME
RECEIVED BY: SIGNATURE/ORGANIZATION	DATE	TIME

SEAL NO.	SEAL INTACT YES ☐ NO ☐	INITIALS
SEAL NO.	SEAL INTACT YES ☐ NO ☐	INITIALS

NOTES: TEMP. ON ARRIVAL 3.2

PLEASE NOTE: SIGNING ACKNOWLEDGES ADHERENCE TO MERIT'S SAMPLE ACCEPTANCE POLICY ON REVERSE SIDE

Rev. 1.26.22

Analytical Laboratory Report

Report ID: S40669.01(01)
Generated on 09/29/2022

Report to

Attention: Alexis Crisp
Arcadis US, Inc.
28550 Cabot Drive
Suite 500
Novi, MI 48377

Phone: 810-225-1909 FAX:
Email: Alexis.Crisp@arcadis.com

Addtional Contacts: Tiffany Linder, Ian Drost

Report produced by

Merit Laboratories, Inc.
2680 East Lansing Drive
East Lansing, MI 48823

Phone: (517) 332-0167 FAX: (517) 332-6333

Contacts for report questions:
John Laverty (johnlaverty@meritlabs.com)
Barbara Ball (bball@meritlabs.com)

Report Summary

Lab Sample ID(s): S40669.01-S40669.05
Project: Racer PNC / 30112891.00005
Collected Date(s): 09/22/2022
Submitted Date/Time: 09/23/2022 16:00
Sampled by: LF
P.O. #: 30112891.00005

Table of Contents

Maya Murshak
Technical Director

General Report Notes

Analytical results relate only to the samples tested, in the condition received by the laboratory.
Methods may be modified for improved performance.
Results reported on a dry weight basis where applicable.
'Not detected' indicates that parameter was not found at a level equal to or greater than the reporting limit (RL).
When MDL results are provided, then 'Not detected' indicates that parameter was not found at a level equal to or greater than the MDL.
40 CFR Part 136 Table II Required Containers, Preservation Techniques and Holding Times for the Clean Water Act specify that samples for acrolein and acrylonitrile, and 2-chloroethylvinyl ether need to be preserved at a pH in the range of 4 to 5 or if not preserved, analyzed within 3 days of sampling.
QA/QC corresponding to this analytical report is a separate document with the same Merit ID reference and is available upon request.
Full accreditation certificates are available upon request. Starred (*) analytes are not NELAP accredited.
Samples are held by the lab for 30 days from the final report date unless a written request to hold longer is provided by the client.

Limits for drinking water samples, are listed as the MCL Limits (Maximum Contaminant Level Concentrations)
PFAS requirement: Section 9.3.8 of U.S. EPA Method 537.1 states "If the method analyte(s) found in the Field Sample is present in the FRB at a concentration greater than 1/3 the MRL, then all samples collected with that FRB are invalid and must be recollected and reanalyzed."
Samples submitted without an accompanying FRB may not be acceptable for compliance purposes.
Wisconsin PFAs analysis: MDL = LOD; RL = LOQ. LOD and LOQ are adjusted for dilution.

Report Narrative

There is no additional narrative for this analytical report

Laboratory Certifications

Authority	Certification ID
Michigan DEQ	#9956
DOD ELAP/ISO 17025	#69699
WBENC	#2005110032
Ohio VAP	#CL0002
Indiana DOH	#C-MI-07
New York NELAC	#11814
North Carolina DENR	#680
North Carolina DOH	#26702
Alaska CSLAP	#17-001
Pennsylvania DEP	#68-05884
Wisconsin DNR	FID# 399147320

Qualifier Descriptions

Qualifier	Description
!	Result is outside of stated limit criteria
B	Compound also found in associated method blank
E	Concentration exceeds calibration range
F	Analysis run outside of holding time
G	Estimated result due to extraction run outside of holding time
H	Sample submitted and run outside of holding time
I	Matrix interference with internal standard
J	Estimated value less than reporting limit, but greater than MDL
L	Elevated reporting limit due to low sample amount
M	Result reported to MDL not RDL
O	Analysis performed by outside laboratory. See attached report.
R	Preliminary result
S	Surrogate recovery outside of control limits
T	No correction for total solids
X	Elevated reporting limit due to matrix interference
Y	Elevated reporting limit due to high target concentration
b	Value detected less than reporting limit, but greater than MDL
e	Reported value estimated due to interference
j	Analyte also found in associated method blank
p	Benzo(b)Fluoranthene and Benzo(k)Fluoranthene integrated as one peak.
x	Preserved from bulk sample

Glossary of Abbreviations

Abbreviation	Description
RL/RDL	Reporting Limit
MDL	Method Detection Limit
MS	Matrix Spike
MSD	Matrix Spike Duplicate
SW	EPA SW 846 (Soil and Wastewater) Methods
E	EPA Methods
SM	Standard Methods
LN	Linear
BR	Branched

Method Summary

Method	Version
N/A	Not Applicable
SW5030C/8260C	SW 846 Method 8260C Revision 3 August 2006 / 5030C Revision 3 May 2003
SW8260B - SIM	SW 846 Method 8260B Revision 2 December 1996 SIMs

Sample Summary (5 samples)

Sample ID	Sample Tag	Matrix	Collected Date/Time
S40669.01	MWF16-05_GW-092222	Groundwater	09/22/22 09:10
S40669.02	MWF16-18_GW-092222	Groundwater	09/22/22 10:17
S40669.03	MWF16-06_GW-092222	Groundwater	09/22/22 12:07
S40669.04	TW-12-22_GW-092222	Groundwater	09/22/22 13:39
S40669.05	Trip Blank	Water	09/22/22 00:01

Lab Sample ID: S40669.01
Sample Tag: MWF16-05_GW-092222
Collected Date/Time: 09/22/2022 09:10
Matrix: Groundwater
COC Reference: 157357

Sample Containers

#	Type	Preservative(s)	Refrigerated?	Arrival Temp. (C)	Thermometer #
3	40ml Glass	HCL	Yes	3.2	IR

Extraction / Prep.

Parameter	Result	Method	Run Date	Analyst	Flags
pH check for VOCs*	<2	N/A	09/28/22 12:00	BML	

Organics - Volatiles

Volatile Organics - Arcadis, Method: SW5030C/8260C, Run Date: 09/27/22 18:20, Analyst: BML

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
Acetone	Not detected	1,000		ug/L	20	67-64-1	Y
2-Butanone (MEK)	Not detected	500		ug/L	20	78-93-3	Y
Benzene	Not detected	20		ug/L	20	71-43-2	Y
Bromodichloromethane	Not detected	20		ug/L	20	75-27-4	Y
Bromoform	Not detected	20		ug/L	20	75-25-2	Y
Bromomethane	Not detected	100		ug/L	20	74-83-9	Y
Carbon disulfide	Not detected	100		ug/L	20	75-15-0	Y
Carbon tetrachloride	Not detected	20		ug/L	20	56-23-5	Y
Chlorobenzene	Not detected	20		ug/L	20	108-90-7	Y
Chloroethane	Not detected	100		ug/L	20	75-00-3	Y
Chloroform	Not detected	20		ug/L	20	67-66-3	Y
Chloromethane	Not detected	100		ug/L	20	74-87-3	Y
1,2-Dibromo-3-chloropropane	Not detected	100		ug/L	20	96-12-8	Y
1,2-Dichlorobenzene	Not detected	20		ug/L	20	95-50-1	Y
1,2-Dichloroethane	Not detected	20		ug/L	20	107-06-2	Y
1,2-Dichloropropane	Not detected	20		ug/L	20	78-87-5	Y
1,3-Dichlorobenzene	Not detected	20		ug/L	20	541-73-1	Y
1,4-Dichlorobenzene	Not detected	20		ug/L	20	106-46-7	Y
cis-1,2-Dichloroethene	Not detected	20		ug/L	20	156-59-2	Y
Dibromochloromethane	Not detected	100		ug/L	20	124-48-1	Y
Dichlorodifluoromethane	Not detected	100		ug/L	20	75-71-8	Y
trans-1,2-Dichloroethene	Not detected	20		ug/L	20	156-60-5	Y
Ethylbenzene	Not detected	20		ug/L	20	100-41-4	Y
2-Hexanone	Not detected	1,000		ug/L	20	591-78-6	Y
4-Methyl-2-pentanone (MIBK)	Not detected	1,000		ug/L	20	108-10-1	Y
tert-Methyl butyl ether (MTBE)	Not detected	100		ug/L	20	1634-04-4	Y
Methylene chloride	Not detected	100		ug/L	20	75-09-2	Y
Styrene	Not detected	20		ug/L	20	100-42-5	Y
1,1,1-Trichloroethane	Not detected	20		ug/L	20	71-55-6	Y
1,1,2-Trichloroethane	Not detected	20		ug/L	20	79-00-5	Y
1,2,4-Trichlorobenzene	Not detected	100		ug/L	20	120-82-1	Y
Tetrachloroethene	680	20		ug/L	20	127-18-4	Y
Toluene	Not detected	20		ug/L	20	108-88-3	Y
Trichloroethene	30	20		ug/L	20	79-01-6	Y
Trichlorofluoromethane	Not detected	20		ug/L	20	75-69-4	Y
Vinyl chloride	Not detected	20		ug/L	20	75-01-4	Y

Y-Elevated reporting limit due to high target concentration

Lab Sample ID: S40669.01 (continued)
Sample Tag: MWF16-05_GW-092222

Volatile Organics - Arcadis, Method: SW5030C/8260C, Run Date: 09/27/22 18:20, Analyst: BML (continued)

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
o-Xylene	Not detected	20		ug/L	20	95-47-6	Y
p,m-Xylene*	Not detected	40		ug/L	20		Y
Isopropylbenzene	Not detected	20		ug/L	20	98-82-8	Y
Cyclohexane	Not detected	20		ug/L	20	110-82-7	Y
1,1-Dichloroethane	Not detected	20		ug/L	20	75-34-3	Y
1,1-Dichloroethene	Not detected	20		ug/L	20	75-35-4	Y
Methyl Acetate	Not detected	200		ug/L	20	79-20-9	Y
Methyl cyclohexane	Not detected	20		ug/L	20	108-87-2	Y
1,1,2-Trichloro-1,2,2-trifluoroethane	Not detected	20		ug/L	20	76-13-1	Y
1,2-Dibromoethane	Not detected	20		ug/L	20	106-93-4	Y
1,1,2,2-Tetrachloroethane	Not detected	20		ug/L	20	79-34-5	Y
cis-1,3-Dichloropropene	Not detected	20		ug/L	20	10061-01-5	Y
trans-1,3-Dichloropropene	Not detected	20		ug/L	20	10061-02-6	Y

Y-Elevated reporting limit due to high target concentration

Lab Sample ID: S40669.02
Sample Tag: MWF16-18_GW-092222
Collected Date/Time: 09/22/2022 10:17
Matrix: Groundwater
COC Reference: 157357

Sample Containers

#	Type	Preservative(s)	Refrigerated?	Arrival Temp. (C)	Thermometer #
3	40ml Glass	HCL	Yes	3.2	IR

Extraction / Prep.

Parameter	Result	Method	Run Date	Analyst	Flags
pH check for VOCs*	<2	N/A	09/28/22 12:00	BML	

Organics - Volatiles

Volatile Organics - Arcadis, Method: SW5030C/8260C, Run Date: 09/27/22 18:39, Analyst: BML

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
Acetone	Not detected	500		ug/L	10	67-64-1	Y
2-Butanone (MEK)	Not detected	250		ug/L	10	78-93-3	Y
Benzene	Not detected	10		ug/L	10	71-43-2	Y
Bromodichloromethane	Not detected	10		ug/L	10	75-27-4	Y
Bromoform	Not detected	10		ug/L	10	75-25-2	Y
Bromomethane	Not detected	50		ug/L	10	74-83-9	Y
Carbon disulfide	Not detected	50		ug/L	10	75-15-0	Y
Carbon tetrachloride	Not detected	10		ug/L	10	56-23-5	Y
Chlorobenzene	Not detected	10		ug/L	10	108-90-7	Y
Chloroethane	Not detected	50		ug/L	10	75-00-3	Y
Chloroform	Not detected	10		ug/L	10	67-66-3	Y
Chloromethane	Not detected	50		ug/L	10	74-87-3	Y
1,2-Dibromo-3-chloropropane	Not detected	50		ug/L	10	96-12-8	Y
1,2-Dichlorobenzene	Not detected	10		ug/L	10	95-50-1	Y
1,2-Dichloroethane	Not detected	10		ug/L	10	107-06-2	Y
1,2-Dichloropropane	Not detected	10		ug/L	10	78-87-5	Y
1,3-Dichlorobenzene	Not detected	10		ug/L	10	541-73-1	Y
1,4-Dichlorobenzene	Not detected	10		ug/L	10	106-46-7	Y
cis-1,2-Dichloroethene	100	10		ug/L	10	156-59-2	Y
Dibromochloromethane	Not detected	50		ug/L	10	124-48-1	Y
Dichlorodifluoromethane	Not detected	50		ug/L	10	75-71-8	Y
trans-1,2-Dichloroethene	Not detected	10		ug/L	10	156-60-5	Y
Ethylbenzene	Not detected	10		ug/L	10	100-41-4	Y
2-Hexanone	Not detected	500		ug/L	10	591-78-6	Y
4-Methyl-2-pentanone (MIBK)	Not detected	500		ug/L	10	108-10-1	Y
tert-Methyl butyl ether (MTBE)	Not detected	50		ug/L	10	1634-04-4	Y
Methylene chloride	Not detected	50		ug/L	10	75-09-2	Y
Styrene	Not detected	10		ug/L	10	100-42-5	Y
1,1,1-Trichloroethane	Not detected	10		ug/L	10	71-55-6	Y
1,1,2-Trichloroethane	Not detected	10		ug/L	10	79-00-5	Y
1,2,4-Trichlorobenzene	Not detected	50		ug/L	10	120-82-1	Y
Tetrachloroethene	1,350	10		ug/L	10	127-18-4	Y
Toluene	Not detected	10		ug/L	10	108-88-3	Y
Trichloroethene	20	10		ug/L	10	79-01-6	Y
Trichlorofluoromethane	Not detected	10		ug/L	10	75-69-4	Y
Vinyl chloride	Not detected	10		ug/L	10	75-01-4	Y

Y-Elevated reporting limit due to high target concentration

Lab Sample ID: S40669.02 (continued)
Sample Tag: MWF16-18_GW-092222

Volatile Organics - Arcadis, Method: SW5030C/8260C, Run Date: 09/27/22 18:39, Analyst: BML (continued)

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
o-Xylene	Not detected	10		ug/L	10	95-47-6	Y
p,m-Xylene*	Not detected	20		ug/L	10		Y
Isopropylbenzene	Not detected	10		ug/L	10	98-82-8	Y
Cyclohexane	Not detected	10		ug/L	10	110-82-7	Y
1,1-Dichloroethane	Not detected	10		ug/L	10	75-34-3	Y
1,1-Dichloroethene	Not detected	10		ug/L	10	75-35-4	Y
Methyl Acetate	Not detected	100		ug/L	10	79-20-9	Y
Methyl cyclohexane	Not detected	10		ug/L	10	108-87-2	Y
1,1,2-Trichloro-1,2,2-trifluoroethane	Not detected	10		ug/L	10	76-13-1	Y
1,2-Dibromoethane	Not detected	10		ug/L	10	106-93-4	Y
1,1,2,2-Tetrachloroethane	Not detected	10		ug/L	10	79-34-5	Y
cis-1,3-Dichloropropene	Not detected	10		ug/L	10	10061-01-5	Y
trans-1,3-Dichloropropene	Not detected	10		ug/L	10	10061-02-6	Y

Y-Elevated reporting limit due to high target concentration

Lab Sample ID: S40669.03
Sample Tag: MWF16-06_GW-092222
Collected Date/Time: 09/22/2022 12:07
Matrix: Groundwater
COC Reference: 157357

Sample Containers

#	Type	Preservative(s)	Refrigerated?	Arrival Temp. (C)	Thermometer #
3	40ml Glass	HCL	Yes	3.2	IR

Extraction / Prep.

Parameter	Result	Method	Run Date	Analyst	Flags
pH check for VOCs*	<2	N/A	09/27/22 10:00	BML	

Organics - Volatiles

Method: SW8260B - SIM, Run Date: 09/26/22 22:29, Analyst: KAG

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
1,4-Dioxane*	8	1		ug/L	1	123-91-1	

Volatile Organics - Arcadis, Method: SW5030C/8260C, Run Date: 09/27/22 18:58, Analyst: BML

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
Acetone	Not detected	50		ug/L	1	67-64-1	
2-Butanone (MEK)	Not detected	25		ug/L	1	78-93-3	
Benzene	Not detected	1		ug/L	1	71-43-2	
Bromodichloromethane	Not detected	1		ug/L	1	75-27-4	
Bromoform	Not detected	1		ug/L	1	75-25-2	
Bromomethane	Not detected	5		ug/L	1	74-83-9	
Carbon disulfide	Not detected	5		ug/L	1	75-15-0	
Carbon tetrachloride	9	1		ug/L	1	56-23-5	
Chlorobenzene	Not detected	1		ug/L	1	108-90-7	
Chloroethane	Not detected	5		ug/L	1	75-00-3	
Chloroform	15	1		ug/L	1	67-66-3	
Chloromethane	Not detected	5		ug/L	1	74-87-3	
1,2-Dibromo-3-chloropropane	Not detected	5		ug/L	1	96-12-8	
1,2-Dichlorobenzene	Not detected	1		ug/L	1	95-50-1	
1,2-Dichloroethane	2	1		ug/L	1	107-06-2	
1,2-Dichloropropane	Not detected	1		ug/L	1	78-87-5	
1,3-Dichlorobenzene	Not detected	1		ug/L	1	541-73-1	
1,4-Dichlorobenzene	Not detected	1		ug/L	1	106-46-7	
cis-1,2-Dichloroethene	29	1		ug/L	1	156-59-2	
Dibromochloromethane	Not detected	5		ug/L	1	124-48-1	
Dichlorodifluoromethane	Not detected	5		ug/L	1	75-71-8	
trans-1,2-Dichloroethene	Not detected	1		ug/L	1	156-60-5	
Ethylbenzene	Not detected	1		ug/L	1	100-41-4	
2-Hexanone	Not detected	50		ug/L	1	591-78-6	
4-Methyl-2-pentanone (MIBK)	Not detected	50		ug/L	1	108-10-1	
tert-Methyl butyl ether (MTBE)	Not detected	5		ug/L	1	1634-04-4	
Methylene chloride	Not detected	5		ug/L	1	75-09-2	
Styrene	Not detected	1		ug/L	1	100-42-5	
1,1,1-Trichloroethane	135	1		ug/L	1	71-55-6	
1,1,2-Trichloroethane	Not detected	1		ug/L	1	79-00-5	
1,2,4-Trichlorobenzene	Not detected	5		ug/L	1	120-82-1	
Tetrachloroethene	63	1		ug/L	1	127-18-4	
Toluene	Not detected	1		ug/L	1	108-88-3	

Lab Sample ID: S40669.03 (continued)
Sample Tag: MWF16-06_GW-092222

Volatile Organics - Arcadis, Method: SW5030C/8260C, Run Date: 09/27/22 18:58, Analyst: BML (continued)

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
Trichloroethene	9	1		ug/L	1	79-01-6	
Trichlorofluoromethane	Not detected	1		ug/L	1	75-69-4	
Vinyl chloride	Not detected	1		ug/L	1	75-01-4	
o-Xylene	Not detected	1		ug/L	1	95-47-6	
p,m-Xylene*	Not detected	2		ug/L	1		
Isopropylbenzene	Not detected	1		ug/L	1	98-82-8	
Cyclohexane	1	1		ug/L	1	110-82-7	
1,1-Dichloroethane	95	1		ug/L	1	75-34-3	
1,1-Dichloroethene	10	1		ug/L	1	75-35-4	
Methyl Acetate	Not detected	10		ug/L	1	79-20-9	
Methyl cyclohexane	Not detected	1		ug/L	1	108-87-2	
1,1,2-Trichloro-1,2,2-trifluoroethane	Not detected	1		ug/L	1	76-13-1	
1,2-Dibromoethane	Not detected	1		ug/L	1	106-93-4	
1,1,2,2-Tetrachloroethane	Not detected	1		ug/L	1	79-34-5	
cis-1,3-Dichloropropene	Not detected	1		ug/L	1	10061-01-5	
trans-1,3-Dichloropropene	Not detected	1		ug/L	1	10061-02-6	

Lab Sample ID: S40669.04
Sample Tag: TW-12-22_GW-092222
Collected Date/Time: 09/22/2022 13:39
Matrix: Groundwater
COC Reference: 157357

Sample Containers

#	Type	Preservative(s)	Refrigerated?	Arrival Temp. (C)	Thermometer #
3	40ml Glass	HCL	Yes	3.2	IR

Extraction / Prep.

Parameter	Result	Method	Run Date	Analyst	Flags
pH check for VOCs*	<2	N/A	09/28/22 12:00	BML	

Organics - Volatiles

Volatile Organics - Arcadis, Method: SW5030C/8260C, Run Date: 09/27/22 19:17, Analyst: BML

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
Acetone	Not detected	50		ug/L	1	67-64-1	
2-Butanone (MEK)	Not detected	25		ug/L	1	78-93-3	
Benzene	Not detected	1		ug/L	1	71-43-2	
Bromodichloromethane	Not detected	1		ug/L	1	75-27-4	
Bromoform	Not detected	1		ug/L	1	75-25-2	
Bromomethane	Not detected	5		ug/L	1	74-83-9	
Carbon disulfide	Not detected	5		ug/L	1	75-15-0	
Carbon tetrachloride	Not detected	1		ug/L	1	56-23-5	
Chlorobenzene	Not detected	1		ug/L	1	108-90-7	
Chloroethane	Not detected	5		ug/L	1	75-00-3	
Chloroform	7	1		ug/L	1	67-66-3	
Chloromethane	Not detected	5		ug/L	1	74-87-3	
1,2-Dibromo-3-chloropropane	Not detected	5		ug/L	1	96-12-8	
1,2-Dichlorobenzene	Not detected	1		ug/L	1	95-50-1	
1,2-Dichloroethane	Not detected	1		ug/L	1	107-06-2	
1,2-Dichloropropane	Not detected	1		ug/L	1	78-87-5	
1,3-Dichlorobenzene	Not detected	1		ug/L	1	541-73-1	
1,4-Dichlorobenzene	Not detected	1		ug/L	1	106-46-7	
cis-1,2-Dichloroethene	57	1		ug/L	1	156-59-2	
Dibromochloromethane	Not detected	5		ug/L	1	124-48-1	
Dichlorodifluoromethane	Not detected	5		ug/L	1	75-71-8	
trans-1,2-Dichloroethene	3	1		ug/L	1	156-60-5	
Ethylbenzene	Not detected	1		ug/L	1	100-41-4	
2-Hexanone	Not detected	50		ug/L	1	591-78-6	
4-Methyl-2-pentanone (MIBK)	Not detected	50		ug/L	1	108-10-1	
tert-Methyl butyl ether (MTBE)	Not detected	5		ug/L	1	1634-04-4	
Methylene chloride	Not detected	5		ug/L	1	75-09-2	
Styrene	Not detected	1		ug/L	1	100-42-5	
1,1,1-Trichloroethane	6	1		ug/L	1	71-55-6	
1,1,2-Trichloroethane	Not detected	1		ug/L	1	79-00-5	
1,2,4-Trichlorobenzene	Not detected	5		ug/L	1	120-82-1	
Tetrachloroethene	Not detected	1		ug/L	1	127-18-4	
Toluene	Not detected	1		ug/L	1	108-88-3	
Trichloroethene	6	1		ug/L	1	79-01-6	
Trichlorofluoromethane	Not detected	1		ug/L	1	75-69-4	
Vinyl chloride	Not detected	1		ug/L	1	75-01-4	
o-Xylene	Not detected	1		ug/L	1	95-47-6	

Lab Sample ID: S40669.04 (continued)
Sample Tag: TW-12-22_GW-092222

Volatile Organics - Arcadis, Method: SW5030C/8260C, Run Date: 09/27/22 19:17, Analyst: BML (continued)

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
p,m-Xylene*	Not detected	2		ug/L	1		
Isopropylbenzene	Not detected	1		ug/L	1	98-82-8	
Cyclohexane	Not detected	1		ug/L	1	110-82-7	
1,1-Dichloroethane	10	1		ug/L	1	75-34-3	
1,1-Dichloroethene	Not detected	1		ug/L	1	75-35-4	
Methyl Acetate	Not detected	10		ug/L	1	79-20-9	
Methyl cyclohexane	Not detected	1		ug/L	1	108-87-2	
1,1,2-Trichloro-1,2,2-trifluoroethane	Not detected	1		ug/L	1	76-13-1	
1,2-Dibromoethane	Not detected	1		ug/L	1	106-93-4	
1,1,2,2-Tetrachloroethane	Not detected	1		ug/L	1	79-34-5	
cis-1,3-Dichloropropene	Not detected	1		ug/L	1	10061-01-5	
trans-1,3-Dichloropropene	Not detected	1		ug/L	1	10061-02-6	

Lab Sample ID: S40669.05
Sample Tag: Trip Blank
Collected Date/Time: 09/22/2022 00:01
Matrix: Water
COC Reference: 157357

Sample Containers

#	Type	Preservative(s)	Refrigerated?	Arrival Temp. (C)	Thermometer #
1	40ml Glass	HCL	Yes	3.2	IR

Extraction / Prep.

Parameter	Result	Method	Run Date	Analyst	Flags
pH check for VOCs*	<2	N/A	09/28/22 12:00	BML	

Organics - Volatiles

Volatile Organics - Arcadis, Method: SW5030C/8260C, Run Date: 09/27/22 15:28, Analyst: BML

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
Acetone	Not detected	50		ug/L	1	67-64-1	
2-Butanone (MEK)	Not detected	25		ug/L	1	78-93-3	
Benzene	Not detected	1		ug/L	1	71-43-2	
Bromodichloromethane	Not detected	1		ug/L	1	75-27-4	
Bromoform	Not detected	1		ug/L	1	75-25-2	
Bromomethane	Not detected	5		ug/L	1	74-83-9	
Carbon disulfide	Not detected	5		ug/L	1	75-15-0	
Carbon tetrachloride	Not detected	1		ug/L	1	56-23-5	
Chlorobenzene	Not detected	1		ug/L	1	108-90-7	
Chloroethane	Not detected	5		ug/L	1	75-00-3	
Chloroform	Not detected	1		ug/L	1	67-66-3	
Chloromethane	Not detected	5		ug/L	1	74-87-3	
1,2-Dibromo-3-chloropropane	Not detected	5		ug/L	1	96-12-8	
1,2-Dichlorobenzene	Not detected	1		ug/L	1	95-50-1	
1,2-Dichloroethane	Not detected	1		ug/L	1	107-06-2	
1,2-Dichloropropane	Not detected	1		ug/L	1	78-87-5	
1,3-Dichlorobenzene	Not detected	1		ug/L	1	541-73-1	
1,4-Dichlorobenzene	Not detected	1		ug/L	1	106-46-7	
cis-1,2-Dichloroethene	Not detected	1		ug/L	1	156-59-2	
Dibromochloromethane	Not detected	5		ug/L	1	124-48-1	
Dichlorodifluoromethane	Not detected	5		ug/L	1	75-71-8	
trans-1,2-Dichloroethene	Not detected	1		ug/L	1	156-60-5	
Ethylbenzene	Not detected	1		ug/L	1	100-41-4	
2-Hexanone	Not detected	50		ug/L	1	591-78-6	
4-Methyl-2-pentanone (MIBK)	Not detected	50		ug/L	1	108-10-1	
tert-Methyl butyl ether (MTBE)	Not detected	5		ug/L	1	1634-04-4	
Methylene chloride	Not detected	5		ug/L	1	75-09-2	
Styrene	Not detected	1		ug/L	1	100-42-5	
1,1,1-Trichloroethane	Not detected	1		ug/L	1	71-55-6	
1,1,2-Trichloroethane	Not detected	1		ug/L	1	79-00-5	
1,2,4-Trichlorobenzene	Not detected	5		ug/L	1	120-82-1	
Tetrachloroethene	Not detected	1		ug/L	1	127-18-4	
Toluene	Not detected	1		ug/L	1	108-88-3	
Trichloroethene	Not detected	1		ug/L	1	79-01-6	
Trichlorofluoromethane	Not detected	1		ug/L	1	75-69-4	
Vinyl chloride	Not detected	1		ug/L	1	75-01-4	
o-Xylene	Not detected	1		ug/L	1	95-47-6	

Lab Sample ID: S40669.05 (continued)
Sample Tag: Trip Blank

Volatile Organics - Arcadis, Method: SW5030C/8260C, Run Date: 09/27/22 15:28, Analyst: BML (continued)

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
p,m-Xylene*	Not detected	2		ug/L	1		
Isopropylbenzene	Not detected	1		ug/L	1	98-82-8	
Cyclohexane	Not detected	1		ug/L	1	110-82-7	
1,1-Dichloroethane	Not detected	1		ug/L	1	75-34-3	
1,1-Dichloroethene	Not detected	1		ug/L	1	75-35-4	
Methyl Acetate	Not detected	10		ug/L	1	79-20-9	
Methyl cyclohexane	Not detected	1		ug/L	1	108-87-2	
1,1,2-Trichloro-1,2,2-trifluoroethane	Not detected	1		ug/L	1	76-13-1	
1,2-Dibromoethane	Not detected	1		ug/L	1	106-93-4	
1,1,2,2-Tetrachloroethane	Not detected	1		ug/L	1	79-34-5	
cis-1,3-Dichloropropene	Not detected	1		ug/L	1	10061-01-5	
trans-1,3-Dichloropropene	Not detected	1		ug/L	1	10061-02-6	

Merit Laboratories Login Checklist

Lab Set ID: S40669
Client: ARCADIS_NOVI (ARCADIS U.S., Inc.)
Project: Racer PNC / 30112891.00005
Submitted: 09/23/2022 16:00 Login User: PFD

Attention: Alexis Crisp
Address: Arcadis US, Inc.
28550 Cabot Drive
Suite 500
Novi, MI 48377

Phone: 810-225-1909 FAX:
Email: Alexis.Crisp@arcadis.com

Selection				Description	Note
Sample Receiving					
01.	[X] Yes	[ ] No	[ ] N/A	Samples are received at 4C +/- 2C Thermometer #	IR 3.2
02.	[X] Yes	[ ] No	[ ] N/A	Received on ice/ cooling process begun	
03.	[ ] Yes	[X] No	[ ] N/A	Samples shipped	
04.	[ ] Yes	[X] No	[ ] N/A	Samples left in 24 hr. drop box	
05.	[ ] Yes	[ ] No	[X] N/A	Are there custody seals/tape or is the drop box locked	
Chain of Custody					
06.	[X] Yes	[ ] No	[ ] N/A	COC adequately filled out	
07.	[X] Yes	[ ] No	[ ] N/A	COC signed and relinquished to the lab	
08.	[X] Yes	[ ] No	[ ] N/A	Sample tag on bottles match COC	
09.	[ ] Yes	[X] No	[ ] N/A	Subcontracting needed? Subcontacted to:	
Preservation					
10.	[X] Yes	[ ] No	[ ] N/A	Do sample have correct chemical preservation	
11.	[ ] Yes	[ ] No	[X] N/A	Completed pH checks on preserved samples? (no VOAs)	
12.	[ ] Yes	[X] No	[ ] N/A	Did any samples need to be preserved in the lab?	
Bottle Conditions					
13.	[X] Yes	[ ] No	[ ] N/A	All bottles intact	
14.	[X] Yes	[ ] No	[ ] N/A	Appropriate analytical bottles are used	
15.	[X] Yes	[ ] No	[ ] N/A	Merit bottles used	
16.	[X] Yes	[ ] No	[ ] N/A	Sufficient sample volume received	
17.	[ ] Yes	[X] No	[ ] N/A	Samples require laboratory filtration	
18.	[X] Yes	[ ] No	[ ] N/A	Samples submitted within holding time	
19.	[ ] Yes	[X] No	[ ] N/A	Do water VOC or TOX bottles contain headspace	

Corrective action for all exceptions is to call the client and to notify the project manager.

Client Review By: _____ Date: _____

Merit Laboratories, Inc.
2680 East Lansing Dr., East Lansing, MI 48823
Phone (517) 332-0167 Fax (517) 332-4034
www.meritlabs.com

C.O.C. PAGE # 1 OF 1

157357

CHAIN OF CUSTODY RECORD

REPORT TO

CONTACT NAME: Tiffany Linder
COMPANY: Arcadis
ADDRESS: 28550 Cabot Dr # 500
CITY: Novi STATE: MI ZIP CODE: 48377
PHONE NO.: — CELL NO.: —
P.O. NO.: 30112891.00005
E-MAIL ADDRESS: TIFFANY.LINDER@ARCADIS.COM ALEXIS.CRISP@ARCADIS.COM
QUOTE NO.:

INVOICE TO

CONTACT NAME: ☐ SAME
COMPANY:
ADDRESS:
CITY: STATE: ZIP CODE:
PHONE NO.: E-MAIL ADDRESS:

PROJECT NO./NAME: Kaiser INC30112891.00005
SAMPLER(S) - PLEASE PRINT/SIGN NAME: Lehcia Ferreira / [signature]

TURNAROUND TIME REQUIRED ☐ 1 DAY ☐ 2 DAYS ☐ 3 DAYS ☒ STANDARD ☐ OTHER

DELIVERABLES REQUIRED ☐ STD ☒ LEVEL II ☐ LEVEL III ☐ LEVEL IV ☒ EDD ☐ OTHER

MATRIX CODE: W=WATER GW=GROUNDWATER WW=WASTEWATER S=SOIL L=LIQUID SD=SOLID SL=SLUDGE DW=DRINKING WATER O=OIL WP=WIPE A=AIR WS=WASTE

ANALYSIS (ATTACH LIST IF MORE SPACE IS REQUIRED)

Certifications: ☐ OHIO VAP ☐ Drinking Water ☐ DoD ☐ NPDES
Project Locations: ☐ Detroit ☐ New York ☐ Other
Special Instructions

MERIT LAB NO. (FOR LAB USE ONLY)	COLLECTION DATE	COLLECTION TIME	SAMPLE TAG IDENTIFICATION-DESCRIPTION	MATRIX	# OF BOTTLES	# Containers & Preservatives: NONE	HCl	HNO_3	H_2SO_4	NaOH	MeOH	OTHER	Silica gel cleaned 8260 VOCs	8260C SIMS (1,4 Dioxane)	Special Instructions
40699.01	9/22/22	0910	MWF16-05_GW-092222	GW	3		X						X		
.02	9/22/22	1017	MWF16-18_GW-092222	GW	3		X						X		
.03	9/22/22	1207	MWF16-06_GW-092222	GW	3		X						X	X	
.04	9/22/22	1339	TW-12-22_GW-092222	GW	3		X						X		
.05	9/22/22	—	TRIP Blank	GW	1		~~X~~						X		TRIP Blank

RELINQUISHED BY: SIGNATURE/ORGANIZATION	Lehcia Ferreira ☒ Sampler	DATE 09/22/22	TIME 15:20	
RECEIVED BY: SIGNATURE/ORGANIZATION	Novi Cold storage	DATE 09/22/22	TIME 15:20	
RELINQUISHED BY: SIGNATURE/ORGANIZATION	Sommer Day	DATE 9/23/22	TIME	
RECEIVED BY: SIGNATURE/ORGANIZATION	[signature]	DATE 9/23/22	TIME 12:00	

RELINQUISHED BY: SIGNATURE/ORGANIZATION	[signature]	DATE 9/23/22	TIME 16:19	
RECEIVED BY: SIGNATURE/ORGANIZATION	Patriot 40	DATE 9/23/22	TIME 1620	
SEAL NO.	SEAL INTACT YES ☐ NO ☐	INITIALS	NOTES:	TEMP. ON ARRIVAL 3.2
SEAL NO.	SEAL INTACT YES ☐ NO ☐	INITIALS		

PLEASE NOTE: SIGNING ACKNOWLEDGES ADHERENCE TO MERIT'S SAMPLE ACCEPTANCE POLICY ON REVERSE SIDE

Rev. 1.26.22

Analytical Laboratory Report

Report ID: S40670.01(01)
Generated on 10/03/2022

Report to

Attention: Alexis Crisp
Arcadis US, Inc.
28550 Cabot Drive
Suite 500
Novi, MI 48377

Phone: 810-225-1909 FAX:
Email: Alexis.Crisp@arcadis.com

Addtional Contacts: Tiffany Linder, Ian Drost

Report produced by

Merit Laboratories, Inc.
2680 East Lansing Drive
East Lansing, MI 48823

Phone: (517) 332-0167 FAX: (517) 332-6333

Contacts for report questions:
John Laverty (johnlaverty@meritlabs.com)
Barbara Ball (bball@meritlabs.com)

Report Summary

Lab Sample ID(s): S40670.01-S40670.12
Project: 30112891.00005 / Racer PNC
Collected Date(s): 09/22/2022
Submitted Date/Time: 09/23/2022 16:00
Sampled by: Christina Weaver
P.O. #: 30112891.00005

Table of Contents

Maya Murshak
Technical Director

General Report Notes

Analytical results relate only to the samples tested, in the condition received by the laboratory.
Methods may be modified for improved performance.
Results reported on a dry weight basis where applicable.
'Not detected' indicates that parameter was not found at a level equal to or greater than the reporting limit (RL).
When MDL results are provided, then 'Not detected' indicates that parameter was not found at a level equal to or greater than the MDL.
40 CFR Part 136 Table II Required Containers, Preservation Techniques and Holding Times for the Clean Water Act specify that samples for acrolein and acrylonitrile, and 2-chloroethylvinyl ether need to be preserved at a pH in the range of 4 to 5 or if not preserved, analyzed within 3 days of sampling.
QA/QC corresponding to this analytical report is a separate document with the same Merit ID reference and is available upon request.
Full accreditation certificates are available upon request. Starred (*) analytes are not NELAP accredited.
Samples are held by the lab for 30 days from the final report date unless a written request to hold longer is provided by the client.
Report shall not be reproduced except in full, without the written approval of Merit Laboratories, Inc.
Limits for drinking water samples, are listed as the MCL Limits (Maximum Contaminant Level Concentrations)
PFAS requirement: Section 9.3.8 of U.S. EPA Method 537.1 states "If the method analyte(s) found in the Field Sample is present in the FRB at a concentration greater than 1/3 the MRL, then all samples collected with that FRB are invalid and must be recollected and reanalyzed."
Samples submitted without an accompanying FRB may not be acceptable for compliance purposes.
Wisconsin PFAs analysis: MDL = LOD; RL = LOQ. LOD and LOQ are adjusted for dilution.

Report Narrative

There is no additional narrative for this analytical report

Laboratory Certifications

Authority	Certification ID
Michigan DEQ	#9956
DOD ELAP/ISO 17025	#69699
WBENC	#2005110032
Ohio VAP	#CL0002
Indiana DOH	#C-MI-07
New York NELAC	#11814
North Carolina DENR	#680
North Carolina DOH	#26702
Alaska CSLAP	#17-001
Pennsylvania DEP	#68-05884
Wisconsin DNR	FID# 399147320

Qualifier Descriptions

Qualifier	Description
!	Result is outside of stated limit criteria
B	Compound also found in associated method blank
E	Concentration exceeds calibration range
F	Analysis run outside of holding time
G	Estimated result due to extraction run outside of holding time
H	Sample submitted and run outside of holding time
I	Matrix interference with internal standard
J	Estimated value less than reporting limit, but greater than MDL
L	Elevated reporting limit due to low sample amount
M	Result reported to MDL not RDL
O	Analysis performed by outside laboratory. See attached report.
R	Preliminary result
S	Surrogate recovery outside of control limits
T	No correction for total solids
X	Elevated reporting limit due to matrix interference
Y	Elevated reporting limit due to high target concentration
b	Value detected less than reporting limit, but greater than MDL
e	Reported value estimated due to interference
j	Analyte also found in associated method blank
p	Benzo(b)Fluoranthene and Benzo(k)Fluoranthene integrated as one peak.
x	Preserved from bulk sample

Glossary of Abbreviations

Abbreviation	Description
RL/RDL	Reporting Limit
MDL	Method Detection Limit
MS	Matrix Spike
MSD	Matrix Spike Duplicate
SW	EPA SW 846 (Soil and Wastewater) Methods
E	EPA Methods
SM	Standard Methods
LN	Linear
BR	Branched

Method Summary

Method	Version
E200.8	EPA Method 200.8 Revision 5.4
N/A	Not Applicable
SW3015A	SW 846 Method 3015A Revision 1 February 2007
SW5030C/8260C	SW 846 Method 8260C Revision 3 August 2006 / 5030C Revision 3 May 2003
SW8260B - SIM	SW 846 Method 8260B Revision 2 December 1996 SIMs

Sample Summary (12 samples)

Sample ID	Sample Tag	Matrix	Collected Date/Time
S40670.01	MWF16-22_GW-092222	Groundwater	09/22/22 11:05
S40670.02	MWF16-24_GW-092222	Groundwater	09/22/22 11:55
S40670.03	MWF12-01R_GW-092222	Groundwater	09/22/22 13:30
S40670.04	MWF12-01R_GW-092222	Groundwater	09/22/22 13:30
S40670.05	MWF12-01R_GW-092222	Groundwater	09/22/22 13:35
S40670.06	MW-02-17_GW-092222	Groundwater	09/22/22 14:45
S40670.07	Tripblank_54	Water	09/22/22 00:01
S40670.08	MW05-08_GW-092222	Groundwater	09/22/22 10:35
S40670.09	MW05-09R_GW-092222	Groundwater	09/22/22 11:30
S40670.10	MW05-10_GW-092222	Groundwater	09/22/22 12:35
S40670.11	MW05-10_GW-092222 MS	Groundwater	09/22/22 12:35
S40670.12	MW05-10_GW-092222 MSD	Groundwater	09/22/22 12:35

Lab Sample ID: S40670.01
Sample Tag: MWF16-22_GW-092222
Collected Date/Time: 09/22/2022 11:05
Matrix: Groundwater
COC Reference: 157356

Sample Containers

#	Type	Preservative(s)	Refrigerated?	Arrival Temp. (C)	Thermometer #
3	40ml Glass	HCL	Yes	3.2	IR

Extraction / Prep.

Parameter	Result	Method	Run Date	Analyst	Flags
pH check for VOCs*	<2	N/A	09/28/22 12:00	BML	

Organics - Volatiles

Volatile Organics - Arcadis, Method: SW5030C/8260C, Run Date: 09/27/22 19:36, Analyst: BML

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
Acetone	Not detected	50		ug/L	1	67-64-1	
2-Butanone (MEK)	Not detected	25		ug/L	1	78-93-3	
Benzene	Not detected	1		ug/L	1	71-43-2	
Bromodichloromethane	Not detected	1		ug/L	1	75-27-4	
Bromoform	Not detected	1		ug/L	1	75-25-2	
Bromomethane	Not detected	5		ug/L	1	74-83-9	
Carbon disulfide	Not detected	5		ug/L	1	75-15-0	
Carbon tetrachloride	Not detected	1		ug/L	1	56-23-5	
Chlorobenzene	Not detected	1		ug/L	1	108-90-7	
Chloroethane	Not detected	5		ug/L	1	75-00-3	
Chloroform	Not detected	1		ug/L	1	67-66-3	
Chloromethane	Not detected	5		ug/L	1	74-87-3	
1,2-Dibromo-3-chloropropane	Not detected	5		ug/L	1	96-12-8	
1,2-Dichlorobenzene	Not detected	1		ug/L	1	95-50-1	
1,2-Dichloroethane	Not detected	1		ug/L	1	107-06-2	
1,2-Dichloropropane	Not detected	1		ug/L	1	78-87-5	
1,3-Dichlorobenzene	Not detected	1		ug/L	1	541-73-1	
1,4-Dichlorobenzene	Not detected	1		ug/L	1	106-46-7	
cis-1,2-Dichloroethene	7	1		ug/L	1	156-59-2	
Dibromochloromethane	Not detected	5		ug/L	1	124-48-1	
Dichlorodifluoromethane	Not detected	5		ug/L	1	75-71-8	
trans-1,2-Dichloroethene	Not detected	1		ug/L	1	156-60-5	
Ethylbenzene	Not detected	1		ug/L	1	100-41-4	
2-Hexanone	Not detected	50		ug/L	1	591-78-6	
4-Methyl-2-pentanone (MIBK)	Not detected	50		ug/L	1	108-10-1	
tert-Methyl butyl ether (MTBE)	Not detected	5		ug/L	1	1634-04-4	
Methylene chloride	Not detected	5		ug/L	1	75-09-2	
Styrene	Not detected	1		ug/L	1	100-42-5	
1,1,1-Trichloroethane	2	1		ug/L	1	71-55-6	
1,1,2-Trichloroethane	Not detected	1		ug/L	1	79-00-5	
1,2,4-Trichlorobenzene	Not detected	5		ug/L	1	120-82-1	
Tetrachloroethene	76	1		ug/L	1	127-18-4	
Toluene	Not detected	1		ug/L	1	108-88-3	
Trichloroethene	2	1		ug/L	1	79-01-6	
Trichlorofluoromethane	Not detected	1		ug/L	1	75-69-4	
Vinyl chloride	Not detected	1		ug/L	1	75-01-4	
o-Xylene	Not detected	1		ug/L	1	95-47-6	

Lab Sample ID: S40670.01 (continued)
Sample Tag: MWF16-22_GW-092222

Volatile Organics - Arcadis, Method: SW5030C/8260C, Run Date: 09/27/22 19:36, Analyst: BML (continued)

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
p,m-Xylene*	Not detected	2		ug/L	1		
Isopropylbenzene	Not detected	1		ug/L	1	98-82-8	
Cyclohexane	Not detected	1		ug/L	1	110-82-7	
1,1-Dichloroethane	Not detected	1		ug/L	1	75-34-3	
1,1-Dichloroethene	Not detected	1		ug/L	1	75-35-4	
Methyl Acetate	Not detected	10		ug/L	1	79-20-9	
Methyl cyclohexane	Not detected	1		ug/L	1	108-87-2	
1,1,2-Trichloro-1,2,2-trifluoroethane	Not detected	1		ug/L	1	76-13-1	
1,2-Dibromoethane	Not detected	1		ug/L	1	106-93-4	
1,1,2,2-Tetrachloroethane	Not detected	1		ug/L	1	79-34-5	
cis-1,3-Dichloropropene	Not detected	1		ug/L	1	10061-01-5	
trans-1,3-Dichloropropene	Not detected	1		ug/L	1	10061-02-6	

Lab Sample ID: S40670.02
Sample Tag: MWF16-24_GW-092222
Collected Date/Time: 09/22/2022 11:55
Matrix: Groundwater
COC Reference: 157356

Sample Containers

#	Type	Preservative(s)	Refrigerated?	Arrival Temp. (C)	Thermometer #
3	40ml Glass	HCL	Yes	3.2	IR

Extraction / Prep.

Parameter	Result	Method	Run Date	Analyst	Flags
pH check for VOCs*	<2	N/A	09/28/22 12:00	BML	

Organics - Volatiles

Volatile Organics - Arcadis, Method: SW5030C/8260C, Run Date: 09/27/22 19:56, Analyst: BML

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
Acetone	Not detected	50		ug/L	1	67-64-1	
2-Butanone (MEK)	Not detected	25		ug/L	1	78-93-3	
Benzene	Not detected	1		ug/L	1	71-43-2	
Bromodichloromethane	Not detected	1		ug/L	1	75-27-4	
Bromoform	Not detected	1		ug/L	1	75-25-2	
Bromomethane	Not detected	5		ug/L	1	74-83-9	
Carbon disulfide	Not detected	5		ug/L	1	75-15-0	
Carbon tetrachloride	Not detected	1		ug/L	1	56-23-5	
Chlorobenzene	Not detected	1		ug/L	1	108-90-7	
Chloroethane	Not detected	5		ug/L	1	75-00-3	
Chloroform	Not detected	1		ug/L	1	67-66-3	
Chloromethane	Not detected	5		ug/L	1	74-87-3	
1,2-Dibromo-3-chloropropane	Not detected	5		ug/L	1	96-12-8	
1,2-Dichlorobenzene	Not detected	1		ug/L	1	95-50-1	
1,2-Dichloroethane	Not detected	1		ug/L	1	107-06-2	
1,2-Dichloropropane	Not detected	1		ug/L	1	78-87-5	
1,3-Dichlorobenzene	Not detected	1		ug/L	1	541-73-1	
1,4-Dichlorobenzene	Not detected	1		ug/L	1	106-46-7	
cis-1,2-Dichloroethene	Not detected	1		ug/L	1	156-59-2	
Dibromochloromethane	Not detected	5		ug/L	1	124-48-1	
Dichlorodifluoromethane	Not detected	5		ug/L	1	75-71-8	
trans-1,2-Dichloroethene	Not detected	1		ug/L	1	156-60-5	
Ethylbenzene	Not detected	1		ug/L	1	100-41-4	
2-Hexanone	Not detected	50		ug/L	1	591-78-6	
4-Methyl-2-pentanone (MIBK)	Not detected	50		ug/L	1	108-10-1	
tert-Methyl butyl ether (MTBE)	Not detected	5		ug/L	1	1634-04-4	
Methylene chloride	Not detected	5		ug/L	1	75-09-2	
Styrene	Not detected	1		ug/L	1	100-42-5	
1,1,1-Trichloroethane	2	1		ug/L	1	71-55-6	
1,1,2-Trichloroethane	Not detected	1		ug/L	1	79-00-5	
1,2,4-Trichlorobenzene	Not detected	5		ug/L	1	120-82-1	
Tetrachloroethene	Not detected	1		ug/L	1	127-18-4	
Toluene	Not detected	1		ug/L	1	108-88-3	
Trichloroethene	Not detected	1		ug/L	1	79-01-6	
Trichlorofluoromethane	Not detected	1		ug/L	1	75-69-4	
Vinyl chloride	Not detected	1		ug/L	1	75-01-4	
o-Xylene	Not detected	1		ug/L	1	95-47-6	

Lab Sample ID: S40670.02 (continued)
Sample Tag: MWF16-24_GW-092222

Volatile Organics - Arcadis, Method: SW5030C/8260C, Run Date: 09/27/22 19:56, Analyst: BML (continued)

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
p,m-Xylene*	Not detected	2		ug/L	1		
Isopropylbenzene	Not detected	1		ug/L	1	98-82-8	
Cyclohexane	Not detected	1		ug/L	1	110-82-7	
1,1-Dichloroethane	Not detected	1		ug/L	1	75-34-3	
1,1-Dichloroethene	Not detected	1		ug/L	1	75-35-4	
Methyl Acetate	Not detected	10		ug/L	1	79-20-9	
Methyl cyclohexane	Not detected	1		ug/L	1	108-87-2	
1,1,2-Trichloro-1,2,2-trifluoroethane	Not detected	1		ug/L	1	76-13-1	
1,2-Dibromoethane	Not detected	1		ug/L	1	106-93-4	
1,1,2,2-Tetrachloroethane	Not detected	1		ug/L	1	79-34-5	
cis-1,3-Dichloropropene	Not detected	1		ug/L	1	10061-01-5	
trans-1,3-Dichloropropene	Not detected	1		ug/L	1	10061-02-6	

Lab Sample ID: S40670.03
Sample Tag: MWF12-01R_GW-092222
Collected Date/Time: 09/22/2022 13:30
Matrix: Groundwater
COC Reference: 157356

Sample Containers

#	Type	Preservative(s)	Refrigerated?	Arrival Temp. (C)	Thermometer #
3	40ml Glass	HCL	Yes	3.2	IR

Extraction / Prep.

Parameter	Result	Method	Run Date	Analyst	Flags
pH check for VOCs*	<2	N/A	09/27/22 10:00	BML	

Organics - Volatiles

Method: SW8260B - SIM, Run Date: 09/26/22 22:51, Analyst: KAG

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
1,4-Dioxane*	40	1		ug/L	1	123-91-1	

Volatile Organics - Arcadis, Method: SW5030C/8260C, Run Date: 09/27/22 20:15, Analyst: BML

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
Acetone	Not detected	50		ug/L	1	67-64-1	
2-Butanone (MEK)	Not detected	25		ug/L	1	78-93-3	
Benzene	Not detected	1		ug/L	1	71-43-2	
Bromodichloromethane	Not detected	1		ug/L	1	75-27-4	
Bromoform	Not detected	1		ug/L	1	75-25-2	
Bromomethane	Not detected	5		ug/L	1	74-83-9	
Carbon disulfide	Not detected	5		ug/L	1	75-15-0	
Carbon tetrachloride	Not detected	1		ug/L	1	56-23-5	
Chlorobenzene	Not detected	1		ug/L	1	108-90-7	
Chloroethane	Not detected	5		ug/L	1	75-00-3	
Chloroform	Not detected	1		ug/L	1	67-66-3	
Chloromethane	Not detected	5		ug/L	1	74-87-3	
1,2-Dibromo-3-chloropropane	Not detected	5		ug/L	1	96-12-8	
1,2-Dichlorobenzene	Not detected	1		ug/L	1	95-50-1	
1,2-Dichloroethane	Not detected	1		ug/L	1	107-06-2	
1,2-Dichloropropane	Not detected	1		ug/L	1	78-87-5	
1,3-Dichlorobenzene	Not detected	1		ug/L	1	541-73-1	
1,4-Dichlorobenzene	Not detected	1		ug/L	1	106-46-7	
cis-1,2-Dichloroethene	Not detected	1		ug/L	1	156-59-2	
Dibromochloromethane	Not detected	5		ug/L	1	124-48-1	
Dichlorodifluoromethane	Not detected	5		ug/L	1	75-71-8	
trans-1,2-Dichloroethene	Not detected	1		ug/L	1	156-60-5	
Ethylbenzene	Not detected	1		ug/L	1	100-41-4	
2-Hexanone	Not detected	50		ug/L	1	591-78-6	
4-Methyl-2-pentanone (MIBK)	Not detected	50		ug/L	1	108-10-1	
tert-Methyl butyl ether (MTBE)	Not detected	5		ug/L	1	1634-04-4	
Methylene chloride	Not detected	5		ug/L	1	75-09-2	
Styrene	Not detected	1		ug/L	1	100-42-5	
1,1,1-Trichloroethane	47	1		ug/L	1	71-55-6	
1,1,2-Trichloroethane	Not detected	1		ug/L	1	79-00-5	
1,2,4-Trichlorobenzene	Not detected	5		ug/L	1	120-82-1	
Tetrachloroethene	Not detected	1		ug/L	1	127-18-4	
Toluene	Not detected	1		ug/L	1	108-88-3	

Lab Sample ID: S40670.03 (continued)
Sample Tag: MWF12-01R_GW-092222

Volatile Organics - Arcadis, Method: SW5030C/8260C, Run Date: 09/27/22 20:15, Analyst: BML (continued)

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
Trichloroethene	Not detected	1		ug/L	1	79-01-6	
Trichlorofluoromethane	Not detected	1		ug/L	1	75-69-4	
Vinyl chloride	Not detected	1		ug/L	1	75-01-4	
o-Xylene	Not detected	1		ug/L	1	95-47-6	
p,m-Xylene*	Not detected	2		ug/L	1		
Isopropylbenzene	Not detected	1		ug/L	1	98-82-8	
Cyclohexane	Not detected	1		ug/L	1	110-82-7	
1,1-Dichloroethane	5	1		ug/L	1	75-34-3	
1,1-Dichloroethene	1	1		ug/L	1	75-35-4	
Methyl Acetate	Not detected	10		ug/L	1	79-20-9	
Methyl cyclohexane	Not detected	1		ug/L	1	108-87-2	
1,1,2-Trichloro-1,2,2-trifluoroethane	Not detected	1		ug/L	1	76-13-1	
1,2-Dibromoethane	Not detected	1		ug/L	1	106-93-4	
1,1,2,2-Tetrachloroethane	Not detected	1		ug/L	1	79-34-5	
cis-1,3-Dichloropropene	Not detected	1		ug/L	1	10061-01-5	
trans-1,3-Dichloropropene	Not detected	1		ug/L	1	10061-02-6	

Lab Sample ID: S40670.04
Sample Tag: MWF12-01R_GW-092222
Collected Date/Time: 09/22/2022 13:30
Matrix: Groundwater
COC Reference: 157356

Sample Containers

#	Type	Preservative(s)	Refrigerated?	Arrival Temp. (C)	Thermometer #
1	125ml Plastic	HNO3	Yes	3.2	IR

Extraction / Prep.

Parameter	Result	Method	Run Date	Analyst	Flags
Metal Digestion	Completed	SW3015A	10/03/22 10:00	CCM	

Metals

Method: E200.8, Run Date: 10/03/22 11:38, Analyst: CCM

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
Manganese	0.801	0.005		mg/L	5	7439-96-5	

Lab Sample ID: S40670.05
Sample Tag: MWF12-01R_GW-092222
Collected Date/Time: 09/22/2022 13:35
Matrix: Groundwater
COC Reference: 157356

Sample Containers

#	Type	Preservative(s)	Refrigerated?	Arrival Temp. (C)	Thermometer #
1	125ml Plastic	HNO3	Yes	3.2	IR

Extraction / Prep.

Parameter	Result	Method	Run Date	Analyst	Flags
Metal Digestion	Completed	SW3015A	10/03/22 10:00	CCM	

Metals

Method: E200.8, Run Date: 10/03/22 11:41, Analyst: CCM

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
Manganese, Dissolved	0.698	0.005		mg/L	5	7439-96-5	

Lab Sample ID: S40670.06
Sample Tag: MW-02-17_GW-092222
Collected Date/Time: 09/22/2022 14:45
Matrix: Groundwater
COC Reference: 157356

Sample Containers

#	Type	Preservative(s)	Refrigerated?	Arrival Temp. (C)	Thermometer #
3	40ml Glass	HCL	Yes	3.2	IR

Extraction / Prep.

Parameter	Result	Method	Run Date	Analyst	Flags
pH check for VOCs*	<2	N/A	09/27/22 10:00	BML	

Organics - Volatiles

Method: SW8260B - SIM, Run Date: 09/26/22 23:13, Analyst: KAG

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
1,4-Dioxane*	5	1		ug/L	1	123-91-1	

Volatile Organics - Arcadis, Method: SW5030C/8260C, Run Date: 09/27/22 20:34, Analyst: BML

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
Acetone	Not detected	50		ug/L	1	67-64-1	
2-Butanone (MEK)	Not detected	25		ug/L	1	78-93-3	
Benzene	Not detected	1		ug/L	1	71-43-2	
Bromodichloromethane	Not detected	1		ug/L	1	75-27-4	
Bromoform	Not detected	1		ug/L	1	75-25-2	
Bromomethane	Not detected	5		ug/L	1	74-83-9	
Carbon disulfide	Not detected	5		ug/L	1	75-15-0	
Carbon tetrachloride	Not detected	1		ug/L	1	56-23-5	
Chlorobenzene	Not detected	1		ug/L	1	108-90-7	
Chloroethane	Not detected	5		ug/L	1	75-00-3	
Chloroform	Not detected	1		ug/L	1	67-66-3	
Chloromethane	Not detected	5		ug/L	1	74-87-3	
1,2-Dibromo-3-chloropropane	Not detected	5		ug/L	1	96-12-8	
1,2-Dichlorobenzene	Not detected	1		ug/L	1	95-50-1	
1,2-Dichloroethane	Not detected	1		ug/L	1	107-06-2	
1,2-Dichloropropane	Not detected	1		ug/L	1	78-87-5	
1,3-Dichlorobenzene	Not detected	1		ug/L	1	541-73-1	
1,4-Dichlorobenzene	Not detected	1		ug/L	1	106-46-7	
cis-1,2-Dichloroethene	Not detected	1		ug/L	1	156-59-2	
Dibromochloromethane	Not detected	5		ug/L	1	124-48-1	
Dichlorodifluoromethane	Not detected	5		ug/L	1	75-71-8	
trans-1,2-Dichloroethene	Not detected	1		ug/L	1	156-60-5	
Ethylbenzene	Not detected	1		ug/L	1	100-41-4	
2-Hexanone	Not detected	50		ug/L	1	591-78-6	
4-Methyl-2-pentanone (MIBK)	Not detected	50		ug/L	1	108-10-1	
tert-Methyl butyl ether (MTBE)	Not detected	5		ug/L	1	1634-04-4	
Methylene chloride	Not detected	5		ug/L	1	75-09-2	
Styrene	Not detected	1		ug/L	1	100-42-5	
1,1,1-Trichloroethane	6	1		ug/L	1	71-55-6	
1,1,2-Trichloroethane	Not detected	1		ug/L	1	79-00-5	
1,2,4-Trichlorobenzene	Not detected	5		ug/L	1	120-82-1	
Tetrachloroethene	8	1		ug/L	1	127-18-4	
Toluene	Not detected	1		ug/L	1	108-88-3	

Lab Sample ID: S40670.06 (continued)
Sample Tag: MW-02-17_GW-092222

Volatile Organics - Arcadis, Method: SW5030C/8260C, Run Date: 09/27/22 20:34, Analyst: BML (continued)

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
Trichloroethene	2	1		ug/L	1	79-01-6	
Trichlorofluoromethane	Not detected	1		ug/L	1	75-69-4	
Vinyl chloride	Not detected	1		ug/L	1	75-01-4	
o-Xylene	Not detected	1		ug/L	1	95-47-6	
p,m-Xylene*	Not detected	2		ug/L	1		
Isopropylbenzene	Not detected	1		ug/L	1	98-82-8	
Cyclohexane	Not detected	1		ug/L	1	110-82-7	
1,1-Dichloroethane	2	1		ug/L	1	75-34-3	
1,1-Dichloroethene	Not detected	1		ug/L	1	75-35-4	
Methyl Acetate	Not detected	10		ug/L	1	79-20-9	
Methyl cyclohexane	Not detected	1		ug/L	1	108-87-2	
1,1,2-Trichloro-1,2,2-trifluoroethane	Not detected	1		ug/L	1	76-13-1	
1,2-Dibromoethane	Not detected	1		ug/L	1	106-93-4	
1,1,2,2-Tetrachloroethane	Not detected	1		ug/L	1	79-34-5	
cis-1,3-Dichloropropene	Not detected	1		ug/L	1	10061-01-5	
trans-1,3-Dichloropropene	Not detected	1		ug/L	1	10061-02-6	

Lab Sample ID: S40670.07
Sample Tag: Tripblank_54
Collected Date/Time: 09/22/2022 00:01
Matrix: Water
COC Reference: 157356

Sample Containers

#	Type	Preservative(s)	Refrigerated?	Arrival Temp. (C)	Thermometer #
1	40ml Glass	HCL	Yes	3.2	IR

Extraction / Prep.

Parameter	Result	Method	Run Date	Analyst	Flags
pH check for VOCs*	<2	N/A	09/28/22 12:00	BML	

Organics - Volatiles

Volatile Organics - Arcadis, Method: SW5030C/8260C, Run Date: 09/27/22 15:47, Analyst: BML

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
Acetone	Not detected	50		ug/L	1	67-64-1	
2-Butanone (MEK)	Not detected	25		ug/L	1	78-93-3	
Benzene	Not detected	1		ug/L	1	71-43-2	
Bromodichloromethane	Not detected	1		ug/L	1	75-27-4	
Bromoform	Not detected	1		ug/L	1	75-25-2	
Bromomethane	Not detected	5		ug/L	1	74-83-9	
Carbon disulfide	Not detected	5		ug/L	1	75-15-0	
Carbon tetrachloride	Not detected	1		ug/L	1	56-23-5	
Chlorobenzene	Not detected	1		ug/L	1	108-90-7	
Chloroethane	Not detected	5		ug/L	1	75-00-3	
Chloroform	Not detected	1		ug/L	1	67-66-3	
Chloromethane	Not detected	5		ug/L	1	74-87-3	
1,2-Dibromo-3-chloropropane	Not detected	5		ug/L	1	96-12-8	
1,2-Dichlorobenzene	Not detected	1		ug/L	1	95-50-1	
1,2-Dichloroethane	Not detected	1		ug/L	1	107-06-2	
1,2-Dichloropropane	Not detected	1		ug/L	1	78-87-5	
1,3-Dichlorobenzene	Not detected	1		ug/L	1	541-73-1	
1,4-Dichlorobenzene	Not detected	1		ug/L	1	106-46-7	
cis-1,2-Dichloroethene	Not detected	1		ug/L	1	156-59-2	
Dibromochloromethane	Not detected	5		ug/L	1	124-48-1	
Dichlorodifluoromethane	Not detected	5		ug/L	1	75-71-8	
trans-1,2-Dichloroethene	Not detected	1		ug/L	1	156-60-5	
Ethylbenzene	Not detected	1		ug/L	1	100-41-4	
2-Hexanone	Not detected	50		ug/L	1	591-78-6	
4-Methyl-2-pentanone (MIBK)	Not detected	50		ug/L	1	108-10-1	
tert-Methyl butyl ether (MTBE)	Not detected	5		ug/L	1	1634-04-4	
Methylene chloride	Not detected	5		ug/L	1	75-09-2	
Styrene	Not detected	1		ug/L	1	100-42-5	
1,1,1-Trichloroethane	Not detected	1		ug/L	1	71-55-6	
1,1,2-Trichloroethane	Not detected	1		ug/L	1	79-00-5	
1,2,4-Trichlorobenzene	Not detected	5		ug/L	1	120-82-1	
Tetrachloroethene	Not detected	1		ug/L	1	127-18-4	
Toluene	Not detected	1		ug/L	1	108-88-3	
Trichloroethene	Not detected	1		ug/L	1	79-01-6	
Trichlorofluoromethane	Not detected	1		ug/L	1	75-69-4	
Vinyl chloride	Not detected	1		ug/L	1	75-01-4	
o-Xylene	Not detected	1		ug/L	1	95-47-6	

Lab Sample ID: S40670.07 (continued)
Sample Tag: Tripblank_54

Volatile Organics - Arcadis, Method: SW5030C/8260C, Run Date: 09/27/22 15:47, Analyst: BML (continued)

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
p,m-Xylene*	Not detected	2		ug/L	1		
Isopropylbenzene	Not detected	1		ug/L	1	98-82-8	
Cyclohexane	Not detected	1		ug/L	1	110-82-7	
1,1-Dichloroethane	Not detected	1		ug/L	1	75-34-3	
1,1-Dichloroethene	Not detected	1		ug/L	1	75-35-4	
Methyl Acetate	Not detected	10		ug/L	1	79-20-9	
Methyl cyclohexane	Not detected	1		ug/L	1	108-87-2	
1,1,2-Trichloro-1,2,2-trifluoroethane	Not detected	1		ug/L	1	76-13-1	
1,2-Dibromoethane	Not detected	1		ug/L	1	106-93-4	
1,1,2,2-Tetrachloroethane	Not detected	1		ug/L	1	79-34-5	
cis-1,3-Dichloropropene	Not detected	1		ug/L	1	10061-01-5	
trans-1,3-Dichloropropene	Not detected	1		ug/L	1	10061-02-6	

Lab Sample ID: S40670.08
Sample Tag: MW05-08_GW-092222
Collected Date/Time: 09/22/2022 10:35
Matrix: Groundwater
COC Reference: 157356

Sample Containers

#	Type	Preservative(s)	Refrigerated?	Arrival Temp. (C)	Thermometer #
3	40ml Glass	HCL	Yes	3.2	IR

Extraction / Prep.

Parameter	Result	Method	Run Date	Analyst	Flags
pH check for VOCs*	<2	N/A	09/28/22 12:00	BML	

Organics - Volatiles

Volatile Organics - Arcadis, Method: SW5030C/8260C, Run Date: 09/27/22 20:53, Analyst: BML

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
Acetone	Not detected	50		ug/L	1	67-64-1	
2-Butanone (MEK)	Not detected	25		ug/L	1	78-93-3	
Benzene	Not detected	1		ug/L	1	71-43-2	
Bromodichloromethane	Not detected	1		ug/L	1	75-27-4	
Bromoform	Not detected	1		ug/L	1	75-25-2	
Bromomethane	Not detected	5		ug/L	1	74-83-9	
Carbon disulfide	Not detected	5		ug/L	1	75-15-0	
Carbon tetrachloride	Not detected	1		ug/L	1	56-23-5	
Chlorobenzene	Not detected	1		ug/L	1	108-90-7	
Chloroethane	Not detected	5		ug/L	1	75-00-3	
Chloroform	Not detected	1		ug/L	1	67-66-3	
Chloromethane	Not detected	5		ug/L	1	74-87-3	
1,2-Dibromo-3-chloropropane	Not detected	5		ug/L	1	96-12-8	
1,2-Dichlorobenzene	Not detected	1		ug/L	1	95-50-1	
1,2-Dichloroethane	Not detected	1		ug/L	1	107-06-2	
1,2-Dichloropropane	Not detected	1		ug/L	1	78-87-5	
1,3-Dichlorobenzene	Not detected	1		ug/L	1	541-73-1	
1,4-Dichlorobenzene	Not detected	1		ug/L	1	106-46-7	
cis-1,2-Dichloroethene	3	1		ug/L	1	156-59-2	
Dibromochloromethane	Not detected	5		ug/L	1	124-48-1	
Dichlorodifluoromethane	Not detected	5		ug/L	1	75-71-8	
trans-1,2-Dichloroethene	Not detected	1		ug/L	1	156-60-5	
Ethylbenzene	Not detected	1		ug/L	1	100-41-4	
2-Hexanone	Not detected	50		ug/L	1	591-78-6	
4-Methyl-2-pentanone (MIBK)	Not detected	50		ug/L	1	108-10-1	
tert-Methyl butyl ether (MTBE)	Not detected	5		ug/L	1	1634-04-4	
Methylene chloride	Not detected	5		ug/L	1	75-09-2	
Styrene	Not detected	1		ug/L	1	100-42-5	
1,1,1-Trichloroethane	4	1		ug/L	1	71-55-6	
1,1,2-Trichloroethane	Not detected	1		ug/L	1	79-00-5	
1,2,4-Trichlorobenzene	Not detected	5		ug/L	1	120-82-1	
Tetrachloroethene	Not detected	1		ug/L	1	127-18-4	
Toluene	Not detected	1		ug/L	1	108-88-3	
Trichloroethene	Not detected	1		ug/L	1	79-01-6	
Trichlorofluoromethane	Not detected	1		ug/L	1	75-69-4	
Vinyl chloride	Not detected	1		ug/L	1	75-01-4	
o-Xylene	Not detected	1		ug/L	1	95-47-6	

Lab Sample ID: S40670.08 (continued)
Sample Tag: MW05-08_GW-092222

Volatile Organics - Arcadis, Method: SW5030C/8260C, Run Date: 09/27/22 20:53, Analyst: BML (continued)

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
p,m-Xylene*	Not detected	2		ug/L	1		
Isopropylbenzene	Not detected	1		ug/L	1	98-82-8	
Cyclohexane	Not detected	1		ug/L	1	110-82-7	
1,1-Dichloroethane	Not detected	1		ug/L	1	75-34-3	
1,1-Dichloroethene	Not detected	1		ug/L	1	75-35-4	
Methyl Acetate	Not detected	10		ug/L	1	79-20-9	
Methyl cyclohexane	Not detected	1		ug/L	1	108-87-2	
1,1,2-Trichloro-1,2,2-trifluoroethane	Not detected	1		ug/L	1	76-13-1	
1,2-Dibromoethane	Not detected	1		ug/L	1	106-93-4	
1,1,2,2-Tetrachloroethane	Not detected	1		ug/L	1	79-34-5	
cis-1,3-Dichloropropene	Not detected	1		ug/L	1	10061-01-5	
trans-1,3-Dichloropropene	Not detected	1		ug/L	1	10061-02-6	

Lab Sample ID: S40670.09
Sample Tag: MW05-09R_GW-092222
Collected Date/Time: 09/22/2022 11:30
Matrix: Groundwater
COC Reference: 157356

Sample Containers

#	Type	Preservative(s)	Refrigerated?	Arrival Temp. (C)	Thermometer #
3	40ml Glass	HCL	Yes	3.2	IR

Extraction / Prep.

Parameter	Result	Method	Run Date	Analyst	Flags
pH check for VOCs*	<2	N/A	09/28/22 12:00	BML	

Organics - Volatiles

Volatile Organics - Arcadis, Method: SW5030C/8260C, Run Date: 09/27/22 21:13, Analyst: BML

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
Acetone	Not detected	50		ug/L	1	67-64-1	
2-Butanone (MEK)	Not detected	25		ug/L	1	78-93-3	
Benzene	Not detected	1		ug/L	1	71-43-2	
Bromodichloromethane	Not detected	1		ug/L	1	75-27-4	
Bromoform	Not detected	1		ug/L	1	75-25-2	
Bromomethane	Not detected	5		ug/L	1	74-83-9	
Carbon disulfide	Not detected	5		ug/L	1	75-15-0	
Carbon tetrachloride	Not detected	1		ug/L	1	56-23-5	
Chlorobenzene	Not detected	1		ug/L	1	108-90-7	
Chloroethane	Not detected	5		ug/L	1	75-00-3	
Chloroform	Not detected	1		ug/L	1	67-66-3	
Chloromethane	Not detected	5		ug/L	1	74-87-3	
1,2-Dibromo-3-chloropropane	Not detected	5		ug/L	1	96-12-8	
1,2-Dichlorobenzene	Not detected	1		ug/L	1	95-50-1	
1,2-Dichloroethane	Not detected	1		ug/L	1	107-06-2	
1,2-Dichloropropane	Not detected	1		ug/L	1	78-87-5	
1,3-Dichlorobenzene	Not detected	1		ug/L	1	541-73-1	
1,4-Dichlorobenzene	Not detected	1		ug/L	1	106-46-7	
cis-1,2-Dichloroethene	22	1		ug/L	1	156-59-2	
Dibromochloromethane	Not detected	5		ug/L	1	124-48-1	
Dichlorodifluoromethane	Not detected	5		ug/L	1	75-71-8	
trans-1,2-Dichloroethene	2	1		ug/L	1	156-60-5	
Ethylbenzene	Not detected	1		ug/L	1	100-41-4	
2-Hexanone	Not detected	50		ug/L	1	591-78-6	
4-Methyl-2-pentanone (MIBK)	Not detected	50		ug/L	1	108-10-1	
tert-Methyl butyl ether (MTBE)	Not detected	5		ug/L	1	1634-04-4	
Methylene chloride	Not detected	5		ug/L	1	75-09-2	
Styrene	Not detected	1		ug/L	1	100-42-5	
1,1,1-Trichloroethane	3	1		ug/L	1	71-55-6	
1,1,2-Trichloroethane	Not detected	1		ug/L	1	79-00-5	
1,2,4-Trichlorobenzene	Not detected	5		ug/L	1	120-82-1	
Tetrachloroethene	15	1		ug/L	1	127-18-4	
Toluene	Not detected	1		ug/L	1	108-88-3	
Trichloroethene	3	1		ug/L	1	79-01-6	
Trichlorofluoromethane	Not detected	1		ug/L	1	75-69-4	
Vinyl chloride	Not detected	1		ug/L	1	75-01-4	
o-Xylene	Not detected	1		ug/L	1	95-47-6	

Lab Sample ID: S40670.09 (continued)
Sample Tag: MW05-09R_GW-092222

Volatile Organics - Arcadis, Method: SW5030C/8260C, Run Date: 09/27/22 21:13, Analyst: BML (continued)

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
p,m-Xylene*	Not detected	2		ug/L	1		
Isopropylbenzene	Not detected	1		ug/L	1	98-82-8	
Cyclohexane	Not detected	1		ug/L	1	110-82-7	
1,1-Dichloroethane	4	1		ug/L	1	75-34-3	
1,1-Dichloroethene	Not detected	1		ug/L	1	75-35-4	
Methyl Acetate	Not detected	10		ug/L	1	79-20-9	
Methyl cyclohexane	Not detected	1		ug/L	1	108-87-2	
1,1,2-Trichloro-1,2,2-trifluoroethane	Not detected	1		ug/L	1	76-13-1	
1,2-Dibromoethane	Not detected	1		ug/L	1	106-93-4	
1,1,2,2-Tetrachloroethane	Not detected	1		ug/L	1	79-34-5	
cis-1,3-Dichloropropene	Not detected	1		ug/L	1	10061-01-5	
trans-1,3-Dichloropropene	Not detected	1		ug/L	1	10061-02-6	

Lab Sample ID: S40670.10
Sample Tag: MW05-10_GW-092222
Collected Date/Time: 09/22/2022 12:35
Matrix: Groundwater
COC Reference: 157356

Sample Containers

#	Type	Preservative(s)	Refrigerated?	Arrival Temp. (C)	Thermometer #
3	40ml Glass	HCL	Yes	3.2	IR

Extraction / Prep.

Parameter	Result	Method	Run Date	Analyst	Flags
pH check for VOCs*	<2	N/A	09/28/22 12:00	BML	

Organics - Volatiles

Volatile Organics - Arcadis, Method: SW5030C/8260C, Run Date: 09/28/22 15:05, Analyst: BML

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
Acetone	Not detected	50		ug/L	1	67-64-1	
2-Butanone (MEK)	Not detected	25		ug/L	1	78-93-3	
Benzene	Not detected	1		ug/L	1	71-43-2	
Bromodichloromethane	Not detected	1		ug/L	1	75-27-4	
Bromoform	Not detected	1		ug/L	1	75-25-2	
Bromomethane	Not detected	5		ug/L	1	74-83-9	
Carbon disulfide	Not detected	5		ug/L	1	75-15-0	
Carbon tetrachloride	Not detected	1		ug/L	1	56-23-5	
Chlorobenzene	Not detected	1		ug/L	1	108-90-7	
Chloroethane	Not detected	5		ug/L	1	75-00-3	
Chloroform	Not detected	1		ug/L	1	67-66-3	
Chloromethane	Not detected	5		ug/L	1	74-87-3	
1,2-Dibromo-3-chloropropane	Not detected	5		ug/L	1	96-12-8	
1,2-Dichlorobenzene	Not detected	1		ug/L	1	95-50-1	
1,2-Dichloroethane	Not detected	1		ug/L	1	107-06-2	
1,2-Dichloropropane	Not detected	1		ug/L	1	78-87-5	
1,3-Dichlorobenzene	Not detected	1		ug/L	1	541-73-1	
1,4-Dichlorobenzene	Not detected	1		ug/L	1	106-46-7	
cis-1,2-Dichloroethene	4	1		ug/L	1	156-59-2	
Dibromochloromethane	Not detected	5		ug/L	1	124-48-1	
Dichlorodifluoromethane	Not detected	5		ug/L	1	75-71-8	
trans-1,2-Dichloroethene	Not detected	1		ug/L	1	156-60-5	
Ethylbenzene	Not detected	1		ug/L	1	100-41-4	
2-Hexanone	Not detected	50		ug/L	1	591-78-6	
4-Methyl-2-pentanone (MIBK)	Not detected	50		ug/L	1	108-10-1	
tert-Methyl butyl ether (MTBE)	Not detected	5		ug/L	1	1634-04-4	
Methylene chloride	Not detected	5		ug/L	1	75-09-2	
Styrene	Not detected	1		ug/L	1	100-42-5	
1,1,1-Trichloroethane	4	1		ug/L	1	71-55-6	
1,1,2-Trichloroethane	Not detected	1		ug/L	1	79-00-5	
1,2,4-Trichlorobenzene	Not detected	5		ug/L	1	120-82-1	
Tetrachloroethene	Not detected	1		ug/L	1	127-18-4	
Toluene	Not detected	1		ug/L	1	108-88-3	
Trichloroethene	8	1		ug/L	1	79-01-6	
Trichlorofluoromethane	Not detected	1		ug/L	1	75-69-4	
Vinyl chloride	Not detected	1		ug/L	1	75-01-4	
o-Xylene	Not detected	1		ug/L	1	95-47-6	

Lab Sample ID: S40670.10 (continued)
Sample Tag: MW05-10_GW-092222

Volatile Organics - Arcadis, Method: SW5030C/8260C, Run Date: 09/28/22 15:05, Analyst: BML (continued)

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
p,m-Xylene*	Not detected	2		ug/L	1		
Isopropylbenzene	Not detected	1		ug/L	1	98-82-8	
Cyclohexane	Not detected	1		ug/L	1	110-82-7	
1,1-Dichloroethane	4	1		ug/L	1	75-34-3	
1,1-Dichloroethene	Not detected	1		ug/L	1	75-35-4	
Methyl Acetate	Not detected	10		ug/L	1	79-20-9	
Methyl cyclohexane	Not detected	1		ug/L	1	108-87-2	
1,1,2-Trichloro-1,2,2-trifluoroethane	Not detected	1		ug/L	1	76-13-1	
1,2-Dibromoethane	Not detected	1		ug/L	1	106-93-4	
1,1,2,2-Tetrachloroethane	Not detected	1		ug/L	1	79-34-5	
cis-1,3-Dichloropropene	Not detected	1		ug/L	1	10061-01-5	
trans-1,3-Dichloropropene	Not detected	1		ug/L	1	10061-02-6	

Lab Sample ID: S40670.11
Sample Tag: MW05-10_GW-092222 MS
Collected Date/Time: 09/22/2022 12:35
Matrix: Groundwater
COC Reference: 157356

Sample Containers

#	Type	Preservative(s)	Refrigerated?	Arrival Temp. (C)	Thermometer #
3	40ml Glass	HCL	Yes	3.2	IR

Extraction / Prep.

Parameter	Result	Method	Run Date	Analyst	Flags
pH check for VOCs*	<2	N/A	09/28/22 12:00	BML	

Organics - Volatiles

Volatile Organics - Arcadis, Method: SW5030C/8260C, Run Date: 09/28/22 12:04, Analyst: BML

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
Acetone	Not detected	50		ug/L	1	67-64-1	1
2-Butanone (MEK)	48	25		ug/L	1	78-93-3	1
Benzene	46	1		ug/L	1	71-43-2	1
Bromodichloromethane	48	1		ug/L	1	75-27-4	1
Bromoform	51	1		ug/L	1	75-25-2	1
Bromomethane	45	5		ug/L	1	74-83-9	1
Carbon disulfide	42	5		ug/L	1	75-15-0	1
Carbon tetrachloride	44	1		ug/L	1	56-23-5	1
Chlorobenzene	48	1		ug/L	1	108-90-7	1
Chloroethane	42	5		ug/L	1	75-00-3	1
Chloroform	46	1		ug/L	1	67-66-3	1
Chloromethane	45	5		ug/L	1	74-87-3	1
1,2-Dibromo-3-chloropropane	54	5		ug/L	1	96-12-8	1
1,2-Dichlorobenzene	48	1		ug/L	1	95-50-1	1
1,2-Dichloroethane	46	1		ug/L	1	107-06-2	1
1,2-Dichloropropane	46	1		ug/L	1	78-87-5	1
1,3-Dichlorobenzene	47	1		ug/L	1	541-73-1	1
1,4-Dichlorobenzene	47	1		ug/L	1	106-46-7	1
cis-1,2-Dichloroethene	50	1		ug/L	1	156-59-2	1
Dibromochloromethane	51	5		ug/L	1	124-48-1	1
Dichlorodifluoromethane	41	5		ug/L	1	75-71-8	1
trans-1,2-Dichloroethene	44	1		ug/L	1	156-60-5	1
Ethylbenzene	47	1		ug/L	1	100-41-4	1
2-Hexanone	51	50		ug/L	1	591-78-6	1
4-Methyl-2-pentanone (MIBK)	50	50		ug/L	1	108-10-1	1
tert-Methyl butyl ether (MTBE)	48	5		ug/L	1	1634-04-4	1
Methylene chloride	47	5		ug/L	1	75-09-2	1
Styrene	49	1		ug/L	1	100-42-5	1
1,1,1-Trichloroethane	47	1		ug/L	1	71-55-6	1
1,1,2-Trichloroethane	48	1		ug/L	1	79-00-5	1
1,2,4-Trichlorobenzene	51	5		ug/L	1	120-82-1	1
Tetrachloroethene	45	1		ug/L	1	127-18-4	1
Toluene	45	1		ug/L	1	108-88-3	1
Trichloroethene	52	1		ug/L	1	79-01-6	1
Trichlorofluoromethane	45	1		ug/L	1	75-69-4	1
Vinyl chloride	45	1		ug/L	1	75-01-4	1

1-Spiked at 50ug/L

Lab Sample ID: S40670.11 (continued)
Sample Tag: MW05-10_GW-092222 MS

Volatile Organics - Arcadis, Method: SW5030C/8260C, Run Date: 09/28/22 12:04, Analyst: BML (continued)

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
o-Xylene	48	1		ug/L	1	95-47-6	1
p,m-Xylene*	94	2		ug/L	1		1
Isopropylbenzene	47	1		ug/L	1	98-82-8	1
Cyclohexane	41	1		ug/L	1	110-82-7	1
1,1-Dichloroethane	49	1		ug/L	1	75-34-3	1
1,1-Dichloroethene	42	1		ug/L	1	75-35-4	1
Methyl Acetate	48	10		ug/L	1	79-20-9	1
Methyl cyclohexane	42	1		ug/L	1	108-87-2	1
1,1,2-Trichloro-1,2,2-trifluoroethane	42	1		ug/L	1	76-13-1	1
1,2-Dibromoethane	50	1		ug/L	1	106-93-4	1
1,1,2,2-Tetrachloroethane	51	1		ug/L	1	79-34-5	1
cis-1,3-Dichloropropene	49	1		ug/L	1	10061-01-5	1
trans-1,3-Dichloropropene	49	1		ug/L	1	10061-02-6	1

1-Spiked at 50ug/L

Lab Sample ID: S40670.12
Sample Tag: MW05-10_GW-092222 MSD
Collected Date/Time: 09/22/2022 12:35
Matrix: Groundwater
COC Reference: 157356

Sample Containers

#	Type	Preservative(s)	Refrigerated?	Arrival Temp. (C)	Thermometer #
3	40ml Glass	HCL	Yes	3.2	IR

Extraction / Prep.

Parameter	Result	Method	Run Date	Analyst	Flags
pH check for VOCs*	<2	N/A	09/28/22 12:00	BML	

Organics - Volatiles

Volatile Organics - Arcadis, Method: SW5030C/8260C, Run Date: 09/28/22 12:23, Analyst: BML

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
Acetone	Not detected	50		ug/L	1	67-64-1	1
2-Butanone (MEK)	51	25		ug/L	1	78-93-3	1
Benzene	52	1		ug/L	1	71-43-2	1
Bromodichloromethane	54	1		ug/L	1	75-27-4	1
Bromoform	58	1		ug/L	1	75-25-2	1
Bromomethane	52	5		ug/L	1	74-83-9	1
Carbon disulfide	48	5		ug/L	1	75-15-0	1
Carbon tetrachloride	50	1		ug/L	1	56-23-5	1
Chlorobenzene	55	1		ug/L	1	108-90-7	1
Chloroethane	48	5		ug/L	1	75-00-3	1
Chloroform	53	1		ug/L	1	67-66-3	1
Chloromethane	51	5		ug/L	1	74-87-3	1
1,2-Dibromo-3-chloropropane	58	5		ug/L	1	96-12-8	1
1,2-Dichlorobenzene	56	1		ug/L	1	95-50-1	1
1,2-Dichloroethane	51	1		ug/L	1	107-06-2	1
1,2-Dichloropropane	52	1		ug/L	1	78-87-5	1
1,3-Dichlorobenzene	54	1		ug/L	1	541-73-1	1
1,4-Dichlorobenzene	54	1		ug/L	1	106-46-7	1
cis-1,2-Dichloroethene	56	1		ug/L	1	156-59-2	1
Dibromochloromethane	58	5		ug/L	1	124-48-1	1
Dichlorodifluoromethane	48	5		ug/L	1	75-71-8	1
trans-1,2-Dichloroethene	50	1		ug/L	1	156-60-5	1
Ethylbenzene	54	1		ug/L	1	100-41-4	1
2-Hexanone	53	50		ug/L	1	591-78-6	1
4-Methyl-2-pentanone (MIBK)	53	50		ug/L	1	108-10-1	1
tert-Methyl butyl ether (MTBE)	54	5		ug/L	1	1634-04-4	1
Methylene chloride	53	5		ug/L	1	75-09-2	1
Styrene	56	1		ug/L	1	100-42-5	1
1,1,1-Trichloroethane	54	1		ug/L	1	71-55-6	1
1,1,2-Trichloroethane	54	1		ug/L	1	79-00-5	1
1,2,4-Trichlorobenzene	59	5		ug/L	1	120-82-1	1
Tetrachloroethene	51	1		ug/L	1	127-18-4	1
Toluene	51	1		ug/L	1	108-88-3	1
Trichloroethene	59	1		ug/L	1	79-01-6	1
Trichlorofluoromethane	52	1		ug/L	1	75-69-4	1
Vinyl chloride	52	1		ug/L	1	75-01-4	1

1-Spiked at 50ug/L

Lab Sample ID: S40670.12 (continued)
Sample Tag: MW05-10_GW-092222 MSD

Volatile Organics - Arcadis, Method: SW5030C/8260C, Run Date: 09/28/22 12:23, Analyst: BML (continued)

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
o-Xylene	55	1		ug/L	1	95-47-6	1
p,m-Xylene*	107	2		ug/L	1		1
Isopropylbenzene	54	1		ug/L	1	98-82-8	1
Cyclohexane	46	1		ug/L	1	110-82-7	1
1,1-Dichloroethane	55	1		ug/L	1	75-34-3	1
1,1-Dichloroethene	48	1		ug/L	1	75-35-4	1
Methyl Acetate	52	10		ug/L	1	79-20-9	1
Methyl cyclohexane	48	1		ug/L	1	108-87-2	1
1,1,2-Trichloro-1,2,2-trifluoroethane	49	1		ug/L	1	76-13-1	1
1,2-Dibromoethane	58	1		ug/L	1	106-93-4	1
1,1,2,2-Tetrachloroethane	56	1		ug/L	1	79-34-5	1
cis-1,3-Dichloropropene	54	1		ug/L	1	10061-01-5	1
trans-1,3-Dichloropropene	55	1		ug/L	1	10061-02-6	1

1-Spiked at 50ug/L

Merit Laboratories Login Checklist

Lab Set ID: S40670
Client: ARCADIS_NOVI (ARCADIS U.S., Inc.)
Project: 30112891.00005 / Racer PNC
Submitted: 09/23/2022 16:00 Login User: PFD

Attention: Alexis Crisp
Address: Arcadis US, Inc.
28550 Cabot Drive
Suite 500
Novi, MI 48377

Phone: 810-225-1909 FAX:
Email: Alexis.Crisp@arcadis.com

Selection				Description	Note
Sample Receiving					
01.	[X] Yes	[ ] No	[ ] N/A	Samples are received at 4C +/- 2C Thermometer #	IR 3.2
02.	[X] Yes	[ ] No	[ ] N/A	Received on ice/ cooling process begun	
03.	[ ] Yes	[X] No	[ ] N/A	Samples shipped	
04.	[ ] Yes	[X] No	[ ] N/A	Samples left in 24 hr. drop box	
05.	[ ] Yes	[ ] No	[X] N/A	Are there custody seals/tape or is the drop box locked	
Chain of Custody					
06.	[X] Yes	[ ] No	[ ] N/A	COC adequately filled out	
07.	[X] Yes	[ ] No	[ ] N/A	COC signed and relinquished to the lab	
08.	[X] Yes	[ ] No	[ ] N/A	Sample tag on bottles match COC	
09.	[ ] Yes	[X] No	[ ] N/A	Subcontracting needed? Subcontacted to:	
Preservation					
10.	[X] Yes	[ ] No	[ ] N/A	Do sample have correct chemical preservation	
11.	[ ] Yes	[ ] No	[X] N/A	Completed pH checks on preserved samples? (no VOAs)	
12.	[ ] Yes	[X] No	[ ] N/A	Did any samples need to be preserved in the lab?	
Bottle Conditions					
13.	[X] Yes	[ ] No	[ ] N/A	All bottles intact	
14.	[X] Yes	[ ] No	[ ] N/A	Appropriate analytical bottles are used	
15.	[X] Yes	[ ] No	[ ] N/A	Merit bottles used	
16.	[X] Yes	[ ] No	[ ] N/A	Sufficient sample volume received	
17.	[ ] Yes	[X] No	[ ] N/A	Samples require laboratory filtration	
18.	[X] Yes	[ ] No	[ ] N/A	Samples submitted within holding time	
19.	[ ] Yes	[X] No	[ ] N/A	Do water VOC or TOX bottles contain headspace	

Corrective action for all exceptions is to call the client and to notify the project manager.

Client Review By: _____ Date: _____

Merit Laboratories Bottle Preservation Check

Lab Set ID: S40670 Submitted: 09/23/2022 16:00

Client: ARCADIS_NOVI (ARCADIS U.S., Inc.)

Project: 30112891.00005 / Racer PNC

Initial Preservation Check: 09/23/2022 16:36 PFD

Preservation Recheck (E200.8): N/A

Attention: Alexis Crisp
Address: Arcadis US, Inc.
28550 Cabot Drive
Suite 500
Novi, MI 48377

Phone: 810-225-1909 FAX:
Email: Alexis.Crisp@arcadis.com

Sample ID	Bottle / Preservation	pH (Orig)	Add ml	pH (New)	Notes
S40670.04	125ml Plastic HNO3	<2			
S40670.05	125ml Plastic HNO3	<2			

Merit Laboratories, Inc.
2680 East Lansing Dr., East Lansing, MI 48823
Phone (517) 332-0167 Fax (517) 332-4034
www.meritlabs.com

C.O.C. PAGE # _____ OF _____ 157356

CHAIN OF CUSTODY RECORD

REPORT TO

CONTACT NAME: tiffany linder
COMPANY: Arcadis
ADDRESS: 28550 Cabot Dr #500
CITY: Novi STATE: MI ZIP CODE: 48377
PHONE NO: 248 994 2240 CELL NO.
P.O. NO: 30112891.00005
E-MAIL ADDRESS: tiffany.linder@arcadis.com QUOTE NO: Alexis.crisp@arcadis.com

INVOICE TO

CONTACT NAME ☐ SAME
COMPANY
ADDRESS
CITY STATE ZIP CODE
PHONE NO. E-MAIL ADDRESS

PROJECT NO./NAME: 30112891.00005 / Racer PNC
SAMPLER(S) - PLEASE PRINT/SIGN NAME: Sommer Guy / Sommer Guy
TURNAROUND TIME REQUIRED ☐ 1 DAY ☐ 2 DAYS ☐ 3 DAYS ☒ STANDARD ☐ OTHER _____
DELIVERABLES REQUIRED ☐ STD ☒ LEVEL II ☐ LEVEL III ☐ LEVEL IV ☒ EDD ☐ OTHER _____

MATRIX CODE: W=WATER GW=GROUNDWATER WW=WASTEWATER S=SOIL L=LIQUID SD=SOLID SL=SLUDGE DW=DRINKING WATER O=OIL WP=WIPE A=AIR WS=WASTE

ANALYSIS (ATTACH LIST IF MORE SPACE IS REQUIRED)

Certifications: ☐ OHIO VAP ☐ Drinking Water ☐ DoD ☐ NPDES
Project Locations: ☐ Detroit ☐ New York ☐ Other _____
Special Instructions

MERIT LAB NO. (FOR LAB USE ONLY)	COLLECTION DATE	COLLECTION TIME	SAMPLE TAG IDENTIFICATION-DESCRIPTION	MATRIX	# OF BOTTLES	# Containers & Preservatives: NONE	HCl	HNO_3	H_2SO_4	NaOH	MeOH	OTHER	Site specific VOC's Method 8260	8260C SIMS (1,4 Dioxane)	SW6020A (total metals)	SW6020A (dissolved metals)	Special Instructions
40670.01	9/22/22	1105	MWF16-22_GW-092222	GW	3		X						X				
.02	9/22/22	1155	MWF16-24_GW-092222	GW	3		X						X				
.03	9/22/22	1330	MWF12-01R_GW-092222	GW	3		X						X	X			
.04	9/22/22	1330	MWF12-01R_GW-092222	GW	1			X							X		
.05	9/22/22	1335	MWF12-01R_GW-092222	GW	1			X								X	filtered
.06	9/22/22	1445	MW-02-17_GW-092222	GW	3		X						X	X			
.07	9/22/22	—	tripblank_54	W	1		X						X				
.08	9/23/22	1035	MWOS-08_GW-092322	GW	3		X						X				
.09	9/23/22	1130	MWOS-09R_GW-092322	GW	3		X						X				
9/23 PDF .10	9/23/22		~~MWOS-09R_GW-092322~~	GW	4		X		SG				X				~~Run MS/MSD~~
.10, .11, .12	9/23/22	1235	MWOS-10_GW-092322	GW	9		X						X				Run MS/MSD

RELINQUISHED BY: SIGNATURE/ORGANIZATION	DATE	TIME
Sommer Guy / Arcadis (Sampler)	9/23/22	1714
RECEIVED BY: SIGNATURE/ORGANIZATION	9/23/22	1300
RELINQUISHED BY: SIGNATURE/ORGANIZATION	9/23/22	1614
RECEIVED BY: SIGNATURE/ORGANIZATION	9/24/22	0600

RELINQUISHED BY: SIGNATURE/ORGANIZATION	DATE	TIME
RECEIVED BY: SIGNATURE/ORGANIZATION	DATE	TIME

SEAL NO. SEAL INTACT YES ☐ NO ☐ INITIALS
SEAL NO. SEAL INTACT YES ☐ NO ☐ INITIALS

NOTES: TEMP. ON ARRIVAL 3.2

PLEASE NOTE: SIGNING ACKNOWLEDGES ADHERENCE TO MERIT'S SAMPLE ACCEPTANCE POLICY ON REVERSE SIDE

Rev. 1.26.22

Analytical Laboratory Report

Report ID: S40973.01(01)
Generated on 10/06/2022

Report to

Attention: Alexis Crisp
Arcadis US, Inc.
28550 Cabot Drive
Suite 500
Novi, MI 48377

Phone: 810-225-1909 FAX:
Email: Alexis.Crisp@arcadis.com

Addtional Contacts: Tiffany Linder, Ian Drost

Report produced by

Merit Laboratories, Inc.
2680 East Lansing Drive
East Lansing, MI 48823

Phone: (517) 332-0167 FAX: (517) 332-6333

Contacts for report questions:
John Laverty (johnlaverty@meritlabs.com)
Barbara Ball (bball@meritlabs.com)

Report Summary

Lab Sample ID(s): S40973.01
Project: 30112891.00005
Collected Date(s): 09/30/2022
Submitted Date/Time: 09/30/2022 16:00
Sampled by: Sommer Guy
P.O. #: 30112891.00005

Table of Contents

Maya Murshak
Technical Director

General Report Notes

Analytical results relate only to the samples tested, in the condition received by the laboratory.
Methods may be modified for improved performance.
Results reported on a dry weight basis where applicable.
'Not detected' indicates that parameter was not found at a level equal to or greater than the reporting limit (RL).
When MDL results are provided, then 'Not detected' indicates that parameter was not found at a level equal to or greater than the MDL.
40 CFR Part 136 Table II Required Containers, Preservation Techniques and Holding Times for the Clean Water Act specify that samples for acrolein and acrylonitrile, and 2-chloroethylvinyl ether need to be preserved at a pH in the range of 4 to 5 or if not preserved, analyzed within 3 days of sampling.
QA/QC corresponding to this analytical report is a separate document with the same Merit ID reference and is available upon request.
Full accreditation certificates are available upon request. Starred (*) analytes are not NELAP accredited.
Samples are held by the lab for 30 days from the final report date unless a written request to hold longer is provided by the client.
Report shall not be reproduced except in full, without the written approval of Merit Laboratories, Inc.
Limits for drinking water samples, are listed as the MCL Limits (Maximum Contaminant Level Concentrations)
PFAS requirement: Section 9.3.8 of U.S. EPA Method 537.1 states "If the method analyte(s) found in the Field Sample is present in the FRB at a concentration greater than 1/3 the MRL, then all samples collected with that FRB are invalid and must be recollected and reanalyzed."
Samples submitted without an accompanying FRB may not be acceptable for compliance purposes.
Wisconsin PFAs analysis: MDL = LOD; RL = LOQ. LOD and LOQ are adjusted for dilution.

Report Narrative

There is no additional narrative for this analytical report

Laboratory Certifications

Authority	Certification ID
Michigan DEQ	#9956
DOD ELAP/ISO 17025	#69699
WBENC	#2005110032
Ohio VAP	#CL0002
Indiana DOH	#C-MI-07
New York NELAC	#11814
North Carolina DENR	#680
North Carolina DOH	#26702
Alaska CSLAP	#17-001
Pennsylvania DEP	#68-05884
Wisconsin DNR	FID# 399147320

Qualifier Descriptions

Qualifier	Description
!	Result is outside of stated limit criteria
B	Compound also found in associated method blank
E	Concentration exceeds calibration range
F	Analysis run outside of holding time
G	Estimated result due to extraction run outside of holding time
H	Sample submitted and run outside of holding time
I	Matrix interference with internal standard
J	Estimated value less than reporting limit, but greater than MDL
L	Elevated reporting limit due to low sample amount
M	Result reported to MDL not RDL
O	Analysis performed by outside laboratory. See attached report.
R	Preliminary result
S	Surrogate recovery outside of control limits
T	No correction for total solids
X	Elevated reporting limit due to matrix interference
Y	Elevated reporting limit due to high target concentration
b	Value detected less than reporting limit, but greater than MDL
e	Reported value estimated due to interference
j	Analyte also found in associated method blank
p	Benzo(b)Fluoranthene and Benzo(k)Fluoranthene integrated as one peak.
x	Preserved from bulk sample

Glossary of Abbreviations

Abbreviation	Description
RL/RDL	Reporting Limit
MDL	Method Detection Limit
MS	Matrix Spike
MSD	Matrix Spike Duplicate
SW	EPA SW 846 (Soil and Wastewater) Methods
E	EPA Methods
SM	Standard Methods
LN	Linear
BR	Branched

Method Summary

Method	Version
N/A	Not Applicable
SW5030C/8260C	SW 846 Method 8260C Revision 3 August 2006 / 5030C Revision 3 May 2003

Sample Summary (1 samples)

Sample ID	Sample Tag	Matrix	Collected Date/Time
S40973.01	MWF16-07_GW-093022	Groundwater	09/30/22 12:00

Lab Sample ID: S40973.01
Sample Tag: MWF16-07_GW-093022
Collected Date/Time: 09/30/2022 12:00
Matrix: Groundwater
COC Reference: 154483

Sample Containers

#	Type	Preservative(s)	Refrigerated?	Arrival Temp. (C)	Thermometer #
3	40ml Glass	HCL	Yes	3.3	IR

Extraction / Prep.

Parameter	Result	Method	Run Date	Analyst	Flags
pH check for VOCs*	<2	N/A	10/05/22 15:00	BML	

Organics - Volatiles

Volatile Organics - Arcadis, Method: SW5030C/8260C, Run Date: 10/04/22 17:43, Analyst: BML

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
Acetone	Not detected	50		ug/L	1	67-64-1	
2-Butanone (MEK)	Not detected	25		ug/L	1	78-93-3	
Benzene	Not detected	1		ug/L	1	71-43-2	
Bromodichloromethane	Not detected	1		ug/L	1	75-27-4	
Bromoform	Not detected	1		ug/L	1	75-25-2	
Bromomethane	Not detected	5		ug/L	1	74-83-9	
Carbon disulfide	Not detected	5		ug/L	1	75-15-0	
Carbon tetrachloride	Not detected	1		ug/L	1	56-23-5	
Chlorobenzene	Not detected	1		ug/L	1	108-90-7	
Chloroethane	Not detected	5		ug/L	1	75-00-3	
Chloroform	Not detected	1		ug/L	1	67-66-3	
Chloromethane	Not detected	5		ug/L	1	74-87-3	
1,2-Dibromo-3-chloropropane	Not detected	5		ug/L	1	96-12-8	
1,2-Dichlorobenzene	Not detected	1		ug/L	1	95-50-1	
1,2-Dichloroethane	Not detected	1		ug/L	1	107-06-2	
1,2-Dichloropropane	Not detected	1		ug/L	1	78-87-5	
1,3-Dichlorobenzene	Not detected	1		ug/L	1	541-73-1	
1,4-Dichlorobenzene	Not detected	1		ug/L	1	106-46-7	
cis-1,2-Dichloroethene	Not detected	1		ug/L	1	156-59-2	
Dibromochloromethane	Not detected	5		ug/L	1	124-48-1	
Dichlorodifluoromethane	Not detected	5		ug/L	1	75-71-8	
trans-1,2-Dichloroethene	Not detected	1		ug/L	1	156-60-5	
Ethylbenzene	Not detected	1		ug/L	1	100-41-4	
2-Hexanone	Not detected	50		ug/L	1	591-78-6	
4-Methyl-2-pentanone (MIBK)	Not detected	50		ug/L	1	108-10-1	
tert-Methyl butyl ether (MTBE)	Not detected	5		ug/L	1	1634-04-4	
Methylene chloride	Not detected	5		ug/L	1	75-09-2	
Styrene	Not detected	1		ug/L	1	100-42-5	
1,1,1-Trichloroethane	Not detected	1		ug/L	1	71-55-6	
1,1,2-Trichloroethane	Not detected	1		ug/L	1	79-00-5	
1,2,4-Trichlorobenzene	Not detected	5		ug/L	1	120-82-1	
Tetrachloroethene	Not detected	1		ug/L	1	127-18-4	
Toluene	Not detected	1		ug/L	1	108-88-3	
Trichloroethene	Not detected	1		ug/L	1	79-01-6	
Trichlorofluoromethane	Not detected	1		ug/L	1	75-69-4	
Vinyl chloride	Not detected	1		ug/L	1	75-01-4	
o-Xylene	Not detected	1		ug/L	1	95-47-6	

Lab Sample ID: S40973.01 (continued)
Sample Tag: MWF16-07_GW-093022

Volatile Organics - Arcadis, Method: SW5030C/8260C, Run Date: 10/04/22 17:43, Analyst: BML (continued)

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
p,m-Xylene*	Not detected	2		ug/L	1		
Isopropylbenzene	Not detected	1		ug/L	1	98-82-8	
Cyclohexane	Not detected	1		ug/L	1	110-82-7	
1,1-Dichloroethane	Not detected	1		ug/L	1	75-34-3	
1,1-Dichloroethene	Not detected	1		ug/L	1	75-35-4	
Methyl Acetate	Not detected	10		ug/L	1	79-20-9	
Methyl cyclohexane	Not detected	1		ug/L	1	108-87-2	
1,1,2-Trichloro-1,2,2-trifluoroethane	Not detected	1		ug/L	1	76-13-1	
1,2-Dibromoethane	Not detected	1		ug/L	1	106-93-4	
1,1,2,2-Tetrachloroethane	Not detected	1		ug/L	1	79-34-5	
cis-1,3-Dichloropropene	Not detected	1		ug/L	1	10061-01-5	
trans-1,3-Dichloropropene	Not detected	1		ug/L	1	10061-02-6	

Merit Laboratories Login Checklist

Lab Set ID: S40973
Client: ARCADIS_NOVI (ARCADIS U.S., Inc.)
Project: 30112891.00005
Submitted: 09/30/2022 16:00 Login User: MMC

Attention: Alexis Crisp
Address: Arcadis US, Inc.
28550 Cabot Drive
Suite 500
Novi, MI 48377

Phone: 810-225-1909 FAX:
Email: Alexis.Crisp@arcadis.com

Selection				Description	Note
Sample Receiving					
01.	[X] Yes	[ ] No	[ ] N/A	Samples are received at 4C +/- 2C Thermometer #	IR 3.3
02.	[X] Yes	[ ] No	[ ] N/A	Received on ice/ cooling process begun	
03.	[ ] Yes	[X] No	[ ] N/A	Samples shipped	
04.	[ ] Yes	[X] No	[ ] N/A	Samples left in 24 hr. drop box	
05.	[ ] Yes	[ ] No	[X] N/A	Are there custody seals/tape or is the drop box locked	
Chain of Custody					
06.	[X] Yes	[ ] No	[ ] N/A	COC adequately filled out	
07.	[X] Yes	[ ] No	[ ] N/A	COC signed and relinquished to the lab	
08.	[X] Yes	[ ] No	[ ] N/A	Sample tag on bottles match COC	
09.	[ ] Yes	[X] No	[ ] N/A	Subcontracting needed? Subcontacted to:	
Preservation					
10.	[X] Yes	[ ] No	[ ] N/A	Do sample have correct chemical preservation	
11.	[ ] Yes	[ ] No	[X] N/A	Completed pH checks on preserved samples? (no VOAs)	
12.	[ ] Yes	[X] No	[ ] N/A	Did any samples need to be preserved in the lab?	
Bottle Conditions					
13.	[X] Yes	[ ] No	[ ] N/A	All bottles intact	
14.	[X] Yes	[ ] No	[ ] N/A	Appropriate analytical bottles are used	
15.	[X] Yes	[ ] No	[ ] N/A	Merit bottles used	
16.	[X] Yes	[ ] No	[ ] N/A	Sufficient sample volume received	
17.	[ ] Yes	[X] No	[ ] N/A	Samples require laboratory filtration	
18.	[X] Yes	[ ] No	[ ] N/A	Samples submitted within holding time	
19.	[ ] Yes	[X] No	[ ] N/A	Do water VOC or TOX bottles contain headspace	

Corrective action for all exceptions is to call the client and to notify the project manager.

Client Review By: _____ Date: _____

Merit Laboratories, Inc.
2680 East Lansing Dr., East Lansing, MI 48823
Phone (517) 332-0167 Fax (517) 332-4034
www.meritlabs.com

C.O.C. PAGE # _____ OF _____ 154483

CHAIN OF CUSTODY RECORD

REPORT TO

CONTACT NAME: Alexis Crisp
COMPANY: Arcadis
ADDRESS: 28550 Cabot Dr #500
CITY: NOVI STATE: MI ZIP CODE: 48377
PHONE NO.: CELL NO.: P.O. NO.: 30112891.00005
E-MAIL ADDRESS: tiffany.linder@arcadis.com Alexis.Crisp@arcadis.com QUOTE NO.:

INVOICE TO

CONTACT NAME: ☐ SAME
COMPANY:
ADDRESS:
CITY: STATE: ZIP CODE:
PHONE NO.: E-MAIL ADDRESS:

PROJECT NO./NAME: 30112891.00005
SAMPLER(S) - PLEASE PRINT/SIGN NAME: Sommer Guy / Sommer Guy

TURNAROUND TIME REQUIRED ☐ 1 DAY ☐ 2 DAYS ☐ 3 DAYS ☒ STANDARD ☐ OTHER _____

DELIVERABLES REQUIRED ☐ STD ☒ LEVEL II ☐ LEVEL III ☐ LEVEL IV ☐ EDD ☐ OTHER _____

MATRIX CODE: W=WATER GW=GROUNDWATER WW=WASTEWATER S=SOIL L=LIQUID SD=SOLID SL=SLUDGE DW=DRINKING WATER O=OIL WP=WIPE A=AIR WS=WASTE

ANALYSIS (ATTACH LIST IF MORE SPACE IS REQUIRED)

Certifications
☐ OHIO VAP ☐ Drinking Water
☐ DoD ☐ NPDES

Project Locations
☐ Detroit ☐ New York
☐ Other _____

Special Instructions

MERIT LAB NO. FOR LAB USE ONLY	COLLECTION DATE	COLLECTION TIME	SAMPLE TAG IDENTIFICATION-DESCRIPTION	MATRIX	# OF BOTTLES	# Containers & Preservatives: NONE	HCl	HNO_3	H_2SO_4	NaOH	MeOH	OTHER	Site specific VOC's Method 8260
40973.01	9/30/22	1200	MWF16-07_GW-093022	GW	3		X						X

RELINQUISHED BY: SIGNATURE/ORGANIZATION: Sommer Guy / Arcadis ☒ Sampler DATE: 9/30/22 TIME: 13:00
RECEIVED BY: SIGNATURE/ORGANIZATION: DATE: 9/30/22 TIME: 15:00
RELINQUISHED BY: SIGNATURE/ORGANIZATION: DATE: 9/30/22 TIME: 16:00
RECEIVED BY: SIGNATURE/ORGANIZATION: DATE: 9/30/22 TIME: 1600

RELINQUISHED BY: SIGNATURE/ORGANIZATION: DATE: TIME:
RECEIVED BY: SIGNATURE/ORGANIZATION: DATE: TIME:

SEAL NO. SEAL INTACT YES ☐ NO ☐ INITIALS
SEAL NO. SEAL INTACT YES ☐ NO ☐ INITIALS

NOTES: TEMP. ON ARRIVAL 3.3

PLEASE NOTE: SIGNING ACKNOWLEDGES ADHERENCE TO MERIT'S SAMPLE ACCEPTANCE POLICY ON REVERSE SIDE

Rev. 1.26.22

Analytical Laboratory Report

Report ID: S40556.01(01)
Generated on 09/29/2022

Report to

Attention: Alexis Crisp
Arcadis US, Inc.
28550 Cabot Drive
Suite 500
Novi, MI 48377

Phone: 810-225-1909 FAX:
Email: Alexis.Crisp@arcadis.com

Addtional Contacts: Tiffany Linder, Ian Drost

Report produced by

Merit Laboratories, Inc.
2680 East Lansing Drive
East Lansing, MI 48823

Phone: (517) 332-0167 FAX: (517) 332-6333

Contacts for report questions:
John Laverty (johnlaverty@meritlabs.com)
Barbara Ball (bball@meritlabs.com)

Report Summary

Lab Sample ID(s): S40556.01-S40556.14
Project: Racer PNC / 30112891.00005
Collected Date(s): 09/20/2022 - 09/21/2022
Submitted Date/Time: 09/21/2022 14:10
Sampled by: Sommer Guy
P.O. #: 30112891.00005

Table of Contents

Maya Murshak
Technical Director

General Report Notes

Analytical results relate only to the samples tested, in the condition received by the laboratory.
Methods may be modified for improved performance.
Results reported on a dry weight basis where applicable.
'Not detected' indicates that parameter was not found at a level equal to or greater than the reporting limit (RL).
When MDL results are provided, then 'Not detected' indicates that parameter was not found at a level equal to or greater than the MDL.
40 CFR Part 136 Table II Required Containers, Preservation Techniques and Holding Times for the Clean Water Act specify that samples for acrolein and acrylonitrile, and 2-chloroethylvinyl ether need to be preserved at a pH in the range of 4 to 5 or if not preserved, analyzed within 3 days of sampling.
QA/QC corresponding to this analytical report is a separate document with the same Merit ID reference and is available upon request.
Full accreditation certificates are available upon request. Starred (*) analytes are not NELAP accredited.
Samples are held by the lab for 30 days from the final report date unless a written request to hold longer is provided by the client.

Limits for drinking water samples, are listed as the MCL Limits (Maximum Contaminant Level Concentrations)
PFAS requirement: Section 9.3.8 of U.S. EPA Method 537.1 states "If the method analyte(s) found in the Field Sample is present in the FRB at a concentration greater than 1/3 the MRL, then all samples collected with that FRB are invalid and must be recollected and reanalyzed."
Samples submitted without an accompanying FRB may not be acceptable for compliance purposes.
Wisconsin PFAs analysis: MDL = LOD; RL = LOQ. LOD and LOQ are adjusted for dilution.

Report Narrative

There is no additional narrative for this analytical report

Laboratory Certifications

Authority	Certification ID
Michigan DEQ	#9956
DOD ELAP/ISO 17025	#69699
WBENC	#2005110032
Ohio VAP	#CL0002
Indiana DOH	#C-MI-07
New York NELAC	#11814
North Carolina DENR	#680
North Carolina DOH	#26702
Alaska CSLAP	#17-001
Pennsylvania DEP	#68-05884
Wisconsin DNR	FID# 399147320

Qualifier Descriptions

Qualifier	Description
!	Result is outside of stated limit criteria
B	Compound also found in associated method blank
E	Concentration exceeds calibration range
F	Analysis run outside of holding time
G	Estimated result due to extraction run outside of holding time
H	Sample submitted and run outside of holding time
I	Matrix interference with internal standard
J	Estimated value less than reporting limit, but greater than MDL
L	Elevated reporting limit due to low sample amount
M	Result reported to MDL not RDL
O	Analysis performed by outside laboratory. See attached report.
R	Preliminary result
S	Surrogate recovery outside of control limits
T	No correction for total solids
X	Elevated reporting limit due to matrix interference
Y	Elevated reporting limit due to high target concentration
b	Value detected less than reporting limit, but greater than MDL
e	Reported value estimated due to interference
j	Analyte also found in associated method blank
p	Benzo(b)Fluoranthene and Benzo(k)Fluoranthene integrated as one peak.
x	Preserved from bulk sample

Glossary of Abbreviations

Abbreviation	Description
RL/RDL	Reporting Limit
MDL	Method Detection Limit
MS	Matrix Spike
MSD	Matrix Spike Duplicate
SW	EPA SW 846 (Soil and Wastewater) Methods
E	EPA Methods
SM	Standard Methods
LN	Linear
BR	Branched

Method Summary

Method	Version
E200.8	EPA Method 200.8 Revision 5.4
E245.1	EPA Method 245.1 Revision 3.0
N/A	Not Applicable
SW3015A	SW 846 Method 3015A Revision 1 February 2007
SW5030C/8260C	SW 846 Method 8260C Revision 3 August 2006 / 5030C Revision 3 May 2003
SW8260B - SIM	SW 846 Method 8260B Revision 2 December 1996 SIMs

Sample Summary (14 samples)

Sample ID	Sample Tag	Matrix	Collected Date/Time
S40556.01	UNKNOWN-01_GW-092022	Groundwater	09/20/22 09:30
S40556.02	MWF7-02_GW-092022	Groundwater	09/20/22 10:35
S40556.03	MWF7-02_GW-092022 MS	Groundwater	09/20/22 10:35
S40556.04	MWF7-02_GW-092022 MSD	Groundwater	09/20/22 10:35
S40556.05	MWF7-03_GW-092022	Groundwater	09/20/22 11:45
S40556.06	MW-05-18_GW-092022	Groundwater	09/20/22 12:55
S40556.07	MW-07-20_GW-092022	Groundwater	09/20/22 13:50
S40556.08	MW-02-17_GW-092022	Groundwater	09/20/22 15:45
S40556.09	tripblank_52	Water	09/20/22 00:01
S40556.10	MWF12-02R_GW-092122	Groundwater	09/21/22 10:05
S40556.11	MWF12-02R_GW-092122	Groundwater	09/21/22 10:05
S40556.12	DUP-04_GW-092122	Groundwater	09/21/22 00:01
S40556.13	DUP-04_GW-092122	Groundwater	09/21/22 00:01
S40556.14	MWF16-15_GW-092122	Groundwater	09/21/22 11:20

Lab Sample ID: S40556.01
Sample Tag: UNKNOWN-01_GW-092022
Collected Date/Time: 09/20/2022 09:30
Matrix: Groundwater
COC Reference: 157360

Sample Containers

#	Type	Preservative(s)	Refrigerated?	Arrival Temp. (C)	Thermometer #
3	40ml Glass	HCL	Yes	3.2	IR

Extraction / Prep.

Parameter	Result	Method	Run Date	Analyst	Flags
pH check for VOCs*	<2	N/A	09/26/22 15:30	JKJ	

Organics - Volatiles

Volatile Organics - Arcadis, Method: SW5030C/8260C, Run Date: 09/25/22 09:13, Analyst: BML

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
Acetone	Not detected	50		ug/L	1	67-64-1	
2-Butanone (MEK)	Not detected	25		ug/L	1	78-93-3	
Benzene	Not detected	1		ug/L	1	71-43-2	
Bromodichloromethane	Not detected	1		ug/L	1	75-27-4	
Bromoform	Not detected	1		ug/L	1	75-25-2	
Bromomethane	Not detected	5		ug/L	1	74-83-9	
Carbon disulfide	Not detected	5		ug/L	1	75-15-0	
Carbon tetrachloride	Not detected	1		ug/L	1	56-23-5	
Chlorobenzene	Not detected	1		ug/L	1	108-90-7	
Chloroethane	Not detected	5		ug/L	1	75-00-3	
Chloroform	Not detected	1		ug/L	1	67-66-3	
Chloromethane	Not detected	5		ug/L	1	74-87-3	
1,2-Dibromo-3-chloropropane	Not detected	5		ug/L	1	96-12-8	
1,2-Dichlorobenzene	Not detected	1		ug/L	1	95-50-1	
1,2-Dichloroethane	Not detected	1		ug/L	1	107-06-2	
1,2-Dichloropropane	Not detected	1		ug/L	1	78-87-5	
1,3-Dichlorobenzene	Not detected	1		ug/L	1	541-73-1	
1,4-Dichlorobenzene	Not detected	1		ug/L	1	106-46-7	
cis-1,2-Dichloroethene	Not detected	1		ug/L	1	156-59-2	
Dibromochloromethane	Not detected	5		ug/L	1	124-48-1	
Dichlorodifluoromethane	Not detected	5		ug/L	1	75-71-8	
trans-1,2-Dichloroethene	Not detected	1		ug/L	1	156-60-5	
Ethylbenzene	Not detected	1		ug/L	1	100-41-4	
2-Hexanone	Not detected	50		ug/L	1	591-78-6	
4-Methyl-2-pentanone (MIBK)	Not detected	50		ug/L	1	108-10-1	
tert-Methyl butyl ether (MTBE)	Not detected	5		ug/L	1	1634-04-4	
Methylene chloride	Not detected	5		ug/L	1	75-09-2	
Styrene	Not detected	1		ug/L	1	100-42-5	
1,1,1-Trichloroethane	66	1		ug/L	1	71-55-6	
1,1,2-Trichloroethane	Not detected	1		ug/L	1	79-00-5	
1,2,4-Trichlorobenzene	Not detected	5		ug/L	1	120-82-1	
Tetrachloroethene	41	1		ug/L	1	127-18-4	
Toluene	Not detected	1		ug/L	1	108-88-3	
Trichloroethene	Not detected	1		ug/L	1	79-01-6	
Trichlorofluoromethane	Not detected	1		ug/L	1	75-69-4	
Vinyl chloride	Not detected	1		ug/L	1	75-01-4	
o-Xylene	Not detected	1		ug/L	1	95-47-6	

Lab Sample ID: S40556.01 (continued)
Sample Tag: UNKNOWN-01_GW-092022

Volatile Organics - Arcadis, Method: SW5030C/8260C, Run Date: 09/25/22 09:13, Analyst: BML (continued)

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
p,m-Xylene*	Not detected	2		ug/L	1		
Isopropylbenzene	Not detected	1		ug/L	1	98-82-8	
Cyclohexane	Not detected	1		ug/L	1	110-82-7	
1,1-Dichloroethane	6	1		ug/L	1	75-34-3	
1,1-Dichloroethene	Not detected	1		ug/L	1	75-35-4	
Methyl Acetate	Not detected	10		ug/L	1	79-20-9	
Methyl cyclohexane	Not detected	1		ug/L	1	108-87-2	
1,1,2-Trichloro-1,2,2-trifluoroethane	Not detected	1		ug/L	1	76-13-1	
1,2-Dibromoethane	Not detected	1		ug/L	1	106-93-4	
1,1,2,2-Tetrachloroethane	Not detected	1		ug/L	1	79-34-5	
cis-1,3-Dichloropropene	Not detected	1		ug/L	1	10061-01-5	
trans-1,3-Dichloropropene	Not detected	1		ug/L	1	10061-02-6	

Lab Sample ID: S40556.02
Sample Tag: MWF7-02_GW-092022
Collected Date/Time: 09/20/2022 10:35
Matrix: Groundwater
COC Reference: 157360

Sample Containers

#	Type	Preservative(s)	Refrigerated?	Arrival Temp. (C)	Thermometer #
3	40ml Glass	HCL	Yes	3.2	IR

Extraction / Prep.

Parameter	Result	Method	Run Date	Analyst	Flags
pH check for VOCs*	<2	N/A	09/26/22 14:30	JKJ	

Organics - Volatiles

Method: SW8260B - SIM, Run Date: 09/23/22 18:40, Analyst: KAG

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
1,4-Dioxane*	201	1		ug/L	1	123-91-1	E

Method: SW8260B - SIM, Run Date: 09/26/22 20:42, Analyst: KAG

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
1,4-Dioxane (Replicate 01)*	210	10		ug/L	10		Y

Volatile Organics - Arcadis, Method: SW5030C/8260C, Run Date: 09/25/22 08:50, Analyst: BML

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
Acetone	Not detected	50		ug/L	1	67-64-1	
2-Butanone (MEK)	Not detected	25		ug/L	1	78-93-3	
Benzene	Not detected	1		ug/L	1	71-43-2	
Bromodichloromethane	Not detected	1		ug/L	1	75-27-4	
Bromoform	Not detected	1		ug/L	1	75-25-2	
Bromomethane	Not detected	5		ug/L	1	74-83-9	
Carbon disulfide	Not detected	5		ug/L	1	75-15-0	
Carbon tetrachloride	Not detected	1		ug/L	1	56-23-5	
Chlorobenzene	Not detected	1		ug/L	1	108-90-7	
Chloroethane	Not detected	5		ug/L	1	75-00-3	
Chloroform	1	1		ug/L	1	67-66-3	
Chloromethane	Not detected	5		ug/L	1	74-87-3	
1,2-Dibromo-3-chloropropane	Not detected	5		ug/L	1	96-12-8	
1,2-Dichlorobenzene	Not detected	1		ug/L	1	95-50-1	
1,2-Dichloroethane	1	1		ug/L	1	107-06-2	
1,2-Dichloropropane	Not detected	1		ug/L	1	78-87-5	
1,3-Dichlorobenzene	Not detected	1		ug/L	1	541-73-1	
1,4-Dichlorobenzene	Not detected	1		ug/L	1	106-46-7	
cis-1,2-Dichloroethene	2	1		ug/L	1	156-59-2	
Dibromochloromethane	Not detected	5		ug/L	1	124-48-1	
Dichlorodifluoromethane	Not detected	5		ug/L	1	75-71-8	
trans-1,2-Dichloroethene	Not detected	1		ug/L	1	156-60-5	
Ethylbenzene	Not detected	1		ug/L	1	100-41-4	
2-Hexanone	Not detected	50		ug/L	1	591-78-6	
4-Methyl-2-pentanone (MIBK)	Not detected	50		ug/L	1	108-10-1	
tert-Methyl butyl ether (MTBE)	Not detected	5		ug/L	1	1634-04-4	
Methylene chloride	Not detected	5		ug/L	1	75-09-2	

E-Concentration exceeds calibration range
Y-Elevated reporting limit due to high target concentration

Lab Sample ID: S40556.02 (continued)
Sample Tag: MWF7-02_GW-092022

Volatile Organics - Arcadis, Method: SW5030C/8260C, Run Date: 09/25/22 08:50, Analyst: BML (continued)

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
Styrene	Not detected	1		ug/L	1	100-42-5	
1,1,1-Trichloroethane	115	1		ug/L	1	71-55-6	
1,1,2-Trichloroethane	1	1		ug/L	1	79-00-5	
1,2,4-Trichlorobenzene	Not detected	5		ug/L	1	120-82-1	
Tetrachloroethene	115	1		ug/L	1	127-18-4	
Toluene	Not detected	1		ug/L	1	108-88-3	
Trichloroethene	5	1		ug/L	1	79-01-6	
Trichlorofluoromethane	Not detected	1		ug/L	1	75-69-4	
Vinyl chloride	Not detected	1		ug/L	1	75-01-4	
o-Xylene	Not detected	1		ug/L	1	95-47-6	
p,m-Xylene*	Not detected	2		ug/L	1		
Isopropylbenzene	Not detected	1		ug/L	1	98-82-8	
Cyclohexane	Not detected	1		ug/L	1	110-82-7	
1,1-Dichloroethane	12	1		ug/L	1	75-34-3	
1,1-Dichloroethene	15	1		ug/L	1	75-35-4	
Methyl Acetate	Not detected	10		ug/L	1	79-20-9	
Methyl cyclohexane	Not detected	1		ug/L	1	108-87-2	
1,1,2-Trichloro-1,2,2-trifluoroethane	Not detected	1		ug/L	1	76-13-1	
1,2-Dibromoethane	Not detected	1		ug/L	1	106-93-4	
1,1,2,2-Tetrachloroethane	Not detected	1		ug/L	1	79-34-5	
cis-1,3-Dichloropropene	Not detected	1		ug/L	1	10061-01-5	
trans-1,3-Dichloropropene	Not detected	1		ug/L	1	10061-02-6	

Lab Sample ID: S40556.03
Sample Tag: MWF7-02_GW-092022 MS
Collected Date/Time: 09/20/2022 10:35
Matrix: Groundwater
COC Reference: 157360

Sample Containers

#	Type	Preservative(s)	Refrigerated?	Arrival Temp. (C)	Thermometer #
3	40ml Glass	HCL	Yes	3.2	IR

Extraction / Prep.

Parameter	Result	Method	Run Date	Analyst	Flags
pH check for VOCs*	<2	N/A	09/26/22 14:30	JKJ	

Organics - Volatiles

Method: SW8260B - SIM, Run Date: 09/23/22 17:18, Analyst: KAG

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
1,4-Dioxane*	255	1		ug/L	1	123-91-1	1E

Volatile Organics - Arcadis, Method: SW5030C/8260C, Run Date: 09/25/22 06:05, Analyst: BML

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
Acetone	78	50		ug/L	1	67-64-1	1
2-Butanone (MEK)	64	25		ug/L	1	78-93-3	1
Benzene	55	1		ug/L	1	71-43-2	1
Bromodichloromethane	58	1		ug/L	1	75-27-4	1
Bromoform	61	1		ug/L	1	75-25-2	1
Bromomethane	56	5		ug/L	1	74-83-9	1
Carbon disulfide	53	5		ug/L	1	75-15-0	1
Carbon tetrachloride	56	1		ug/L	1	56-23-5	1
Chlorobenzene	57	1		ug/L	1	108-90-7	1
Chloroethane	53	5		ug/L	1	75-00-3	1
Chloroform	57	1		ug/L	1	67-66-3	1
Chloromethane	56	5		ug/L	1	74-87-3	1
1,2-Dibromo-3-chloropropane	57	5		ug/L	1	96-12-8	1
1,2-Dichlorobenzene	54	1		ug/L	1	95-50-1	1
1,2-Dichloroethane	57	1		ug/L	1	107-06-2	1
1,2-Dichloropropane	56	1		ug/L	1	78-87-5	1
1,3-Dichlorobenzene	53	1		ug/L	1	541-73-1	1
1,4-Dichlorobenzene	54	1		ug/L	1	106-46-7	1
cis-1,2-Dichloroethene	58	1		ug/L	1	156-59-2	1
Dibromochloromethane	59	5		ug/L	1	124-48-1	1
Dichlorodifluoromethane	45	5		ug/L	1	75-71-8	1
trans-1,2-Dichloroethene	53	1		ug/L	1	156-60-5	1
Ethylbenzene	55	1		ug/L	1	100-41-4	1
2-Hexanone	61	50		ug/L	1	591-78-6	1
4-Methyl-2-pentanone (MIBK)	56	50		ug/L	1	108-10-1	1
tert-Methyl butyl ether (MTBE)	53	5		ug/L	1	1634-04-4	1
Methylene chloride	55	5		ug/L	1	75-09-2	1
Styrene	56	1		ug/L	1	100-42-5	1
1,1,1-Trichloroethane	160	1		ug/L	1	71-55-6	1
1,1,2-Trichloroethane	59	1		ug/L	1	79-00-5	1
1,2,4-Trichlorobenzene	47	5		ug/L	1	120-82-1	1
Tetrachloroethene	164	1		ug/L	1	127-18-4	1

1-Spiked at 50ug/L E-Concentration exceeds calibration range

Lab Sample ID: S40556.03 (continued)
Sample Tag: MWF7-02_GW-092022 MS

Volatile Organics - Arcadis, Method: SW5030C/8260C, Run Date: 09/25/22 06:05, Analyst: BML (continued)

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
Toluene	53	1		ug/L	1	108-88-3	1
Trichloroethene	59	1		ug/L	1	79-01-6	1
Trichlorofluoromethane	55	1		ug/L	1	75-69-4	1
Vinyl chloride	52	1		ug/L	1	75-01-4	1
o-Xylene	56	1		ug/L	1	95-47-6	1
p,m-Xylene*	111	2		ug/L	1		1
Isopropylbenzene	55	1		ug/L	1	98-82-8	1
Cyclohexane	49	1		ug/L	1	110-82-7	1
1,1-Dichloroethane	65	1		ug/L	1	75-34-3	1
1,1-Dichloroethene	66	1		ug/L	1	75-35-4	1
Methyl Acetate	47	10		ug/L	1	79-20-9	1
Methyl cyclohexane	43	1		ug/L	1	108-87-2	1
1,1,2-Trichloro-1,2,2-trifluoroethane	50	1		ug/L	1	76-13-1	1
1,2-Dibromoethane	59	1		ug/L	1	106-93-4	1
1,1,2,2-Tetrachloroethane	59	1		ug/L	1	79-34-5	1
cis-1,3-Dichloropropene	56	1		ug/L	1	10061-01-5	1
trans-1,3-Dichloropropene	56	1		ug/L	1	10061-02-6	1

1-Spiked at 50ug/L

Lab Sample ID: S40556.04
Sample Tag: MWF7-02_GW-092022 MSD
Collected Date/Time: 09/20/2022 10:35
Matrix: Groundwater
COC Reference: 157360

Sample Containers

#	Type	Preservative(s)	Refrigerated?	Arrival Temp. (C)	Thermometer #
3	40ml Glass	HCL	Yes	3.2	IR

Extraction / Prep.

Parameter	Result	Method	Run Date	Analyst	Flags
pH check for VOCs*	<2	N/A	09/26/22 14:30	JKJ	

Organics - Volatiles

Method: SW8260B - SIM, Run Date: 09/23/22 17:38, Analyst: KAG

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
1,4-Dioxane*	284	1		ug/L	1	123-91-1	1E

Volatile Organics - Arcadis, Method: SW5030C/8260C, Run Date: 09/25/22 06:28, Analyst: BML

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
Acetone	75	50		ug/L	1	67-64-1	1
2-Butanone (MEK)	63	25		ug/L	1	78-93-3	1
Benzene	52	1		ug/L	1	71-43-2	1
Bromodichloromethane	55	1		ug/L	1	75-27-4	1
Bromoform	58	1		ug/L	1	75-25-2	1
Bromomethane	52	5		ug/L	1	74-83-9	1
Carbon disulfide	50	5		ug/L	1	75-15-0	1
Carbon tetrachloride	53	1		ug/L	1	56-23-5	1
Chlorobenzene	54	1		ug/L	1	108-90-7	1
Chloroethane	50	5		ug/L	1	75-00-3	1
Chloroform	54	1		ug/L	1	67-66-3	1
Chloromethane	52	5		ug/L	1	74-87-3	1
1,2-Dibromo-3-chloropropane	56	5		ug/L	1	96-12-8	1
1,2-Dichlorobenzene	52	1		ug/L	1	95-50-1	1
1,2-Dichloroethane	54	1		ug/L	1	107-06-2	1
1,2-Dichloropropane	53	1		ug/L	1	78-87-5	1
1,3-Dichlorobenzene	51	1		ug/L	1	541-73-1	1
1,4-Dichlorobenzene	51	1		ug/L	1	106-46-7	1
cis-1,2-Dichloroethene	55	1		ug/L	1	156-59-2	1
Dibromochloromethane	57	5		ug/L	1	124-48-1	1
Dichlorodifluoromethane	42	5		ug/L	1	75-71-8	1
trans-1,2-Dichloroethene	51	1		ug/L	1	156-60-5	1
Ethylbenzene	52	1		ug/L	1	100-41-4	1
2-Hexanone	58	50		ug/L	1	591-78-6	1
4-Methyl-2-pentanone (MIBK)	54	50		ug/L	1	108-10-1	1
tert-Methyl butyl ether (MTBE)	51	5		ug/L	1	1634-04-4	1
Methylene chloride	53	5		ug/L	1	75-09-2	1
Styrene	54	1		ug/L	1	100-42-5	1
1,1,1-Trichloroethane	153	1		ug/L	1	71-55-6	1
1,1,2-Trichloroethane	56	1		ug/L	1	79-00-5	1
1,2,4-Trichlorobenzene	46	5		ug/L	1	120-82-1	1
Tetrachloroethene	155	1		ug/L	1	127-18-4	1

1-Spiked at 50ug/L E-Concentration exceeds calibration range

Lab Sample ID: S40556.04 (continued)
Sample Tag: MWF7-02_GW-092022 MSD

Volatile Organics - Arcadis, Method: SW5030C/8260C, Run Date: 09/25/22 06:28, Analyst: BML (continued)

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
Toluene	50	1		ug/L	1	108-88-3	1
Trichloroethene	56	1		ug/L	1	79-01-6	1
Trichlorofluoromethane	53	1		ug/L	1	75-69-4	1
Vinyl chloride	48	1		ug/L	1	75-01-4	1
o-Xylene	53	1		ug/L	1	95-47-6	1
p,m-Xylene*	105	2		ug/L	1		1
Isopropylbenzene	52	1		ug/L	1	98-82-8	1
Cyclohexane	46	1		ug/L	1	110-82-7	1
1,1-Dichloroethane	62	1		ug/L	1	75-34-3	1
1,1-Dichloroethene	62	1		ug/L	1	75-35-4	1
Methyl Acetate	45	10		ug/L	1	79-20-9	1
Methyl cyclohexane	40	1		ug/L	1	108-87-2	1
1,1,2-Trichloro-1,2,2-trifluoroethane	47	1		ug/L	1	76-13-1	1
1,2-Dibromoethane	56	1		ug/L	1	106-93-4	1
1,1,2,2-Tetrachloroethane	56	1		ug/L	1	79-34-5	1
cis-1,3-Dichloropropene	53	1		ug/L	1	10061-01-5	1
trans-1,3-Dichloropropene	53	1		ug/L	1	10061-02-6	1

1-Spiked at 50ug/L

Lab Sample ID: S40556.05
Sample Tag: MWF7-03_GW-092022
Collected Date/Time: 09/20/2022 11:45
Matrix: Groundwater
COC Reference: 157360

Sample Containers

#	Type	Preservative(s)	Refrigerated?	Arrival Temp. (C)	Thermometer #
3	40ml Glass	HCL	Yes	3.2	IR

Extraction / Prep.

Parameter	Result	Method	Run Date	Analyst	Flags
pH check for VOCs*	<2	N/A	09/26/22 15:30	JKJ	

Organics - Volatiles

Volatile Organics - Arcadis, Method: SW5030C/8260C, Run Date: 09/25/22 09:37, Analyst: BML

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
Acetone	Not detected	50		ug/L	1	67-64-1	
2-Butanone (MEK)	Not detected	25		ug/L	1	78-93-3	
Benzene	Not detected	1		ug/L	1	71-43-2	
Bromodichloromethane	Not detected	1		ug/L	1	75-27-4	
Bromoform	Not detected	1		ug/L	1	75-25-2	
Bromomethane	Not detected	5		ug/L	1	74-83-9	
Carbon disulfide	Not detected	5		ug/L	1	75-15-0	
Carbon tetrachloride	Not detected	1		ug/L	1	56-23-5	
Chlorobenzene	Not detected	1		ug/L	1	108-90-7	
Chloroethane	Not detected	5		ug/L	1	75-00-3	
Chloroform	Not detected	1		ug/L	1	67-66-3	
Chloromethane	Not detected	5		ug/L	1	74-87-3	
1,2-Dibromo-3-chloropropane	Not detected	5		ug/L	1	96-12-8	
1,2-Dichlorobenzene	Not detected	1		ug/L	1	95-50-1	
1,2-Dichloroethane	Not detected	1		ug/L	1	107-06-2	
1,2-Dichloropropane	Not detected	1		ug/L	1	78-87-5	
1,3-Dichlorobenzene	Not detected	1		ug/L	1	541-73-1	
1,4-Dichlorobenzene	Not detected	1		ug/L	1	106-46-7	
cis-1,2-Dichloroethene	Not detected	1		ug/L	1	156-59-2	
Dibromochloromethane	Not detected	5		ug/L	1	124-48-1	
Dichlorodifluoromethane	Not detected	5		ug/L	1	75-71-8	
trans-1,2-Dichloroethene	Not detected	1		ug/L	1	156-60-5	
Ethylbenzene	Not detected	1		ug/L	1	100-41-4	
2-Hexanone	Not detected	50		ug/L	1	591-78-6	
4-Methyl-2-pentanone (MIBK)	Not detected	50		ug/L	1	108-10-1	
tert-Methyl butyl ether (MTBE)	Not detected	5		ug/L	1	1634-04-4	
Methylene chloride	Not detected	5		ug/L	1	75-09-2	
Styrene	Not detected	1		ug/L	1	100-42-5	
1,1,1-Trichloroethane	Not detected	1		ug/L	1	71-55-6	
1,1,2-Trichloroethane	Not detected	1		ug/L	1	79-00-5	
1,2,4-Trichlorobenzene	Not detected	5		ug/L	1	120-82-1	
Tetrachloroethene	Not detected	1		ug/L	1	127-18-4	
Toluene	Not detected	1		ug/L	1	108-88-3	
Trichloroethene	Not detected	1		ug/L	1	79-01-6	
Trichlorofluoromethane	Not detected	1		ug/L	1	75-69-4	
Vinyl chloride	Not detected	1		ug/L	1	75-01-4	
o-Xylene	Not detected	1		ug/L	1	95-47-6	

Lab Sample ID: S40556.05 (continued)
Sample Tag: MWF7-03_GW-092022

Volatile Organics - Arcadis, Method: SW5030C/8260C, Run Date: 09/25/22 09:37, Analyst: BML (continued)

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
p,m-Xylene*	Not detected	2		ug/L	1		
Isopropylbenzene	Not detected	1		ug/L	1	98-82-8	
Cyclohexane	Not detected	1		ug/L	1	110-82-7	
1,1-Dichloroethane	Not detected	1		ug/L	1	75-34-3	
1,1-Dichloroethene	Not detected	1		ug/L	1	75-35-4	
Methyl Acetate	Not detected	10		ug/L	1	79-20-9	
Methyl cyclohexane	Not detected	1		ug/L	1	108-87-2	
1,1,2-Trichloro-1,2,2-trifluoroethane	Not detected	1		ug/L	1	76-13-1	
1,2-Dibromoethane	Not detected	1		ug/L	1	106-93-4	
1,1,2,2-Tetrachloroethane	Not detected	1		ug/L	1	79-34-5	
cis-1,3-Dichloropropene	Not detected	1		ug/L	1	10061-01-5	
trans-1,3-Dichloropropene	Not detected	1		ug/L	1	10061-02-6	

Lab Sample ID: S40556.06
Sample Tag: MW-05-18_GW-092022
Collected Date/Time: 09/20/2022 12:55
Matrix: Groundwater
COC Reference: 157360

Sample Containers

#	Type	Preservative(s)	Refrigerated?	Arrival Temp. (C)	Thermometer #
3	40ml Glass	HCL	Yes	3.2	IR

Extraction / Prep.

Parameter	Result	Method	Run Date	Analyst	Flags
pH check for VOCs*	<2	N/A	09/26/22 14:30	JKJ	

Organics - Volatiles

Method: SW8260B - SIM, Run Date: 09/26/22 20:22, Analyst: KAG

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
1,4-Dioxane*	Not detected	1		ug/L	1	123-91-1	

Volatile Organics - Arcadis, Method: SW5030C/8260C, Run Date: 09/25/22 10:01, Analyst: BML

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
Acetone	Not detected	50		ug/L	1	67-64-1	
2-Butanone (MEK)	Not detected	25		ug/L	1	78-93-3	
Benzene	Not detected	1		ug/L	1	71-43-2	
Bromodichloromethane	Not detected	1		ug/L	1	75-27-4	
Bromoform	Not detected	1		ug/L	1	75-25-2	
Bromomethane	Not detected	5		ug/L	1	74-83-9	
Carbon disulfide	Not detected	5		ug/L	1	75-15-0	
Carbon tetrachloride	Not detected	1		ug/L	1	56-23-5	
Chlorobenzene	Not detected	1		ug/L	1	108-90-7	
Chloroethane	Not detected	5		ug/L	1	75-00-3	
Chloroform	Not detected	1		ug/L	1	67-66-3	
Chloromethane	Not detected	5		ug/L	1	74-87-3	
1,2-Dibromo-3-chloropropane	Not detected	5		ug/L	1	96-12-8	
1,2-Dichlorobenzene	Not detected	1		ug/L	1	95-50-1	
1,2-Dichloroethane	Not detected	1		ug/L	1	107-06-2	
1,2-Dichloropropane	Not detected	1		ug/L	1	78-87-5	
1,3-Dichlorobenzene	Not detected	1		ug/L	1	541-73-1	
1,4-Dichlorobenzene	Not detected	1		ug/L	1	106-46-7	
cis-1,2-Dichloroethene	11	1		ug/L	1	156-59-2	
Dibromochloromethane	Not detected	5		ug/L	1	124-48-1	
Dichlorodifluoromethane	Not detected	5		ug/L	1	75-71-8	
trans-1,2-Dichloroethene	Not detected	1		ug/L	1	156-60-5	
Ethylbenzene	Not detected	1		ug/L	1	100-41-4	
2-Hexanone	Not detected	50		ug/L	1	591-78-6	
4-Methyl-2-pentanone (MIBK)	Not detected	50		ug/L	1	108-10-1	
tert-Methyl butyl ether (MTBE)	Not detected	5		ug/L	1	1634-04-4	
Methylene chloride	Not detected	5		ug/L	1	75-09-2	
Styrene	Not detected	1		ug/L	1	100-42-5	
1,1,1-Trichloroethane	7	1		ug/L	1	71-55-6	
1,1,2-Trichloroethane	Not detected	1		ug/L	1	79-00-5	
1,2,4-Trichlorobenzene	Not detected	5		ug/L	1	120-82-1	
Tetrachloroethene	Not detected	1		ug/L	1	127-18-4	
Toluene	Not detected	1		ug/L	1	108-88-3	

Lab Sample ID: S40556.06 (continued)
Sample Tag: MW-05-18_GW-092022

Volatile Organics - Arcadis, Method: SW5030C/8260C, Run Date: 09/25/22 10:01, Analyst: BML (continued)

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
Trichloroethene	1	1		ug/L	1	79-01-6	
Trichlorofluoromethane	Not detected	1		ug/L	1	75-69-4	
Vinyl chloride	Not detected	1		ug/L	1	75-01-4	
o-Xylene	Not detected	1		ug/L	1	95-47-6	
p,m-Xylene*	Not detected	2		ug/L	1		
Isopropylbenzene	Not detected	1		ug/L	1	98-82-8	
Cyclohexane	Not detected	1		ug/L	1	110-82-7	
1,1-Dichloroethane	5	1		ug/L	1	75-34-3	
1,1-Dichloroethene	Not detected	1		ug/L	1	75-35-4	
Methyl Acetate	Not detected	10		ug/L	1	79-20-9	
Methyl cyclohexane	Not detected	1		ug/L	1	108-87-2	
1,1,2-Trichloro-1,2,2-trifluoroethane	Not detected	1		ug/L	1	76-13-1	
1,2-Dibromoethane	Not detected	1		ug/L	1	106-93-4	
1,1,2,2-Tetrachloroethane	Not detected	1		ug/L	1	79-34-5	
cis-1,3-Dichloropropene	Not detected	1		ug/L	1	10061-01-5	
trans-1,3-Dichloropropene	Not detected	1		ug/L	1	10061-02-6	

Lab Sample ID: S40556.07
Sample Tag: MW-07-20_GW-092022
Collected Date/Time: 09/20/2022 13:50
Matrix: Groundwater
COC Reference: 157360

Sample Containers

#	Type	Preservative(s)	Refrigerated?	Arrival Temp. (C)	Thermometer #
3	40ml Glass	HCL	Yes	3.2	IR

Extraction / Prep.

Parameter	Result	Method	Run Date	Analyst	Flags
pH check for VOCs*	<2	N/A	09/26/22 15:30	JKJ	

Organics - Volatiles

Volatile Organics - Arcadis, Method: SW5030C/8260C, Run Date: 09/25/22 10:25, Analyst: BML

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
Acetone	Not detected	50		ug/L	1	67-64-1	
2-Butanone (MEK)	Not detected	25		ug/L	1	78-93-3	
Benzene	Not detected	1		ug/L	1	71-43-2	
Bromodichloromethane	Not detected	1		ug/L	1	75-27-4	
Bromoform	Not detected	1		ug/L	1	75-25-2	
Bromomethane	Not detected	5		ug/L	1	74-83-9	
Carbon disulfide	Not detected	5		ug/L	1	75-15-0	
Carbon tetrachloride	Not detected	1		ug/L	1	56-23-5	
Chlorobenzene	Not detected	1		ug/L	1	108-90-7	
Chloroethane	Not detected	5		ug/L	1	75-00-3	
Chloroform	Not detected	1		ug/L	1	67-66-3	
Chloromethane	Not detected	5		ug/L	1	74-87-3	
1,2-Dibromo-3-chloropropane	Not detected	5		ug/L	1	96-12-8	
1,2-Dichlorobenzene	Not detected	1		ug/L	1	95-50-1	
1,2-Dichloroethane	Not detected	1		ug/L	1	107-06-2	
1,2-Dichloropropane	Not detected	1		ug/L	1	78-87-5	
1,3-Dichlorobenzene	Not detected	1		ug/L	1	541-73-1	
1,4-Dichlorobenzene	Not detected	1		ug/L	1	106-46-7	
cis-1,2-Dichloroethene	9	1		ug/L	1	156-59-2	
Dibromochloromethane	Not detected	5		ug/L	1	124-48-1	
Dichlorodifluoromethane	Not detected	5		ug/L	1	75-71-8	
trans-1,2-Dichloroethene	Not detected	1		ug/L	1	156-60-5	
Ethylbenzene	Not detected	1		ug/L	1	100-41-4	
2-Hexanone	Not detected	50		ug/L	1	591-78-6	
4-Methyl-2-pentanone (MIBK)	Not detected	50		ug/L	1	108-10-1	
tert-Methyl butyl ether (MTBE)	Not detected	5		ug/L	1	1634-04-4	
Methylene chloride	Not detected	5		ug/L	1	75-09-2	
Styrene	Not detected	1		ug/L	1	100-42-5	
1,1,1-Trichloroethane	5	1		ug/L	1	71-55-6	
1,1,2-Trichloroethane	Not detected	1		ug/L	1	79-00-5	
1,2,4-Trichlorobenzene	Not detected	5		ug/L	1	120-82-1	
Tetrachloroethene	Not detected	1		ug/L	1	127-18-4	
Toluene	Not detected	1		ug/L	1	108-88-3	
Trichloroethene	2	1		ug/L	1	79-01-6	
Trichlorofluoromethane	2	1		ug/L	1	75-69-4	
Vinyl chloride	Not detected	1		ug/L	1	75-01-4	
o-Xylene	Not detected	1		ug/L	1	95-47-6	

Lab Sample ID: S40556.07 (continued)
Sample Tag: MW-07-20_GW-092022

Volatile Organics - Arcadis, Method: SW5030C/8260C, Run Date: 09/25/22 10:25, Analyst: BML (continued)

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
p,m-Xylene*	Not detected	2		ug/L	1		
Isopropylbenzene	Not detected	1		ug/L	1	98-82-8	
Cyclohexane	Not detected	1		ug/L	1	110-82-7	
1,1-Dichloroethane	7	1		ug/L	1	75-34-3	
1,1-Dichloroethene	Not detected	1		ug/L	1	75-35-4	
Methyl Acetate	Not detected	10		ug/L	1	79-20-9	
Methyl cyclohexane	Not detected	1		ug/L	1	108-87-2	
1,1,2-Trichloro-1,2,2-trifluoroethane	Not detected	1		ug/L	1	76-13-1	
1,2-Dibromoethane	Not detected	1		ug/L	1	106-93-4	
1,1,2,2-Tetrachloroethane	Not detected	1		ug/L	1	79-34-5	
cis-1,3-Dichloropropene	Not detected	1		ug/L	1	10061-01-5	
trans-1,3-Dichloropropene	Not detected	1		ug/L	1	10061-02-6	

Lab Sample ID: S40556.08
Sample Tag: MW-02-17_GW-092022
Collected Date/Time: 09/20/2022 15:45
Matrix: Groundwater
COC Reference: 157360

Sample Containers

#	Type	Preservative(s)	Refrigerated?	Arrival Temp. (C)	Thermometer #
1	n/a	n/a	No	n/a	n/a

Other / Misc.

Method: , Run Date: 09/22/22 10:49, Analyst: JRM

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
No Analyses*	Completed				1		

Lab Sample ID: S40556.09
Sample Tag: tripblank_52
Collected Date/Time: 09/20/2022 00:01
Matrix: Water
COC Reference: 157360

Sample Containers

#	Type	Preservative(s)	Refrigerated?	Arrival Temp. (C)	Thermometer #
1	40ml Glass	HCL	Yes	3.2	IR

Extraction / Prep.

Parameter	Result	Method	Run Date	Analyst	Flags
pH check for VOCs*	<2	N/A	09/26/22 15:30	JKJ	

Organics - Volatiles

Volatile Organics - Arcadis, Method: SW5030C/8260C, Run Date: 09/25/22 08:26, Analyst: BML

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
Acetone	Not detected	50		ug/L	1	67-64-1	
2-Butanone (MEK)	Not detected	25		ug/L	1	78-93-3	
Benzene	Not detected	1		ug/L	1	71-43-2	
Bromodichloromethane	Not detected	1		ug/L	1	75-27-4	
Bromoform	Not detected	1		ug/L	1	75-25-2	
Bromomethane	Not detected	5		ug/L	1	74-83-9	
Carbon disulfide	Not detected	5		ug/L	1	75-15-0	
Carbon tetrachloride	Not detected	1		ug/L	1	56-23-5	
Chlorobenzene	Not detected	1		ug/L	1	108-90-7	
Chloroethane	Not detected	5		ug/L	1	75-00-3	
Chloroform	Not detected	1		ug/L	1	67-66-3	
Chloromethane	Not detected	5		ug/L	1	74-87-3	
1,2-Dibromo-3-chloropropane	Not detected	5		ug/L	1	96-12-8	
1,2-Dichlorobenzene	Not detected	1		ug/L	1	95-50-1	
1,2-Dichloroethane	Not detected	1		ug/L	1	107-06-2	
1,2-Dichloropropane	Not detected	1		ug/L	1	78-87-5	
1,3-Dichlorobenzene	Not detected	1		ug/L	1	541-73-1	
1,4-Dichlorobenzene	Not detected	1		ug/L	1	106-46-7	
cis-1,2-Dichloroethene	Not detected	1		ug/L	1	156-59-2	
Dibromochloromethane	Not detected	5		ug/L	1	124-48-1	
Dichlorodifluoromethane	Not detected	5		ug/L	1	75-71-8	
trans-1,2-Dichloroethene	Not detected	1		ug/L	1	156-60-5	
Ethylbenzene	Not detected	1		ug/L	1	100-41-4	
2-Hexanone	Not detected	50		ug/L	1	591-78-6	
4-Methyl-2-pentanone (MIBK)	Not detected	50		ug/L	1	108-10-1	
tert-Methyl butyl ether (MTBE)	Not detected	5		ug/L	1	1634-04-4	
Methylene chloride	Not detected	5		ug/L	1	75-09-2	
Styrene	Not detected	1		ug/L	1	100-42-5	
1,1,1-Trichloroethane	Not detected	1		ug/L	1	71-55-6	
1,1,2-Trichloroethane	Not detected	1		ug/L	1	79-00-5	
1,2,4-Trichlorobenzene	Not detected	5		ug/L	1	120-82-1	
Tetrachloroethene	Not detected	1		ug/L	1	127-18-4	
Toluene	Not detected	1		ug/L	1	108-88-3	
Trichloroethene	Not detected	1		ug/L	1	79-01-6	
Trichlorofluoromethane	Not detected	1		ug/L	1	75-69-4	
Vinyl chloride	Not detected	1		ug/L	1	75-01-4	
o-Xylene	Not detected	1		ug/L	1	95-47-6	

Lab Sample ID: S40556.09 (continued)
Sample Tag: tripblank_52

Volatile Organics - Arcadis, Method: SW5030C/8260C, Run Date: 09/25/22 08:26, Analyst: BML (continued)

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
p,m-Xylene*	Not detected	2		ug/L	1		
Isopropylbenzene	Not detected	1		ug/L	1	98-82-8	
Cyclohexane	Not detected	1		ug/L	1	110-82-7	
1,1-Dichloroethane	Not detected	1		ug/L	1	75-34-3	
1,1-Dichloroethene	Not detected	1		ug/L	1	75-35-4	
Methyl Acetate	Not detected	10		ug/L	1	79-20-9	
Methyl cyclohexane	Not detected	1		ug/L	1	108-87-2	
1,1,2-Trichloro-1,2,2-trifluoroethane	Not detected	1		ug/L	1	76-13-1	
1,2-Dibromoethane	Not detected	1		ug/L	1	106-93-4	
1,1,2,2-Tetrachloroethane	Not detected	1		ug/L	1	79-34-5	
cis-1,3-Dichloropropene	Not detected	1		ug/L	1	10061-01-5	
trans-1,3-Dichloropropene	Not detected	1		ug/L	1	10061-02-6	

Lab Sample ID: S40556.10
Sample Tag: MWF12-02R_GW-092122
Collected Date/Time: 09/21/2022 10:05
Matrix: Groundwater
COC Reference: 157360

Sample Containers

#	Type	Preservative(s)	Refrigerated?	Arrival Temp. (C)	Thermometer #
3	40ml Glass	HCL	Yes	3.2	IR

Extraction / Prep.

Parameter	Result	Method	Run Date	Analyst	Flags
pH check for VOCs*	<2	N/A	09/26/22 15:30	JKJ	

Organics - Volatiles

Volatile Organics - Arcadis, Method: SW5030C/8260C, Run Date: 09/25/22 10:48, Analyst: BML

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
Acetone	Not detected	50		ug/L	1	67-64-1	
2-Butanone (MEK)	Not detected	25		ug/L	1	78-93-3	
Benzene	Not detected	1		ug/L	1	71-43-2	
Bromodichloromethane	Not detected	1		ug/L	1	75-27-4	
Bromoform	Not detected	1		ug/L	1	75-25-2	
Bromomethane	Not detected	5		ug/L	1	74-83-9	
Carbon disulfide	Not detected	5		ug/L	1	75-15-0	
Carbon tetrachloride	Not detected	1		ug/L	1	56-23-5	
Chlorobenzene	Not detected	1		ug/L	1	108-90-7	
Chloroethane	Not detected	5		ug/L	1	75-00-3	
Chloroform	Not detected	1		ug/L	1	67-66-3	
Chloromethane	Not detected	5		ug/L	1	74-87-3	
1,2-Dibromo-3-chloropropane	Not detected	5		ug/L	1	96-12-8	
1,2-Dichlorobenzene	Not detected	1		ug/L	1	95-50-1	
1,2-Dichloroethane	Not detected	1		ug/L	1	107-06-2	
1,2-Dichloropropane	Not detected	1		ug/L	1	78-87-5	
1,3-Dichlorobenzene	Not detected	1		ug/L	1	541-73-1	
1,4-Dichlorobenzene	Not detected	1		ug/L	1	106-46-7	
cis-1,2-Dichloroethene	Not detected	1		ug/L	1	156-59-2	
Dibromochloromethane	Not detected	5		ug/L	1	124-48-1	
Dichlorodifluoromethane	Not detected	5		ug/L	1	75-71-8	
trans-1,2-Dichloroethene	Not detected	1		ug/L	1	156-60-5	
Ethylbenzene	Not detected	1		ug/L	1	100-41-4	
2-Hexanone	Not detected	50		ug/L	1	591-78-6	
4-Methyl-2-pentanone (MIBK)	Not detected	50		ug/L	1	108-10-1	
tert-Methyl butyl ether (MTBE)	Not detected	5		ug/L	1	1634-04-4	
Methylene chloride	Not detected	5		ug/L	1	75-09-2	
Styrene	Not detected	1		ug/L	1	100-42-5	
1,1,1-Trichloroethane	Not detected	1		ug/L	1	71-55-6	
1,1,2-Trichloroethane	Not detected	1		ug/L	1	79-00-5	
1,2,4-Trichlorobenzene	Not detected	5		ug/L	1	120-82-1	
Tetrachloroethene	Not detected	1		ug/L	1	127-18-4	
Toluene	Not detected	1		ug/L	1	108-88-3	
Trichloroethene	Not detected	1		ug/L	1	79-01-6	
Trichlorofluoromethane	Not detected	1		ug/L	1	75-69-4	
Vinyl chloride	Not detected	1		ug/L	1	75-01-4	
o-Xylene	Not detected	1		ug/L	1	95-47-6	

Lab Sample ID: S40556.10 (continued)
Sample Tag: MWF12-02R_GW-092122

Volatile Organics - Arcadis, Method: SW5030C/8260C, Run Date: 09/25/22 10:48, Analyst: BML (continued)

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
p,m-Xylene*	Not detected	2		ug/L	1		
Isopropylbenzene	Not detected	1		ug/L	1	98-82-8	
Cyclohexane	Not detected	1		ug/L	1	110-82-7	
1,1-Dichloroethane	Not detected	1		ug/L	1	75-34-3	
1,1-Dichloroethene	Not detected	1		ug/L	1	75-35-4	
Methyl Acetate	Not detected	10		ug/L	1	79-20-9	
Methyl cyclohexane	Not detected	1		ug/L	1	108-87-2	
1,1,2-Trichloro-1,2,2-trifluoroethane	Not detected	1		ug/L	1	76-13-1	
1,2-Dibromoethane	Not detected	1		ug/L	1	106-93-4	
1,1,2,2-Tetrachloroethane	Not detected	1		ug/L	1	79-34-5	
cis-1,3-Dichloropropene	Not detected	1		ug/L	1	10061-01-5	
trans-1,3-Dichloropropene	Not detected	1		ug/L	1	10061-02-6	

Analytical Laboratory Report

Lab Sample ID: S40556.11
Sample Tag: MWF12-02R_GW-092122
Collected Date/Time: 09/21/2022 10:05
Matrix: Groundwater
COC Reference: 157360

Sample Containers

#	Type	Preservative(s)	Refrigerated?	Arrival Temp. (C)	Thermometer #
1	125ml Plastic	HNO3	Yes	3.2	IR

Extraction / Prep.

Parameter	Result	Method	Run Date	Analyst	Flags
Mercury Digestion	Completed	E245.1	09/26/22 13:23	CTV	
Metal Digestion	Completed	SW3015A	09/23/22 10:20	CCM	

Metals

Method: E200.8, Run Date: 09/23/22 12:28, Analyst: CCM

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
Antimony*	Not detected	0.005		mg/L	5	7440-36-0	
Arsenic	Not detected	0.002		mg/L	5	7440-38-2	
Barium	0.054	0.005		mg/L	5	7440-39-3	
Beryllium	Not detected	0.001		mg/L	5	7440-41-7	
Cadmium	Not detected	0.0005		mg/L	5	7440-43-9	
Chromium	Not detected	0.005		mg/L	5	7440-47-3	
Cobalt	Not detected	0.005		mg/L	5	7440-48-4	
Copper	Not detected	0.005		mg/L	5	7440-50-8	
Lead	Not detected	0.003		mg/L	5	7439-92-1	
Manganese	0.256	0.005		mg/L	5	7439-96-5	
Nickel	Not detected	0.005		mg/L	5	7440-02-0	
Selenium	Not detected	0.005		mg/L	5	7782-49-2	
Silver	Not detected	0.0005		mg/L	5	7440-22-4	
Thallium	Not detected	0.002		mg/L	5	7440-28-0	
Vanadium	Not detected	0.005		mg/L	5	7440-62-2	
Zinc	Not detected	0.005		mg/L	5	7440-66-6	

Method: E245.1, Run Date: 09/26/22 15:19, Analyst: CTV

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
Mercury	Not detected	0.0002	0.000016	mg/L	1	7439-97-6	

Lab Sample ID: S40556.12
Sample Tag: DUP-04_GW-092122
Collected Date/Time: 09/21/2022 00:01
Matrix: Groundwater
COC Reference: 157360

Sample Containers

#	Type	Preservative(s)	Refrigerated?	Arrival Temp. (C)	Thermometer #
1	125ml Plastic	HNO3	Yes	3.2	IR

Extraction / Prep.

Parameter	Result	Method	Run Date	Analyst	Flags
Mercury Digestion	Completed	E245.1	09/26/22 13:23	CTV	
Metal Digestion	Completed	SW3015A	09/23/22 10:20	CCM	

Metals

Method: E200.8, Run Date: 09/23/22 12:31, Analyst: CCM

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
Antimony*	Not detected	0.005		mg/L	5	7440-36-0	
Arsenic	Not detected	0.002		mg/L	5	7440-38-2	
Barium	0.052	0.005		mg/L	5	7440-39-3	
Beryllium	Not detected	0.001		mg/L	5	7440-41-7	
Cadmium	Not detected	0.0005		mg/L	5	7440-43-9	
Chromium	Not detected	0.005		mg/L	5	7440-47-3	
Cobalt	Not detected	0.005		mg/L	5	7440-48-4	
Copper	Not detected	0.005		mg/L	5	7440-50-8	
Lead	Not detected	0.003		mg/L	5	7439-92-1	
Manganese	0.252	0.005		mg/L	5	7439-96-5	
Nickel	Not detected	0.005		mg/L	5	7440-02-0	
Selenium	Not detected	0.005		mg/L	5	7782-49-2	
Silver	Not detected	0.0005		mg/L	5	7440-22-4	
Thallium	Not detected	0.002		mg/L	5	7440-28-0	
Vanadium	Not detected	0.005		mg/L	5	7440-62-2	
Zinc	Not detected	0.005		mg/L	5	7440-66-6	

Method: E245.1, Run Date: 09/26/22 15:22, Analyst: CTV

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
Mercury	Not detected	0.0002	0.000016	mg/L	1	7439-97-6	

Lab Sample ID: S40556.13
Sample Tag: DUP-04_GW-092122
Collected Date/Time: 09/21/2022 00:01
Matrix: Groundwater
COC Reference: 157360

Sample Containers

#	Type	Preservative(s)	Refrigerated?	Arrival Temp. (C)	Thermometer #
3	40ml Glass	HCL	Yes	3.2	IR

Extraction / Prep.

Parameter	Result	Method	Run Date	Analyst	Flags
pH check for VOCs*	<2	N/A	09/26/22 15:30	JKJ	

Organics - Volatiles

Volatile Organics - Arcadis, Method: SW5030C/8260C, Run Date: 09/25/22 11:12, Analyst: BML

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
Acetone	Not detected	50		ug/L	1	67-64-1	
2-Butanone (MEK)	Not detected	25		ug/L	1	78-93-3	
Benzene	Not detected	1		ug/L	1	71-43-2	
Bromodichloromethane	Not detected	1		ug/L	1	75-27-4	
Bromoform	Not detected	1		ug/L	1	75-25-2	
Bromomethane	Not detected	5		ug/L	1	74-83-9	
Carbon disulfide	Not detected	5		ug/L	1	75-15-0	
Carbon tetrachloride	Not detected	1		ug/L	1	56-23-5	
Chlorobenzene	Not detected	1		ug/L	1	108-90-7	
Chloroethane	Not detected	5		ug/L	1	75-00-3	
Chloroform	Not detected	1		ug/L	1	67-66-3	
Chloromethane	Not detected	5		ug/L	1	74-87-3	
1,2-Dibromo-3-chloropropane	Not detected	5		ug/L	1	96-12-8	
1,2-Dichlorobenzene	Not detected	1		ug/L	1	95-50-1	
1,2-Dichloroethane	Not detected	1		ug/L	1	107-06-2	
1,2-Dichloropropane	Not detected	1		ug/L	1	78-87-5	
1,3-Dichlorobenzene	Not detected	1		ug/L	1	541-73-1	
1,4-Dichlorobenzene	Not detected	1		ug/L	1	106-46-7	
cis-1,2-Dichloroethene	Not detected	1		ug/L	1	156-59-2	
Dibromochloromethane	Not detected	5		ug/L	1	124-48-1	
Dichlorodifluoromethane	Not detected	5		ug/L	1	75-71-8	
trans-1,2-Dichloroethene	Not detected	1		ug/L	1	156-60-5	
Ethylbenzene	Not detected	1		ug/L	1	100-41-4	
2-Hexanone	Not detected	50		ug/L	1	591-78-6	
4-Methyl-2-pentanone (MIBK)	Not detected	50		ug/L	1	108-10-1	
tert-Methyl butyl ether (MTBE)	Not detected	5		ug/L	1	1634-04-4	
Methylene chloride	Not detected	5		ug/L	1	75-09-2	
Styrene	Not detected	1		ug/L	1	100-42-5	
1,1,1-Trichloroethane	Not detected	1		ug/L	1	71-55-6	
1,1,2-Trichloroethane	Not detected	1		ug/L	1	79-00-5	
1,2,4-Trichlorobenzene	Not detected	5		ug/L	1	120-82-1	
Tetrachloroethene	Not detected	1		ug/L	1	127-18-4	
Toluene	Not detected	1		ug/L	1	108-88-3	
Trichloroethene	Not detected	1		ug/L	1	79-01-6	
Trichlorofluoromethane	Not detected	1		ug/L	1	75-69-4	
Vinyl chloride	Not detected	1		ug/L	1	75-01-4	
o-Xylene	Not detected	1		ug/L	1	95-47-6	

Lab Sample ID: S40556.13 (continued)
Sample Tag: DUP-04_GW-092122

Volatile Organics - Arcadis, Method: SW5030C/8260C, Run Date: 09/25/22 11:12, Analyst: BML (continued)

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
p,m-Xylene*	Not detected	2		ug/L	1		
Isopropylbenzene	Not detected	1		ug/L	1	98-82-8	
Cyclohexane	Not detected	1		ug/L	1	110-82-7	
1,1-Dichloroethane	Not detected	1		ug/L	1	75-34-3	
1,1-Dichloroethene	Not detected	1		ug/L	1	75-35-4	
Methyl Acetate	Not detected	10		ug/L	1	79-20-9	
Methyl cyclohexane	Not detected	1		ug/L	1	108-87-2	
1,1,2-Trichloro-1,2,2-trifluoroethane	Not detected	1		ug/L	1	76-13-1	
1,2-Dibromoethane	Not detected	1		ug/L	1	106-93-4	
1,1,2,2-Tetrachloroethane	Not detected	1		ug/L	1	79-34-5	
cis-1,3-Dichloropropene	Not detected	1		ug/L	1	10061-01-5	
trans-1,3-Dichloropropene	Not detected	1		ug/L	1	10061-02-6	

Lab Sample ID: S40556.14
Sample Tag: MWF16-15_GW-092122
Collected Date/Time: 09/21/2022 11:20
Matrix: Groundwater
COC Reference: 157360

Sample Containers

#	Type	Preservative(s)	Refrigerated?	Arrival Temp. (C)	Thermometer #
3	40ml Glass	HCL	Yes	3.2	IR

Extraction / Prep.

Parameter	Result	Method	Run Date	Analyst	Flags
pH check for VOCs*	<2	N/A	09/26/22 15:30	JKJ	

Organics - Volatiles

Volatile Organics - Arcadis, Method: SW5030C/8260C, Run Date: 09/25/22 11:36, Analyst: BML

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
Acetone	Not detected	50		ug/L	1	67-64-1	
2-Butanone (MEK)	Not detected	25		ug/L	1	78-93-3	
Benzene	Not detected	1		ug/L	1	71-43-2	
Bromodichloromethane	Not detected	1		ug/L	1	75-27-4	
Bromoform	Not detected	1		ug/L	1	75-25-2	
Bromomethane	Not detected	5		ug/L	1	74-83-9	
Carbon disulfide	Not detected	5		ug/L	1	75-15-0	
Carbon tetrachloride	Not detected	1		ug/L	1	56-23-5	
Chlorobenzene	Not detected	1		ug/L	1	108-90-7	
Chloroethane	Not detected	5		ug/L	1	75-00-3	
Chloroform	Not detected	1		ug/L	1	67-66-3	
Chloromethane	Not detected	5		ug/L	1	74-87-3	
1,2-Dibromo-3-chloropropane	Not detected	5		ug/L	1	96-12-8	
1,2-Dichlorobenzene	Not detected	1		ug/L	1	95-50-1	
1,2-Dichloroethane	Not detected	1		ug/L	1	107-06-2	
1,2-Dichloropropane	Not detected	1		ug/L	1	78-87-5	
1,3-Dichlorobenzene	Not detected	1		ug/L	1	541-73-1	
1,4-Dichlorobenzene	Not detected	1		ug/L	1	106-46-7	
cis-1,2-Dichloroethene	5	1		ug/L	1	156-59-2	
Dibromochloromethane	Not detected	5		ug/L	1	124-48-1	
Dichlorodifluoromethane	Not detected	5		ug/L	1	75-71-8	
trans-1,2-Dichloroethene	Not detected	1		ug/L	1	156-60-5	
Ethylbenzene	Not detected	1		ug/L	1	100-41-4	
2-Hexanone	Not detected	50		ug/L	1	591-78-6	
4-Methyl-2-pentanone (MIBK)	Not detected	50		ug/L	1	108-10-1	
tert-Methyl butyl ether (MTBE)	Not detected	5		ug/L	1	1634-04-4	
Methylene chloride	Not detected	5		ug/L	1	75-09-2	
Styrene	Not detected	1		ug/L	1	100-42-5	
1,1,1-Trichloroethane	11	1		ug/L	1	71-55-6	
1,1,2-Trichloroethane	Not detected	1		ug/L	1	79-00-5	
1,2,4-Trichlorobenzene	Not detected	5		ug/L	1	120-82-1	
Tetrachloroethene	Not detected	1		ug/L	1	127-18-4	
Toluene	Not detected	1		ug/L	1	108-88-3	
Trichloroethene	3	1		ug/L	1	79-01-6	
Trichlorofluoromethane	Not detected	1		ug/L	1	75-69-4	
Vinyl chloride	Not detected	1		ug/L	1	75-01-4	
o-Xylene	Not detected	1		ug/L	1	95-47-6	

Lab Sample ID: S40556.14 (continued)
Sample Tag: MWF16-15_GW-092122

Volatile Organics - Arcadis, Method: SW5030C/8260C, Run Date: 09/25/22 11:36, Analyst: BML (continued)

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
p,m-Xylene*	Not detected	2		ug/L	1		
Isopropylbenzene	Not detected	1		ug/L	1	98-82-8	
Cyclohexane	Not detected	1		ug/L	1	110-82-7	
1,1-Dichloroethane	1	1		ug/L	1	75-34-3	
1,1-Dichloroethene	Not detected	1		ug/L	1	75-35-4	
Methyl Acetate	Not detected	10		ug/L	1	79-20-9	
Methyl cyclohexane	Not detected	1		ug/L	1	108-87-2	
1,1,2-Trichloro-1,2,2-trifluoroethane	Not detected	1		ug/L	1	76-13-1	
1,2-Dibromoethane	Not detected	1		ug/L	1	106-93-4	
1,1,2,2-Tetrachloroethane	Not detected	1		ug/L	1	79-34-5	
cis-1,3-Dichloropropene	Not detected	1		ug/L	1	10061-01-5	
trans-1,3-Dichloropropene	Not detected	1		ug/L	1	10061-02-6	

Merit Laboratories Login Checklist

Lab Set ID: S40556
Client: ARCADIS_NOVI (ARCADIS U.S., Inc.)
Project: Racer PNC / 30112891.00005
Submitted: 09/21/2022 14:10 Login User: MMC

Attention: Alexis Crisp
Address: Arcadis US, Inc.
28550 Cabot Drive
Suite 500
Novi, MI 48377

Phone: 810-225-1909 FAX:
Email: Alexis.Crisp@arcadis.com

Selection				Description	Note
Sample Receiving					
01.	[X] Yes	[ ] No	[ ] N/A	Samples are received at 4C +/- 2C Thermometer #	IR 3.2
02.	[X] Yes	[ ] No	[ ] N/A	Received on ice/ cooling process begun	
03.	[ ] Yes	[X] No	[ ] N/A	Samples shipped	
04.	[ ] Yes	[X] No	[ ] N/A	Samples left in 24 hr. drop box	
05.	[ ] Yes	[ ] No	[X] N/A	Are there custody seals/tape or is the drop box locked	
Chain of Custody					
06.	[X] Yes	[ ] No	[ ] N/A	COC adequately filled out	
07.	[X] Yes	[ ] No	[ ] N/A	COC signed and relinquished to the lab	
08.	[X] Yes	[ ] No	[ ] N/A	Sample tag on bottles match COC	
09.	[ ] Yes	[X] No	[ ] N/A	Subcontracting needed? Subcontacted to:	
Preservation					
10.	[X] Yes	[ ] No	[ ] N/A	Do sample have correct chemical preservation	
11.	[ ] Yes	[ ] No	[X] N/A	Completed pH checks on preserved samples? (no VOAs)	
12.	[ ] Yes	[X] No	[ ] N/A	Did any samples need to be preserved in the lab?	
Bottle Conditions					
13.	[X] Yes	[ ] No	[ ] N/A	All bottles intact	Sample .13 not present
14.	[X] Yes	[ ] No	[ ] N/A	Appropriate analytical bottles are used	
15.	[X] Yes	[ ] No	[ ] N/A	Merit bottles used	
16.	[X] Yes	[ ] No	[ ] N/A	Sufficient sample volume received	
17.	[ ] Yes	[X] No	[ ] N/A	Samples require laboratory filtration	
18.	[X] Yes	[ ] No	[ ] N/A	Samples submitted within holding time	
19.	[ ] Yes	[X] No	[ ] N/A	Do water VOC or TOX bottles contain headspace	

Corrective action for all exceptions is to call the client and to notify the project manager.

Client Review By: _____ Date: _____

Merit Laboratories Bottle Preservation Check

Lab Set ID: S40556 Submitted: 09/21/2022 14:10

Client: ARCADIS_NOVI (ARCADIS U.S., Inc.)

Project: Racer PNC / 30112891.00005

Initial Preservation Check: 09/21/2022 16:25 MMC

Preservation Recheck (E200.8): N/A

Attention: Alexis Crisp
Address: Arcadis US, Inc.
28550 Cabot Drive
Suite 500
Novi, MI 48377

Phone: 810-225-1909 FAX:
Email: Alexis.Crisp@arcadis.com

Sample ID	Bottle / Preservation	pH (Orig)	Add ml	pH (New)	Notes
S40556.11	125ml Plastic HNO3	<2			
S40556.12	125ml Plastic HNO3	<2			

Merit Laboratories, Inc.
2680 East Lansing Dr., East Lansing, MI 48823
Phone (517) 332-0167 Fax (517) 332-4034
www.meritlabs.com

C.O.C. PAGE # _____ OF _____ 157360

CHAIN OF CUSTODY RECORD

REPORT TO

CONTACT NAME: Tiffany Linder
COMPANY: Arcadis
ADDRESS: 28550 Cabot Dr #500
CITY: Novi STATE: MI ZIP CODE: 48377
PHONE NO.: 248 9942240 CELL NO.: P.O. NO.:
E-MAIL ADDRESS: QUOTE NO.:

INVOICE TO

CONTACT NAME ☐ SAME
COMPANY
ADDRESS
CITY STATE ZIP CODE
PHONE NO. E-MAIL ADDRESS

PROJECT NO./NAME: Racer PNC / 30112891.000005
SAMPLER(S) - PLEASE PRINT/SIGN NAME: Sommer Guy / Sommer Guy

TURNAROUND TIME REQUIRED ☐ 1 DAY ☐ 2 DAYS ☐ 3 DAYS ☐ STANDARD ☐ OTHER _____

DELIVERABLES REQUIRED ☐ STD ☐ LEVEL II ☐ LEVEL III ☐ LEVEL IV ☐ EDD ☐ OTHER _____

MATRIX CODE: W=WATER GW=GROUNDWATER WW=WASTEWATER S=SOIL L=LIQUID SD=SOLID SL=SLUDGE DW=DRINKING WATER O=OIL WP=WIPE A=AIR WS=WASTE

ANALYSIS (ATTACH LIST IF MORE SPACE IS REQUIRED)

Certifications: ☐ OHIO VAP ☐ Drinking Water ☐ DoD ☐ NPDES
Project Locations: ☐ Detroit ☐ New York ☐ Other _____
Special Instructions

MERIT LAB NO. (FOR LAB USE ONLY)	COLLECTION DATE	COLLECTION TIME	SAMPLE TAG · IDENTIFICATION-DESCRIPTION	MATRIX	# OF BOTTLES	# Containers & Preservatives: NONE	HCl	HNO_3	H_2SO_4	NaOH	MeOH	OTHER	Site specific VOC's Method 8260	SVOCs (PAHs)	8260C SIMS (1,4 Dioxane)	SW6062A (total metals)	Special Instructions
40556.01	9/20/22	0930	UNKNOWN-01_GW-092022	GW	3		X						X				
.02/.03/.04	9/20/22	1035	MWF1-02_GW-092022	GW	9		X						X		X		Run MS/MSD
.05	9/20/22	1145	MWF1-03_GW-092022	GW	3		X						X				
.06	9/20/22	1255	MW-05-18_GW-092022	GW	3		X						X		X		
.07	9/20/22	1350	MW-07-20_GW-092022	GW	3		X						X				
.08	9/20/22	1545	MW-02-17_GW-092022	GW	3		X						X		X		
.09	—	—	tripblank_52	W	1		X						X				
.10	9/21/22	1005	MWF12-02R_GW-092122	GW	3		X						X				
.11	9/21/22	1005	MWF12-02R_GW-092122	GW	1			X								X	
.12	9/21/22	—	DUP-04_GW-092122	GW	1			X								X	
.13	9/21/22	-	DUP-04_GW-092122	GW	3		X						X				
.14	9/21/22	1120	MWF16-15_GW-092122	GW	3		X						X				

RELINQUISHED BY: SIGNATURE/ORGANIZATION	Sommer Guy / Arcadis ☒ Sampler	DATE 9/21/22	TIME 17:45
RECEIVED BY: SIGNATURE/ORGANIZATION		DATE 9/21/22	TIME 17:45
RELINQUISHED BY: SIGNATURE/ORGANIZATION		DATE 9/21/22	TIME 14:10
RECEIVED BY: SIGNATURE/ORGANIZATION	M Calcott	DATE 9/21/22	TIME 1410

RELINQUISHED BY: SIGNATURE/ORGANIZATION		DATE	TIME
RECEIVED BY: SIGNATURE/ORGANIZATION		DATE	TIME

SEAL NO. SEAL INTACT YES ☐ NO ☐ INITIALS
SEAL NO. SEAL INTACT YES ☐ NO ☐ INITIALS

NOTES: TEMP. ON ARRIVAL 3.2

PLEASE NOTE: SIGNING ACKNOWLEDGES ADHERENCE TO MERIT'S SAMPLE ACCEPTANCE POLICY ON REVERSE SIDE

Rev. 1.26.22

Analytical Laboratory Report

Report ID: S40606.01(01)
Generated on 09/30/2022

Report to

Attention: Alexis Crisp
Arcadis US, Inc.
28550 Cabot Drive
Suite 500
Novi, MI 48377

Phone: 810-225-1909 FAX:
Email: Alexis.Crisp@arcadis.com

Addtional Contacts: Tiffany Linder, Ian Drost

Report produced by

Merit Laboratories, Inc.
2680 East Lansing Drive
East Lansing, MI 48823

Phone: (517) 332-0167 FAX: (517) 332-6333

Contacts for report questions:
John Laverty (johnlaverty@meritlabs.com)
Barbara Ball (bball@meritlabs.com)

Report Summary

Lab Sample ID(s): S40606.01-S40606.06
Project: 30112891.00005 / Racer PNC
Collected Date(s): 09/21/2022 - 09/22/2022
Submitted Date/Time: 09/22/2022 16:00
Sampled by: Sommer Guy
P.O. #: 30112891.00005

Table of Contents

Maya Murshak
Technical Director

General Report Notes

Analytical results relate only to the samples tested, in the condition received by the laboratory.
Methods may be modified for improved performance.
Results reported on a dry weight basis where applicable.
'Not detected' indicates that parameter was not found at a level equal to or greater than the reporting limit (RL).
When MDL results are provided, then 'Not detected' indicates that parameter was not found at a level equal to or greater than the MDL.
40 CFR Part 136 Table II Required Containers, Preservation Techniques and Holding Times for the Clean Water Act specify that samples for acrolein and acrylonitrile, and 2-chloroethylvinyl ether need to be preserved at a pH in the range of 4 to 5 or if not preserved, analyzed within 3 days of sampling.
QA/QC corresponding to this analytical report is a separate document with the same Merit ID reference and is available upon request.
Full accreditation certificates are available upon request. Starred (*) analytes are not NELAP accredited.
Samples are held by the lab for 30 days from the final report date unless a written request to hold longer is provided by the client.
Report shall not be reproduced except in full, without the written approval of Merit Laboratories, Inc.
Limits for drinking water samples, are listed as the MCL Limits (Maximum Contaminant Level Concentrations)
PFAS requirement: Section 9.3.8 of U.S. EPA Method 537.1 states "If the method analyte(s) found in the Field Sample is present in the FRB at a concentration greater than 1/3 the MRL, then all samples collected with that FRB are invalid and must be recollected and reanalyzed."
Samples submitted without an accompanying FRB may not be acceptable for compliance purposes.
Wisconsin PFAs analysis: MDL = LOD; RL = LOQ. LOD and LOQ are adjusted for dilution.

Report Narrative

There is no additional narrative for this analytical report

Laboratory Certifications

Authority	Certification ID
Michigan DEQ	#9956
DOD ELAP/ISO 17025	#69699
WBENC	#2005110032
Ohio VAP	#CL0002
Indiana DOH	#C-MI-07
New York NELAC	#11814
North Carolina DENR	#680
North Carolina DOH	#26702
Alaska CSLAP	#17-001
Pennsylvania DEP	#68-05884
Wisconsin DNR	FID# 399147320

Qualifier Descriptions

Qualifier	Description
!	Result is outside of stated limit criteria
B	Compound also found in associated method blank
E	Concentration exceeds calibration range
F	Analysis run outside of holding time
G	Estimated result due to extraction run outside of holding time
H	Sample submitted and run outside of holding time
I	Matrix interference with internal standard
J	Estimated value less than reporting limit, but greater than MDL
L	Elevated reporting limit due to low sample amount
M	Result reported to MDL not RDL
O	Analysis performed by outside laboratory. See attached report.
R	Preliminary result
S	Surrogate recovery outside of control limits
T	No correction for total solids
X	Elevated reporting limit due to matrix interference
Y	Elevated reporting limit due to high target concentration
b	Value detected less than reporting limit, but greater than MDL
e	Reported value estimated due to interference
j	Analyte also found in associated method blank
p	Benzo(b)Fluoranthene and Benzo(k)Fluoranthene integrated as one peak.
x	Preserved from bulk sample

Glossary of Abbreviations

Abbreviation	Description
RL/RDL	Reporting Limit
MDL	Method Detection Limit
MS	Matrix Spike
MSD	Matrix Spike Duplicate
SW	EPA SW 846 (Soil and Wastewater) Methods
E	EPA Methods
SM	Standard Methods
LN	Linear
BR	Branched

Method Summary

Method	Version
N/A	Not Applicable
SW5030C/8260C	SW 846 Method 8260C Revision 3 August 2006 / 5030C Revision 3 May 2003

Sample Summary (6 samples)

Sample ID	Sample Tag	Matrix	Collected Date/Time
S40606.01	MW-13-22_GW-092122	Groundwater	09/21/22 13:20
S40606.02	MW-14-22_GW-092122	Groundwater	09/21/22 14:25
S40606.03	MWF8-01_GW-092222	Groundwater	09/22/22 09:00
S40606.04	tripblank_53	Water	09/22/22 00:01
S40606.05	MWF16-16_GW-092222	Groundwater	09/22/22 10:00
S40606.06	DUP-03_GW-092222	Groundwater	09/22/22 00:01

Lab Sample ID: S40606.01
Sample Tag: MW-13-22_GW-092122
Collected Date/Time: 09/21/2022 13:20
Matrix: Groundwater
COC Reference: 157354

Sample Containers

#	Type	Preservative(s)	Refrigerated?	Arrival Temp. (C)	Thermometer #
3	40ml Glass	HCL	Yes	3.5	IR

Extraction / Prep.

Parameter	Result	Method	Run Date	Analyst	Flags
pH check for VOCs*	<2	N/A	09/28/22 12:00	BML	

Organics - Volatiles

Volatile Organics - Arcadis, Method: SW5030C/8260C, Run Date: 09/28/22 01:21, Analyst: BML

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
Acetone	Not detected	50		ug/L	1	67-64-1	
2-Butanone (MEK)	Not detected	25		ug/L	1	78-93-3	
Benzene	Not detected	1		ug/L	1	71-43-2	
Bromodichloromethane	Not detected	1		ug/L	1	75-27-4	
Bromoform	Not detected	1		ug/L	1	75-25-2	
Bromomethane	Not detected	5		ug/L	1	74-83-9	
Carbon disulfide	Not detected	5		ug/L	1	75-15-0	
Carbon tetrachloride	Not detected	1		ug/L	1	56-23-5	
Chlorobenzene	Not detected	1		ug/L	1	108-90-7	
Chloroethane	Not detected	5		ug/L	1	75-00-3	
Chloroform	Not detected	1		ug/L	1	67-66-3	
Chloromethane	Not detected	5		ug/L	1	74-87-3	
1,2-Dibromo-3-chloropropane	Not detected	5		ug/L	1	96-12-8	
1,2-Dichlorobenzene	Not detected	1		ug/L	1	95-50-1	
1,2-Dichloroethane	Not detected	1		ug/L	1	107-06-2	
1,2-Dichloropropane	Not detected	1		ug/L	1	78-87-5	
1,3-Dichlorobenzene	Not detected	1		ug/L	1	541-73-1	
1,4-Dichlorobenzene	Not detected	1		ug/L	1	106-46-7	
cis-1,2-Dichloroethene	Not detected	1		ug/L	1	156-59-2	
Dibromochloromethane	Not detected	5		ug/L	1	124-48-1	
Dichlorodifluoromethane	Not detected	5		ug/L	1	75-71-8	
trans-1,2-Dichloroethene	Not detected	1		ug/L	1	156-60-5	
Ethylbenzene	Not detected	1		ug/L	1	100-41-4	
2-Hexanone	Not detected	50		ug/L	1	591-78-6	
4-Methyl-2-pentanone (MIBK)	Not detected	50		ug/L	1	108-10-1	
tert-Methyl butyl ether (MTBE)	Not detected	5		ug/L	1	1634-04-4	
Methylene chloride	Not detected	5		ug/L	1	75-09-2	
Styrene	Not detected	1		ug/L	1	100-42-5	
1,1,1-Trichloroethane	Not detected	1		ug/L	1	71-55-6	
1,1,2-Trichloroethane	Not detected	1		ug/L	1	79-00-5	
1,2,4-Trichlorobenzene	Not detected	5		ug/L	1	120-82-1	
Tetrachloroethene	Not detected	1		ug/L	1	127-18-4	
Toluene	Not detected	1		ug/L	1	108-88-3	
Trichloroethene	Not detected	1		ug/L	1	79-01-6	
Trichlorofluoromethane	Not detected	1		ug/L	1	75-69-4	
Vinyl chloride	Not detected	1		ug/L	1	75-01-4	
o-Xylene	Not detected	1		ug/L	1	95-47-6	

Lab Sample ID: S40606.01 (continued)
Sample Tag: MW-13-22_GW-092122

Volatile Organics - Arcadis, Method: SW5030C/8260C, Run Date: 09/28/22 01:21, Analyst: BML (continued)

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
p,m-Xylene*	Not detected	2		ug/L	1		
Isopropylbenzene	Not detected	1		ug/L	1	98-82-8	
Cyclohexane	Not detected	1		ug/L	1	110-82-7	
1,1-Dichloroethane	Not detected	1		ug/L	1	75-34-3	
1,1-Dichloroethene	Not detected	1		ug/L	1	75-35-4	
Methyl Acetate	Not detected	10		ug/L	1	79-20-9	
Methyl cyclohexane	Not detected	1		ug/L	1	108-87-2	
1,1,2-Trichloro-1,2,2-trifluoroethane	Not detected	1		ug/L	1	76-13-1	
1,2-Dibromoethane	Not detected	1		ug/L	1	106-93-4	
1,1,2,2-Tetrachloroethane	Not detected	1		ug/L	1	79-34-5	
cis-1,3-Dichloropropene	Not detected	1		ug/L	1	10061-01-5	
trans-1,3-Dichloropropene	Not detected	1		ug/L	1	10061-02-6	

Lab Sample ID: S40606.02
Sample Tag: MW-14-22_GW-092122
Collected Date/Time: 09/21/2022 14:25
Matrix: Groundwater
COC Reference: 157354

Sample Containers

#	Type	Preservative(s)	Refrigerated?	Arrival Temp. (C)	Thermometer #
3	40ml Glass	HCL	Yes	3.5	IR

Extraction / Prep.

Parameter	Result	Method	Run Date	Analyst	Flags
pH check for VOCs*	<2	N/A	09/28/22 12:00	BML	

Organics - Volatiles

Volatile Organics - Arcadis, Method: SW5030C/8260C, Run Date: 09/28/22 01:45, Analyst: BML

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
Acetone	Not detected	50		ug/L	1	67-64-1	
2-Butanone (MEK)	Not detected	25		ug/L	1	78-93-3	
Benzene	Not detected	1		ug/L	1	71-43-2	
Bromodichloromethane	Not detected	1		ug/L	1	75-27-4	
Bromoform	Not detected	1		ug/L	1	75-25-2	
Bromomethane	Not detected	5		ug/L	1	74-83-9	
Carbon disulfide	Not detected	5		ug/L	1	75-15-0	
Carbon tetrachloride	2	1		ug/L	1	56-23-5	
Chlorobenzene	Not detected	1		ug/L	1	108-90-7	
Chloroethane	Not detected	5		ug/L	1	75-00-3	
Chloroform	Not detected	1		ug/L	1	67-66-3	
Chloromethane	Not detected	5		ug/L	1	74-87-3	
1,2-Dibromo-3-chloropropane	Not detected	5		ug/L	1	96-12-8	
1,2-Dichlorobenzene	Not detected	1		ug/L	1	95-50-1	
1,2-Dichloroethane	Not detected	1		ug/L	1	107-06-2	
1,2-Dichloropropane	Not detected	1		ug/L	1	78-87-5	
1,3-Dichlorobenzene	Not detected	1		ug/L	1	541-73-1	
1,4-Dichlorobenzene	Not detected	1		ug/L	1	106-46-7	
cis-1,2-Dichloroethene	12	1		ug/L	1	156-59-2	
Dibromochloromethane	Not detected	5		ug/L	1	124-48-1	
Dichlorodifluoromethane	Not detected	5		ug/L	1	75-71-8	
trans-1,2-Dichloroethene	1	1		ug/L	1	156-60-5	
Ethylbenzene	Not detected	1		ug/L	1	100-41-4	
2-Hexanone	Not detected	50		ug/L	1	591-78-6	
4-Methyl-2-pentanone (MIBK)	Not detected	50		ug/L	1	108-10-1	
tert-Methyl butyl ether (MTBE)	Not detected	5		ug/L	1	1634-04-4	
Methylene chloride	Not detected	5		ug/L	1	75-09-2	
Styrene	Not detected	1		ug/L	1	100-42-5	
1,1,1-Trichloroethane	10	1		ug/L	1	71-55-6	
1,1,2-Trichloroethane	Not detected	1		ug/L	1	79-00-5	
1,2,4-Trichlorobenzene	Not detected	5		ug/L	1	120-82-1	
Tetrachloroethene	89	1		ug/L	1	127-18-4	
Toluene	Not detected	1		ug/L	1	108-88-3	
Trichloroethene	19	1		ug/L	1	79-01-6	
Trichlorofluoromethane	Not detected	1		ug/L	1	75-69-4	
Vinyl chloride	Not detected	1		ug/L	1	75-01-4	
o-Xylene	Not detected	1		ug/L	1	95-47-6	

Lab Sample ID: S40606.02 (continued)
Sample Tag: MW-14-22_GW-092122

Volatile Organics - Arcadis, Method: SW5030C/8260C, Run Date: 09/28/22 01:45, Analyst: BML (continued)

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
p,m-Xylene*	Not detected	2		ug/L	1		
Isopropylbenzene	Not detected	1		ug/L	1	98-82-8	
Cyclohexane	Not detected	1		ug/L	1	110-82-7	
1,1-Dichloroethane	4	1		ug/L	1	75-34-3	
1,1-Dichloroethene	Not detected	1		ug/L	1	75-35-4	
Methyl Acetate	Not detected	10		ug/L	1	79-20-9	
Methyl cyclohexane	Not detected	1		ug/L	1	108-87-2	
1,1,2-Trichloro-1,2,2-trifluoroethane	Not detected	1		ug/L	1	76-13-1	
1,2-Dibromoethane	Not detected	1		ug/L	1	106-93-4	
1,1,2,2-Tetrachloroethane	Not detected	1		ug/L	1	79-34-5	
cis-1,3-Dichloropropene	Not detected	1		ug/L	1	10061-01-5	
trans-1,3-Dichloropropene	Not detected	1		ug/L	1	10061-02-6	

Lab Sample ID: S40606.03
Sample Tag: MWF8-01_GW-092222
Collected Date/Time: 09/22/2022 09:00
Matrix: Groundwater
COC Reference: 157354

Sample Containers

#	Type	Preservative(s)	Refrigerated?	Arrival Temp. (C)	Thermometer #
3	40ml Glass	HCL	Yes	3.5	IR

Extraction / Prep.

Parameter	Result	Method	Run Date	Analyst	Flags
pH check for VOCs*	<2	N/A	09/28/22 12:00	BML	

Organics - Volatiles

Volatile Organics - Arcadis, Method: SW5030C/8260C, Run Date: 09/28/22 02:08, Analyst: BML

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
Acetone	Not detected	50		ug/L	1	67-64-1	
2-Butanone (MEK)	Not detected	25		ug/L	1	78-93-3	
Benzene	Not detected	1		ug/L	1	71-43-2	
Bromodichloromethane	Not detected	1		ug/L	1	75-27-4	
Bromoform	Not detected	1		ug/L	1	75-25-2	
Bromomethane	Not detected	5		ug/L	1	74-83-9	
Carbon disulfide	Not detected	5		ug/L	1	75-15-0	
Carbon tetrachloride	Not detected	1		ug/L	1	56-23-5	
Chlorobenzene	Not detected	1		ug/L	1	108-90-7	
Chloroethane	Not detected	5		ug/L	1	75-00-3	
Chloroform	1	1		ug/L	1	67-66-3	
Chloromethane	Not detected	5		ug/L	1	74-87-3	
1,2-Dibromo-3-chloropropane	Not detected	5		ug/L	1	96-12-8	
1,2-Dichlorobenzene	Not detected	1		ug/L	1	95-50-1	
1,2-Dichloroethane	Not detected	1		ug/L	1	107-06-2	
1,2-Dichloropropane	Not detected	1		ug/L	1	78-87-5	
1,3-Dichlorobenzene	Not detected	1		ug/L	1	541-73-1	
1,4-Dichlorobenzene	Not detected	1		ug/L	1	106-46-7	
cis-1,2-Dichloroethene	Not detected	1		ug/L	1	156-59-2	
Dibromochloromethane	Not detected	5		ug/L	1	124-48-1	
Dichlorodifluoromethane	Not detected	5		ug/L	1	75-71-8	
trans-1,2-Dichloroethene	Not detected	1		ug/L	1	156-60-5	
Ethylbenzene	Not detected	1		ug/L	1	100-41-4	
2-Hexanone	Not detected	50		ug/L	1	591-78-6	
4-Methyl-2-pentanone (MIBK)	Not detected	50		ug/L	1	108-10-1	
tert-Methyl butyl ether (MTBE)	Not detected	5		ug/L	1	1634-04-4	
Methylene chloride	Not detected	5		ug/L	1	75-09-2	
Styrene	Not detected	1		ug/L	1	100-42-5	
1,1,1-Trichloroethane	Not detected	1		ug/L	1	71-55-6	
1,1,2-Trichloroethane	Not detected	1		ug/L	1	79-00-5	
1,2,4-Trichlorobenzene	Not detected	5		ug/L	1	120-82-1	
Tetrachloroethene	Not detected	1		ug/L	1	127-18-4	
Toluene	Not detected	1		ug/L	1	108-88-3	
Trichloroethene	Not detected	1		ug/L	1	79-01-6	
Trichlorofluoromethane	Not detected	1		ug/L	1	75-69-4	
Vinyl chloride	Not detected	1		ug/L	1	75-01-4	
o-Xylene	Not detected	1		ug/L	1	95-47-6	

Lab Sample ID: S40606.03 (continued)
Sample Tag: MWF8-01_GW-092222

Volatile Organics - Arcadis, Method: SW5030C/8260C, Run Date: 09/28/22 02:08, Analyst: BML (continued)

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
p,m-Xylene*	Not detected	2		ug/L	1		
Isopropylbenzene	Not detected	1		ug/L	1	98-82-8	
Cyclohexane	Not detected	1		ug/L	1	110-82-7	
1,1-Dichloroethane	Not detected	1		ug/L	1	75-34-3	
1,1-Dichloroethene	Not detected	1		ug/L	1	75-35-4	
Methyl Acetate	Not detected	10		ug/L	1	79-20-9	
Methyl cyclohexane	Not detected	1		ug/L	1	108-87-2	
1,1,2-Trichloro-1,2,2-trifluoroethane	Not detected	1		ug/L	1	76-13-1	
1,2-Dibromoethane	Not detected	1		ug/L	1	106-93-4	
1,1,2,2-Tetrachloroethane	Not detected	1		ug/L	1	79-34-5	
cis-1,3-Dichloropropene	Not detected	1		ug/L	1	10061-01-5	
trans-1,3-Dichloropropene	Not detected	1		ug/L	1	10061-02-6	

Lab Sample ID: S40606.04
Sample Tag: tripblank_53
Collected Date/Time: 09/22/2022 00:01
Matrix: Water
COC Reference: 157354

Sample Containers

#	Type	Preservative(s)	Refrigerated?	Arrival Temp. (C)	Thermometer #
1	40ml Glass	HCL	Yes	3.5	IR

Extraction / Prep.

Parameter	Result	Method	Run Date	Analyst	Flags
pH check for VOCs*	<2	N/A	09/28/22 12:00	BML	

Organics - Volatiles

Volatile Organics - Arcadis, Method: SW5030C/8260C, Run Date: 09/27/22 23:47, Analyst: BML

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
Acetone	Not detected	50		ug/L	1	67-64-1	
2-Butanone (MEK)	Not detected	25		ug/L	1	78-93-3	
Benzene	Not detected	1		ug/L	1	71-43-2	
Bromodichloromethane	Not detected	1		ug/L	1	75-27-4	
Bromoform	Not detected	1		ug/L	1	75-25-2	
Bromomethane	Not detected	5		ug/L	1	74-83-9	
Carbon disulfide	Not detected	5		ug/L	1	75-15-0	
Carbon tetrachloride	Not detected	1		ug/L	1	56-23-5	
Chlorobenzene	Not detected	1		ug/L	1	108-90-7	
Chloroethane	Not detected	5		ug/L	1	75-00-3	
Chloroform	Not detected	1		ug/L	1	67-66-3	
Chloromethane	Not detected	5		ug/L	1	74-87-3	
1,2-Dibromo-3-chloropropane	Not detected	5		ug/L	1	96-12-8	
1,2-Dichlorobenzene	Not detected	1		ug/L	1	95-50-1	
1,2-Dichloroethane	Not detected	1		ug/L	1	107-06-2	
1,2-Dichloropropane	Not detected	1		ug/L	1	78-87-5	
1,3-Dichlorobenzene	Not detected	1		ug/L	1	541-73-1	
1,4-Dichlorobenzene	Not detected	1		ug/L	1	106-46-7	
cis-1,2-Dichloroethene	Not detected	1		ug/L	1	156-59-2	
Dibromochloromethane	Not detected	5		ug/L	1	124-48-1	
Dichlorodifluoromethane	Not detected	5		ug/L	1	75-71-8	
trans-1,2-Dichloroethene	Not detected	1		ug/L	1	156-60-5	
Ethylbenzene	Not detected	1		ug/L	1	100-41-4	
2-Hexanone	Not detected	50		ug/L	1	591-78-6	
4-Methyl-2-pentanone (MIBK)	Not detected	50		ug/L	1	108-10-1	
tert-Methyl butyl ether (MTBE)	Not detected	5		ug/L	1	1634-04-4	
Methylene chloride	Not detected	5		ug/L	1	75-09-2	
Styrene	Not detected	1		ug/L	1	100-42-5	
1,1,1-Trichloroethane	Not detected	1		ug/L	1	71-55-6	
1,1,2-Trichloroethane	Not detected	1		ug/L	1	79-00-5	
1,2,4-Trichlorobenzene	Not detected	5		ug/L	1	120-82-1	
Tetrachloroethene	Not detected	1		ug/L	1	127-18-4	
Toluene	Not detected	1		ug/L	1	108-88-3	
Trichloroethene	Not detected	1		ug/L	1	79-01-6	
Trichlorofluoromethane	Not detected	1		ug/L	1	75-69-4	
Vinyl chloride	Not detected	1		ug/L	1	75-01-4	
o-Xylene	Not detected	1		ug/L	1	95-47-6	

Lab Sample ID: S40606.04 (continued)
Sample Tag: tripblank_53

Volatile Organics - Arcadis, Method: SW5030C/8260C, Run Date: 09/27/22 23:47, Analyst: BML (continued)

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
p,m-Xylene*	Not detected	2		ug/L	1		
Isopropylbenzene	Not detected	1		ug/L	1	98-82-8	
Cyclohexane	Not detected	1		ug/L	1	110-82-7	
1,1-Dichloroethane	Not detected	1		ug/L	1	75-34-3	
1,1-Dichloroethene	Not detected	1		ug/L	1	75-35-4	
Methyl Acetate	Not detected	10		ug/L	1	79-20-9	
Methyl cyclohexane	Not detected	1		ug/L	1	108-87-2	
1,1,2-Trichloro-1,2,2-trifluoroethane	Not detected	1		ug/L	1	76-13-1	
1,2-Dibromoethane	Not detected	1		ug/L	1	106-93-4	
1,1,2,2-Tetrachloroethane	Not detected	1		ug/L	1	79-34-5	
cis-1,3-Dichloropropene	Not detected	1		ug/L	1	10061-01-5	
trans-1,3-Dichloropropene	Not detected	1		ug/L	1	10061-02-6	

Lab Sample ID: S40606.05
Sample Tag: MWF16-16_GW-092222
Collected Date/Time: 09/22/2022 10:00
Matrix: Groundwater
COC Reference: 157354

Sample Containers

#	Type	Preservative(s)	Refrigerated?	Arrival Temp. (C)	Thermometer #
3	40ml Glass	HCL	Yes	3.5	IR

Extraction / Prep.

Parameter	Result	Method	Run Date	Analyst	Flags
pH check for VOCs*	<2	N/A	09/28/22 12:00	BML	

Organics - Volatiles

Volatile Organics - Arcadis, Method: SW5030C/8260C, Run Date: 09/28/22 02:32, Analyst: BML

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
Acetone	Not detected	1,000		ug/L	20	67-64-1	Y
2-Butanone (MEK)	Not detected	500		ug/L	20	78-93-3	Y
Benzene	Not detected	20		ug/L	20	71-43-2	Y
Bromodichloromethane	Not detected	20		ug/L	20	75-27-4	Y
Bromoform	Not detected	20		ug/L	20	75-25-2	Y
Bromomethane	Not detected	100		ug/L	20	74-83-9	Y
Carbon disulfide	Not detected	100		ug/L	20	75-15-0	Y
Carbon tetrachloride	Not detected	20		ug/L	20	56-23-5	Y
Chlorobenzene	Not detected	20		ug/L	20	108-90-7	Y
Chloroethane	Not detected	100		ug/L	20	75-00-3	Y
Chloroform	Not detected	20		ug/L	20	67-66-3	Y
Chloromethane	Not detected	100		ug/L	20	74-87-3	Y
1,2-Dibromo-3-chloropropane	Not detected	100		ug/L	20	96-12-8	Y
1,2-Dichlorobenzene	Not detected	20		ug/L	20	95-50-1	Y
1,2-Dichloroethane	Not detected	20		ug/L	20	107-06-2	Y
1,2-Dichloropropane	Not detected	20		ug/L	20	78-87-5	Y
1,3-Dichlorobenzene	Not detected	20		ug/L	20	541-73-1	Y
1,4-Dichlorobenzene	Not detected	20		ug/L	20	106-46-7	Y
cis-1,2-Dichloroethene	Not detected	20		ug/L	20	156-59-2	Y
Dibromochloromethane	Not detected	100		ug/L	20	124-48-1	Y
Dichlorodifluoromethane	Not detected	100		ug/L	20	75-71-8	Y
trans-1,2-Dichloroethene	Not detected	20		ug/L	20	156-60-5	Y
Ethylbenzene	Not detected	20		ug/L	20	100-41-4	Y
2-Hexanone	Not detected	1,000		ug/L	20	591-78-6	Y
4-Methyl-2-pentanone (MIBK)	Not detected	1,000		ug/L	20	108-10-1	Y
tert-Methyl butyl ether (MTBE)	Not detected	100		ug/L	20	1634-04-4	Y
Methylene chloride	Not detected	100		ug/L	20	75-09-2	Y
Styrene	Not detected	20		ug/L	20	100-42-5	Y
1,1,1-Trichloroethane	Not detected	20		ug/L	20	71-55-6	Y
1,1,2-Trichloroethane	Not detected	20		ug/L	20	79-00-5	Y
1,2,4-Trichlorobenzene	Not detected	100		ug/L	20	120-82-1	Y
Tetrachloroethene	380	20		ug/L	20	127-18-4	Y
Toluene	Not detected	20		ug/L	20	108-88-3	Y
Trichloroethene	Not detected	20		ug/L	20	79-01-6	Y
Trichlorofluoromethane	Not detected	20		ug/L	20	75-69-4	Y
Vinyl chloride	Not detected	20		ug/L	20	75-01-4	Y

Y-Elevated reporting limit due to high target concentration

Lab Sample ID: S40606.05 (continued)
Sample Tag: MWF16-16_GW-092222

Volatile Organics - Arcadis, Method: SW5030C/8260C, Run Date: 09/28/22 02:32, Analyst: BML (continued)

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
o-Xylene	Not detected	20		ug/L	20	95-47-6	Y
p,m-Xylene*	Not detected	40		ug/L	20		Y
Isopropylbenzene	Not detected	20		ug/L	20	98-82-8	Y
Cyclohexane	Not detected	20		ug/L	20	110-82-7	Y
1,1-Dichloroethane	Not detected	20		ug/L	20	75-34-3	Y
1,1-Dichloroethene	Not detected	20		ug/L	20	75-35-4	Y
Methyl Acetate	Not detected	200		ug/L	20	79-20-9	Y
Methyl cyclohexane	Not detected	20		ug/L	20	108-87-2	Y
1,1,2-Trichloro-1,2,2-trifluoroethane	Not detected	20		ug/L	20	76-13-1	Y
1,2-Dibromoethane	Not detected	20		ug/L	20	106-93-4	Y
1,1,2,2-Tetrachloroethane	Not detected	20		ug/L	20	79-34-5	Y
cis-1,3-Dichloropropene	Not detected	20		ug/L	20	10061-01-5	Y
trans-1,3-Dichloropropene	Not detected	20		ug/L	20	10061-02-6	Y

Y-Elevated reporting limit due to high target concentration

Lab Sample ID: S40606.06
Sample Tag: DUP-03_GW-092222
Collected Date/Time: 09/22/2022 00:01
Matrix: Groundwater
COC Reference: 157354

Sample Containers

#	Type	Preservative(s)	Refrigerated?	Arrival Temp. (C)	Thermometer #
3	40ml Glass	HCL	Yes	3.5	IR

Extraction / Prep.

Parameter	Result	Method	Run Date	Analyst	Flags
pH check for VOCs*	<2	N/A	09/28/22 12:00	BML	

Organics - Volatiles

Volatile Organics - Arcadis, Method: SW5030C/8260C, Run Date: 09/28/22 16:33, Analyst: BML

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
Acetone	Not detected	50		ug/L	1	67-64-1	
2-Butanone (MEK)	Not detected	25		ug/L	1	78-93-3	
Benzene	Not detected	1		ug/L	1	71-43-2	
Bromodichloromethane	Not detected	1		ug/L	1	75-27-4	
Bromoform	Not detected	1		ug/L	1	75-25-2	
Bromomethane	Not detected	5		ug/L	1	74-83-9	
Carbon disulfide	Not detected	5		ug/L	1	75-15-0	
Carbon tetrachloride	Not detected	1		ug/L	1	56-23-5	
Chlorobenzene	Not detected	1		ug/L	1	108-90-7	
Chloroethane	Not detected	5		ug/L	1	75-00-3	
Chloroform	Not detected	1		ug/L	1	67-66-3	
Chloromethane	Not detected	5		ug/L	1	74-87-3	
1,2-Dibromo-3-chloropropane	Not detected	5		ug/L	1	96-12-8	
1,2-Dichlorobenzene	Not detected	1		ug/L	1	95-50-1	
1,2-Dichloroethane	Not detected	1		ug/L	1	107-06-2	
1,2-Dichloropropane	Not detected	1		ug/L	1	78-87-5	
1,3-Dichlorobenzene	Not detected	1		ug/L	1	541-73-1	
1,4-Dichlorobenzene	Not detected	1		ug/L	1	106-46-7	
cis-1,2-Dichloroethene	Not detected	1		ug/L	1	156-59-2	
Dibromochloromethane	Not detected	5		ug/L	1	124-48-1	
Dichlorodifluoromethane	Not detected	5		ug/L	1	75-71-8	
trans-1,2-Dichloroethene	Not detected	1		ug/L	1	156-60-5	
Ethylbenzene	Not detected	1		ug/L	1	100-41-4	
2-Hexanone	Not detected	50		ug/L	1	591-78-6	
4-Methyl-2-pentanone (MIBK)	Not detected	50		ug/L	1	108-10-1	
tert-Methyl butyl ether (MTBE)	Not detected	5		ug/L	1	1634-04-4	
Methylene chloride	Not detected	5		ug/L	1	75-09-2	
Styrene	Not detected	1		ug/L	1	100-42-5	
1,1,1-Trichloroethane	Not detected	1		ug/L	1	71-55-6	
1,1,2-Trichloroethane	Not detected	1		ug/L	1	79-00-5	
1,2,4-Trichlorobenzene	Not detected	5		ug/L	1	120-82-1	
Tetrachloroethene	Not detected	1		ug/L	1	127-18-4	
Toluene	Not detected	1		ug/L	1	108-88-3	
Trichloroethene	Not detected	1		ug/L	1	79-01-6	
Trichlorofluoromethane	Not detected	1		ug/L	1	75-69-4	
Vinyl chloride	Not detected	1		ug/L	1	75-01-4	
o-Xylene	Not detected	1		ug/L	1	95-47-6	

Lab Sample ID: S40606.06 (continued)
Sample Tag: DUP-03_GW-092222

Volatile Organics - Arcadis, Method: SW5030C/8260C, Run Date: 09/28/22 16:33, Analyst: BML (continued)

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
p,m-Xylene*	Not detected	2		ug/L	1		
Isopropylbenzene	Not detected	1		ug/L	1	98-82-8	
Cyclohexane	Not detected	1		ug/L	1	110-82-7	
1,1-Dichloroethane	Not detected	1		ug/L	1	75-34-3	
1,1-Dichloroethene	Not detected	1		ug/L	1	75-35-4	
Methyl Acetate	Not detected	10		ug/L	1	79-20-9	
Methyl cyclohexane	Not detected	1		ug/L	1	108-87-2	
1,1,2-Trichloro-1,2,2-trifluoroethane	Not detected	1		ug/L	1	76-13-1	
1,2-Dibromoethane	Not detected	1		ug/L	1	106-93-4	
1,1,2,2-Tetrachloroethane	Not detected	1		ug/L	1	79-34-5	
cis-1,3-Dichloropropene	Not detected	1		ug/L	1	10061-01-5	
trans-1,3-Dichloropropene	Not detected	1		ug/L	1	10061-02-6	

Merit Laboratories Login Checklist

Lab Set ID: S40606
Client: ARCADIS_NOVI (ARCADIS U.S., Inc.)
Project: 30112891.00005 / Racer PNC
Submitted: 09/22/2022 16:00 Login User: MMC

Attention: Alexis Crisp
Address: Arcadis US, Inc.
28550 Cabot Drive
Suite 500
Novi, MI 48377

Phone: 810-225-1909 FAX:
Email: Alexis.Crisp@arcadis.com

Selection				Description	Note
Sample Receiving					
01.	[X] Yes	[ ] No	[ ] N/A	Samples are received at 4C +/- 2C Thermometer #	IR 3.5
02.	[X] Yes	[ ] No	[ ] N/A	Received on ice/ cooling process begun	
03.	[ ] Yes	[X] No	[ ] N/A	Samples shipped	
04.	[ ] Yes	[X] No	[ ] N/A	Samples left in 24 hr. drop box	
05.	[ ] Yes	[ ] No	[X] N/A	Are there custody seals/tape or is the drop box locked	
Chain of Custody					
06.	[X] Yes	[ ] No	[ ] N/A	COC adequately filled out	
07.	[X] Yes	[ ] No	[ ] N/A	COC signed and relinquished to the lab	
08.	[X] Yes	[ ] No	[ ] N/A	Sample tag on bottles match COC	
09.	[ ] Yes	[X] No	[ ] N/A	Subcontracting needed? Subcontacted to:	
Preservation					
10.	[X] Yes	[ ] No	[ ] N/A	Do sample have correct chemical preservation	
11.	[ ] Yes	[ ] No	[X] N/A	Completed pH checks on preserved samples? (no VOAs)	
12.	[ ] Yes	[X] No	[ ] N/A	Did any samples need to be preserved in the lab?	
Bottle Conditions					
13.	[X] Yes	[ ] No	[ ] N/A	All bottles intact	
14.	[X] Yes	[ ] No	[ ] N/A	Appropriate analytical bottles are used	
15.	[X] Yes	[ ] No	[ ] N/A	Merit bottles used	
16.	[X] Yes	[ ] No	[ ] N/A	Sufficient sample volume received	
17.	[ ] Yes	[X] No	[ ] N/A	Samples require laboratory filtration	
18.	[X] Yes	[ ] No	[ ] N/A	Samples submitted within holding time	
19.	[ ] Yes	[X] No	[ ] N/A	Do water VOC or TOX bottles contain headspace	

Corrective action for all exceptions is to call the client and to notify the project manager.

Client Review By: _____ Date: _____

Merit Laboratories, Inc.
2680 East Lansing Dr., East Lansing, MI 48823
Phone (517) 332-0167 Fax (517) 332-4034
www.meritlabs.com

C.O.C. PAGE # _____ OF _____ 157354

CHAIN OF CUSTODY RECORD

REPORT TO

CONTACT NAME: Tiffany Linder
COMPANY: Arcadis
ADDRESS: 28550 Cabot Dr #500
CITY: Novi STATE: MI ZIP CODE: 48377
PHONE NO.: 248 994 2240 CELL NO.: P.O. NO.:
E-MAIL ADDRESS: tiffany.linder@arcadis.com QUOTE NO.:

INVOICE TO

CONTACT NAME ☐ SAME
COMPANY
ADDRESS
CITY STATE ZIP CODE
PHONE NO. E-MAIL ADDRESS

PROJECT NO./NAME: 30112891.00005 / Racer PNC
SAMPLER(S) - PLEASE PRINT/SIGN NAME: Sommer Guy / Sommer Guy
TURNAROUND TIME REQUIRED ☐ 1 DAY ☐ 2 DAYS ☐ 3 DAYS ☐ STANDARD ☐ OTHER
DELIVERABLES REQUIRED ☐ STD ☐ LEVEL II ☐ LEVEL III ☐ LEVEL IV ☐ EDD ☐ OTHER

MATRIX CODE: W=WATER GW=GROUNDWATER WW=WASTEWATER S=SOIL L=LIQUID SD=SOLID SL=SLUDGE DW=DRINKING WATER O=OIL WP=WIPE A=AIR WS=WASTE

ANALYSIS (ATTACH LIST IF MORE SPACE IS REQUIRED)

Certifications
☐ OHIO VAP ☐ Drinking Water
☐ DoD ☐ NPDES
Project Locations
☐ Detroit ☐ New York
☐ Other _____
Special Instructions

MERIT LAB NO. FOR LAB USE ONLY	COLLECTION DATE	COLLECTION TIME	SAMPLE TAG IDENTIFICATION-DESCRIPTION	MATRIX	# OF BOTTLES	# Containers & Preservatives: NONE	HCl	HNO_3	H_2SO_4	NaOH	MeOH	OTHER	Site specific VOCs Method 8260	8260C Sims (1,4 Dioxane)
40606.01	9/21/22	1320	MW-13-22_GW-092122	GW	3		X						X	
.02	9/21/22	1425	MW-14-22_GW-092122	GW	3		X						X	
.03	9/22/22	0900	MWFB-01_GW-092222	GW	3		X						X	
.04	—	—	tripblank_53	GW	1		X						X	
.05	9/22/22	1000	MWFB-16-16_GW-092222	GW	3		X						X	
	9/22/22		MWFB-22_GW-092222	GW	3		X						X	
.06	9/22/22	—	DUP-03_GW-092222	GW	3		X						X	

RELINQUISHED BY: SIGNATURE/ORGANIZATION	Sommer Guy / Arcadis (A Sampler)	DATE 9/22/22	TIME 10:30
RECEIVED BY: SIGNATURE/ORGANIZATION		DATE 9/22/22	TIME 10:30
RELINQUISHED BY: SIGNATURE/ORGANIZATION		DATE 9/22/22	TIME 16:00
RECEIVED BY: SIGNATURE/ORGANIZATION	M Calcote	DATE 9/22/22	TIME 1600

RELINQUISHED BY: SIGNATURE/ORGANIZATION DATE TIME
RECEIVED BY: SIGNATURE/ORGANIZATION DATE TIME

SEAL NO. SEAL INTACT YES ☐ NO ☐ INITIALS
SEAL NO. SEAL INTACT YES ☐ NO ☐ INITIALS

NOTES: TEMP. ON ARRIVAL 3.5

PLEASE NOTE: SIGNING ACKNOWLEDGES ADHERENCE TO MERIT'S SAMPLE ACCEPTANCE POLICY ON REVERSE SIDE

Rev. 1.26.22

Analytical Laboratory Report

Report ID: S40607.01(01)
Generated on 09/29/2022

Report to

Attention: Alexis Crisp
Arcadis US, Inc.
28550 Cabot Drive
Suite 500
Novi, MI 48377

Phone: 810-225-1909 FAX:
Email: Alexis.Crisp@arcadis.com

Addtional Contacts: Tiffany Linder, Ian Drost

Report produced by

Merit Laboratories, Inc.
2680 East Lansing Drive
East Lansing, MI 48823

Phone: (517) 332-0167 FAX: (517) 332-6333

Contacts for report questions:
John Laverty (johnlaverty@meritlabs.com)
Barbara Ball (bball@meritlabs.com)

Report Summary

Lab Sample ID(s): S40607.01-S40607.05
Project: Racer PNC / 30112891.00005
Collected Date(s): 09/21/2022
Submitted Date/Time: 09/22/2022 16:00
Sampled by: LF
P.O. #: 30112891.00005

Table of Contents

Maya Murshak
Technical Director

General Report Notes

Analytical results relate only to the samples tested, in the condition received by the laboratory.
Methods may be modified for improved performance.
Results reported on a dry weight basis where applicable.
'Not detected' indicates that parameter was not found at a level equal to or greater than the reporting limit (RL).
When MDL results are provided, then 'Not detected' indicates that parameter was not found at a level equal to or greater than the MDL.
40 CFR Part 136 Table II Required Containers, Preservation Techniques and Holding Times for the Clean Water Act specify that samples for acrolein and acrylonitrile, and 2-chloroethylvinyl ether need to be preserved at a pH in the range of 4 to 5 or if not preserved, analyzed within 3 days of sampling.
QA/QC corresponding to this analytical report is a separate document with the same Merit ID reference and is available upon request.
Full accreditation certificates are available upon request. Starred (*) analytes are not NELAP accredited.
Samples are held by the lab for 30 days from the final report date unless a written request to hold longer is provided by the client.

Limits for drinking water samples, are listed as the MCL Limits (Maximum Contaminant Level Concentrations)
PFAS requirement: Section 9.3.8 of U.S. EPA Method 537.1 states "If the method analyte(s) found in the Field Sample is present in the FRB at a concentration greater than 1/3 the MRL, then all samples collected with that FRB are invalid and must be recollected and reanalyzed."
Samples submitted without an accompanying FRB may not be acceptable for compliance purposes.
Wisconsin PFAs analysis: MDL = LOD; RL = LOQ. LOD and LOQ are adjusted for dilution.

Report Narrative

There is no additional narrative for this analytical report

Laboratory Certifications

Authority	Certification ID
Michigan DEQ	#9956
DOD ELAP/ISO 17025	#69699
WBENC	#2005110032
Ohio VAP	#CL0002
Indiana DOH	#C-MI-07
New York NELAC	#11814
North Carolina DENR	#680
North Carolina DOH	#26702
Alaska CSLAP	#17-001
Pennsylvania DEP	#68-05884
Wisconsin DNR	FID# 399147320

Qualifier Descriptions

Qualifier	Description
!	Result is outside of stated limit criteria
B	Compound also found in associated method blank
E	Concentration exceeds calibration range
F	Analysis run outside of holding time
G	Estimated result due to extraction run outside of holding time
H	Sample submitted and run outside of holding time
I	Matrix interference with internal standard
J	Estimated value less than reporting limit, but greater than MDL
L	Elevated reporting limit due to low sample amount
M	Result reported to MDL not RDL
O	Analysis performed by outside laboratory. See attached report.
R	Preliminary result
S	Surrogate recovery outside of control limits
T	No correction for total solids
X	Elevated reporting limit due to matrix interference
Y	Elevated reporting limit due to high target concentration
b	Value detected less than reporting limit, but greater than MDL
e	Reported value estimated due to interference
j	Analyte also found in associated method blank
p	Benzo(b)Fluoranthene and Benzo(k)Fluoranthene integrated as one peak.
x	Preserved from bulk sample

Glossary of Abbreviations

Abbreviation	Description
RL/RDL	Reporting Limit
MDL	Method Detection Limit
MS	Matrix Spike
MSD	Matrix Spike Duplicate
SW	EPA SW 846 (Soil and Wastewater) Methods
E	EPA Methods
SM	Standard Methods
LN	Linear
BR	Branched

Method Summary

Method	Version
N/A	Not Applicable
SW5030C/8260C	SW 846 Method 8260C Revision 3 August 2006 / 5030C Revision 3 May 2003

Sample Summary (5 samples)

Sample ID	Sample Tag	Matrix	Collected Date/Time
S40607.01	MWF16-12_GW-092122	Groundwater	09/21/22 10:40
S40607.02	MWF16-20_GW-092122	Groundwater	09/21/22 13:40
S40607.03	MWF16-17_GW-092122	Groundwater	09/21/22 14:58
S40607.04	MW-09-22_GW-092122	Groundwater	09/21/22 15:58
S40607.05	tripblank_01	Water	09/21/22 00:01

Lab Sample ID: S40607.01
Sample Tag: MWF16-12_GW-092122
Collected Date/Time: 09/21/2022 10:40
Matrix: Groundwater
COC Reference: 157353

Sample Containers

#	Type	Preservative(s)	Refrigerated?	Arrival Temp. (C)	Thermometer #
3	40ml Glass	HCL	Yes	3.5	IR

Extraction / Prep.

Parameter	Result	Method	Run Date	Analyst	Flags
pH check for VOCs*	<2	N/A	09/28/22 12:00	BML	

Organics - Volatiles

Volatile Organics - Arcadis, Method: SW5030C/8260C, Run Date: 09/28/22 03:19, Analyst: BML

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
Acetone	Not detected	50		ug/L	1	67-64-1	
2-Butanone (MEK)	Not detected	25		ug/L	1	78-93-3	
Benzene	Not detected	1		ug/L	1	71-43-2	
Bromodichloromethane	Not detected	1		ug/L	1	75-27-4	
Bromoform	Not detected	1		ug/L	1	75-25-2	
Bromomethane	Not detected	5		ug/L	1	74-83-9	
Carbon disulfide	Not detected	5		ug/L	1	75-15-0	
Carbon tetrachloride	Not detected	1		ug/L	1	56-23-5	
Chlorobenzene	Not detected	1		ug/L	1	108-90-7	
Chloroethane	Not detected	5		ug/L	1	75-00-3	
Chloroform	Not detected	1		ug/L	1	67-66-3	
Chloromethane	Not detected	5		ug/L	1	74-87-3	
1,2-Dibromo-3-chloropropane	Not detected	5		ug/L	1	96-12-8	
1,2-Dichlorobenzene	Not detected	1		ug/L	1	95-50-1	
1,2-Dichloroethane	Not detected	1		ug/L	1	107-06-2	
1,2-Dichloropropane	Not detected	1		ug/L	1	78-87-5	
1,3-Dichlorobenzene	Not detected	1		ug/L	1	541-73-1	
1,4-Dichlorobenzene	Not detected	1		ug/L	1	106-46-7	
cis-1,2-Dichloroethene	Not detected	1		ug/L	1	156-59-2	
Dibromochloromethane	Not detected	5		ug/L	1	124-48-1	
Dichlorodifluoromethane	Not detected	5		ug/L	1	75-71-8	
trans-1,2-Dichloroethene	Not detected	1		ug/L	1	156-60-5	
Ethylbenzene	Not detected	1		ug/L	1	100-41-4	
2-Hexanone	Not detected	50		ug/L	1	591-78-6	
4-Methyl-2-pentanone (MIBK)	Not detected	50		ug/L	1	108-10-1	
tert-Methyl butyl ether (MTBE)	Not detected	5		ug/L	1	1634-04-4	
Methylene chloride	Not detected	5		ug/L	1	75-09-2	
Styrene	Not detected	1		ug/L	1	100-42-5	
1,1,1-Trichloroethane	Not detected	1		ug/L	1	71-55-6	
1,1,2-Trichloroethane	Not detected	1		ug/L	1	79-00-5	
1,2,4-Trichlorobenzene	Not detected	5		ug/L	1	120-82-1	
Tetrachloroethene	50	1		ug/L	1	127-18-4	
Toluene	Not detected	1		ug/L	1	108-88-3	
Trichloroethene	Not detected	1		ug/L	1	79-01-6	
Trichlorofluoromethane	Not detected	1		ug/L	1	75-69-4	
Vinyl chloride	Not detected	1		ug/L	1	75-01-4	
o-Xylene	Not detected	1		ug/L	1	95-47-6	

Lab Sample ID: S40607.01 (continued)
Sample Tag: MWF16-12_GW-092122

Volatile Organics - Arcadis, Method: SW5030C/8260C, Run Date: 09/28/22 03:19, Analyst: BML (continued)

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
p,m-Xylene*	Not detected	2		ug/L	1		
Isopropylbenzene	Not detected	1		ug/L	1	98-82-8	
Cyclohexane	Not detected	1		ug/L	1	110-82-7	
1,1-Dichloroethane	Not detected	1		ug/L	1	75-34-3	
1,1-Dichloroethene	Not detected	1		ug/L	1	75-35-4	
Methyl Acetate	Not detected	10		ug/L	1	79-20-9	
Methyl cyclohexane	Not detected	1		ug/L	1	108-87-2	
1,1,2-Trichloro-1,2,2-trifluoroethane	Not detected	1		ug/L	1	76-13-1	
1,2-Dibromoethane	Not detected	1		ug/L	1	106-93-4	
1,1,2,2-Tetrachloroethane	Not detected	1		ug/L	1	79-34-5	
cis-1,3-Dichloropropene	Not detected	1		ug/L	1	10061-01-5	
trans-1,3-Dichloropropene	Not detected	1		ug/L	1	10061-02-6	

Lab Sample ID: S40607.02
Sample Tag: MWF16-20_GW-092122
Collected Date/Time: 09/21/2022 13:40
Matrix: Groundwater
COC Reference: 157353

Sample Containers

#	Type	Preservative(s)	Refrigerated?	Arrival Temp. (C)	Thermometer #
3	40ml Glass	HCL	Yes	3.5	IR

Extraction / Prep.

Parameter	Result	Method	Run Date	Analyst	Flags
pH check for VOCs*	<2	N/A	09/28/22 12:00	BML	

Organics - Volatiles

Volatile Organics - Arcadis, Method: SW5030C/8260C, Run Date: 09/28/22 03:43, Analyst: BML

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
Acetone	Not detected	50		ug/L	1	67-64-1	
2-Butanone (MEK)	Not detected	25		ug/L	1	78-93-3	
Benzene	Not detected	1		ug/L	1	71-43-2	
Bromodichloromethane	Not detected	1		ug/L	1	75-27-4	
Bromoform	Not detected	1		ug/L	1	75-25-2	
Bromomethane	Not detected	5		ug/L	1	74-83-9	
Carbon disulfide	Not detected	5		ug/L	1	75-15-0	
Carbon tetrachloride	57	1		ug/L	1	56-23-5	
Chlorobenzene	Not detected	1		ug/L	1	108-90-7	
Chloroethane	Not detected	5		ug/L	1	75-00-3	
Chloroform	180	1		ug/L	1	67-66-3	
Chloromethane	Not detected	5		ug/L	1	74-87-3	
1,2-Dibromo-3-chloropropane	Not detected	5		ug/L	1	96-12-8	
1,2-Dichlorobenzene	Not detected	1		ug/L	1	95-50-1	
1,2-Dichloroethane	Not detected	1		ug/L	1	107-06-2	
1,2-Dichloropropane	Not detected	1		ug/L	1	78-87-5	
1,3-Dichlorobenzene	Not detected	1		ug/L	1	541-73-1	
1,4-Dichlorobenzene	Not detected	1		ug/L	1	106-46-7	
cis-1,2-Dichloroethene	2	1		ug/L	1	156-59-2	
Dibromochloromethane	Not detected	5		ug/L	1	124-48-1	
Dichlorodifluoromethane	Not detected	5		ug/L	1	75-71-8	
trans-1,2-Dichloroethene	Not detected	1		ug/L	1	156-60-5	
Ethylbenzene	Not detected	1		ug/L	1	100-41-4	
2-Hexanone	Not detected	50		ug/L	1	591-78-6	
4-Methyl-2-pentanone (MIBK)	Not detected	50		ug/L	1	108-10-1	
tert-Methyl butyl ether (MTBE)	Not detected	5		ug/L	1	1634-04-4	
Methylene chloride	Not detected	5		ug/L	1	75-09-2	
Styrene	Not detected	1		ug/L	1	100-42-5	
1,1,1-Trichloroethane	120	1		ug/L	1	71-55-6	
1,1,2-Trichloroethane	Not detected	1		ug/L	1	79-00-5	
1,2,4-Trichlorobenzene	Not detected	5		ug/L	1	120-82-1	
Tetrachloroethene	11	1		ug/L	1	127-18-4	
Toluene	Not detected	1		ug/L	1	108-88-3	
Trichloroethene	6	1		ug/L	1	79-01-6	
Trichlorofluoromethane	Not detected	1		ug/L	1	75-69-4	
Vinyl chloride	Not detected	1		ug/L	1	75-01-4	
o-Xylene	Not detected	1		ug/L	1	95-47-6	

Lab Sample ID: S40607.02 (continued)
Sample Tag: MWF16-20_GW-092122

Volatile Organics - Arcadis, Method: SW5030C/8260C, Run Date: 09/28/22 03:43, Analyst: BML (continued)

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
p,m-Xylene*	Not detected	2		ug/L	1		
Isopropylbenzene	Not detected	1		ug/L	1	98-82-8	
Cyclohexane	Not detected	1		ug/L	1	110-82-7	
1,1-Dichloroethane	45	1		ug/L	1	75-34-3	
1,1-Dichloroethene	9	1		ug/L	1	75-35-4	
Methyl Acetate	Not detected	10		ug/L	1	79-20-9	
Methyl cyclohexane	Not detected	1		ug/L	1	108-87-2	
1,1,2-Trichloro-1,2,2-trifluoroethane	Not detected	1		ug/L	1	76-13-1	
1,2-Dibromoethane	Not detected	1		ug/L	1	106-93-4	
1,1,2,2-Tetrachloroethane	Not detected	1		ug/L	1	79-34-5	
cis-1,3-Dichloropropene	Not detected	1		ug/L	1	10061-01-5	
trans-1,3-Dichloropropene	Not detected	1		ug/L	1	10061-02-6	

Lab Sample ID: S40607.03
Sample Tag: MWF16-17_GW-092122
Collected Date/Time: 09/21/2022 14:58
Matrix: Groundwater
COC Reference: 157353

Sample Containers

#	Type	Preservative(s)	Refrigerated?	Arrival Temp. (C)	Thermometer #
3	40ml Glass	HCL	Yes	3.5	IR

Extraction / Prep.

Parameter	Result	Method	Run Date	Analyst	Flags
pH check for VOCs*	<2	N/A	09/28/22 12:00	BML	

Organics - Volatiles

Volatile Organics - Arcadis, Method: SW5030C/8260C, Run Date: 09/28/22 04:07, Analyst: BML

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
Acetone	Not detected	50		ug/L	1	67-64-1	
2-Butanone (MEK)	Not detected	25		ug/L	1	78-93-3	
Benzene	Not detected	1		ug/L	1	71-43-2	
Bromodichloromethane	Not detected	1		ug/L	1	75-27-4	
Bromoform	Not detected	1		ug/L	1	75-25-2	
Bromomethane	Not detected	5		ug/L	1	74-83-9	
Carbon disulfide	Not detected	5		ug/L	1	75-15-0	
Carbon tetrachloride	Not detected	1		ug/L	1	56-23-5	
Chlorobenzene	Not detected	1		ug/L	1	108-90-7	
Chloroethane	Not detected	5		ug/L	1	75-00-3	
Chloroform	Not detected	1		ug/L	1	67-66-3	
Chloromethane	Not detected	5		ug/L	1	74-87-3	
1,2-Dibromo-3-chloropropane	Not detected	5		ug/L	1	96-12-8	
1,2-Dichlorobenzene	Not detected	1		ug/L	1	95-50-1	
1,2-Dichloroethane	Not detected	1		ug/L	1	107-06-2	
1,2-Dichloropropane	Not detected	1		ug/L	1	78-87-5	
1,3-Dichlorobenzene	Not detected	1		ug/L	1	541-73-1	
1,4-Dichlorobenzene	Not detected	1		ug/L	1	106-46-7	
cis-1,2-Dichloroethene	Not detected	1		ug/L	1	156-59-2	
Dibromochloromethane	Not detected	5		ug/L	1	124-48-1	
Dichlorodifluoromethane	Not detected	5		ug/L	1	75-71-8	
trans-1,2-Dichloroethene	Not detected	1		ug/L	1	156-60-5	
Ethylbenzene	Not detected	1		ug/L	1	100-41-4	
2-Hexanone	Not detected	50		ug/L	1	591-78-6	
4-Methyl-2-pentanone (MIBK)	Not detected	50		ug/L	1	108-10-1	
tert-Methyl butyl ether (MTBE)	Not detected	5		ug/L	1	1634-04-4	
Methylene chloride	Not detected	5		ug/L	1	75-09-2	
Styrene	Not detected	1		ug/L	1	100-42-5	
1,1,1-Trichloroethane	4	1		ug/L	1	71-55-6	
1,1,2-Trichloroethane	Not detected	1		ug/L	1	79-00-5	
1,2,4-Trichlorobenzene	Not detected	5		ug/L	1	120-82-1	
Tetrachloroethene	4	1		ug/L	1	127-18-4	
Toluene	Not detected	1		ug/L	1	108-88-3	
Trichloroethene	Not detected	1		ug/L	1	79-01-6	
Trichlorofluoromethane	Not detected	1		ug/L	1	75-69-4	
Vinyl chloride	Not detected	1		ug/L	1	75-01-4	
o-Xylene	Not detected	1		ug/L	1	95-47-6	

Lab Sample ID: S40607.03 (continued)
Sample Tag: MWF16-17_GW-092122

Volatile Organics - Arcadis, Method: SW5030C/8260C, Run Date: 09/28/22 04:07, Analyst: BML (continued)

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
p,m-Xylene*	Not detected	2		ug/L	1		
Isopropylbenzene	Not detected	1		ug/L	1	98-82-8	
Cyclohexane	Not detected	1		ug/L	1	110-82-7	
1,1-Dichloroethane	Not detected	1		ug/L	1	75-34-3	
1,1-Dichloroethene	Not detected	1		ug/L	1	75-35-4	
Methyl Acetate	Not detected	10		ug/L	1	79-20-9	
Methyl cyclohexane	Not detected	1		ug/L	1	108-87-2	
1,1,2-Trichloro-1,2,2-trifluoroethane	Not detected	1		ug/L	1	76-13-1	
1,2-Dibromoethane	Not detected	1		ug/L	1	106-93-4	
1,1,2,2-Tetrachloroethane	Not detected	1		ug/L	1	79-34-5	
cis-1,3-Dichloropropene	Not detected	1		ug/L	1	10061-01-5	
trans-1,3-Dichloropropene	Not detected	1		ug/L	1	10061-02-6	

Lab Sample ID: S40607.04
Sample Tag: MW-09-22_GW-092122
Collected Date/Time: 09/21/2022 15:58
Matrix: Groundwater
COC Reference: 157353

Sample Containers

#	Type	Preservative(s)	Refrigerated?	Arrival Temp. (C)	Thermometer #
3	40ml Glass	HCL	Yes	3.5	IR

Extraction / Prep.

Parameter	Result	Method	Run Date	Analyst	Flags
pH check for VOCs*	<2	N/A	09/28/22 12:00	BML	

Organics - Volatiles

Volatile Organics - Arcadis, Method: SW5030C/8260C, Run Date: 09/28/22 04:30, Analyst: BML

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
Acetone	Not detected	50		ug/L	1	67-64-1	
2-Butanone (MEK)	Not detected	25		ug/L	1	78-93-3	
Benzene	Not detected	1		ug/L	1	71-43-2	
Bromodichloromethane	Not detected	1		ug/L	1	75-27-4	
Bromoform	Not detected	1		ug/L	1	75-25-2	
Bromomethane	Not detected	5		ug/L	1	74-83-9	
Carbon disulfide	Not detected	5		ug/L	1	75-15-0	
Carbon tetrachloride	2	1		ug/L	1	56-23-5	
Chlorobenzene	Not detected	1		ug/L	1	108-90-7	
Chloroethane	Not detected	5		ug/L	1	75-00-3	
Chloroform	2	1		ug/L	1	67-66-3	
Chloromethane	Not detected	5		ug/L	1	74-87-3	
1,2-Dibromo-3-chloropropane	Not detected	5		ug/L	1	96-12-8	
1,2-Dichlorobenzene	Not detected	1		ug/L	1	95-50-1	
1,2-Dichloroethane	Not detected	1		ug/L	1	107-06-2	
1,2-Dichloropropane	Not detected	1		ug/L	1	78-87-5	
1,3-Dichlorobenzene	Not detected	1		ug/L	1	541-73-1	
1,4-Dichlorobenzene	Not detected	1		ug/L	1	106-46-7	
cis-1,2-Dichloroethene	1	1		ug/L	1	156-59-2	
Dibromochloromethane	Not detected	5		ug/L	1	124-48-1	
Dichlorodifluoromethane	Not detected	5		ug/L	1	75-71-8	
trans-1,2-Dichloroethene	Not detected	1		ug/L	1	156-60-5	
Ethylbenzene	Not detected	1		ug/L	1	100-41-4	
2-Hexanone	Not detected	50		ug/L	1	591-78-6	
4-Methyl-2-pentanone (MIBK)	Not detected	50		ug/L	1	108-10-1	
tert-Methyl butyl ether (MTBE)	Not detected	5		ug/L	1	1634-04-4	
Methylene chloride	Not detected	5		ug/L	1	75-09-2	
Styrene	Not detected	1		ug/L	1	100-42-5	
1,1,1-Trichloroethane	Not detected	1		ug/L	1	71-55-6	
1,1,2-Trichloroethane	Not detected	1		ug/L	1	79-00-5	
1,2,4-Trichlorobenzene	Not detected	5		ug/L	1	120-82-1	
Tetrachloroethene	195	1		ug/L	1	127-18-4	
Toluene	Not detected	1		ug/L	1	108-88-3	
Trichloroethene	4	1		ug/L	1	79-01-6	
Trichlorofluoromethane	Not detected	1		ug/L	1	75-69-4	
Vinyl chloride	Not detected	1		ug/L	1	75-01-4	
o-Xylene	Not detected	1		ug/L	1	95-47-6	

Lab Sample ID: S40607.04 (continued)
Sample Tag: MW-09-22_GW-092122

Volatile Organics - Arcadis, Method: SW5030C/8260C, Run Date: 09/28/22 04:30, Analyst: BML (continued)

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
p,m-Xylene*	Not detected	2		ug/L	1		
Isopropylbenzene	Not detected	1		ug/L	1	98-82-8	
Cyclohexane	Not detected	1		ug/L	1	110-82-7	
1,1-Dichloroethane	Not detected	1		ug/L	1	75-34-3	
1,1-Dichloroethene	Not detected	1		ug/L	1	75-35-4	
Methyl Acetate	Not detected	10		ug/L	1	79-20-9	
Methyl cyclohexane	Not detected	1		ug/L	1	108-87-2	
1,1,2-Trichloro-1,2,2-trifluoroethane	Not detected	1		ug/L	1	76-13-1	
1,2-Dibromoethane	Not detected	1		ug/L	1	106-93-4	
1,1,2,2-Tetrachloroethane	Not detected	1		ug/L	1	79-34-5	
cis-1,3-Dichloropropene	Not detected	1		ug/L	1	10061-01-5	
trans-1,3-Dichloropropene	Not detected	1		ug/L	1	10061-02-6	

Lab Sample ID: S40607.05
Sample Tag: tripblank_01
Collected Date/Time: 09/21/2022 00:01
Matrix: Water
COC Reference: 157353

Sample Containers

#	Type	Preservative(s)	Refrigerated?	Arrival Temp. (C)	Thermometer #
1	40ml Glass	HCL	Yes	3.5	IR

Extraction / Prep.

Parameter	Result	Method	Run Date	Analyst	Flags
pH check for VOCs*	<2	N/A	09/28/22 12:00	BML	

Organics - Volatiles

Volatile Organics - Arcadis, Method: SW5030C/8260C, Run Date: 09/28/22 00:11, Analyst: BML

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
Acetone	Not detected	50		ug/L	1	67-64-1	
2-Butanone (MEK)	Not detected	25		ug/L	1	78-93-3	
Benzene	Not detected	1		ug/L	1	71-43-2	
Bromodichloromethane	Not detected	1		ug/L	1	75-27-4	
Bromoform	Not detected	1		ug/L	1	75-25-2	
Bromomethane	Not detected	5		ug/L	1	74-83-9	
Carbon disulfide	Not detected	5		ug/L	1	75-15-0	
Carbon tetrachloride	Not detected	1		ug/L	1	56-23-5	
Chlorobenzene	Not detected	1		ug/L	1	108-90-7	
Chloroethane	Not detected	5		ug/L	1	75-00-3	
Chloroform	Not detected	1		ug/L	1	67-66-3	
Chloromethane	Not detected	5		ug/L	1	74-87-3	
1,2-Dibromo-3-chloropropane	Not detected	5		ug/L	1	96-12-8	
1,2-Dichlorobenzene	Not detected	1		ug/L	1	95-50-1	
1,2-Dichloroethane	Not detected	1		ug/L	1	107-06-2	
1,2-Dichloropropane	Not detected	1		ug/L	1	78-87-5	
1,3-Dichlorobenzene	Not detected	1		ug/L	1	541-73-1	
1,4-Dichlorobenzene	Not detected	1		ug/L	1	106-46-7	
cis-1,2-Dichloroethene	Not detected	1		ug/L	1	156-59-2	
Dibromochloromethane	Not detected	5		ug/L	1	124-48-1	
Dichlorodifluoromethane	Not detected	5		ug/L	1	75-71-8	
trans-1,2-Dichloroethene	Not detected	1		ug/L	1	156-60-5	
Ethylbenzene	Not detected	1		ug/L	1	100-41-4	
2-Hexanone	Not detected	50		ug/L	1	591-78-6	
4-Methyl-2-pentanone (MIBK)	Not detected	50		ug/L	1	108-10-1	
tert-Methyl butyl ether (MTBE)	Not detected	5		ug/L	1	1634-04-4	
Methylene chloride	Not detected	5		ug/L	1	75-09-2	
Styrene	Not detected	1		ug/L	1	100-42-5	
1,1,1-Trichloroethane	Not detected	1		ug/L	1	71-55-6	
1,1,2-Trichloroethane	Not detected	1		ug/L	1	79-00-5	
1,2,4-Trichlorobenzene	Not detected	5		ug/L	1	120-82-1	
Tetrachloroethene	Not detected	1		ug/L	1	127-18-4	
Toluene	Not detected	1		ug/L	1	108-88-3	
Trichloroethene	Not detected	1		ug/L	1	79-01-6	
Trichlorofluoromethane	Not detected	1		ug/L	1	75-69-4	
Vinyl chloride	Not detected	1		ug/L	1	75-01-4	
o-Xylene	Not detected	1		ug/L	1	95-47-6	

Lab Sample ID: S40607.05 (continued)

Sample Tag: tripblank_01

Volatile Organics - Arcadis, Method: SW5030C/8260C, Run Date: 09/28/22 00:11, Analyst: BML (continued)

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
p,m-Xylene*	Not detected	2		ug/L	1		
Isopropylbenzene	Not detected	1		ug/L	1	98-82-8	
Cyclohexane	Not detected	1		ug/L	1	110-82-7	
1,1-Dichloroethane	Not detected	1		ug/L	1	75-34-3	
1,1-Dichloroethene	Not detected	1		ug/L	1	75-35-4	
Methyl Acetate	Not detected	10		ug/L	1	79-20-9	
Methyl cyclohexane	Not detected	1		ug/L	1	108-87-2	
1,1,2-Trichloro-1,2,2-trifluoroethane	Not detected	1		ug/L	1	76-13-1	
1,2-Dibromoethane	Not detected	1		ug/L	1	106-93-4	
1,1,2,2-Tetrachloroethane	Not detected	1		ug/L	1	79-34-5	
cis-1,3-Dichloropropene	Not detected	1		ug/L	1	10061-01-5	
trans-1,3-Dichloropropene	Not detected	1		ug/L	1	10061-02-6	

Merit Laboratories Login Checklist

Lab Set ID: S40607
Client: ARCADIS_NOVI (ARCADIS U.S., Inc.)
Project: Racer PNC / 30112891.00005
Submitted: 09/22/2022 16:00 Login User: MMC

Attention: Alexis Crisp
Address: Arcadis US, Inc.
28550 Cabot Drive
Suite 500
Novi, MI 48377

Phone: 810-225-1909 FAX:
Email: Alexis.Crisp@arcadis.com

Selection				Description	Note
Sample Receiving					
01.	[X] Yes	[ ] No	[ ] N/A	Samples are received at 4C +/- 2C Thermometer #	IR 3.5
02.	[X] Yes	[ ] No	[ ] N/A	Received on ice/ cooling process begun	
03.	[ ] Yes	[X] No	[ ] N/A	Samples shipped	
04.	[ ] Yes	[X] No	[ ] N/A	Samples left in 24 hr. drop box	
05.	[ ] Yes	[ ] No	[X] N/A	Are there custody seals/tape or is the drop box locked	
Chain of Custody					
06.	[X] Yes	[ ] No	[ ] N/A	COC adequately filled out	
07.	[X] Yes	[ ] No	[ ] N/A	COC signed and relinquished to the lab	
08.	[X] Yes	[ ] No	[ ] N/A	Sample tag on bottles match COC	
09.	[ ] Yes	[X] No	[ ] N/A	Subcontracting needed? Subcontacted to:	
Preservation					
10.	[X] Yes	[ ] No	[ ] N/A	Do sample have correct chemical preservation	
11.	[ ] Yes	[ ] No	[X] N/A	Completed pH checks on preserved samples? (no VOAs)	
12.	[ ] Yes	[X] No	[ ] N/A	Did any samples need to be preserved in the lab?	
Bottle Conditions					
13.	[X] Yes	[ ] No	[ ] N/A	All bottles intact	
14.	[X] Yes	[ ] No	[ ] N/A	Appropriate analytical bottles are used	
15.	[X] Yes	[ ] No	[ ] N/A	Merit bottles used	
16.	[X] Yes	[ ] No	[ ] N/A	Sufficient sample volume received	
17.	[ ] Yes	[X] No	[ ] N/A	Samples require laboratory filtration	
18.	[X] Yes	[ ] No	[ ] N/A	Samples submitted within holding time	
19.	[ ] Yes	[X] No	[ ] N/A	Do water VOC or TOX bottles contain headspace	

Corrective action for all exceptions is to call the client and to notify the project manager.

Client Review By: _____ Date: _____

Merit Laboratories, Inc.
2680 East Lansing Dr., East Lansing, MI 48823
Phone (517) 332-0167 Fax (517) 332-4034
www.meritlabs.com

C.O.C. PAGE # _____ OF _____ 157353

CHAIN OF CUSTODY RECORD

REPORT TO

CONTACT NAME: Fiffany Linder
COMPANY: Arcadis
ADDRESS: 28550 Cabot Dr #500
CITY: Novi STATE: M ZIP CODE: 48377
PHONE NO.: 248 994 2240 CELL NO.: P.O. NO.:
E-MAIL ADDRESS: QUOTE NO.:

INVOICE TO

CONTACT NAME ☐ SAME
COMPANY
ADDRESS
CITY STATE ZIP CODE
PHONE NO. E-MAIL ADDRESS

PROJECT NO./NAME: Kaser PNC / 30112891.00005
SAMPLER(S) - PLEASE PRINT/SIGN NAME: Leticia Ferreira / Leticia Ferreira

TURNAROUND TIME REQUIRED ☐ 1 DAY ☐ 2 DAYS ☐ 3 DAYS ☐ STANDARD ☐ OTHER _____

DELIVERABLES REQUIRED ☐ STD ☐ LEVEL II ☐ LEVEL III ☐ LEVEL IV ☐ EDD ☐ OTHER _____

MATRIX CODE: W=WATER GW=GROUNDWATER WW=WASTEWATER S=SOIL L=LIQUID SD=SOLID SL=SLUDGE DW=DRINKING WATER O=OIL WP=WIPE A=AIR WS=WASTE

ANALYSIS (ATTACH LIST IF MORE SPACE IS REQUIRED)

Certifications
☐ OHIO VAP ☐ Drinking Water
☐ DoD ☐ NPDES
Project Locations
☐ Detroit ☐ New York
☐ Other _____
Special Instructions

MERIT LAB NO. FOR LAB USE ONLY	COLLECTION DATE	COLLECTION TIME	SAMPLE TAG IDENTIFICATION-DESCRIPTION	MATRIX	# OF BOTTLES	# Containers & Preservatives: NONE	HCl	HNO_3	H_2SO_4	NaOH	MeOH	OTHER	Site Specific VOCs Method 8260
40607.01	9/21/22	1040	MWF16-12_GW-092122	GW	3		X						X
.02	9/21/22	1340	MWF16-20_GW-092122	GW	3		X						X
.03	9/21/22	1458	MWF16-17_GW-092122	GW	3		X						X
.04	9/21/22	1558	MW-09-22_GW-092122	GW	3		X						X
.05	—	—	tripblank_01	W	1		X						X

RELINQUISHED BY: SIGNATURE/ORGANIZATION: Leticia Ferreira ☒ Sampler — DATE 09/21/22 TIME 07:50
RECEIVED BY: SIGNATURE/ORGANIZATION: Sommer Stuy — DATE 9/22/22 TIME 0750
RELINQUISHED BY: SIGNATURE/ORGANIZATION: Sommer Stuy / Arcadis — DATE 9/22/22 TIME 1047
RECEIVED BY: SIGNATURE/ORGANIZATION: — DATE 9/22/22 TIME 1047

RELINQUISHED BY: SIGNATURE/ORGANIZATION: — DATE 9/22/22 TIME 16:00
RECEIVED BY: SIGNATURE/ORGANIZATION: — DATE 9/22/22 TIME 1600

SEAL NO. SEAL INTACT YES ☐ NO ☐ INITIALS
SEAL NO. SEAL INTACT YES ☐ NO ☐ INITIALS

NOTES: TEMP. ON ARRIVAL 3.5

PLEASE NOTE: SIGNING ACKNOWLEDGES ADHERENCE TO MERIT'S SAMPLE ACCEPTANCE POLICY ON REVERSE SIDE

Rev. 1.26.22

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10/3/2022
Ms. Lexi Crisp
Arcadis U.S., Inc.
7575 Huntington Park Drive
Suite 130
Columbus OH 43235

Project Name: Racer PNC
Project #: 30112891.00004
Workorder #: 2209642

Dear Ms. Lexi Crisp

The following report includes the data for the above referenced project for sample(s) received on 9/26/2022 at Eurofins Air Toxics LLC.

The data and associated QC analyzed by TO-15 are compliant with the project requirements or laboratory criteria with the exception of the deviations noted in the attached case narrative.

Thank you for choosing Eurofins Air Toxics LLC. for your air analysis needs. Eurofins Air Toxics Inc. is committed to providing accurate data of the highest quality. Please feel free to contact the Project Manager: Jade White at 916-985-1000 if you have any questions regarding the data in this report.

Regards,

Jade White

Project Manager

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WORK ORDER #: 2209642

Work Order Summary

CLIENT:	Ms. Lexi Crisp Arcadis U.S., Inc. 7575 Huntington Park Drive Suite 130 Columbus, OH 43235	**BILL TO:**	Accounts Payable Arcadis U.S., Inc. 630 Plaza Drive Suite 600 Highlands Ranch, CO 80129
PHONE:		**P.O. #**	30112891.00004
FAX:		**PROJECT #**	30112891.00004 Racer PNC
DATE RECEIVED:	09/26/2022	**CONTACT:**	Jade White
DATE COMPLETED:	10/03/2022		

FRACTION #	NAME	TEST	RECEIPT VAC./PRES.	FINAL PRESSURE
01A	SV-02-21_SG-092222	TO-15	5.9 "Hg	10 psi
02A	SV-06-21_SG-092222	TO-15	4.9 "Hg	9.8 psi
03A	SV-04-21_SG-092222	TO-15	6.7 "Hg	9.7 psi
04A	SV-05-21_SG-092222	TO-15	7.1 "Hg	10.1 psi
05A	SV-03-21_SG-092222	TO-15	5.7 "Hg	10 psi
06A	SV-01-21_SG-092222	TO-15	7.1 "Hg	10.1 psi
07A	DUP-01_SG-092222	TO-15	5.7 "Hg	10 psi
08A	Lab Blank	TO-15	NA	NA
09A	CCV	TO-15	NA	NA
10A	LCS	TO-15	NA	NA
10AA	LCSD	TO-15	NA	NA

CERTIFIED BY: Heidi Hayes DATE: 10/02/22

Technical Director

Certification numbers: AZ Licensure AZ0775, FL NELAP – E87680, LA NELAP – 02089, NH NELAP - 209221, NJ NELAP - CA016, NY NELAP - 11291, TX NELAP - T104704434-21-17, UT NELAP – CA009332021-13, VA NELAP - 10615, WA NELAP - C935
Name of Accreditation Body: NELAP/ORELAP (Oregon Environmental Laboratory Accreditation Program)
Accreditation number: CA300005-015, Effective date: 10/18/2021, Expiration date: 10/17/2022.
Eurofins Air Toxics, LLC certifies that the test results contained in this report meet all requirements of the NELAC standards

180 BLUE RAVINE ROAD, SUITE B FOLSOM, CA - 95630
(916) 985-1000 . (800) 985-5955 . FAX (916) 351-8279

LABORATORY NARRATIVE
EPA Method TO-15
Arcadis U.S., Inc.
Workorder# 2209642

Seven 1 Liter Summa Canister samples were received on September 26, 2022. The laboratory performed analysis via EPA Method TO-15 using GC/MS in the full scan mode.

Receiving Notes

The Chain of Custody (COC) information for sample SV-05-21_SG-092222 did not match the entry on the sample tag with regard to sample identification. The information on the COC was used to process and report the sample.

Analytical Notes

There were no analytical discrepancies.

Definition of Data Qualifying Flags

Ten qualifiers may have been used on the data analysis sheets and indicates as follows:

B - Compound present in laboratory blank greater than reporting limit (background subtraction not performed).

J - Estimated value.

E - Exceeds instrument calibration range.

S - Saturated peak.

Q - Exceeds quality control limits.

U - Compound analyzed for but not detected above the reporting limit, LOD, or MDL value. See data page for project specific U-flag definition.

UJ- Non-detected compound associated with low bias in the CCV

N - The identification is based on presumptive evidence.

M - Reported value may be biased due to apparent matrix interferences.

CN - See Case Narrative.

File extensions may have been used on the data analysis sheets and indicates as follows:

a-File was requantified

b-File was quantified by a second column and detector

r1-File was requantified for the purpose of reissue

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Summary of Detected Compounds
EPA METHOD TO-15 GC/MS FULL SCAN

Client Sample ID: SV-02-21_SG-092222

Lab ID#: 2209642-01A

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Trichloroethene	1.0	10	5.6	55

Client Sample ID: SV-06-21_SG-092222

Lab ID#: 2209642-02A

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Trichloroethene	1.0	3.1	5.3	16

Client Sample ID: SV-04-21_SG-092222

Lab ID#: 2209642-03A

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Trichloroethene	1.1	2.7	5.8	14

Client Sample ID: SV-05-21_SG-092222

Lab ID#: 2209642-04A

No Detections Were Found.

Client Sample ID: SV-03-21_SG-092222

Lab ID#: 2209642-05A

No Detections Were Found.

Client Sample ID: SV-01-21_SG-092222

Lab ID#: 2209642-06A

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Trichloroethene	1.1	2.1	5.9	11
Tetrachloroethene	1.1	1.9	7.5	13

Client Sample ID: DUP-01_SG-092222

Lab ID#: 2209642-07A

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Summary of Detected Compounds
EPA METHOD TO-15 GC/MS FULL SCAN

Client Sample ID: DUP-01_SG-092222

Lab ID#: 2209642-07A

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Trichloroethene	1.0	10	5.6	56

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Client Sample ID: SV-02-21_SG-092222

Lab ID#: 2209642-01A

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**a092722**	**Date of Collection: 9/22/22 12:54:00 PM**	
Dil. Factor:	**2.09**	**Date of Analysis: 9/27/22 07:46 PM**	

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Vinyl Chloride	1.0	Not Detected	2.7	Not Detected
1,1-Dichloroethene	1.0	Not Detected	4.1	Not Detected
cis-1,2-Dichloroethene	1.0	Not Detected	4.1	Not Detected
Trichloroethene	1.0	10	5.6	55
trans-1,2-Dichloroethene	1.0	Not Detected	4.1	Not Detected
Tetrachloroethene	1.0	Not Detected	7.1	Not Detected

Container Type: 1 Liter Summa Canister

Surrogates	%Recovery	Method Limits
Toluene-d8	105	70-130
1,2-Dichloroethane-d4	113	70-130
4-Bromofluorobenzene	85	70-130

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Client Sample ID: SV-06-21_SG-092222

Lab ID#: 2209642-02A

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**a092723**	**Date of Collection: 9/22/22 1:33:00 PM**	
Dil. Factor:	**1.99**	**Date of Analysis: 9/27/22 08:13 PM**	

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Vinyl Chloride	1.0	Not Detected	2.5	Not Detected
1,1-Dichloroethene	1.0	Not Detected	3.9	Not Detected
cis-1,2-Dichloroethene	1.0	Not Detected	3.9	Not Detected
Trichloroethene	1.0	3.1	5.3	16
trans-1,2-Dichloroethene	1.0	Not Detected	3.9	Not Detected
Tetrachloroethene	1.0	Not Detected	6.7	Not Detected

Container Type: 1 Liter Summa Canister

Surrogates	%Recovery	Method Limits
Toluene-d8	105	70-130
1,2-Dichloroethane-d4	115	70-130
4-Bromofluorobenzene	83	70-130

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Client Sample ID: SV-04-21_SG-092222

Lab ID#: 2209642-03A

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**a092724**	**Date of Collection: 9/22/22 2:02:00 PM**	
Dil. Factor:	**2.14**	**Date of Analysis: 9/27/22 08:39 PM**	

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Vinyl Chloride	1.1	Not Detected	2.7	Not Detected
1,1-Dichloroethene	1.1	Not Detected	4.2	Not Detected
cis-1,2-Dichloroethene	1.1	Not Detected	4.2	Not Detected
Trichloroethene	1.1	2.7	5.8	14
trans-1,2-Dichloroethene	1.1	Not Detected	4.2	Not Detected
Tetrachloroethene	1.1	Not Detected	7.2	Not Detected

Container Type: 1 Liter Summa Canister

Surrogates	%Recovery	Method Limits
Toluene-d8	103	70-130
1,2-Dichloroethane-d4	115	70-130
4-Bromofluorobenzene	82	70-130

eurofins | Air Toxics

Client Sample ID: SV-05-21_SG-092222

Lab ID#: 2209642-04A

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**a092725**	**Date of Collection: 9/22/22 2:26:00 PM**	
Dil. Factor:	**2.21**	**Date of Analysis: 9/27/22 09:06 PM**	

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Vinyl Chloride	1.1	Not Detected	2.8	Not Detected
1,1-Dichloroethene	1.1	Not Detected	4.4	Not Detected
cis-1,2-Dichloroethene	1.1	Not Detected	4.4	Not Detected
Trichloroethene	1.1	Not Detected	5.9	Not Detected
trans-1,2-Dichloroethene	1.1	Not Detected	4.4	Not Detected
Tetrachloroethene	1.1	Not Detected	7.5	Not Detected

Container Type: 1 Liter Summa Canister

Surrogates	%Recovery	Method Limits
Toluene-d8	105	70-130
1,2-Dichloroethane-d4	113	70-130
4-Bromofluorobenzene	83	70-130

eurofins | Air Toxics

Client Sample ID: SV-03-21_SG-092222

Lab ID#: 2209642-05A

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**a092726**	**Date of Collection: 9/22/22 2:48:00 PM**	
Dil. Factor:	**2.07**	**Date of Analysis: 9/27/22 09:33 PM**	

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Vinyl Chloride	1.0	Not Detected	2.6	Not Detected
1,1-Dichloroethene	1.0	Not Detected	4.1	Not Detected
cis-1,2-Dichloroethene	1.0	Not Detected	4.1	Not Detected
Trichloroethene	1.0	Not Detected	5.6	Not Detected
trans-1,2-Dichloroethene	1.0	Not Detected	4.1	Not Detected
Tetrachloroethene	1.0	Not Detected	7.0	Not Detected

Container Type: 1 Liter Summa Canister

Surrogates	%Recovery	Method Limits
Toluene-d8	106	70-130
1,2-Dichloroethane-d4	118	70-130
4-Bromofluorobenzene	83	70-130

eurofins | Air Toxics

Client Sample ID: SV-01-21_SG-092222

Lab ID#: 2209642-06A

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**a092727**	**Date of Collection: 9/22/22 3:15:00 PM**	
Dil. Factor:	**2.21**	**Date of Analysis: 9/27/22 09:59 PM**	

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Vinyl Chloride	1.1	Not Detected	2.8	Not Detected
1,1-Dichloroethene	1.1	Not Detected	4.4	Not Detected
cis-1,2-Dichloroethene	1.1	Not Detected	4.4	Not Detected
Trichloroethene	1.1	2.1	5.9	11
trans-1,2-Dichloroethene	1.1	Not Detected	4.4	Not Detected
Tetrachloroethene	1.1	1.9	7.5	13

Container Type: 1 Liter Summa Canister

Surrogates	%Recovery	Method Limits
Toluene-d8	105	70-130
1,2-Dichloroethane-d4	114	70-130
4-Bromofluorobenzene	84	70-130

eurofins | Air Toxics

Client Sample ID: DUP-01_SG-092222

Lab ID#: 2209642-07A

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**a092728**	**Date of Collection: 9/22/22**	
Dil. Factor:	**2.07**	**Date of Analysis: 9/27/22 10:26 PM**	

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Vinyl Chloride	1.0	Not Detected	2.6	Not Detected
1,1-Dichloroethene	1.0	Not Detected	4.1	Not Detected
cis-1,2-Dichloroethene	1.0	Not Detected	4.1	Not Detected
Trichloroethene	1.0	10	5.6	56
trans-1,2-Dichloroethene	1.0	Not Detected	4.1	Not Detected
Tetrachloroethene	1.0	Not Detected	7.0	Not Detected

Container Type: 1 Liter Summa Canister

Surrogates	%Recovery	Method Limits
Toluene-d8	105	70-130
1,2-Dichloroethane-d4	114	70-130
4-Bromofluorobenzene	83	70-130

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Client Sample ID: Lab Blank

Lab ID#: 2209642-08A

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**a092706c**	**Date of Collection: NA**	
Dil. Factor:	**1.00**	**Date of Analysis: 9/27/22 08:46 AM**	

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Vinyl Chloride	0.50	Not Detected	1.3	Not Detected
1,1-Dichloroethene	0.50	Not Detected	2.0	Not Detected
cis-1,2-Dichloroethene	0.50	Not Detected	2.0	Not Detected
Trichloroethene	0.50	Not Detected	2.7	Not Detected
trans-1,2-Dichloroethene	0.50	Not Detected	2.0	Not Detected
Tetrachloroethene	0.50	Not Detected	3.4	Not Detected

Container Type: NA - Not Applicable

Surrogates	%Recovery	Method Limits
Toluene-d8	107	70-130
1,2-Dichloroethane-d4	116	70-130
4-Bromofluorobenzene	80	70-130

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Client Sample ID: CCV

Lab ID#: 2209642-09A

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**a092702**	**Date of Collection: NA**	
Dil. Factor:	**1.00**	**Date of Analysis: 9/27/22 05:42 AM**	

Compound	%Recovery
Vinyl Chloride	116
1,1-Dichloroethene	100
cis-1,2-Dichloroethene	102
Trichloroethene	105
trans-1,2-Dichloroethene	103
Tetrachloroethene	86

Container Type: NA - Not Applicable

Surrogates	%Recovery	Method Limits
Toluene-d8	109	70-130
1,2-Dichloroethane-d4	110	70-130
4-Bromofluorobenzene	91	70-130

eurofins | Air Toxics

Client Sample ID: LCS

Lab ID#: 2209642-10A

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**a092703**	**Date of Collection: NA**	
Dil. Factor:	**1.00**	**Date of Analysis: 9/27/22 06:06 AM**	

Compound	%Recovery	Method Limits
Vinyl Chloride	114	70-130
1,1-Dichloroethene	100	70-130
cis-1,2-Dichloroethene	100	70-130
Trichloroethene	100	70-130
trans-1,2-Dichloroethene	102	70-130
Tetrachloroethene	88	70-130

Container Type: NA - Not Applicable

Surrogates	%Recovery	Method Limits
Toluene-d8	105	70-130
1,2-Dichloroethane-d4	108	70-130
4-Bromofluorobenzene	92	70-130

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Client Sample ID: LCSD

Lab ID#: 2209642-10AA

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**a092704**	**Date of Collection: NA**	
Dil. Factor:	**1.00**	**Date of Analysis: 9/27/22 06:30 AM**	

Compound	%Recovery	Method Limits
Vinyl Chloride	113	70-130
1,1-Dichloroethene	99	70-130
cis-1,2-Dichloroethene	100	70-130
Trichloroethene	101	70-130
trans-1,2-Dichloroethene	103	70-130
Tetrachloroethene	88	70-130

Container Type: NA - Not Applicable

Surrogates	%Recovery	Method Limits
Toluene-d8	105	70-130
1,2-Dichloroethane-d4	107	70-130
4-Bromofluorobenzene	92	70-130