



VIA ELECTRONIC MAIL

March 8, 2023

Richelle Hanson, Project Manager
Voluntary Cleanup Program
Maryland Department of the Environment
Land and Materials Administration
1800 Washington Blvd., Suite 625
Baltimore, Maryland 21230

**Subject: Quarterly Status Report No. 25 - Offsite Area
Former Kop-Flex Facility Site, Hanover, Maryland**

Dear Richelle:

On behalf of EMERSUB 16 LLC, a subsidiary of Emerson Electric Co., WSP USA Inc. (WSP) is submitting this quarterly status report describing the response action activities conducted in the Fourth Quarter of 2022 in the offsite portion of the Former Kop-Flex facility property in Hanover, Maryland (Site). In addition to this electronic version, a hard copy of the status report is being submitted to the Maryland Department of Environment (MDE) under separate cover. Overall, information presented on the hydrogeologic conditions and water quality for the impacted portion of the aquifer system in the offsite area are consistent with previously collected data.

If you have any questions, please do not hesitate to contact us at 703-709-6500.

Kind regards,

Robert E. Johnson
Vice President – Earth & Environment

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Encl.

cc: Mr. John Hopkins, U.S. Environmental Protection Agency (EPA), Region III
Mr. Stephen Clarke, Emerson Electric Co.
Sheila Harvey, Esquire, Pillsbury Winthrop Shaw Pittman

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QUARTERLY STATUS REPORT NO. 25 – OFFSITE AREA

FORMER KOP-FLEX FACILITY SITE

October 2022 Through December 2022

Site Name: Former Kop-Flex Facility
Site Address: 7555 Harmans Road
Hanover, Maryland 21076

Consultant: WSP USA Inc.
Address: 13530 Dulles Technology Drive, Suite 300
Herndon, Virginia 20171
Phone No.: (703) 709-6500

Project Coordinator: Eric Johnson, WSP USA
Alternate: Lisa Kelly, WSP USA

1.0 OFFSITE ACTIVITIES CONDUCTED DURING OCTOBER 2022 - DECEMBER 2022 REPORTING PERIOD

- Offsite monitoring wells screened in the contaminant-impacted deep zone of the Lower Patapsco aquifer and underlying, unimpacted Patuxent aquifer were sampled on November 21, 2022, using a disposable passive sampling device (HydraSleeve™) that had been deployed following the sampling of the wells in June 2022. At each well location, the HydraSleeve™ sampler was carefully removed and the groundwater sample immediately collected in the appropriate laboratory-supplied containers. The sample retrieval depths for each well were consistent with those from previous monitoring events and are provided below.
- As part of the sampling activities, WSP measured the depth to water in all monitoring wells. Depth-to-water measurements for the deep monitoring wells are provided in the table below. The water level data provided in the table reflect the hydraulic heads under remedial pumping conditions. Historical water level measurements are provided in Table 1 (attached).

WELL ID	HYDROLOGIC UNIT	DEPTH TO WATER (FT BGS)	WELL DEPTH (FT BGS)	WELL SCREEN INTERVAL (FT BGS)	SAMPLE INTERVAL (FT BGS)
MW-24D	Confined Lower Patapsco	53.11	128	118 – 128	122 – 124.5
MW-25D-130	Confined Lower Patapsco	60.00	130	120 – 130	125 – 127.5
MW-25D-192	Confined Lower Patapsco	59.10	192	182 – 192	185 – 187.5
MW-28D	Confined Lower Patapsco	90.81	210	200 – 210	205 – 207.5
MW-29D	Confined Lower Patapsco	66.70	151	141 – 151	146 – 148.5
MW-30D-273	Confined Lower Patapsco	100.23	273	263 – 273	267 – 269.5



WELL ID	HYDROLOGIC UNIT	DEPTH TO WATER (FT BGS)	WELL DEPTH (FT BGS)	WELL SCREEN INTERVAL (FT BGS)	SAMPLE INTERVAL (FT BGS)
MW-30D-413	Patuxent	141.52	413	403 – 413	407 – 409.5
MW-31D	Confined Lower Patapsco	109.24	280	270 – 280	275 – 277.5
MW-32D	Confined Lower Patapsco	100.23	236	226 – 236	233 – 235.5
MW-33D-235	Confined Lower Patapsco	126.56	235	225 – 235	230 – 232.5
MW-33D-295	Confined Lower Patapsco	126.29	295	285 – 295	290 – 292.5
MW-34D	Confined Lower Patapsco	134.82	385	375 – 385	379 – 381.5
MW-35D	Confined Lower Patapsco	126.60	298	288 – 298	293 – 295.5
MW-36D	Patuxent	145.05	360	350 – 360	357 – 359.5
MW-46D	Confined Lower Patapsco	38.38	90	80 – 90	84 – 86.5

FT BGS = feet below ground surface

A potentiometric surface contour map for the deep confined zone of the Lower Patapsco aquifer is shown in Figure 1 using the water level data obtained during the November 2022 sampling activities. The general direction of groundwater flow in this portion of the Lower Patapsco aquifer is to the south-southeast in the offsite area south of Maryland Route 100, which is consistent with determinations from contour maps generated for previous monitoring events. As indicated by the hydraulic head gradients, the groundwater flow direction in the deep confined zone of the Lower Patapsco aquifer differs from the direction of flow in the shallow zone of this aquifer, which is generally to the north and west toward Stony Run.

- The analytical results for samples collected from the offsite monitoring wells in November 2022 are summarized in Table 2. Copies of the certified laboratory analytical reports for these samples are provided in Enclosure A. Historical groundwater sampling data for the offsite monitoring wells can be found in Table 3. Concentrations of the primary site-related constituents of concern (COCs) in the November 2022 samples are shown on Figure 2.
- No site-related COCs were present at concentrations above the method reporting limits in the sample from shallow monitoring well MW-45 on the William-Scotsman property to the east of the former Kop-Flex facility. These results are consistent with the historical monitoring data from this well location.
- The analytical data indicate the presence of site-related constituents just over one mile hydraulically downgradient (south-southeast) of the former Kop-Flex property in the deep, confined zone of the Lower Patapsco Aquifer. Site-related COCs were also detected in the sample from well MW-46D on the neighboring Verizon property, which is located to the north of the former Kop-Flex facility. While MW-46D is not located hydraulically downgradient of the site, the presence of detectable COC levels is most likely related to past releases at the Site, given the well’s close proximity of the former Kop-Flex facility. This total COC concentration in the MW-46D sample (134.3 micrograms per liter [$\mu\text{g}/\text{l}$]) is less than



the level present in the previous (June 2022) sample (142.2 µg/l). The concentrations of 1,1- dichloroethene (DCE) and 1,1-dichloroethane (DCA) decreased from June to November 2022; whereas 1,4-dioxane shows an increase during that same time period (Table 3). These concentration changes are believed to reflect natural fluctuations in constituent levels inherent to samples collected during groundwater monitoring activities. All of these COCs exceeded their respective comparative groundwater quality criteria sample (Table 2).

In the offsite area to the immediate south, the sample from monitoring well MW-24D on the adjoining Williams-Scotsman property had the highest concentration of site-related COCs (1,323 µg/l). This total COC concentration is lower than the total detected in June 2022 (1,843 µg/l) (Table 3). This decrease is mostly attributable to a decline in the concentration of 1,1-DCE between June 2022 and November 2022. These changes do not appear to be indicative of a long-term trend, and are on the order of the fluctuations seen throughout the sampling history of the well.

Further downgradient, a total concentration of site-related COCs of 107.4 µg/l was detected in the MW-25D-130 sample, which is slightly higher than the June 2022 event (90.4 µg/l). The concentrations of site-related COCs, particularly 1,1-DCE; 1,1-DCA; and 1,4-dioxane, in the MW-25D-130 samples have increased slightly over the past two sampling events, but remain in line with historical results.

At MW-25D-192, within the same well pair, the total site-related COC concentration of 50.3 µg/l was lower than that observed in the shallower well and comparable to the concentrations observed during the 2021 and June 2022 sampling events. Overall, the VOC concentrations in this well are noticeably lower than historical levels predating the 2021 and 2022 monitoring events. A decreasing trend in the concentrations of 1,1-DCA, 1,1-DCE, 1,4-dioxane, and 1,1-TCA projects as far back as 2018. Despite these concentration declines, the concentrations of 1,1-DCE, 1,1-DCA, and 1,4-dioxane are still above their respective comparative groundwater quality criteria.

- The majority of the sampling data for the confined Lower Patapsco monitoring wells located further downgradient indicated non-detect to low concentrations of site-related COCs (Figure 2 and Table 2). The highest concentrations were detected in the sample from the well screened from 263-273 ft BGS at the MW-30D location, which is located along the presumed center-line of the VOC plume. The groundwater sample from this well (MW-30D-273) contained 1,1-DCE at a concentration of 31.3 µg/l and 1,4-dioxane at a concentration of 7.0 µg/l, both above their respective groundwater quality criteria. Broadly, the concentrations of 1,1-DCE and 1,4-dioxane have gradually decreased at this location since their highest levels in February 2019, and August 2018, respectively (Table 3). During the November 2022 sampling event, the concentrations of these two compounds are near or below the historically lowest values observed dating back to the installation of the well in spring 2018.

Trace concentrations of one or more of the site-related VOCs, 1,1-DCE, and 1,4-dioxane, were detected below the evaluation criteria in samples collected from MW-28D and MW-33D-295. These wells are located either side-gradient, or downgradient of the interpreted center of the plume.

The sample results for the remaining offsite wells screened in the deep, confined zone of the Lower Patapsco aquifer (MW-29D, MW-31D, MW-32D, MW-34D, and MW-35D) were non-detect for all site-related COCs (Table 2, Figure 2). These monitoring wells are used to delineate the width and downgradient extent of the COC plume in this portion of the aquifer.

- Monitoring well MW-36D and the deeper well at the MW-30D location (413-feet BGS) are screened in the Patuxent aquifer, which underlies the Lower Patapsco. Site-related COCs are not anticipated to be in the Patuxent aquifer, given the presence of a thick, clayey confining unit overlying this aquifer that serves as an aquitard to groundwater flow and associated dissolved solute transport. Consistent with previous monitoring events, no site-related COCs were detected in the samples from these wells, indicating constituents have not migrated downward through the Arundel Clay confining unit that hydraulically separates the Lower Patapsco and Patuxent aquifers.



2.0 PLANNED OFFSITE ACTIVITIES FOR NEXT REPORTING PERIOD (JANUARY 2023 THROUGH MARCH 2023)

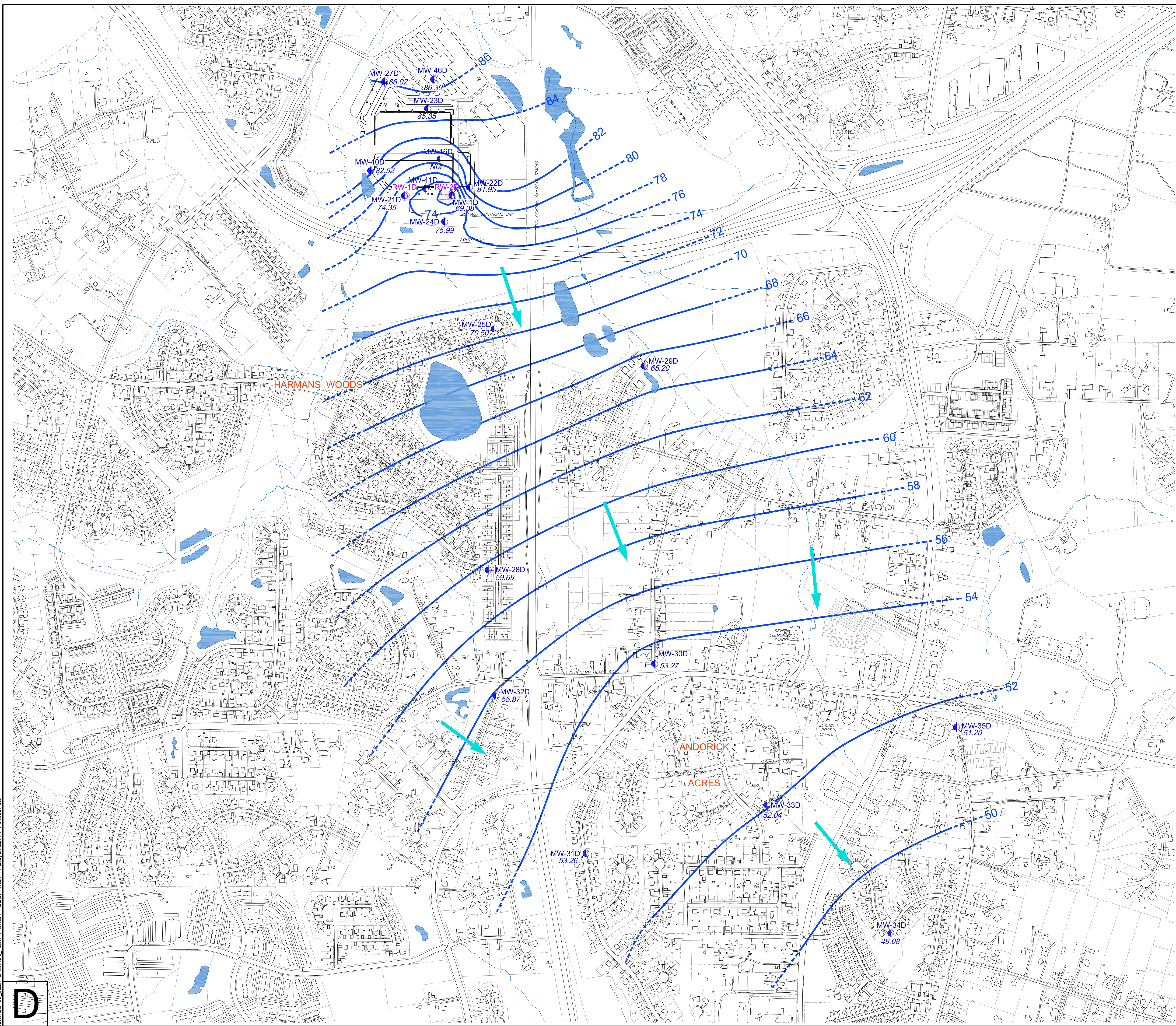
No field activities are planned for the first quarter 2023 reporting period. Pursuant to the approved Offsite Groundwater Monitoring Plan (dated September 15, 2015), groundwater monitoring is currently conducted on a semi-annual schedule. Therefore, the next groundwater monitoring event for the offsite well network will be performed during the Spring (May) of 2023.

WSP will begin preparation of the 2022 Offsite Groundwater Monitoring Report during the first quarter of 2023. This report should be submitted to MDE and the U.S. Environmental Protection Agency (EPA), Region III in late March 2023.

3.0 KEY PERSONNEL/FACILITY CHANGES

There were no changes to either key project personnel or conditions relevant to the performance of the ongoing work in the offsite area.

FIGURES



- LEGEND**
- PROPERTY LINE
 - STREAM
 - WATER BODY
 - MONITORING WELL
 - RECOVERY WELL
 - GROUNDWATER SURFACE ELEVATION (FEET MSL)
 - GROUNDWATER SURFACE CONTOUR (DASHED WHERE INFERRED)
 - INFERRED GROUNDWATER FLOW DIRECTION

NOTE:
 FIGURE DEPICTS THE POTENTIOMETRIC SURFACE IN THE DEEP (CONFINED) ZONE OF THE LOWER PATAPSCO AQUIFER.

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POTENTIOMETRIC SURFACE CONTOUR MAP DEEP CONFINED ZONE OF THE LOWER PATAPSCO AQUIFER

NOVEMBER 2022

FORMER KOP-FLEX FACILITY SITE

HANOVER, MARYLAND

PREPARED FOR
EMERSUB 16 LLC
 ST. LOUIS, MISSOURI

WSP USA Inc.
 13530 DULLES TECHNOLOGY DR, SUITE 300
 HERRIDON, VA 20117
 TEL: +1 703.709.6500

FIGURE 1

Drawing Number

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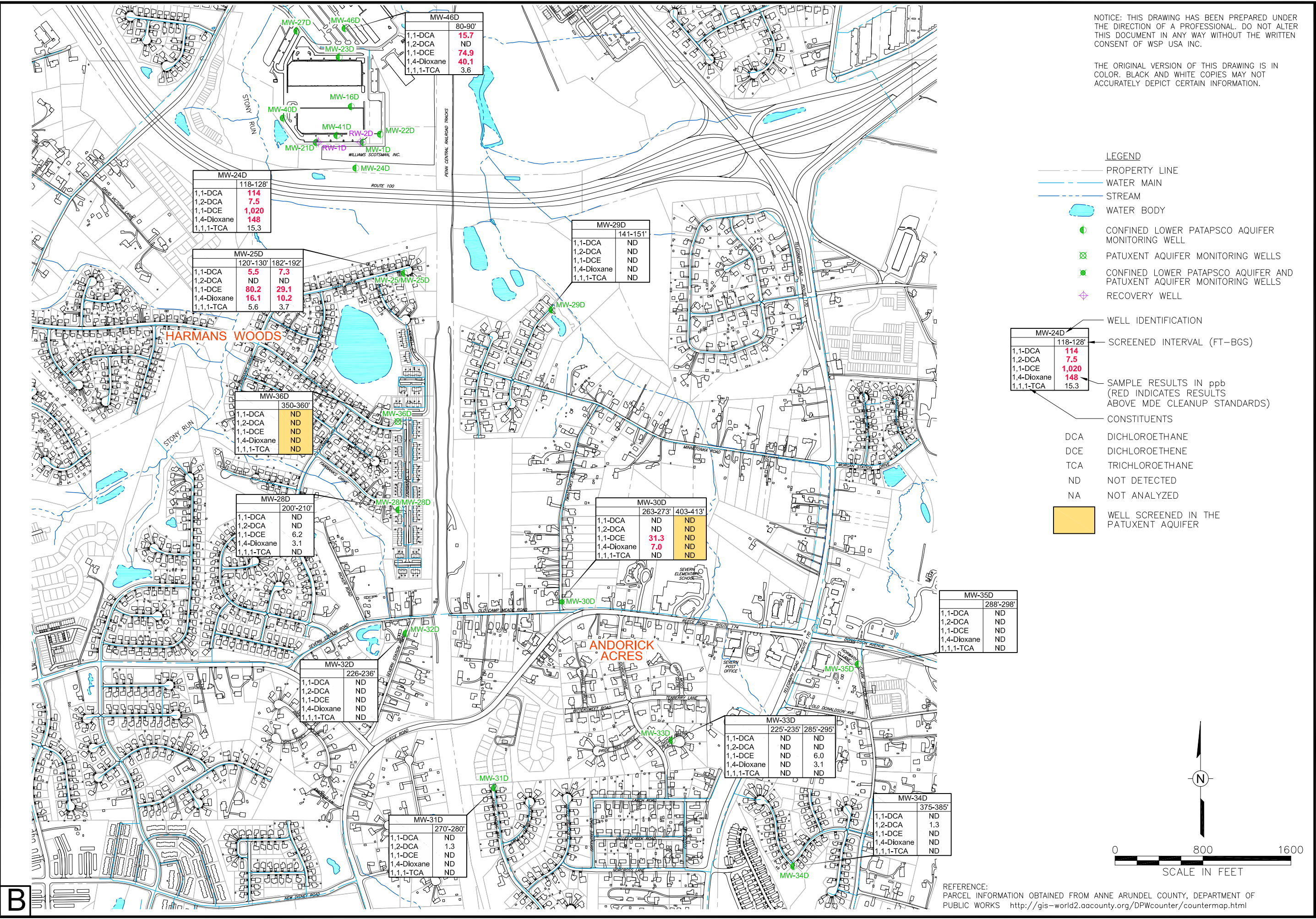
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FORMER FOP-FLEX FACILITY
 HANOVER, MARYLAND
 PREPARED FOR
 EMERSUB 16 LLC
 ST. LOUIS, MISSOURI

FIGURE 2

GROUNDWATER MONITORING RESULTS

LOWER PATAPSCO AQUIFER AND PATUXENT AQUIFER

OFFSITE MONITORING WELLS - NOVEMBER 2022

WSP USA Inc.
 13530 DULLES TECHNOLOGY DR
 SUITE 300
 HERNDON, VA 20171
 TEL: +1 703.709.6500

REFERENCE:
 PARCEL INFORMATION OBTAINED FROM ANNE ARUNDEL COUNTY, DEPARTMENT OF PUBLIC WORKS <http://gis-world2.aacounty.org/DPWcounter/countermap.html>

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TABLES

Table 1

**Historical Groundwater Elevations (2015 through 2022)
Offsite Monitoring Wells
Former Kop-Flex Facility Site
Hanover, Maryland**

Well ID	Aquifer/Zone	TOC Elevation	3/17/2015		6/15/2015		9/21/2015		1/4/2016		3/21/2016		12/7/2016	
			Depth to Water	Groundwater Elevation	Depth to Water	Groundwater Elevation	Depth to Water	Groundwater Elevation	Depth to Water	Groundwater Elevation	Depth to Water	Groundwater Elevation	Depth to Water	Groundwater Elevation
MW-25S *	Unconfined LPA	130.6	12.84	117.76	12.46	118.14	14.33	116.27	13.48	117.12	12.75	117.85	14.61	115.99
MW-28S *	Unconfined LPA	150.5	25.56	124.94	25.24	125.26	25.88	124.62	25.35	125.15	25.34	125.16	26.8	123.70
MW-45	Unconfined LPA	126.7	NM	-	NM	-	NM	-	NM	-	NM	-	NM	-
MW-24D	Confined LPA	129.1	50.9	78.20	49.29	79.81	NM	-	NM	-	44.38	84.72	46.3	82.80
MW-25D-130	Confined LPA	130.5	58.7	71.80	57.59	72.91	58.26	72.24	53.95	76.55	51.01	79.49	50.27	80.23
MW-25D-192	Confined LPA	130.5	59.99	70.51	56.4	74.10	57.23	73.27	53.05	77.45	50.27	80.23	52.4	78.10
MW-28D	Confined LPA	150.5	93.06	57.44	89.36	61.14	90.34	60.16	84.62	65.88	80.72	69.78	83.35	67.15
MW-29D	Confined LPA	131.9	NM	-	NM	-	NM	-	NM	-	NM	-	NM	-
MW-30D-273	Confined LPA	153.5	NM	-	NM	-	NM	-	NM	-	NM	-	NM	-
MW-31D	Confined LPA	162.5	114.02	48.48	108.58	53.92	109.51	52.99	102.44	60.06	98.41	64.09	114.20	48.30
MW-32D	Confined LPA	156.1	NM	-	NM	-	NM	-	NM	-	NM	-	NM	-
MW-33D-235	Confined LPA	178.6	131.83	46.77	125.66	52.94	127.11	51.49	119.14	59.46	115.25	63.35	114.2	64.40
MW-33D-295	Confined LPA	178.3	131.52	46.78	125.42	52.88	126.91	51.39	118.90	59.40	114.96	63.34	131.50	46.80
MW-34D	Confined LPA	183.9	NM	-	NM	-	NM	-	NM	-	NM	-	NM	-
MW-35D	Confined LPA	177.8	132.01	45.79	126.28	51.52	127.89	49.91	118.96	58.84	114.34	63.46	131.91	45.89
MW-46D	Confined LPA	124.8	NM	-	NM	-	NM	-	NM	-	NM	-	NM	-
MW-30D-413	Patuxent	153.1	NM	-	NM	-	NM	-	NM	-	NM	-	NM	-
MW-36D	Patuxent	158.7	NM	-	NM	-	NM	-	NM	-	NM	-	NM	-

Notes:

LPA = Lower Patapsco Aquifer

NM = Not Measured

TOC = Top of Casing

* Well abandoned in August 2019

Table 1

Historical Groundwater Elevations (2015 through 2022)
 Offsite Monitoring Wells
 Former Kop-Flex Facility Site
 Hanover, Maryland

Well ID	Aquifer/Zone	TOC Elevation	5/1/2017		8/31/2017		11/14/2017		2/13/2018		5/31/2018		8/23/2018		11/8/2018	
			Depth to Water	Groundwater Elevation	Depth to Water	Groundwater Elevation	Depth to Water	Groundwater Elevation	Depth to Water	Groundwater Elevation	Depth to Water	Groundwater Elevation	Depth to Water	Groundwater Elevation	Depth to Water	Groundwater Elevation
MW-25S *	Unconfined LPA	130.6	14.02	116.58	14.09	116.51	14.6	116.00	14.56	116.04	13.10	117.50	NM	-	11.84	118.76
MW-28S *	Unconfined LPA	150.5	27.4	123.10	27.2	123.30	27.22	123.28	27.48	123.02	27.42	123.08	NM	-	24.33	126.17
MW-45	Unconfined LPA	126.7	13.67	113.05	NM	-	NM	-	NM	-	12.98	113.74	NM	-	NM	-
MW-24D	Confined LPA	129.1	48.35	80.75	48.35	80.75	51.99	77.11	NM	-	50.94	78.16	NM	-	NM	-
MW-25D-130	Confined LPA	130.5	53.80	76.70	61.38	69.12	58.46	72.04	58.31	72.19	58.23	72.27	59.53	70.97	58.75	71.75
MW-25D-192	Confined LPA	130.5	53.11	77.39	60.36	70.14	58.71	71.79	57.49	73.01	57.40	73.10	58.69	71.81	57.63	72.87
MW-28D	Confined LPA	150.5	82.72	67.78	94.55	55.95	89.03	61.47	67.37	83.13	88.75	61.75	90.98	59.52	88.30	62.20
MW-29D	Confined LPA	131.9	NM	-	NM	-	NM	-	NM	-	64.94	66.98	66.56	65.36	65.03	66.89
MW-30D-273	Confined LPA	153.5	NM	-	NM	-	NM	-	NM	-	98.66	54.88	100.70	52.84	98.14	55.40
MW-31D	Confined LPA	162.5	100.24	62.26	115.67	46.83	107.21	55.29	106.29	56.21	106.80	55.70	109.95	52.55	106.27	56.23
MW-32D	Confined LPA	156.1	NM	-	NM	-	NM	-	NM	-	97.90	58.24	100.65	55.49	98.97	57.17
MW-33D-235	Confined LPA	178.6	117.26	61.34	133.39	45.21	124.55	54.05	123.79	54.81	124.00	54.60	127.52	51.08	125.14	53.46
MW-33D-295	Confined LPA	178.3	117.03	61.27	133.14	45.16	124.36	53.94	123.60	54.70	123.83	54.47	127.34	50.96	125.69	52.61
MW-34D	Confined LPA	183.9	NM	-	NM	-	NM	-	NM	-	132.70	51.21	136.42	47.49	131.76	52.15
MW-35D	Confined LPA	177.8	117.28	60.52	133.55	44.25	125.59	52.21	124.02	53.78	124.27	53.53	128.19	49.61	123.64	54.16
MW-46D	Confined LPA	124.8	NM	-	NM	-	NM	-	NM	-	NM	-	NM	-	NM	-
MW-30D-413	Patuxent	153.1	NM	-	NM	-	NM	-	NM	-	138.10	15.03	143.75	9.38	140.62	12.51
MW-36D	Patuxent	158.7	NM	-	NM	-	NM	-	NM	-	141.75	16.96	146.32	12.39	143.85	14.86

Notes:

LPA = Lower Patapsco Aquifer

NM = Not Measured

TOC = Top of Casing

* Well abandoned in August 2019

Table 1

**Historical Groundwater Elevations (2015 through 2022)
Offsite Monitoring Wells
Former Kop-Flex Facility Site
Hanover, Maryland**

Well ID	Aquifer/Zone	TOC Elevation	2/19/2019		5/22/2019		8/6/2019		11/20/2019		2/12/2020	
			Depth to Water	Groundwater Elevation	Depth to Water	Groundwater Elevation	Depth to Water	Groundwater Elevation	Depth to Water	Groundwater Elevation	Depth to Water	Groundwater Elevation
MW-25S *	Unconfined LPA	130.6	11.75	118.85	NM	-	NM	-	NM	-	NM	-
MW-28S *	Unconfined LPA	150.5	23.30	127.20	NM	-	NM	-	NM	-	NM	-
MW-45	Unconfined LPA	126.7	11.98	114.74	11.75	114.97	NM	-	14.55	112.17	NM	-
MW-24D	Confined LPA	129.1	48.92	80.18	49.67	79.43	52.37	76.73	51.12	77.98	50.10	79.00
MW-25D-130	Confined LPA	130.5	54.96	75.54	56.23	74.27	60.79	69.71	59.94	70.56	55.55	74.95
MW-25D-192	Confined LPA	130.5	54.20	76.30	55.45	75.05	60.37	70.13	59.02	71.48	54.70	75.80
MW-28D	Confined LPA	150.5	84.78	65.72	86.96	63.54	94.24	56.26	91.37	59.13	85.00	65.50
MW-29D	Confined LPA	131.9	60.64	71.28	62.36	69.56	67.20	64.72	67.10	64.82	61.28	70.64
MW-30D-273	Confined LPA	153.5	93.10	60.44	95.74	57.80	104.75	48.79	101.12	52.42	93.29	60.25
MW-31D	Confined LPA	162.5	102.47	60.03	104.91	57.59	113.35	49.15	110.14	52.36	102.73	59.77
MW-32D	Confined LPA	156.1	93.79	62.35	97.02	59.12	99.43	56.71	101.56	54.58	92.35	63.79
MW-33D-235	Confined LPA	178.6	119.35	59.25	121.72	56.88	132.76	45.84	127.87	50.73	119.72	58.88
MW-33D-295	Confined LPA	178.3	119.10	59.20	NM	NA	131.14	47.16	127.65	50.65	119.54	58.76
MW-34D	Confined LPA	183.9	127.40	56.51	129.93	53.98	141.48	42.43	136.62	47.29	127.75	56.16
MW-35D	Confined LPA	177.8	119.18	58.62	121.65	56.15	127.51	50.29	129.89	47.91	119.68	58.12
MW-46D	Confined LPA	124.8	NM	-	35.47	89.30	38.40	86.37	37.90	86.87	36.13	88.64
MW-30D-413	Patuxent	153.1	130.73	22.40	137.25	15.88	145.27	7.86	143.64	9.49	128.12	25.01
MW-36D	Patuxent	158.7	134.83	23.88	141.30	17.41	147.65	11.06	146.75	11.96	132.11	26.60

Notes:

LPA = Lower Patapsco Aquifer

NM = Not Measured

TOC = Top of Casing

* Well abandoned in August 2019

Table 1

**Historical Groundwater Elevations (2015 through 2022)
Offsite Monitoring Wells
Former Kop-Flex Facility Site
Hanover, Maryland**

Well ID	Aquifer/Zone	TOC Elevation	5/14/2020		11/23/2020		5/10/2021		11/15/2021		6/27/2022		11/20/2022	
			Depth to Water	Groundwater Elevation	Depth to Water	Groundwater Elevation	Depth to Water	Groundwater Elevation	Depth to Water	Groundwater Elevation	Depth to Water	Groundwater Elevation	Depth to Water	Groundwater Elevation
MW-25S *	Unconfined LPA	130.6	NM	-	NM	-	NM	-	NM	-	NM	-	NM	-
MW-28S *	Unconfined LPA	150.5	NM	-	NM	-	NM	-	NM	-	NM	-	NM	-
MW-45	Unconfined LPA	126.7	NM	-	NM	-	12.69	114.03	12.69	114.03	12.91	113.8	13.54	113.2
MW-24D	Confined LPA	129.1	48.80	80.30	53.02	76.08	50.01	79.09	49.40	79.70	51.06	78.0	53.11	76.0
MW-25D-130	Confined LPA	130.5	54.95	75.55	60.50	70.00	56.11	74.39	NM	-	60.22	70.3	60.00	70.5
MW-25D-192	Confined LPA	130.5	54.23	76.27	59.50	71.00	55.32	75.18	NM	-	59.12	71.4	59.10	71.4
MW-28D	Confined LPA	150.5	84.36	66.14	92.87	57.63	86.34	64.16	89.34	61.16	93.51	57.0	90.81	59.7
MW-29D	Confined LPA	131.9	60.61	71.31	67.75	64.17	62.15	69.77	64.82	67.10	68.45	63.5	66.70	65.2
MW-30D-273	Confined LPA	153.5	92.60	60.94	103.09	50.45	94.95	58.59	99.70	53.84	104.25	49.3	100.23	53.3
MW-31D	Confined LPA	162.5	NM	-	113.30	49.20	104.32	58.18	108.09	54.41	114.2	48.3	109.24	53.3
MW-32D	Confined LPA	156.1	94.31	61.83	103.76	52.38	95.58	60.56	99.72	56.42	104.98	51.2	100.23	55.9
MW-33D-235	Confined LPA	178.6	119.10	59.50	NM	-	121.30	57.30	125.35	53.25	132.13	46.5	126.56	52.0
MW-33D-295	Confined LPA	178.3	118.84	59.46	130.21	48.09	121.08	57.22	125.15	53.15	131.85	46.5	126.29	52.0
MW-34D	Confined LPA	183.9	127.01	56.90	139.08	44.83	129.41	54.50	133.82	50.09	141.12	42.8	134.82	49.1
MW-35D	Confined LPA	177.8	119.06	58.74	129.67	48.13	121.20	56.60	126.19	51.61	132.35	45.5	126.60	51.2
MW-46D	Confined LPA	124.8	35.73	89.04	37.72	87.05	35.95	88.82	35.95	88.82	NM	-	38.38	86.4
MW-30D-413	Patuxent	153.1	127.25	25.88	142.22	10.91	134.60	18.53	140.69	12.44	145.4	7.7	141.52	11.6
MW-36D	Patuxent	158.7	131.08	27.63	145.25	13.46	137.95	20.76	143.70	15.01	148.06	10.7	145.05	13.7

Notes:

LPA = Lower Patapsco Aquifer

NM = Not Measured

TOC = Top of Casing

* Well abandoned in August 2019

Table 2

Offsite Monitoring Well Sample Results
Former Kop-Flex Facility Site
Hanover, Maryland
November 2022

Parameters (a)	Groundwater Quality Standards (µg/L) (b)	Well ID: Sampling Date:	SHALLOW ZONE LOWER PATAPSCO AQUIFER	DEEP (CONFINED) ZONE LOWER PATAPSCO AQUIFER									
			MW-45 11/21/22	MW-24D 11/21/22	MW-25D-130 11/21/22	DUP-112122 (d) 11/21/22	MW-25D-192 11/21/22	MW-28D 11/21/22	MW-29D 11/21/22	MW-30D-273 11/21/22	MW-31D 11/21/22	MW-32D 11/21/22	
Methyl t-Butyl Ether	20		1.0 U	1.0 U	1.0 U	1.0 U	1.2	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Chloroethane	-		1.0 U	2.8	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,1-Dichloroethane	2.8		1.0 U	114	5.5	5.3	7.3	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,2-Dichloroethane	5		1.0 U	7.5	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.3	1.0 U
1,1-Dichloroethene	7		1.0 U	1,020	80.2	76.2	29.1	6.2	1.0 U	31.3	1.0 U	1.0 U	1.0 U
cis-1,2-Dichloroethene	70		1.0 U	5.5	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,3-Dichloropropane	-		1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	3.4	1.0 U
1,4-Dioxane	4.6 (c)		1.0 U	148	16.1	19.1	10.2	3.1	1.0 U	7.0	1.0 U	1.0 U	1.0 U
Tetrachloroethene	5		1.0 U	1.3	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,1,1-Trichloroethane	200		1.0 U	15.3	5.6	5.6	3.7	1.0 U	1.0 U	1.2	1.0 U	1.0 U	1.0 U
1,1,2-Trichloroethane	5		1.0 U	1.2	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Trichloroethene	5		1.0 U	7.7	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Total CVOCs & 1,4-Dioxane			<i>ND</i>	<i>1,323</i>	<i>107.4</i>	<i>106.2</i>	<i>50.3</i>	<i>9.3</i>	<i>ND</i>	<i>39.5</i>	<i>4.7</i>	<i>ND</i>	

Table 2

Offsite Monitoring Well Sample Results
Former Kop-Flex Facility Site
Hanover, Maryland
November 2022

Parameters (a)	Groundwater Quality Standards (µg/L) (b)	Well ID: Sampling Date:	DEEP (CONFINED) ZONE LOWER PATAPSCO AQUIFER					PATUXENT AQUIFER	
			MW-33D-235 11/21/22	MW-33D-295 11/21/22	MW-34D 11/21/22	MW-35D 11/21/22	MW-46D 11/20/22	MW-30D-413 11/21/22	MW-36D 11/21/22
Methyl t-Butyl Ether	20		1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Chloroethane	-		1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,1-Dichloroethane	2.8		1.0 U	1.0 U	1.0 U	1.0 U	15.7	1.0 U	1.0 U
1,2-Dichloroethane	5		1.0 U	1.0 U	1.3	1.0 U	1.0 U	1.0 U	1.0 U
1,1-Dichloroethene	7		1.0 U	6.0	1.0 U	1.0 U	74.9	1.0 U	1.0 U
cis-1,2-Dichloroethene	70		1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,3-Dichloropropane	-		1.0 U	1.0 U	3.5	1.0 U	1.0 U	1.0 U	1.0 U
1,4-Dioxane	4.6 (c)		1.0 U	3.1	1.0 U	1.0 U	40.1	1.0 U	1.0 U
Tetrachloroethene	5		1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,1,1-Trichloroethane	200		1.0 U	1.0 U	1.0 U	1.0 U	3.6	1.0 U	1.0 U
1,1,2-Trichloroethane	5		1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Trichloroethene	5		1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Total CVOCs & 1,4-Dioxane			ND	9.1	4.8	ND	134.3	ND	ND

a/ U = not detected above the method detection limit; CVOC = chlorinated volatile organic compound.

Bolded values indicate an exceedence of the Groundwater Quality Standards

All sample concentrations in micrograms per liter (µg/l)

b/ All cleanup standards, except for 1,4-dioxane, are equal to the Maryland Generic Numeric Cleanup Standards for Groundwater, Type I and II Aquifers, from the State of Maryland Interim Final Guidance (October 2018). Accessed May 27, 2020:

<https://mde.maryland.gov/programs/LAND/MarylandBrownfieldVCP/Documents/www.mde.state.md.us/assets/document/MDE>

c/ Value represents the MDE risk-based action level.

d/ Field duplicate of sample from well MW-25D-130.

Table 3

**Historical Offsite Groundwater Sampling Results (2015 to Present)
Former Kop-Flex Facility Site
Hanover, Maryland**

Well ID	Sample Date	Chloroethane	1,1-Dichloroethane	1,2-Dichloroethane	1,1,1-Dichloroethane	cis-1,2-Dichloroethene	1,4-Dioxane	Methylene Chloride	1,1,1-Trichloroethane	1,1,2-Trichloroethane	Trichloroethene
Groundwater Quality Standard (µg/L)		NE	2.8 (1)	5	7	70	4.6	5	200	5	5
Shallow Zone Lower Patapsco Wells (b)											
MW-25 (c)	3/19/2015	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	2.0 U	2.0 U	1.0 U	1.0 U	1.0 U
	6/24/2015	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	2.0 U	2.0 U	1.0 U	1.0 U	1.0 U
	9/23/2015	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	2.0 U	2.0 U	1.0 U	1.0 U	1.0 U
	1/6/2016	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	2.0 U	2.0 U	1.0 U	1.0 U	1.0 U
	3/23/2016	1.0 U	1.0 U	1.0 U	1.5	1.0 U	2.0 U	2.0 U	1.0 U	1.0 U	1.0 U
	7/20/2016	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	2.0 U	2.0 U	1.0 U	1.0 U	1.0 U
	9/8/2016	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	2.0 U	2.0 U	1.0 U	1.0 U	1.0 U
	12/8/2016	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	2.0 U	2.0 U	1.0 U	1.0 U	1.0 U
	2/21/2017	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	3.0	2.0 U	1.0 U	1.0 U	1.0 U
	5/2/2017	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	2.0 U	2.0 U	1.0 U	1.0 U	1.0 U
	8/31/2017	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	2.0 U	2.0 U	1.0 U	1.0 U	1.0 U
	11/14/2017	5.0 U	1.0 U	1.0 U	1.0 U	1.0 U	2.0 U	11.7	1.0 U	1.0 U	1.0 U
	2/13/2018	5.0 U	1.0 U	1.0 U	1.0 U	1.0 U	2.0 U	2.0 U	1.0 U	1.0 U	1.0 U
	5/30/2018	5.0 U	1.0 U	1.0 U	1.0 U	1.0 U	2.0 U	2.0 U	1.0 U	1.0 U	1.0 U
MW-28 (c)	3/17/2015	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	2.0 U	2.0 U	1.0 U	1.0 U	1.0 U
	6/23/2015	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	2.0 U	2.0 U	1.0 U	1.0 U	1.0 U
	9/22/2015	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	2.0 U	2.0 U	1.0 U	1.0 U	1.0 U
	1/5/2016	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	2.0 U	2.0 U	1.0 U	1.0 U	1.0 U
	3/22/2016	1.0 U	1.0 U	1.0 U	6.2	1.0 U	2.0 U	2.0 U	1.0 U	1.0 U	1.0 U
	7/19/2016	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	2.0 U	2.0 U	1.0 U	1.0 U	1.0 U
	9/7/2016	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	2.0 U	2.0 U	1.0 U	1.0 U	1.0 U
	12/8/2016	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	2.0 U	2.0 U	1.0 U	1.0 U	1.0 U
	2/21/2017	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	2.0 U	2.0 U	1.0 U	1.0 U	1.0 U
	5/2/2017	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	2.0 U	2.0 U	1.0 U	1.0 U	1.0 U
	8/31/2017	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	2.0 U	2.0 U	1.0 U	1.0 U	1.0 U
	11/14/2017	5.0 U	1.0 U	1.0 U	1.0 U	1.0 U	2.0 U	5.0 U	1.0 U	1.0 U	1.0 U
	2/14/2018	5.0 U	1.0 U	1.0 U	1.0 U	1.0 U	2.0 U	5.0 U	1.0 U	1.0 U	1.0 U
	5/30/2018	5.0 U	1.0 U	1.0 U	1.0 U	1.0 U	2.0 U	5.0 U	1.0 U	1.0 U	1.0 U
MW-45	3/24/2017	1.0 U	1.0 U	1.9	1.0 U	2.3	2.0 U	1.0 U	1.0 U	1.0 U	1.0 U
	6/28/2018	1.0 U	1.0 U	2.0 U	1.0 U	2.0 U	2.0 U	1.0 U	1.0 U	1.0 U	1.0 U
	5/22/2019	1.0 U	1.0 U	2.0 U	1.0 U	2.0 U	2.0 U	1.0 U	1.0 U	1.0 U	1.0 U
	12/8/2020	1.0 U	1.0 U	2.0 U	1.0 U	2.0 U	2.0 U	1.0 U	1.0 U	1.0 U	1.0 U
	11/15/2021	1.0 U	1.0 U	2.0 U	1.0 U	2.0 U	2.0 U	1.0 U	1.0 U	1.0 U	1.0 U
	6/27/2022	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
11/21/2022	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	

Table 3

Historical Offsite Groundwater Sampling Results (2015 to Present)
Former Kop-Flex Facility Site
Hanover, Maryland

Well ID	Sample Date	Chloroethane	1,1-Dichloroethane	1,2-Dichloroethane	1,1,1-Dichloroethene	cis-1,2-Dichloroethene	1,4-Dioxane	Methylene Chloride	1,1,1-Trichloroethane	1,1,2-Trichloroethane	Trichloroethene
Groundwater Quality Standard (µg/L)		NE	2.8 (1)	5	7	70	4.6	5	200	5	5
Deep Zone Lower Patapsco Wells											
MW-24D	3/22/2016	12.5 U	88.0	15.7	1,780	12.5 U	561	39.4	38.6	12.5 U	12.5 U
	12/8/2016	5.0 U	36.1	5.2	701	5.0 U	192	10.0 U	9.0	5.0 U	5.0 U
	5/2/2017	5.0 U	40.4	5.6	830	5.0 U	216	10.0 U	10.2	5.0 U	5.0 U
	11/14/2017	5.0 U	28.1	3.4	803	2.3	212	11.7	10.5	0.5 J	5.9
	5/30/2018	4.0 U	26.6	4.0 U	529	4.0 U	187	8.0 U	5.5	4.0 U	4.0 U
	11/7/2018	5.0 U	29.8	5.0 U	560	5.0 U	2.0 U	10.0 U	5.0 U	5.0 U	5.0 U
	5/22/2019	10.0 U	66.2	10.0 U	1,190	10.0 U	359	50.0 U	18	10.0 U	10.0 U
	11/19/2019	5.0 U	54.5	6.6	868	5.0 U	155	25.0 U	10	5.0 U	6.0 U
	5/12/2020	2.5 U	25	3.3	402	5.0 U	139	25.0 U	3.7	5.0 U	3.2
	11/23/2020	4 U	73.5	4.0 U	505	4.0 U	208	20.0 U	4.4	4.0 U	4.0 U
	5/10/2021	6.2	151.0	6.3	788	7.2	299	25.0 U	10.9	5.0 U	5.0 U
	11/15/2021	10.0 U	142.0	10.0 U	1,300	10.0 U	475	25.0 U	16.1	5.0 U	5.0 U
	6/27/2022	3.6	142.0	7.4	1,490	6.9	165	1.0 U	18.5	1.0	8.6
	11/21/2022	2.8	114.0	7.5	1,020	5.5	148	1.0 U	15.3	1.2	7.7
	MW-25D-130	3/19/2015	10.0 U	38.6	10.8	854	10.0 U	446	200 U	8,930	100 U
6/24/2015		1.0 U	37.1	8.9	1,030	4.6	303	2.0 U	46.3	1.2	6.8
9/23/2015		10.0 U	29.7	10.0 U	697	10.0 U	295	20.0 U	32.3	10.0 U	14.2
1/7/2016		5.0 U	33.4	9.7	800	5.0 U	398	10.0 U	5.0 U	5.0 U	6.1
3/23/2016		5.0 U	24.5	8.0	676	5.0 U	302	10.0 U	26.2	5.0 U	5.0
7/19/2016		10.0 U	39.3	10.2	1,090	4.9 J	367	14.3 J	37.0	10.0 U	6.5 J
9/9/2016		5.0 U	27.9	6.4	661	5.0 U	241	12.0	25.0	5.0 U	5.0 U
12/8/2016		1.0 U	6.7	1.5	171	1.0 U	13.6	2.0 U	6.9	1.0 U	1.0 U
2/21/2017		1.0 U	7.2	1.7	194	1.0 U	69.1	2.0 U	7.0	1.0 U	1.2
5/2/2017		2.0 U	6.5	2.0 U	174	2.0 U	61.0	4.0 U	5.0	2.0 U	2.0 U
8/31/2017		2.0 U	7.4	1.7	193	2.0 U	57.9	4.0 U	6.9	2.0 U	2.0 U
11/14/2017		2.0 U	5.1	1.3	151	0.57 J	58.5	5.0 U	6.4	1.0 U	1.1
2/13/2018		2.0 U	6.3	2.0 U	154	2.0 U	67.1	5.0 U	6.4	1.0 U	1.0 U
5/30/2018		2.0 U	5.0	1.4	144	2.0 U	53.9	5.0 U	5.3	1.0 U	1.0 U
11/8/2018		2.0 U	4.4	1.1	109	2.0 U	40.2	5.0 U	1.0 U	1.0 U	1.0 U
5/22/2019		1.0 U	3.7	1.0 U	96.2	1.0 U	38.4	5.0 U	4.2	1.0 U	1.0 U
11/19/2019		1.0 U	2.7	1.0 U	62.1	1.0 U	31.0	5.0 U	1.0 U	1.0 U	1.0 U
5/14/2020		1.0 U	3.3	1.0 U	69.1	1.0 U	32.6	5.0 U	1.0 U	1.0 U	1.0 U
11/23/2020		1.0 U	3.3	1.0 U	76.0	1.0 U	32.4	5.0 U	4.9	1.0 U	1.0 U
5/10/2021		1.0 U	3.0	1.0 U	50.8	1.0 U	30.2	5.0 U	3.1	1.0 U	1.0 U
12/27/2021	1.0 U	3.0	1.0 U	45.5	1.0 U	29.1	5.0 U	3.3	1.0 U	1.0 U	
6/27/2022	1.0 U	4.2	1.0 U	65.6	1.0 U	15.6	1.0 U	5.0	1.0 U	1.0 U	
11/21/2022	1.0 U	5.5	1.0 U	80.2	1.0 U	16.1	1.0 U	5.6	1.0 U	1.0 U	
Duplicate	11/21/2022	1.0 U	5.3	1.0 U	76.2	1.0 U	19.1	1.0 U	5.6	1.0 U	1.0 U

Table 3

Historical Offsite Groundwater Sampling Results (2015 to Present)
Former Kop-Flex Facility Site
Hanover, Maryland

Well ID	Sample Date	Chloroethane	1,1-Dichloroethane	1,2-Dichloroethane	1,1-Dichloroethene	cis-1,2-Dichloroethene	1,4-Dioxane	Methylene Chloride	1,1,1-Trichloroethane	1,1,2-Trichloroethane	Trichloroethene
Groundwater Quality Standard (µg/L)		NE	2.8 (1)	5	7	70	4.6	5	200	5	5
MW-25D-192	3/19/2015	1.0 U	11.7	1.0 U	53.0	1.0 U	49.4	2.0 U	13.7	1.0 U	1.0 U
	6/25/2015	1.0 U	11.9	1.0 U	59.4	1.0 U	39.8	2.0 U	14.2	1.0 U	1.0 U
	9/22/2015	1.0 U	13.9	1.0 U	51.4	1.0 U	45.0	2.0 U	12.9	1.0 U	1.3
	1/7/2016	1.0 U	11.7	1.0 U	47.2	1.0 U	41.7	2.0 U	12.5	1.0 U	1.0 U
	3/23/2016	1.0 U	10.3	1.0 U	43.3	1.0 U	42.2	2.0 U	11.3	1.0 U	1.0 U
	7/20/2016	1.0 U	11.7	0.73 J	54.9	1.0 U	54.4	2.0 U	11.1	1.0 U	1.0 U
	9/8/2016	1.0 U	12.9	1.0 U	56.8	1.0 U	39.3	2.0 U	12.6	1.0 U	1.0 U
	12/8/2016	1.0 U	16.1	1.0 U	64.6	1.0 U	51.3	2.0 U	13.3	1.0 U	1.0 U
	2/21/2017	1.0 U	14.0	1.0 U	63.3	1.0 U	52.1	2.0 U	11.6	1.0 U	1.0 U
	5/2/2017	1.0 U	16.9	1.0 U	81.0	1.0 U	53.1	2.0 U	13.5	1.0 U	1.0 U
	8/31/2017	1.0 U	15.7	1.0 U	62.5	1.0 U	44.3	2.0 U	13.1	1.0 U	1.0 U
	11/14/2017	5.0 U	13.6	0.67 J	67.2	1.0 U	56.7	5.0 U	13.6	1.0 U	1.0 U
	2/13/2018	5.0 U	13.7	1.0 U	69.2	1.0 U	42.7	5.0 U	11.0	1.0 U	1.0 U
	5/30/2018	5.0 U	10.8	1.0 U	58.3	1.0 U	50.8	5.0 U	7.2	1.0 U	1.0 U
	11/8/2018	5.0 U	13.7	1.0 U	61.0	1.0 U	49.3	5.0 U	9.8	1.0 U	1.0 U
	5/22/2019	1.0 U	11.8	1.0 U	51.7	1.0 U	36.7	5.0 U	8.5	1.0 U	1.0 U
	11/19/2019	1.0 U	12.6	1.0 U	53.2	1.0 U	41.1	5.0 U	1.0 U	1.0 U	1.0 U
	5/14/2020	1.0 U	12.8	1.0 U	58.0	1.0 U	41.1	5.0 U	1.0 U	1.0 U	1.0 U
	11/23/2020	1.0 U	11.3	1.0 U	46.9	1.0 U	41.5	5.0 U	5.8	1.0 U	1.0 U
	5/10/2021	1.0 U	6.5	1.0 U	28.3	1.0 U	22.6	5.0 U	3.2	1.0 U	1.0 U
	12/27/2021	1.0 U	6.2	1.0 U	26.0	1.0 U	21.6	5.0 U	3.4	1.0 U	1.0 U
	6/27/2022	1.0 U	8.8	1.0 U	37.3	1.0 U	11.6	1.0 U	4.7	1.0 U	1.0 U
	11/21/2022	1.0 U	7.3	1.0 U	29.1	1.0 U	10.2	1.0 U	3.7	1.0 U	1.0 U
MW-28D	3/17/2015	1.0 U	1.0 U	1.0 U	10.6	1.0 U	5.0	2.0 U	1.0 U	1.0 U	1.0 U
	6/23/2015	1.0 U	1.0 U	1.0 U	12.8	1.0 U	4.5	2.0 U	1.0 U	1.0 U	1.0 U
	9/22/2015	1.0 U	1.0 U	1.0 U	14.3	1.0 U	4.4	2.0 U	1.0 U	1.0 U	1.0 U
	1/5/2016	1.0 U	1.0 U	1.0 U	11.5	1.0 U	5.5	2.0 U	1.0 U	1.0 U	1.0 U
	3/23/2016	1.0 U	1.0 U	1.0 U	9.1	1.0 U	4.0	2.0 U	1.0 U	1.0 U	1.0 U
	7/19/2016	1.0 U	1.0 U	0.25 J	10.1	1.0 U	2.0 U	2.0 U	1.0 U	1.0 U	1.0 U
	9/7/2016	1.0 U	1.0 U	1.0 U	12.0	1.0 U	5.0	2.0 U	1.0 U	1.0 U	1.0 U
	12/8/2016	1.0 U	1.0 U	1.0 U	6.3	1.0 U	2.0 U	2.0 U	1.0 U	1.0 U	1.0 U
	2/21/2017	1.0 U	1.0 U	1.0 U	4.6	1.0 U	3.0	2.0 U	1.0 U	1.0 U	1.0 U
	5/2/2017	1.0 U	1.0 U	1.0 U	5.8	1.0 U	2.7	2.0 U	1.0 U	1.0 U	1.0 U
	8/31/2017	1.0 U	1.0 U	1.0 U	5.0	1.0 U	2.7	2.0 U	1.0 U	1.0 U	1.0 U
	11/14/2017	5.0 U	1.0 U	1.0 U	5.5	1.0 U	3.5	5.0 U	1.0 U	1.0 U	1.0 U
	2/14/2018	5.0 U	1.0 U	1.0 U	4.3	1.0 U	2.8	5.0 U	1.0 U	1.0 U	1.0 U
	5/30/2018	5.0 U	1.0 U	1.0 U	6.1	1.0 U	2.4	5.0 U	1.0 U	1.0 U	1.0 U
	11/8/2018	5.0 U	1.0 U	1.0 U	6.9	1.0 U	2.3	5.0 U	1.0 U	1.0 U	1.0 U
	5/22/2019	1.0 U	1.0 U	1.0 U	5.2	1.0 U	3.5	5.0 U	1.0 U	1.0 U	1.0 U
	11/20/2019	1.0 U	1.0 U	1.0 U	6.1	1.0 U	3.9	5.0 U	1.0 U	1.0 U	1.0 U
	5/14/2020	1.0 U	1.0 U	1.0 U	4.0	1.0 U	3.4	5.0 U	1.0 U	1.0 U	1.0 U
	11/23/2020	1.0 U	1.0 U	1.0 U	7.6	1.0 U	4.2	5.0 U	1.0 U	1.0 U	1.0 U
	5/10/2021	1.0 U	1.0 U	1.0 U	10.0	1.0 U	4.3	5.0 U	1.0 U	1.0 U	1.0 U
	11/15/2021	1.0 U	1.0 U	1.0 U	8.1	1.0 U	5.1	5.0 U	1.0 U	1.0 U	1.0 U
6/27/2022	1.0 U	1.0 U	1.0 U	4.0	1.0 U	2.1	1.0 U	1.0 U	1.0 U	1.0 U	
11/21/2022	1.0 U	1.0 U	1.0 U	6.2	1.0 U	3.1	1.0 U	1.0 U	1.0 U	1.0 U	

Table 3

Historical Offsite Groundwater Sampling Results (2015 to Present)
Former Kop-Flex Facility Site
Hanover, Maryland

Well ID	Sample Date	Chloroethane	1,1-Dichloroethane	1,2-Dichloroethane	1,1,1-Dichloroethene	cis-1,2-Dichloroethene	1,4-Dioxane	Methylene Chloride	1,1,1-Trichloroethane	1,1,2-Trichloroethane	Trichloroethene	
Groundwater Quality Standard (µg/L)		NE	2.8 (1)	5	7	70	4.6	5	200	5	5	
MW-29D	5/21/2018	5.0 U	1.0 U	1.0 U	1.0 U	1.0 U	2.0 U	5.0 U	1.0 U	1.0 U	1.0 U	
	8/23/2018	5.0 U	1.0 U	1.0 U	1.0 U	1.0 U	2.0 U	5.0 U	1.0 U	1.0 U	1.0 U	
	11/8/2018	5.0 U	1.0 U	1.0 U	1.0 U	1.0 U	2.0 U	5.0 U	1.0 U	1.0 U	1.0 U	
	2/19/2019	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	2.0 U	5.0 U	1.0 U	1.0 U	1.0 U	
	5/22/2019	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	2.0 U	5.0 U	1.0 U	1.0 U	1.0 U	
	11/20/2019	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	2.0 U	5.0 U	1.0 U	1.0 U	1.0 U	
	5/14/2020	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	2.0 U	5.0 U	1.0 U	1.0 U	1.0 U	
	11/23/2020	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	2.0 U	5.0 U	1.0 U	1.0 U	1.0 U	
	5/10/2021	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	2.0 U	5.0 U	1.0 U	1.0 U	1.0 U	
	11/15/2021	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	2.0 U	5.0 U	1.0 U	1.0 U	1.0 U	
	6/27/2022	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	0.5 U	1.0 U	1.0 U	1.0 U	1.0 U	
	11/21/2022	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	
	MW-30D-273	5/31/2018	5.0 U	1.0 U	1.0 U	27.4	1.0 U	16.4	5.0 U	1.0 U	1.0 U	1.0 U
		8/23/2018	5.0 U	1.0	1.0 U	40.7	1.0 U	24.5	5.0 U	1.7	1.0 U	1.0 U
11/8/2018		5.0 U	1.2	1.0 U	44.0	1.0 U	22.2	5.0 U	2.1	1.0 U	1.0 U	
2/19/2019		1.0 U	1.1	1.0 U	47.2	1.0 U	23.1	5.0 U	1.0 U	1.0 U	1.0 U	
5/22/2019		1.0 U	1.1	1.0 U	44.2	1.0 U	22.7	5.0 U	2.0	1.0 U	1.0 U	
11/20/2019		1.0 U	1.1	1.0 U	43.3	1.0 U	22.8	5.0 U	1.0 U	1.0 U	1.0 U	
5/14/2020		1.0 U	1.0	1.0 U	42.7	1.0 U	20.9	5.0 U	1.0 U	1.0 U	1.0 U	
11/23/2020		1.0 U	1.0	1.0 U	39.5	1.0 U	19.5	5.0 U	1.0 U	1.0 U	1.0 U	
5/10/2021		1.0 U	1.0	1.0 U	36.9	1.0 U	18.2	5.0 U	1.0 U	1.0 U	1.0 U	
11/15/2021		1.0 U	1.0	1.0 U	34.1	1.0 U	16.6	5.0 U	1.4	1.0 U	1.0 U	
6/27/2022		1.0 U	1.0 U	1.0 U	34.5	1.0 U	7.5	1.0 U	1.3	1.0 U	1.0 U	
11/21/2022		1.0 U	1.0 U	1.0 U	31.3	1.0 U	7.0	1.0 U	1.2	1.0 U	1.0 U	
MW-31D		3/17/2015	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	2.0 U	2.0 U	1.0 U	1.0 U	1.0 U
		6/24/2015	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	2.0 U	2.0 U	1.0 U	1.0 U	1.0 U
	9/22/2015	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	2.0 U	2.0 U	1.0 U	1.0 U	1.0 U	
	1/6/2016	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	2.0 U	2.0 U	1.0 U	1.0 U	1.0 U	
	3/21/2016	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	2.0 U	2.0 U	1.0 U	1.0 U	1.0 U	
	7/19/2016	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	2.0 U	2.0 U	1.0 U	1.0 U	1.0 U	
	9/6/2016	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	2.0 U	2.0 U	1.0 U	1.0 U	1.0 U	
	12/8/2016	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	2.0 U	2.0 U	1.0 U	1.0 U	1.0 U	
	2/21/2017	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	2.0 U	2.0 U	1.0 U	1.0 U	1.0 U	
	5/2/2017	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	2.0 U	2.0 U	1.0 U	1.0 U	1.0 U	
	8/31/2017	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	2.0 U	2.0 U	1.0 U	1.0 U	1.0 U	
	11/14/2017	5.0 U	1.0 U	1.0 U	1.0 U	1.0 U	2.0 U	5.0 U	1.0 U	1.0 U	1.0 U	
	2/14/2018	5.0 U	1.0 U	1.0 U	1.0 U	1.0 U	2.0 U	5.0 U	1.0 U	1.0 U	1.0 U	
	5/31/2018	5.0 U	1.0 U	1.0 U	1.0 U	1.0 U	2.0 U	5.0 U	1.0 U	1.0 U	1.0 U	
	11/8/2018	5.0 U	1.0 U	1.0 U	1.0 U	1.0 U	2.0 U	5.0 U	1.0 U	1.0 U	1.0 U	
	5/22/2019	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	2.0 U	5.0 U	1.0 U	1.0 U	1.0 U	
	11/20/2019	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	2.0 U	5.0 U	1.0 U	1.0 U	1.0 U	
	6/2/2020	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	2.0 U	5.0 U	1.0 U	1.0 U	1.0 U	
	11/23/2020	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	2.0 U	5.0 U	1.0 U	1.0 U	1.0 U	
	5/10/2021	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	2.0 U	5.0 U	1.0 U	1.0 U	1.0 U	
11/15/2021	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	2.0 U	5.0 U	1.0 U	1.0 U	1.0 U		
6/27/2022	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	0.1 U	1.0 U	1.0 U	1.0 U	1.0 U		
11/21/2022	1.0 U	1.0 U	1.3	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U		

Table 3

**Historical Offsite Groundwater Sampling Results (2015 to Present)
Former Kop-Flex Facility Site
Hanover, Maryland**

Well ID	Sample Date	Chloroethane	1,1-Dichloroethane	1,2-Dichloroethane	1,1,1-Dichloroethene	cis-1,2-Dichloroethene	1,4-Dioxane	Methylene Chloride	1,1,1-Trichloroethane	1,1,2-Trichloroethane	Trichloroethene
Groundwater Quality Standard (µg/L)		NE	2.8 (1)	5	7	70	4.6	5	200	5	5
MW-32D	5/31/2018	5.0 U	1.0 U	1.0 U	1.0 U	1.0 U	2.0 U	5.0 U	1.0 U	1.0 U	1.0 U
	8/23/2018	5.0 U	1.0 U	1.0 U	1.0 U	1.0 U	2.0 U	5.0 U	1.0 U	1.0 U	1.0 U
	11/8/2018	5.0 U	1.0 U	1.0 U	1.0 U	1.0 U	2.0 U	5.0 U	1.0 U	1.0 U	1.0 U
	2/19/2019	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	2.0 U	5.0 U	1.0 U	1.0 U	1.0 U
	5/22/2019	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	2.0 U	5.0 U	1.0 U	1.0 U	1.0 U
	11/20/2019	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	2.0 U	5.0 U	1.0 U	1.0 U	1.0 U
	5/14/2020	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	2.0 U	5.0 U	1.0 U	1.0 U	1.0 U
	11/23/2020	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	2.0 U	5.0 U	1.0 U	1.0 U	1.0 U
	5/10/2021	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	2.0 U	5.0 U	1.0 U	1.0 U	1.0 U
	11/15/2021	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	2.0 U	5.0 U	1.0 U	1.0 U	1.0 U
	6/27/2022	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	0.2 U	1.0 U	1.0 U	1.0 U	1.0 U
	11/21/2022	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
	MW-33D-235	3/18/2015	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	2.0 U	2.0 U	1.0 U	1.0 U
6/23/2015		1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	2.0 U	2.0 U	1.0 U	1.0 U	1.0 U
9/21/2015		1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	2.0 U	2.0 U	1.0 U	1.0 U	1.0 U
1/4/2016		1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	2.0 U	2.0 U	1.0 U	1.0 U	1.0 U
3/21/2016		1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	3.0	2.0 U	1.0 U	1.0 U	1.0 U
7/18/2016		1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	2.0 U	2.0 U	1.0 U	1.0 U	1.0 U
9/7/2016		1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	2.0 U	2.0 U	1.0 U	1.0 U	1.0 U
12/8/2016		1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	2.0 U	2.0 U	1.0 U	1.0 U	1.0 U
2/21/2017		1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	2.0 U	2.0 U	1.0 U	1.0 U	1.0 U
5/2/2017		1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	2.0 U	2.0 U	1.0 U	1.0 U	1.0 U
8/31/2017		1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	2.0 U	2.0 U	1.0 U	1.0 U	1.0 U
11/14/2017		5.0 U	1.0 U	1.0 U	1.0 U	1.0 U	4.3	12.0	1.0 U	1.0 U	1.0 U
2/13/2018		1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	2.0 U	2.0 U	1.0 U	1.0 U	1.0 U
5/31/2018		1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	2.0 U	2.0 U	1.0 U	1.0 U	1.0 U
11/8/2018		1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	2.0 U	2.0 U	1.0 U	1.0 U	1.0 U
5/22/2019		1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	2.0 U	5.0 U	1.0 U	1.0 U	1.0 U
11/20/2019		1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	2.0 U	5.0 U	1.0 U	1.0 U	1.0 U
5/14/2020		1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	2.0 U	5.0 U	1.0 U	1.0 U	1.0 U
11/23/2020		1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	2.0 U	5.0 U	1.0 U	1.0 U	1.0 U
5/10/2021		1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	2.0 U	5.0 U	1.0 U	1.0 U	1.0 U
11/15/2021		1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	2.0 U	5.0 U	1.0 U	1.0 U	1.0 U
6/27/2022	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	0.1 U	1.0 U	1.0 U	1.0 U	1.0 U	
11/21/2022	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	

Table 3

Historical Offsite Groundwater Sampling Results (2015 to Present)
Former Kop-Flex Facility Site
Hanover, Maryland

Well ID	Sample Date	Chloroethane	1,1-Dichloroethane	1,2-Dichloroethane	1,1-Dichloroethene	cis-1,2-Dichloroethene	1,4-Dioxane	Methylene Chloride	1,1,1-Trichloroethane	1,1,2-Trichloroethane	Trichloroethene
Groundwater Quality Standard (µg/L)		NE	2.8 (1)	5	7	70	4.6	5	200	5	5
MW-33D-295	3/18/2015	1.0 U	1.0 U	1.0 U	4.6	1.0 U	8.0	2.0 U	1.0 U	1.0 U	1.0 U
	6/23/2015	1.0 U	1.0 U	1.0 U	3.3	1.0 U	6.8	2.0 U	1.0 U	1.0 U	1.0 U
	9/21/2015	1.0 U	1.0 U	1.0 U	4.8	1.0 U	6.8	2.0 U	1.0 U	1.0 U	1.0 U
	1/4/2016	1.0 U	1.0 U	1.0 U	3.7	1.0 U	7.6	2.0 U	1.0 U	1.0 U	1.0 U
	3/21/2016	1.0 U	1.0 U	1.0 U	3.9	1.0 U	7.8	2.0 U	1.0 U	1.0 U	1.0 U
	7/18/2016	1.0 U	1.0 U	0.36 J	3.2	1.0 U	5.1	2.0 U	1.0 U	1.0 U	1.0 U
	9/7/2016	1.0 U	1.0 U	1.0 U	3.8	1.0 U	7.4	2.0 U	1.0 U	1.0 U	1.0 U
	12/8/2016	1.0 U	1.0 U	1.0 U	5.4	1.0 U	7.4	2.0 U	1.0 U	1.0 U	1.0 U
	2/21/2017	1.0 U	1.0 U	1.0 U	4.0	1.0 U	6.8	2.0 U	1.0 U	1.0 U	1.0 U
	5/2/2017	1.0 U	1.0 U	1.0 U	5.3	1.0 U	7.4	2.0 U	1.0 U	1.0 U	1.0 U
	8/31/2017	1.0 U	1.0 U	1.0 U	5.6	1.0 U	6.3	2.0 U	1.0 U	1.0 U	1.0 U
	11/14/2017	5.0 U	1.0 U	1.0 U	3.4	1.0 U	9.7	11.5	0.49 J	1.0 U	1.0 U
	2/13/2018	5.0 U	1.0 U	1.0 U	4.6	1.0 U	6.9	2.0 U	0.49 J	1.0 U	1.0 U
	5/31/2018	5.0 U	1.0 U	1.0 U	4.6	1.0 U	6.9	2.0 U	0.49 J	1.0 U	1.0 U
	11/8/2018	5.0 U	1.0 U	1.0 U	4.2	1.0 U	6.1	2.0 U	1.0 U	1.0 U	1.0 U
	5/22/2019	1.0 U	1.0 U	1.0 U	4.5	1.0 U	6.1	5.0 U	1.0 U	1.0 U	1.0 U
	11/20/2019	1.0 U	1.0 U	1.0 U	3.7	1.0 U	6.3	5.0 U	1.0 U	1.0 U	1.0 U
	5/14/2020	1.0 U	1.0 U	1.0 U	4.4	1.0 U	6.0	5.0 U	1.0 U	1.0 U	1.0 U
	11/23/2020	1.0 U	1.0 U	1.0 U	3.6	1.0 U	6.0	5.0 U	1.0 U	1.0 U	1.0 U
	5/10/2021	1.0 U	1.0 U	1.0 U	4.4	1.0 U	5.6	5.0 U	1.0 U	1.0 U	1.0 U
	11/15/2021	1.0 U	1.0 U	1.0 U	4.2	1.0 U	6.1	5.0 U	1.0 U	1.0 U	1.0 U
	6/27/2022	1.0 U	1.0 U	1.0 U	5.1	1.0 U	3.0	1.0 U	1.0 U	1.0 U	1.0 U
11/21/2022	1.0 U	1.0 U	1.0 U	6.0	1.0 U	3.1	1.0 U	1.0 U	1.0 U	1.0 U	
MW-34D	5/31/2018	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	2.0 U	2.0 U	1.0 U	1.0 U	1.0 U
	8/23/2018	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	2.0 U	2.0 U	1.0 U	1.0 U	1.0 U
	11/8/2018	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	2.0 U	2.0 U	1.0 U	1.0 U	1.0 U
	2/19/2019	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	2.0 U	5.0 U	1.0 U	1.0 U	1.0 U
	5/22/2019	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	2.0 U	5.0 U	1.0 U	1.0 U	1.0 U
	11/20/2019	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	2.0 U	5.0 U	1.0 U	1.0 U	1.0 U
	5/14/2020	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	2.0 U	5.0 U	1.0 U	1.0 U	1.0 U
	11/23/2020	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	2.0 U	5.0 U	1.0 U	1.0 U	1.0 U
	5/10/2021	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	2.0 U	5.0 U	1.0 U	1.0 U	1.0 U
	11/15/2021	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	2.0 U	5.0 U	1.0 U	1.0 U	1.0 U
	6/27/2022	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U
	11/21/2022	1.0 U	1.0 U	1.3	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U

Table 3

**Historical Offsite Groundwater Sampling Results (2015 to Present)
Former Kop-Flex Facility Site
Hanover, Maryland**

Well ID	Sample Date	Chloroethane	1,1-Dichloroethane	1,2-Dichloroethane	1,1,1-Dichloroethene	cis-1,2-Dichloroethene	1,4-Dioxane	Methylene Chloride	1,1,1-Trichloroethane	1,1,2-Trichloroethane	Trichloroethene
Groundwater Quality Standard (µg/L)		NE	2.8 (1)	5	7	70	4.6	5	200	5	5
MW-35D	3/18/2015	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	2.0 U	2.0 U	1.0 U	1.0 U	1.0 U
	6/22/2015	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	2.0 U	2.0 U	1.0 U	1.0 U	1.0 U
	9/21/2015	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	2.0 U	2.0 U	1.0 U	1.0 U	1.0 U
	1/6/2016	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	2.0 U	2.0 U	1.0 U	1.0 U	1.0 U
	4/15/2016	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	2.0 U	2.0 U	1.0 U	1.0 U	1.0 U
	7/18/2016	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	2.0 U	2.0 U	1.0 U	1.0 U	1.0 U
	9/6/2016	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	2.0 U	2.0 U	1.0 U	1.0 U	1.0 U
	12/8/2016	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	2.0 U	2.0 U	1.0 U	1.0 U	1.0 U
	2/21/2017	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	2.0 U	2.0 U	1.0 U	1.0 U	1.0 U
	5/2/2017	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	2.0 U	2.0 U	1.0 U	1.0 U	1.0 U
	8/31/2017	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	2.0 U	2.0 U	1.0 U	1.0 U	1.0 U
	11/14/2017	5.0 U	1.0 U	1.0 U	1.0 U	1.0 U	2.0 U	5.0 U	1.0 U	1.0 U	1.0 U
	2/14/2018	5.0 U	1.0 U	1.0 U	1.0 U	1.0 U	2.0 U	2.0 U	1.0 U	1.0 U	1.0 U
	5/31/2018	5.0 U	1.0 U	1.0 U	1.0 U	1.0 U	2.0 U	2.0 U	1.0 U	1.0 U	1.0 U
	11/8/2018	5.0 U	1.0 U	1.0 U	1.0 U	1.0 U	2.0 U	2.0 U	1.0 U	1.0 U	1.0 U
	5/22/2019	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	2.0 U	5.0 U	1.0 U	1.0 U	1.0 U
	11/20/2019	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	2.0 U	5.0 U	1.0 U	1.0 U	1.0 U
	5/14/2020	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	2.0 U	5.0 U	1.0 U	1.0 U	1.0 U
	11/23/2020	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	2.0 U	5.0 U	1.0 U	1.0 U	1.0 U
	5/10/2021	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	2.0 U	5.0 U	1.0 U	1.0 U	1.0 U
11/15/2021	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	2.0 U	5.0 U	1.0 U	1.0 U	1.0 U	
6/27/2022	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	0.16 U	1.0 U	1.0 U	1.0 U	1.0 U	
11/21/2022	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	
MW-46D	5/30/2018	1.0 U	13.7	1.0 U	29.4	1.0 U	73.5	2.0 U	1.2	1.0 U	1.0 U
	11/7/2018	1.0 U	22.1	1.2	99.6	1.0 U	96.7	2.0 U	7.7	1.0 U	1.0 U
	5/21/2019	1.0 U	26.1	1.0	125	1.0 U	88.0	5.0 U	10.2	1.0 U	1.0 U
	11/19/2019	1.0 U	23.4	1.4	114	1.0	96.3	5.0 U	1.0 U	1.0 U	1.0 U
	5/12/2020	1.0 U	20.7	1.4	98	1.0	63.0	5.0 U	1.0 U	1.0 U	1.0 U
	11/23/2020	1.0 U	18.4	1.0 U	124	1.0 U	29.8	5.0 U	6.4	1.0 U	1.0 U
	5/9/2021	1.0 U	25.7	1.5	116	1.0 U	99.3	5.0 U	7.8	1.0 U	1.0 U
	11/15/2021	1.0 U	19.9	1.0 U	87	1.0 U	79.9	5.0 U	4.8	1.0 U	1.0 U
	6/27/2022	1.0 U	20.7	1.0 U	92	1.0 U	23.4	5.0 U	5.7	1.0 U	1.0 U
	11/21/2022	1.0 U	15.7	1.0 U	74.9	1.0 U	40.1	1.0 U	3.6	1.0 U	1.0 U
Confined Patuxent Wells MW-30D-413	5/31/2018	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	2.0 U	2.0 U	1.0 U	1.0 U	1.0 U
	8/23/2018	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	2.0 U	2.0 U	1.0 U	1.0 U	1.0 U
	11/8/2018	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	2.0 U	2.0 U	1.0 U	1.0 U	1.0 U
	2/19/2019	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	2.0 U	2.0 U	1.0 U	1.0 U	1.0 U
	5/22/2019	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	2.0 U	5.0 U	1.0 U	1.0 U	1.0 U
	11/20/2019	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	2.0 U	5.0 U	1.0 U	1.0 U	1.0 U
	5/14/2020	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	2.0 U	5.0 U	1.0 U	1.0 U	1.0 U
	11/23/2020	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	2.0 U	5.0 U	1.0 U	1.0 U	1.0 U
	5/10/2021	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	2.0 U	5.0 U	1.0 U	1.0 U	1.0 U
	11/15/2021	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	2.0 U	5.0 U	1.0 U	1.0 U	1.0 U
	6/27/2022	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	0.10 U	1.0 U	1.0 U	1.0 U	1.0 U
	11/21/2022	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U

Table 3

**Historical Offsite Groundwater Sampling Results (2015 to Present)
Former Kop-Flex Facility Site
Hanover, Maryland**

Well ID	Sample Date	Chloroethane	1,1-Dichloroethane	1,2-Dichloroethane	1,1,1-Dichloroethane	cis-1,2-Dichloroethane	1,4-Dioxane	Methylene Chloride	1,1,1-Trichloroethane	1,1,2-Trichloroethane	Trichloroethene
Groundwater Quality Standard (µg/L)		NE	2.8 (1)	5	7	70	4.6	5	200	5	5
MW-36D	5/30/2018	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	2.0 U	2.0 U	1.0 U	1.0 U	1.0 U
	8/23/2018	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	2.0 U	2.0 U	1.0 U	1.0 U	1.0 U
	11/8/2018	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	2.0 U	2.0 U	1.0 U	1.0 U	1.0 U
	2/19/2019	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	2.0 U	2.0 U	1.0 U	1.0 U	1.0 U
	5/22/2019	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	2.0 U	5.0 U	1.0 U	1.0 U	1.0 U
	11/20/2019	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	2.0 U	5.0 U	1.0 U	1.0 U	1.0 U
	5/14/2020	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	2.0 U	5.0 U	1.0 U	1.0 U	1.0 U
	11/23/2020	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	2.0 U	5.0 U	1.0 U	1.0 U	1.0 U
	5/10/2021	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	2.0 U	5.0 U	1.0 U	1.0 U	1.0 U
	11/15/2021	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	2.0 U	5.0 U	1.0 U	1.0 U	1.0 U
	6/27/2022	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	0.17 U	1.0 U	1.0 U	1.0 U	1.0 U
	11/21/2022	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U

(1) MDE GW Quality Standard changed from 90 µg/L to 2.8 µg/L in October 2018

a/ U = not detected above the method detection limit; J = estimated concentration between the reporting limit and method detection limit.

Bolded values indicate an exceedence of the Groundwater Quality Standards

Dashed line marks change from quarterly to semi-annual sampling frequency at the well.

All sample concentrations in micrograms per liter (µg/l)

NS = well not sampled

b/ Wells screened in this portion of the Lower Patapsco aquifer were removed from the monitoring program after the May 2018 sampling event.

c/ Well decommissioned in August 2019

ENCLOSURE A – LABORATORY ANALYTICAL REPORT FOR OFFSITE
GROUNDWATER MONITORING WELL SAMPLES (NOVEMBER 2022)



301 Fulling Mill Road | Middletown, PA 17057 | Phone: 717-944-5541 | Fax: 717-944-1430 | www.alsglobal.com

NELAP Certifications: NJ PA010 , NY 11759 , PA 22-293 DoD ELAP: PJLA 74618
State Certifications: FL E871113 , WA C999 , MD 128 , VA 460157 , WV DW 9961-C , WV 343

Analytical Results Report For

WSP USA Inc.

Project [31405608.011](#)
Workorder [3275166](#)
Report ID [221697 on 1/30/2023](#)

Certificate of Analysis

Enclosed are the analytical results for samples received by the laboratory on Nov 21, 2022.

The ALS Environmental laboratory in Middletown, Pennsylvania is a National Environmental Laboratory Accreditation Program (NELAP) accredited laboratory and as such, certifies that all applicable test results meet the requirements of NELAP.

If you have any questions regarding this certificate of analysis, please contact Susan Scherer (Project Coordinator) at (717) 944-5541.

Analyses were performed according to our laboratory's NELAP-approved quality assurance program and any applicable state requirements. The test results meet requirements of the current NELAP standards or state requirements, where applicable. For a specific list of accredited analytes, refer to the certifications section of the ALS website at www.alsglobal.com/en/Our-Services/Life-Sciences/Environmental/Downloads.

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ALS Middletown: 301 Fulling Mill Road, Middletown, PA 17057 : 717-944-5541.

Recipient(s):

Elliott Martynkiewicz - WSP USA Inc.
Eric Johnson - WSP USA INC

Susan Scherer

Susan Scherer
Project Coordinator

(ALS Digital Signature)

This page is included as part of the Analytical Report and must be retained as a permanent record thereof.



Sample Summary

<u>Lab ID</u>	<u>Sample ID</u>	<u>Matrix</u>	<u>Date Collected</u>	<u>Date Received</u>	<u>Collector</u>	<u>Collection Company</u>
3275166001	MW-34D	Ground Water	11/21/2022 08:40	11/21/2022 17:40	CBC	Collected By Client
3275166002	MW-35D	Ground Water	11/21/2022 08:55	11/21/2022 17:40	CBC	Collected By Client
3275166003	MW-33D-235	Ground Water	11/21/2022 09:35	11/21/2022 17:40	CBC	Collected By Client
3275166004	MW-33D-295	Ground Water	11/21/2022 09:40	11/21/2022 17:40	CBC	Collected By Client
3275166005	MW-31D	Ground Water	11/21/2022 10:05	11/21/2022 17:40	CBC	Collected By Client
3275166006	MW-29D	Ground Water	11/21/2022 10:15	11/21/2022 17:40	CBC	Collected By Client
3275166007	MW-30D-273	Ground Water	11/21/2022 10:30	11/21/2022 17:40	CBC	Collected By Client
3275166008	MW-30D-413	Ground Water	11/21/2022 10:40	11/21/2022 17:40	CBC	Collected By Client
3275166009	MW-32D	Ground Water	11/21/2022 11:45	11/21/2022 17:40	CBC	Collected By Client
3275166010	MW-28D	Ground Water	11/21/2022 11:30	11/21/2022 17:40	CBC	Collected By Client
3275166011	MW-36D	Ground Water	11/21/2022 11:45	11/21/2022 17:40	CBC	Collected By Client
3275166012	MW-45	Ground Water	11/21/2022 13:05	11/21/2022 17:40	CBC	Collected By Client
3275166013	MW-24D	Ground Water	11/21/2022 13:15	11/21/2022 17:40	CBC	Collected By Client
3275166014	MW-25D-130	Ground Water	11/21/2022 14:00	11/21/2022 17:40	CBC	Collected By Client
3275166015	MW-25D-190	Ground Water	11/21/2022 13:45	11/21/2022 17:40	CBC	Collected By Client
3275166016	Dup-112122	Ground Water	11/21/2022 12:10	11/21/2022 17:40	CBC	Collected By Client
3275166017	Trip Blank-C	Ground Water	11/21/2022 12:10	11/21/2022 17:40	CBC	Collected By Client
3275166018	Trip Blank-D	Ground Water	11/21/2022 12:10	11/21/2022 17:40	CBC	Collected By Client



Reference

Notes

- Samples collected by ALS personnel are done so in accordance with the procedures set forth in the ALS Field Sampling Plan (20 - Field Services Sampling Plan).
- Except as qualified, Clean Water Act sample analyses are consistent with methodology requirements in 40 CFR Part 136.
- Except as qualified, Safe Drinking Water Act sample analyses are consistent with methodology requirements in 40 CFR Part 141.
- The Chain of Custody document is included as part of this report.
- All Library Search analytes should be regarded as tentative identifications based on the presumptive evidence of the mass spectra. Concentrations reported are estimated values.
- Parameters identified as "analyze immediately" require analysis within 15 minutes of collection. Any "analyze immediately" parameters not listed under the header "Field Parameters" are performed in the laboratory and are therefore analyzed out of hold time.
- Method references listed on this report beginning with the prefix "S" followed by a method number (such as S2310B-97) refer to methods from "Standard Methods for the Examination of Water and Wastewater".
- For microbiological analyses, the "Prepared" value is the date/time into the incubator and the "Analyzed" value is the date/time out the incubator.
- An Analysis-Prep Method Cross Reference Table is included after Analytical Results & Qualifiers section in this report.
- Unless otherwise noted, all quantitative results for soils are reported on a dry weight basis.

Standard Acronyms/Flags

J	Indicates an estimated value between the Method Detection Limit (MDL) and the Practical Quantitation Limit (PQL) for the analyte
U	Indicates that the analyte was Not Detected (ND) above the MDL
N	Indicates presumptive evidence of the presence of a compound
MDL	Method Detection Limit
PQL	Practical Quantitation Limit
RDL	Practical Quantitation Limit for this Project
ND	Not Detected - indicates that the analyte was Not Detected
Cntr	Analysis was performed using this container
RegLmt	Regulatory Limit
LCS	Laboratory Control Sample
MS	Matrix Spike
MSD	Matrix Spike Duplicate
DUP	Sample Duplicate
%Rec	Percent Recovery
RPD	Relative Percent Difference
LOD	DoD Limit of Detection
LOQ	DoD Limit of Quantitation
DL	DoD Detection Limit
I	Indicates reported value is greater than or equal to the Method Detection Limit (MDL) but less than the Report Detection Limit (RDL)
(S)	Surrogate Compound
NC	Not Calculated
*	Result outside of QC limits
#	Please reference the result in the Results Section for analyte-level flags.



Project 31405608.011

Workorder 3275166

Project Notations

P1 This workorder was modified to correct the reporting limits of 1,4-Dioxane from the 8270E SIM analysis based on Task Orders submitted to ALS. A reporting limit (RL) for 1,4-dioxane of 1 µg/L was requested. AJL 1/30/2023

Sample Notations

Lab ID	Sample ID
--------	-----------

Result Notations

Notation Ref.	
1	The surrogate Fluoranthene-d10 for method SW846 8270E SIM was outside of control limits. The % Recovery was reported as 43.9 and the control limits were 45 to 130. This result was reported at a dilution of 1.
2	The QC sample type MSD for method SW846 8270E SIM was outside the control limits for the analyte 1,4-Dioxane. The % Recovery was reported as 128 and the control limits were 22 to 75.
3	The QC sample type MS for method SW846 8270E SIM was outside the control limits for the analyte 1,4-Dioxane. The % Recovery was reported as 184 and the control limits were 22 to 75.

Project 31405608.011
Workorder 3275166



Detected Results Summary

Client Sample ID	MW-34D	Collected	11/21/2022 08:40
Lab Sample ID	3275166001	Lab Receipt	11/21/2022 17:40

<u>Compound</u>	<u>Result</u>	<u>Units</u>	<u>RDL</u>	<u>Method</u>	<u>Flag</u>
VOLATILE ORGANICS					
1,2-Dichloroethane	1.3	ug/L	1.0	SW846 8260D	#
1,3-Dichloropropane	3.5	ug/L	1.0	SW846 8260D	#

Project 31405608.011
Workorder 3275166



Detected Results Summary

Client Sample ID	MW-33D-295	Collected	11/21/2022 09:40
Lab Sample ID	3275166004	Lab Receipt	11/21/2022 17:40

<u>Compound</u>	<u>Result</u>	<u>Units</u>	<u>RDL</u>	<u>Method</u>	<u>Flag</u>
SEMIVOLATILE SIM					
1,4-Dioxane	3.1	ug/L	1.0	SW846 8270E SIM	#
VOLATILE ORGANICS					
1,1-Dichloroethene	6.0	ug/L	1.0	SW846 8260D	#

Project 31405608.011
Workorder 3275166



Detected Results Summary

Client Sample ID	MW-31D	Collected	11/21/2022 10:05
Lab Sample ID	3275166005	Lab Receipt	11/21/2022 17:40

<u>Compound</u>	<u>Result</u>	<u>Units</u>	<u>RDL</u>	<u>Method</u>	<u>Flag</u>
VOLATILE ORGANICS					
1,2-Dichloroethane	1.3	ug/L	1.0	SW846 8260D	#
1,3-Dichloropropane	3.4	ug/L	1.0	SW846 8260D	#



Detected Results Summary

Client Sample ID	MW-30D-273	Collected	11/21/2022 10:30
Lab Sample ID	3275166007	Lab Receipt	11/21/2022 17:40

<u>Compound</u>	<u>Result</u>	<u>Units</u>	<u>RDL</u>	<u>Method</u>	<u>Flag</u>
SEMIVOLATILE SIM					
1,4-Dioxane	7.0	ug/L	1.0	SW846 8270E SIM	#
VOLATILE ORGANICS					
1,1,1-Trichloroethane	1.2	ug/L	1.0	SW846 8260D	#
1,1-Dichloroethene	31.3	ug/L	1.0	SW846 8260D	#

Project 31405608.011
Workorder 3275166



Detected Results Summary

Client Sample ID	MW-28D	Collected	11/21/2022 11:30
Lab Sample ID	3275166010	Lab Receipt	11/21/2022 17:40

<u>Compound</u>	<u>Result</u>	<u>Units</u>	<u>RDL</u>	<u>Method</u>	<u>Flag</u>
SEMIVOLATILE SIM					
1,4-Dioxane	3.1	ug/L	1.0	SW846 8270E SIM	#
VOLATILE ORGANICS					
1,1-Dichloroethene	6.2	ug/L	1.0	SW846 8260D	#



Detected Results Summary

Client Sample ID	MW-24D	Collected	11/21/2022 13:15
Lab Sample ID	3275166013	Lab Receipt	11/21/2022 17:40

<u>Compound</u>	<u>Result</u>	<u>Units</u>	<u>RDL</u>	<u>Method</u>	<u>Flag</u>
SEMIVOLATILE SIM					
1,4-Dioxane	148	ug/L	26.3	SW846 8270E SIM	#
VOLATILE ORGANICS					
1,1,1-Trichloroethane	15.3	ug/L	1.0	SW846 8260D	#
1,1,2-Trichloroethane	1.2	ug/L	1.0	SW846 8260D	#
1,1-Dichloroethane	114	ug/L	1.0	SW846 8260D	#
1,1-Dichloroethene	1020	ug/L	20.0	SW846 8260D	#
1,2-Dichloroethane	7.5	ug/L	1.0	SW846 8260D	#
Chloroethane	2.8	ug/L	1.0	SW846 8260D	#
cis-1,2-Dichloroethene	5.5	ug/L	1.0	SW846 8260D	#
Tetrachloroethene	1.3	ug/L	1.0	SW846 8260D	#
Trichloroethene	7.7	ug/L	1.0	SW846 8260D	#

Project 31405608.011
Workorder 3275166



Detected Results Summary

Client Sample ID	MW-25D-130	Collected	11/21/2022 14:00
Lab Sample ID	3275166014	Lab Receipt	11/21/2022 17:40

<u>Compound</u>	<u>Result</u>	<u>Units</u>	<u>RDL</u>	<u>Method</u>	<u>Flag</u>
SEMIVOLATILE SIM					
1,4-Dioxane	16.1	ug/L	10.0	SW846 8270E SIM	#
VOLATILE ORGANICS					
1,1,1-Trichloroethane	5.6	ug/L	1.0	SW846 8260D	#
1,1-Dichloroethane	5.5	ug/L	1.0	SW846 8260D	#
1,1-Dichloroethene	80.2	ug/L	1.0	SW846 8260D	#

Project 31405608.011
Workorder 3275166



Detected Results Summary

Client Sample ID	MW-25D-190	Collected	11/21/2022 13:45
Lab Sample ID	3275166015	Lab Receipt	11/21/2022 17:40

<u>Compound</u>	<u>Result</u>	<u>Units</u>	<u>RDL</u>	<u>Method</u>	<u>Flag</u>
SEMIVOLATILE SIM					
1,4-Dioxane	10.2	ug/L	1.0	SW846 8270E SIM	#
VOLATILE ORGANICS					
1,1,1-Trichloroethane	3.7	ug/L	1.0	SW846 8260D	#
1,1-Dichloroethane	7.3	ug/L	1.0	SW846 8260D	#
1,1-Dichloroethene	29.1	ug/L	1.0	SW846 8260D	#
Methyl t-Butyl Ether	1.2	ug/L	1.0	SW846 8260D	#

Project 31405608.011
Workorder 3275166



Detected Results Summary

Client Sample ID	Dup-112122	Collected	11/21/2022 12:10
Lab Sample ID	3275166016	Lab Receipt	11/21/2022 17:40

<u>Compound</u>	<u>Result</u>	<u>Units</u>	<u>RDL</u>	<u>Method</u>	<u>Flag</u>
SEMIVOLATILE SIM					
1,4-Dioxane	19.1	ug/L	2.5	SW846 8270E SIM	#
VOLATILE ORGANICS					
1,1,1-Trichloroethane	5.6	ug/L	1.0	SW846 8260D	#
1,1-Dichloroethane	5.3	ug/L	1.0	SW846 8260D	#
1,1-Dichloroethene	76.2	ug/L	1.0	SW846 8260D	#

Project 31405608.011
Workorder 3275166



Detected Results Summary

Client Sample ID	Trip Blank-C	Collected	11/21/2022 12:10
Lab Sample ID	3275166017	Lab Receipt	11/21/2022 17:40

<u>Compound</u>	<u>Result</u>	<u>Units</u>	<u>RDL</u>	<u>Method</u>	<u>Flag</u>
VOLATILE ORGANICS					
Chloroform	1.1	ug/L	1.0	SW846 8260D	#

Project 31405608.011
Workorder 3275166



Detected Results Summary

Client Sample ID	Trip Blank-D	Collected	11/21/2022 12:10
Lab Sample ID	3275166018	Lab Receipt	11/21/2022 17:40

<u>Compound</u>	<u>Result</u>	<u>Units</u>	<u>RDL</u>	<u>Method</u>	<u>Flag</u>
VOLATILE ORGANICS					
Chloroform	1.1	ug/L	1.0	SW846 8260D	#



Results

Client Sample ID	MW-34D	Collected	11/21/2022 08:40
Lab Sample ID	3275166001	Lab Receipt	11/21/2022 17:40

SEMIVOLATILE SIM

Compound	Result	Flag	Units	RDL	Method	Dilution	Analysis Date/Time	By	Cntr
1,4-Dioxane	1.0 U	U,P1	ug/L	1.0	SW846 8270E SIM	1	11/29/2022 05:23	M1O	C

SURROGATES

Compound	CAS No	Recovery	Limits(%)	Analysis Date/Time	Qualifiers
2-Methylnaphthalene-d10	7297-45-2	72.9%	29 – 112	11/29/2022 05:23	
Fluoranthene-d10	93951-69-0	87.1%	45 – 130	11/29/2022 05:23	

VOLATILE ORGANICS

Compound	Result	Flag	Units	RDL	Method	Dilution	Analysis Date/Time	By	Cntr
1,1,1,2-Tetrachloroethane	1.0 U	U,P1	ug/L	1.0	SW846 8260D	1	12/01/2022 16:14	TMP	A
1,1,1-Trichloroethane	1.0 U	U,P1	ug/L	1.0	SW846 8260D	1	12/01/2022 16:14	TMP	A
1,1,2,2-Tetrachloroethane	1.0 U	U,P1	ug/L	1.0	SW846 8260D	1	12/01/2022 16:14	TMP	A
1,1,2-Trichloroethane	1.0 U	U,P1	ug/L	1.0	SW846 8260D	1	12/01/2022 16:14	TMP	A
1,1-Dichloroethane	1.0 U	U,P1	ug/L	1.0	SW846 8260D	1	12/01/2022 16:14	TMP	A
1,1-Dichloroethene	1.0 U	U,P1	ug/L	1.0	SW846 8260D	1	12/01/2022 16:14	TMP	A
1,1-Dichloropropene	1.0 U	U,P1	ug/L	1.0	SW846 8260D	1	12/01/2022 16:14	TMP	A
1,2,3-Trichlorobenzene	2.0 U	U,P1	ug/L	2.0	SW846 8260D	1	12/01/2022 16:14	TMP	A
1,2,3-Trichloropropane	2.0 U	U,P1	ug/L	2.0	SW846 8260D	1	12/01/2022 16:14	TMP	A
1,2,4-Trichlorobenzene	2.0 U	U,P1	ug/L	2.0	SW846 8260D	1	12/01/2022 16:14	TMP	A
1,2-Dibromo-3-chloropropane	7.0 U	U,P1	ug/L	7.0	SW846 8260D	1	12/01/2022 16:14	TMP	A
1,2-Dibromoethane	1.0 U	U,P1	ug/L	1.0	SW846 8260D	1	12/01/2022 16:14	TMP	A
1,2-Dichlorobenzene	1.0 U	U,P1	ug/L	1.0	SW846 8260D	1	12/01/2022 16:14	TMP	A
1,2-Dichloroethane	1.3	P1	ug/L	1.0	SW846 8260D	1	12/01/2022 16:14	TMP	A
1,2-Dichloropropane	1.0 U	U,P1	ug/L	1.0	SW846 8260D	1	12/01/2022 16:14	TMP	A
1,3-Dichlorobenzene	1.0 U	U,P1	ug/L	1.0	SW846 8260D	1	12/01/2022 16:14	TMP	A
1,3-Dichloropropane	3.5	P1	ug/L	1.0	SW846 8260D	1	12/01/2022 16:14	TMP	A
1,4-Dichlorobenzene	1.0 U	U,P1	ug/L	1.0	SW846 8260D	1	12/01/2022 16:14	TMP	A
2,2-Dichloropropane	1.0 U	U,P1	ug/L	1.0	SW846 8260D	1	12/01/2022 16:14	TMP	A
2-Butanone	10.0 U	U,P1	ug/L	10.0	SW846 8260D	1	12/01/2022 16:14	TMP	A
2-Hexanone	5.0 U	U,P1	ug/L	5.0	SW846 8260D	1	12/01/2022 16:14	TMP	A
4-Methyl-2-Pentanone(MIBK)	5.0 U	U,P1	ug/L	5.0	SW846 8260D	1	12/01/2022 16:14	TMP	A
Acetone	10.0 U	U,P1	ug/L	10.0	SW846 8260D	1	12/01/2022 16:14	TMP	A
Benzene	1.0 U	U,P1	ug/L	1.0	SW846 8260D	1	12/01/2022 16:14	TMP	A
Bromobenzene	1.0 U	U,P1	ug/L	1.0	SW846 8260D	1	12/01/2022 16:14	TMP	A
Bromochloromethane	1.0 U	U,P1	ug/L	1.0	SW846 8260D	1	12/01/2022 16:14	TMP	A
Bromodichloromethane	1.0 U	U,P1	ug/L	1.0	SW846 8260D	1	12/01/2022 16:14	TMP	A
Bromoform	1.0 U	U,P1	ug/L	1.0	SW846 8260D	1	12/01/2022 16:14	TMP	A
Bromomethane	1.0 U	U,P1	ug/L	1.0	SW846 8260D	1	12/01/2022 16:14	TMP	A
Carbon Tetrachloride	1.0 U	U,P1	ug/L	1.0	SW846 8260D	1	12/01/2022 16:14	TMP	A
Chlorobenzene	1.0 U	U,P1	ug/L	1.0	SW846 8260D	1	12/01/2022 16:14	TMP	A
Chlorodibromomethane	1.0 U	U,P1	ug/L	1.0	SW846 8260D	1	12/01/2022 16:14	TMP	A
Chloroethane	1.0 U	U,P1	ug/L	1.0	SW846 8260D	1	12/01/2022 16:14	TMP	A
Chloroform	1.0 U	U,P1	ug/L	1.0	SW846 8260D	1	12/01/2022 16:14	TMP	A
Chloromethane	1.0 U	U,P1	ug/L	1.0	SW846 8260D	1	12/01/2022 16:14	TMP	A



Results

Client Sample ID	MW-34D	Collected	11/21/2022 08:40
Lab Sample ID	3275166001	Lab Receipt	11/21/2022 17:40

VOLATILE ORGANICS (cont.)

Compound	Result	Flag	Units	RDL	Method	Dilution	Analysis Date/Time	By	Cntr
cis-1,2-Dichloroethene	1.0 U	U,P1	ug/L	1.0	SW846 8260D	1	12/01/2022 16:14	TMP	A
cis-1,3-Dichloropropene	1.0 U	U,P1	ug/L	1.0	SW846 8260D	1	12/01/2022 16:14	TMP	A
Dibromomethane	1.0 U	U,P1	ug/L	1.0	SW846 8260D	1	12/01/2022 16:14	TMP	A
Dichlorodifluoromethane	1.0 U	U,P1	ug/L	1.0	SW846 8260D	1	12/01/2022 16:14	TMP	A
Diisopropyl ether	1.0 U	U,P1	ug/L	1.0	SW846 8260D	1	12/01/2022 16:14	TMP	A
Ethylbenzene	1.0 U	U,P1	ug/L	1.0	SW846 8260D	1	12/01/2022 16:14	TMP	A
Hexachlorobutadiene	5.0 U	U,P1	ug/L	5.0	SW846 8260D	1	12/01/2022 16:14	TMP	A
Methyl t-Butyl Ether	1.0 U	U,P1	ug/L	1.0	SW846 8260D	1	12/01/2022 16:14	TMP	A
Methylene Chloride	1.0 U	U,P1	ug/L	1.0	SW846 8260D	1	12/01/2022 16:14	TMP	A
mp-Xylene	2.0 U	U,P1	ug/L	2.0	SW846 8260D	1	12/01/2022 16:14	TMP	A
Naphthalene	2.0 U	U,P1	ug/L	2.0	SW846 8260D	1	12/01/2022 16:14	TMP	A
o-Chlorotoluene	1.0 U	U,P1	ug/L	1.0	SW846 8260D	1	12/01/2022 16:14	TMP	A
o-Xylene	1.0 U	U,P1	ug/L	1.0	SW846 8260D	1	12/01/2022 16:14	TMP	A
p-Chlorotoluene	1.0 U	U,P1	ug/L	1.0	SW846 8260D	1	12/01/2022 16:14	TMP	A
p-Isopropyltoluene	1.0 U	U,P1	ug/L	1.0	SW846 8260D	1	12/01/2022 16:14	TMP	A
Styrene	1.0 U	U,P1	ug/L	1.0	SW846 8260D	1	12/01/2022 16:14	TMP	A
Tetrachloroethene	1.0 U	U,P1	ug/L	1.0	SW846 8260D	1	12/01/2022 16:14	TMP	A
Toluene	1.0 U	U,P1	ug/L	1.0	SW846 8260D	1	12/01/2022 16:14	TMP	A
Total Xylenes	3.0 U	U,P1	ug/L	3.0	SW846 8260D	1	12/01/2022 16:14	TMP	A
trans-1,2-Dichloroethene	1.0 U	U,P1	ug/L	1.0	SW846 8260D	1	12/01/2022 16:14	TMP	A
trans-1,3-Dichloropropene	1.0 U	U,P1	ug/L	1.0	SW846 8260D	1	12/01/2022 16:14	TMP	A
Trichloroethene	1.0 U	U,P1	ug/L	1.0	SW846 8260D	1	12/01/2022 16:14	TMP	A
Trichlorofluoromethane	1.0 U	U,P1	ug/L	1.0	SW846 8260D	1	12/01/2022 16:14	TMP	A
Vinyl Acetate	5.0 U	U,P1	ug/L	5.0	SW846 8260D	1	12/01/2022 16:14	TMP	A
Vinyl Chloride	1.0 U	U,P1	ug/L	1.0	SW846 8260D	1	12/01/2022 16:14	TMP	A

SURROGATES

Compound	CAS No	Recovery	Limits(%)	Analysis Date/Time	Qualifiers
1,2-Dichloroethane-d4	17060-07-0	91.9%	62 – 133	12/01/2022 16:14	
4-Bromofluorobenzene	460-00-4	103%	79 – 114	12/01/2022 16:14	
Dibromofluoromethane	1868-53-7	90.4%	78 – 116	12/01/2022 16:14	
Toluene-d8	2037-26-5	92.5%	76 – 127	12/01/2022 16:14	



Results

Client Sample ID	MW-35D	Collected	11/21/2022 08:55
Lab Sample ID	3275166002	Lab Receipt	11/21/2022 17:40

SEMIVOLATILE SIM

Compound	Result	Flag	Units	RDL	Method	Dilution	Analysis Date/Time	By	Cntr
1,4-Dioxane	1.0 U	U,P1	ug/L	1.0	SW846 8270E SIM	1	11/29/2022 05:50	M1O	C

SURROGATES

Compound	CAS No	Recovery	Limits(%)	Analysis Date/Time	Qualifiers
2-Methylnapthalene-d10	7297-45-2	69.6%	29 – 112	11/29/2022 05:50	
Fluoranthene-d10	93951-69-0	96.1%	45 – 130	11/29/2022 05:50	

VOLATILE ORGANICS

Compound	Result	Flag	Units	RDL	Method	Dilution	Analysis Date/Time	By	Cntr
1,1,1,2-Tetrachloroethane	1.0 U	U,P1	ug/L	1.0	SW846 8260D	1	12/01/2022 16:37	TMP	A
1,1,1-Trichloroethane	1.0 U	U,P1	ug/L	1.0	SW846 8260D	1	12/01/2022 16:37	TMP	A
1,1,2,2-Tetrachloroethane	1.0 U	U,P1	ug/L	1.0	SW846 8260D	1	12/01/2022 16:37	TMP	A
1,1,2-Trichloroethane	1.0 U	U,P1	ug/L	1.0	SW846 8260D	1	12/01/2022 16:37	TMP	A
1,1-Dichloroethane	1.0 U	U,P1	ug/L	1.0	SW846 8260D	1	12/01/2022 16:37	TMP	A
1,1-Dichloroethene	1.0 U	U,P1	ug/L	1.0	SW846 8260D	1	12/01/2022 16:37	TMP	A
1,1-Dichloropropene	1.0 U	U,P1	ug/L	1.0	SW846 8260D	1	12/01/2022 16:37	TMP	A
1,2,3-Trichlorobenzene	2.0 U	U,P1	ug/L	2.0	SW846 8260D	1	12/01/2022 16:37	TMP	A
1,2,3-Trichloropropane	2.0 U	U,P1	ug/L	2.0	SW846 8260D	1	12/01/2022 16:37	TMP	A
1,2,4-Trichlorobenzene	2.0 U	U,P1	ug/L	2.0	SW846 8260D	1	12/01/2022 16:37	TMP	A
1,2-Dibromo-3-chloropropane	7.0 U	U,P1	ug/L	7.0	SW846 8260D	1	12/01/2022 16:37	TMP	A
1,2-Dibromoethane	1.0 U	U,P1	ug/L	1.0	SW846 8260D	1	12/01/2022 16:37	TMP	A
1,2-Dichlorobenzene	1.0 U	U,P1	ug/L	1.0	SW846 8260D	1	12/01/2022 16:37	TMP	A
1,2-Dichloroethane	1.0 U	U,P1	ug/L	1.0	SW846 8260D	1	12/01/2022 16:37	TMP	A
1,2-Dichloropropane	1.0 U	U,P1	ug/L	1.0	SW846 8260D	1	12/01/2022 16:37	TMP	A
1,3-Dichlorobenzene	1.0 U	U,P1	ug/L	1.0	SW846 8260D	1	12/01/2022 16:37	TMP	A
1,3-Dichloropropane	1.0 U	U,P1	ug/L	1.0	SW846 8260D	1	12/01/2022 16:37	TMP	A
1,4-Dichlorobenzene	1.0 U	U,P1	ug/L	1.0	SW846 8260D	1	12/01/2022 16:37	TMP	A
2,2-Dichloropropane	1.0 U	U,P1	ug/L	1.0	SW846 8260D	1	12/01/2022 16:37	TMP	A
2-Butanone	10.0 U	U,P1	ug/L	10.0	SW846 8260D	1	12/01/2022 16:37	TMP	A
2-Hexanone	5.0 U	U,P1	ug/L	5.0	SW846 8260D	1	12/01/2022 16:37	TMP	A
4-Methyl-2-Pentanone(MIBK)	5.0 U	U,P1	ug/L	5.0	SW846 8260D	1	12/01/2022 16:37	TMP	A
Acetone	10.0 U	U,P1	ug/L	10.0	SW846 8260D	1	12/01/2022 16:37	TMP	A
Benzene	1.0 U	U,P1	ug/L	1.0	SW846 8260D	1	12/01/2022 16:37	TMP	A
Bromobenzene	1.0 U	U,P1	ug/L	1.0	SW846 8260D	1	12/01/2022 16:37	TMP	A
Bromochloromethane	1.0 U	U,P1	ug/L	1.0	SW846 8260D	1	12/01/2022 16:37	TMP	A
Bromodichloromethane	1.0 U	U,P1	ug/L	1.0	SW846 8260D	1	12/01/2022 16:37	TMP	A
Bromoform	1.0 U	U,P1	ug/L	1.0	SW846 8260D	1	12/01/2022 16:37	TMP	A
Bromomethane	1.0 U	U,P1	ug/L	1.0	SW846 8260D	1	12/01/2022 16:37	TMP	A
Carbon Tetrachloride	1.0 U	U,P1	ug/L	1.0	SW846 8260D	1	12/01/2022 16:37	TMP	A
Chlorobenzene	1.0 U	U,P1	ug/L	1.0	SW846 8260D	1	12/01/2022 16:37	TMP	A
Chlorodibromomethane	1.0 U	U,P1	ug/L	1.0	SW846 8260D	1	12/01/2022 16:37	TMP	A
Chloroethane	1.0 U	U,P1	ug/L	1.0	SW846 8260D	1	12/01/2022 16:37	TMP	A
Chloroform	1.0 U	U,P1	ug/L	1.0	SW846 8260D	1	12/01/2022 16:37	TMP	A
Chloromethane	1.0 U	U,P1	ug/L	1.0	SW846 8260D	1	12/01/2022 16:37	TMP	A



Results

Client Sample ID	MW-35D	Collected	11/21/2022 08:55
Lab Sample ID	3275166002	Lab Receipt	11/21/2022 17:40

VOLATILE ORGANICS (cont.)

Compound	Result	Flag	Units	RDL	Method	Dilution	Analysis Date/Time	By	Cntr
cis-1,2-Dichloroethene	1.0 U	U,P1	ug/L	1.0	SW846 8260D	1	12/01/2022 16:37	TMP	A
cis-1,3-Dichloropropene	1.0 U	U,P1	ug/L	1.0	SW846 8260D	1	12/01/2022 16:37	TMP	A
Dibromomethane	1.0 U	U,P1	ug/L	1.0	SW846 8260D	1	12/01/2022 16:37	TMP	A
Dichlorodifluoromethane	1.0 U	U,P1	ug/L	1.0	SW846 8260D	1	12/01/2022 16:37	TMP	A
Diisopropyl ether	1.0 U	U,P1	ug/L	1.0	SW846 8260D	1	12/01/2022 16:37	TMP	A
Ethylbenzene	1.0 U	U,P1	ug/L	1.0	SW846 8260D	1	12/01/2022 16:37	TMP	A
Hexachlorobutadiene	5.0 U	U,P1	ug/L	5.0	SW846 8260D	1	12/01/2022 16:37	TMP	A
Methyl t-Butyl Ether	1.0 U	U,P1	ug/L	1.0	SW846 8260D	1	12/01/2022 16:37	TMP	A
Methylene Chloride	1.0 U	U,P1	ug/L	1.0	SW846 8260D	1	12/01/2022 16:37	TMP	A
mp-Xylene	2.0 U	U,P1	ug/L	2.0	SW846 8260D	1	12/01/2022 16:37	TMP	A
Naphthalene	2.0 U	U,P1	ug/L	2.0	SW846 8260D	1	12/01/2022 16:37	TMP	A
o-Chlorotoluene	1.0 U	U,P1	ug/L	1.0	SW846 8260D	1	12/01/2022 16:37	TMP	A
o-Xylene	1.0 U	U,P1	ug/L	1.0	SW846 8260D	1	12/01/2022 16:37	TMP	A
p-Chlorotoluene	1.0 U	U,P1	ug/L	1.0	SW846 8260D	1	12/01/2022 16:37	TMP	A
p-Isopropyltoluene	1.0 U	U,P1	ug/L	1.0	SW846 8260D	1	12/01/2022 16:37	TMP	A
Styrene	1.0 U	U,P1	ug/L	1.0	SW846 8260D	1	12/01/2022 16:37	TMP	A
Tetrachloroethene	1.0 U	U,P1	ug/L	1.0	SW846 8260D	1	12/01/2022 16:37	TMP	A
Toluene	1.0 U	U,P1	ug/L	1.0	SW846 8260D	1	12/01/2022 16:37	TMP	A
Total Xylenes	3.0 U	U,P1	ug/L	3.0	SW846 8260D	1	12/01/2022 16:37	TMP	A
trans-1,2-Dichloroethene	1.0 U	U,P1	ug/L	1.0	SW846 8260D	1	12/01/2022 16:37	TMP	A
trans-1,3-Dichloropropene	1.0 U	U,P1	ug/L	1.0	SW846 8260D	1	12/01/2022 16:37	TMP	A
Trichloroethene	1.0 U	U,P1	ug/L	1.0	SW846 8260D	1	12/01/2022 16:37	TMP	A
Trichlorofluoromethane	1.0 U	U,P1	ug/L	1.0	SW846 8260D	1	12/01/2022 16:37	TMP	A
Vinyl Acetate	5.0 U	U,P1	ug/L	5.0	SW846 8260D	1	12/01/2022 16:37	TMP	A
Vinyl Chloride	1.0 U	U,P1	ug/L	1.0	SW846 8260D	1	12/01/2022 16:37	TMP	A

SURROGATES

Compound	CAS No	Recovery	Limits(%)	Analysis Date/Time	Qualifiers
1,2-Dichloroethane-d4	17060-07-0	93.1%	62 – 133	12/01/2022 16:37	
4-Bromofluorobenzene	460-00-4	102%	79 – 114	12/01/2022 16:37	
Dibromofluoromethane	1868-53-7	91%	78 – 116	12/01/2022 16:37	
Toluene-d8	2037-26-5	94.1%	76 – 127	12/01/2022 16:37	



Results

Client Sample ID	MW-33D-235	Collected	11/21/2022 09:35
Lab Sample ID	3275166003	Lab Receipt	11/21/2022 17:40

SEMIVOLATILE SIM

Compound	Result	Flag	Units	RDL	Method	Dilution	Analysis Date/Time	By	Cntr
1,4-Dioxane	1.0 U	U,P1	ug/L	1.0	SW846 8270E SIM	1	11/29/2022 06:16	M1O	C

SURROGATES

Compound	CAS No	Recovery	Limits(%)	Analysis Date/Time	Qualifiers
2-Methylnaphthalene-d10	7297-45-2	72.1%	29 – 112	11/29/2022 06:16	
Fluoranthene-d10	93951-69-0	90%	45 – 130	11/29/2022 06:16	

VOLATILE ORGANICS

Compound	Result	Flag	Units	RDL	Method	Dilution	Analysis Date/Time	By	Cntr
1,1,1,2-Tetrachloroethane	1.0 U	U,P1	ug/L	1.0	SW846 8260D	1	12/01/2022 17:00	TMP	A
1,1,1-Trichloroethane	1.0 U	U,P1	ug/L	1.0	SW846 8260D	1	12/01/2022 17:00	TMP	A
1,1,2,2-Tetrachloroethane	1.0 U	U,P1	ug/L	1.0	SW846 8260D	1	12/01/2022 17:00	TMP	A
1,1,2-Trichloroethane	1.0 U	U,P1	ug/L	1.0	SW846 8260D	1	12/01/2022 17:00	TMP	A
1,1-Dichloroethane	1.0 U	U,P1	ug/L	1.0	SW846 8260D	1	12/01/2022 17:00	TMP	A
1,1-Dichloroethene	1.0 U	U,P1	ug/L	1.0	SW846 8260D	1	12/01/2022 17:00	TMP	A
1,1-Dichloropropene	1.0 U	U,P1	ug/L	1.0	SW846 8260D	1	12/01/2022 17:00	TMP	A
1,2,3-Trichlorobenzene	2.0 U	U,P1	ug/L	2.0	SW846 8260D	1	12/01/2022 17:00	TMP	A
1,2,3-Trichloropropane	2.0 U	U,P1	ug/L	2.0	SW846 8260D	1	12/01/2022 17:00	TMP	A
1,2,4-Trichlorobenzene	2.0 U	U,P1	ug/L	2.0	SW846 8260D	1	12/01/2022 17:00	TMP	A
1,2-Dibromo-3-chloropropane	7.0 U	U,P1	ug/L	7.0	SW846 8260D	1	12/01/2022 17:00	TMP	A
1,2-Dibromoethane	1.0 U	U,P1	ug/L	1.0	SW846 8260D	1	12/01/2022 17:00	TMP	A
1,2-Dichlorobenzene	1.0 U	U,P1	ug/L	1.0	SW846 8260D	1	12/01/2022 17:00	TMP	A
1,2-Dichloroethane	1.0 U	U,P1	ug/L	1.0	SW846 8260D	1	12/01/2022 17:00	TMP	A
1,2-Dichloropropane	1.0 U	U,P1	ug/L	1.0	SW846 8260D	1	12/01/2022 17:00	TMP	A
1,3-Dichlorobenzene	1.0 U	U,P1	ug/L	1.0	SW846 8260D	1	12/01/2022 17:00	TMP	A
1,3-Dichloropropane	1.0 U	U,P1	ug/L	1.0	SW846 8260D	1	12/01/2022 17:00	TMP	A
1,4-Dichlorobenzene	1.0 U	U,P1	ug/L	1.0	SW846 8260D	1	12/01/2022 17:00	TMP	A
2,2-Dichloropropane	1.0 U	U,P1	ug/L	1.0	SW846 8260D	1	12/01/2022 17:00	TMP	A
2-Butanone	10.0 U	U,P1	ug/L	10.0	SW846 8260D	1	12/01/2022 17:00	TMP	A
2-Hexanone	5.0 U	U,P1	ug/L	5.0	SW846 8260D	1	12/01/2022 17:00	TMP	A
4-Methyl-2-Pentanone(MIBK)	5.0 U	U,P1	ug/L	5.0	SW846 8260D	1	12/01/2022 17:00	TMP	A
Acetone	10.0 U	U,P1	ug/L	10.0	SW846 8260D	1	12/01/2022 17:00	TMP	A
Benzene	1.0 U	U,P1	ug/L	1.0	SW846 8260D	1	12/01/2022 17:00	TMP	A
Bromobenzene	1.0 U	U,P1	ug/L	1.0	SW846 8260D	1	12/01/2022 17:00	TMP	A
Bromochloromethane	1.0 U	U,P1	ug/L	1.0	SW846 8260D	1	12/01/2022 17:00	TMP	A
Bromodichloromethane	1.0 U	U,P1	ug/L	1.0	SW846 8260D	1	12/01/2022 17:00	TMP	A
Bromoform	1.0 U	U,P1	ug/L	1.0	SW846 8260D	1	12/01/2022 17:00	TMP	A
Bromomethane	1.0 U	U,P1	ug/L	1.0	SW846 8260D	1	12/01/2022 17:00	TMP	A
Carbon Tetrachloride	1.0 U	U,P1	ug/L	1.0	SW846 8260D	1	12/01/2022 17:00	TMP	A
Chlorobenzene	1.0 U	U,P1	ug/L	1.0	SW846 8260D	1	12/01/2022 17:00	TMP	A
Chlorodibromomethane	1.0 U	U,P1	ug/L	1.0	SW846 8260D	1	12/01/2022 17:00	TMP	A
Chloroethane	1.0 U	U,P1	ug/L	1.0	SW846 8260D	1	12/01/2022 17:00	TMP	A
Chloroform	1.0 U	U,P1	ug/L	1.0	SW846 8260D	1	12/01/2022 17:00	TMP	A
Chloromethane	1.0 U	U,P1	ug/L	1.0	SW846 8260D	1	12/01/2022 17:00	TMP	A



Results

Client Sample ID	MW-33D-235	Collected	11/21/2022 09:35
Lab Sample ID	3275166003	Lab Receipt	11/21/2022 17:40

VOLATILE ORGANICS (cont.)

Compound	Result	Flag	Units	RDL	Method	Dilution	Analysis Date/Time	By	Cntr
cis-1,2-Dichloroethene	1.0 U	U,P1	ug/L	1.0	SW846 8260D	1	12/01/2022 17:00	TMP	A
cis-1,3-Dichloropropene	1.0 U	U,P1	ug/L	1.0	SW846 8260D	1	12/01/2022 17:00	TMP	A
Dibromomethane	1.0 U	U,P1	ug/L	1.0	SW846 8260D	1	12/01/2022 17:00	TMP	A
Dichlorodifluoromethane	1.0 U	U,P1	ug/L	1.0	SW846 8260D	1	12/01/2022 17:00	TMP	A
Diisopropyl ether	1.0 U	U,P1	ug/L	1.0	SW846 8260D	1	12/01/2022 17:00	TMP	A
Ethylbenzene	1.0 U	U,P1	ug/L	1.0	SW846 8260D	1	12/01/2022 17:00	TMP	A
Hexachlorobutadiene	5.0 U	U,P1	ug/L	5.0	SW846 8260D	1	12/01/2022 17:00	TMP	A
Methyl t-Butyl Ether	1.0 U	U,P1	ug/L	1.0	SW846 8260D	1	12/01/2022 17:00	TMP	A
Methylene Chloride	1.0 U	U,P1	ug/L	1.0	SW846 8260D	1	12/01/2022 17:00	TMP	A
mp-Xylene	2.0 U	U,P1	ug/L	2.0	SW846 8260D	1	12/01/2022 17:00	TMP	A
Naphthalene	2.0 U	U,P1	ug/L	2.0	SW846 8260D	1	12/01/2022 17:00	TMP	A
o-Chlorotoluene	1.0 U	U,P1	ug/L	1.0	SW846 8260D	1	12/01/2022 17:00	TMP	A
o-Xylene	1.0 U	U,P1	ug/L	1.0	SW846 8260D	1	12/01/2022 17:00	TMP	A
p-Chlorotoluene	1.0 U	U,P1	ug/L	1.0	SW846 8260D	1	12/01/2022 17:00	TMP	A
p-Isopropyltoluene	1.0 U	U,P1	ug/L	1.0	SW846 8260D	1	12/01/2022 17:00	TMP	A
Styrene	1.0 U	U,P1	ug/L	1.0	SW846 8260D	1	12/01/2022 17:00	TMP	A
Tetrachloroethene	1.0 U	U,P1	ug/L	1.0	SW846 8260D	1	12/01/2022 17:00	TMP	A
Toluene	1.0 U	U,P1	ug/L	1.0	SW846 8260D	1	12/01/2022 17:00	TMP	A
Total Xylenes	3.0 U	U,P1	ug/L	3.0	SW846 8260D	1	12/01/2022 17:00	TMP	A
trans-1,2-Dichloroethene	1.0 U	U,P1	ug/L	1.0	SW846 8260D	1	12/01/2022 17:00	TMP	A
trans-1,3-Dichloropropene	1.0 U	U,P1	ug/L	1.0	SW846 8260D	1	12/01/2022 17:00	TMP	A
Trichloroethene	1.0 U	U,P1	ug/L	1.0	SW846 8260D	1	12/01/2022 17:00	TMP	A
Trichlorofluoromethane	1.0 U	U,P1	ug/L	1.0	SW846 8260D	1	12/01/2022 17:00	TMP	A
Vinyl Acetate	5.0 U	U,P1	ug/L	5.0	SW846 8260D	1	12/01/2022 17:00	TMP	A
Vinyl Chloride	1.0 U	U,P1	ug/L	1.0	SW846 8260D	1	12/01/2022 17:00	TMP	A

SURROGATES

Compound	CAS No	Recovery	Limits(%)	Analysis Date/Time	Qualifiers
1,2-Dichloroethane-d4	17060-07-0	94.3%	62 – 133	12/01/2022 17:00	
4-Bromofluorobenzene	460-00-4	105%	79 – 114	12/01/2022 17:00	
Dibromofluoromethane	1868-53-7	91.8%	78 – 116	12/01/2022 17:00	
Toluene-d8	2037-26-5	94.7%	76 – 127	12/01/2022 17:00	



Results

Client Sample ID	MW-33D-295	Collected	11/21/2022 09:40
Lab Sample ID	3275166004	Lab Receipt	11/21/2022 17:40

SEMIVOLATILE SIM

Compound	Result	Flag	Units	RDL	Method	Dilution	Analysis Date/Time	By	Cntr
1,4-Dioxane	3.1	P1	ug/L	1.0	SW846 8270E SIM	1	11/29/2022 06:43	M1O	C

SURROGATES

Compound	CAS No	Recovery	Limits(%)	Analysis Date/Time	Qualifiers
2-Methylnaphthalene-d10	7297-45-2	69.2%	29 - 112	11/29/2022 06:43	
Fluoranthene-d10	93951-69-0	99.7%	45 - 130	11/29/2022 06:43	

VOLATILE ORGANICS

Compound	Result	Flag	Units	RDL	Method	Dilution	Analysis Date/Time	By	Cntr
1,1,1,2-Tetrachloroethane	1.0 U	U,P1	ug/L	1.0	SW846 8260D	1	12/01/2022 17:22	TMP	A
1,1,1-Trichloroethane	1.0 U	U,P1	ug/L	1.0	SW846 8260D	1	12/01/2022 17:22	TMP	A
1,1,2,2-Tetrachloroethane	1.0 U	U,P1	ug/L	1.0	SW846 8260D	1	12/01/2022 17:22	TMP	A
1,1,2-Trichloroethane	1.0 U	U,P1	ug/L	1.0	SW846 8260D	1	12/01/2022 17:22	TMP	A
1,1-Dichloroethane	1.0 U	U,P1	ug/L	1.0	SW846 8260D	1	12/01/2022 17:22	TMP	A
1,1-Dichloroethene	6.0	P1	ug/L	1.0	SW846 8260D	1	12/01/2022 17:22	TMP	A
1,1-Dichloropropene	1.0 U	U,P1	ug/L	1.0	SW846 8260D	1	12/01/2022 17:22	TMP	A
1,2,3-Trichlorobenzene	2.0 U	U,P1	ug/L	2.0	SW846 8260D	1	12/01/2022 17:22	TMP	A
1,2,3-Trichloropropane	2.0 U	U,P1	ug/L	2.0	SW846 8260D	1	12/01/2022 17:22	TMP	A
1,2,4-Trichlorobenzene	2.0 U	U,P1	ug/L	2.0	SW846 8260D	1	12/01/2022 17:22	TMP	A
1,2-Dibromo-3-chloropropane	7.0 U	U,P1	ug/L	7.0	SW846 8260D	1	12/01/2022 17:22	TMP	A
1,2-Dibromoethane	1.0 U	U,P1	ug/L	1.0	SW846 8260D	1	12/01/2022 17:22	TMP	A
1,2-Dichlorobenzene	1.0 U	U,P1	ug/L	1.0	SW846 8260D	1	12/01/2022 17:22	TMP	A
1,2-Dichloroethane	1.0 U	U,P1	ug/L	1.0	SW846 8260D	1	12/01/2022 17:22	TMP	A
1,2-Dichloropropane	1.0 U	U,P1	ug/L	1.0	SW846 8260D	1	12/01/2022 17:22	TMP	A
1,3-Dichlorobenzene	1.0 U	U,P1	ug/L	1.0	SW846 8260D	1	12/01/2022 17:22	TMP	A
1,3-Dichloropropane	1.0 U	U,P1	ug/L	1.0	SW846 8260D	1	12/01/2022 17:22	TMP	A
1,4-Dichlorobenzene	1.0 U	U,P1	ug/L	1.0	SW846 8260D	1	12/01/2022 17:22	TMP	A
2,2-Dichloropropane	1.0 U	U,P1	ug/L	1.0	SW846 8260D	1	12/01/2022 17:22	TMP	A
2-Butanone	10.0 U	U,P1	ug/L	10.0	SW846 8260D	1	12/01/2022 17:22	TMP	A
2-Hexanone	5.0 U	U,P1	ug/L	5.0	SW846 8260D	1	12/01/2022 17:22	TMP	A
4-Methyl-2-Pentanone(MIBK)	5.0 U	U,P1	ug/L	5.0	SW846 8260D	1	12/01/2022 17:22	TMP	A
Acetone	10.0 U	U,P1	ug/L	10.0	SW846 8260D	1	12/01/2022 17:22	TMP	A
Benzene	1.0 U	U,P1	ug/L	1.0	SW846 8260D	1	12/01/2022 17:22	TMP	A
Bromobenzene	1.0 U	U,P1	ug/L	1.0	SW846 8260D	1	12/01/2022 17:22	TMP	A
Bromochloromethane	1.0 U	U,P1	ug/L	1.0	SW846 8260D	1	12/01/2022 17:22	TMP	A
Bromodichloromethane	1.0 U	U,P1	ug/L	1.0	SW846 8260D	1	12/01/2022 17:22	TMP	A
Bromoform	1.0 U	U,P1	ug/L	1.0	SW846 8260D	1	12/01/2022 17:22	TMP	A
Bromomethane	1.0 U	U,P1	ug/L	1.0	SW846 8260D	1	12/01/2022 17:22	TMP	A
Carbon Tetrachloride	1.0 U	U,P1	ug/L	1.0	SW846 8260D	1	12/01/2022 17:22	TMP	A
Chlorobenzene	1.0 U	U,P1	ug/L	1.0	SW846 8260D	1	12/01/2022 17:22	TMP	A
Chlorodibromomethane	1.0 U	U,P1	ug/L	1.0	SW846 8260D	1	12/01/2022 17:22	TMP	A
Chloroethane	1.0 U	U,P1	ug/L	1.0	SW846 8260D	1	12/01/2022 17:22	TMP	A
Chloroform	1.0 U	U,P1	ug/L	1.0	SW846 8260D	1	12/01/2022 17:22	TMP	A
Chloromethane	1.0 U	U,P1	ug/L	1.0	SW846 8260D	1	12/01/2022 17:22	TMP	A



Results

Client Sample ID	MW-33D-295	Collected	11/21/2022 09:40
Lab Sample ID	3275166004	Lab Receipt	11/21/2022 17:40

VOLATILE ORGANICS (cont.)

Compound	Result	Flag	Units	RDL	Method	Dilution	Analysis Date/Time	By	Cntr
cis-1,2-Dichloroethene	1.0 U	U,P1	ug/L	1.0	SW846 8260D	1	12/01/2022 17:22	TMP	A
cis-1,3-Dichloropropene	1.0 U	U,P1	ug/L	1.0	SW846 8260D	1	12/01/2022 17:22	TMP	A
Dibromomethane	1.0 U	U,P1	ug/L	1.0	SW846 8260D	1	12/01/2022 17:22	TMP	A
Dichlorodifluoromethane	1.0 U	U,P1	ug/L	1.0	SW846 8260D	1	12/01/2022 17:22	TMP	A
Diisopropyl ether	1.0 U	U,P1	ug/L	1.0	SW846 8260D	1	12/01/2022 17:22	TMP	A
Ethylbenzene	1.0 U	U,P1	ug/L	1.0	SW846 8260D	1	12/01/2022 17:22	TMP	A
Hexachlorobutadiene	5.0 U	U,P1	ug/L	5.0	SW846 8260D	1	12/01/2022 17:22	TMP	A
Methyl t-Butyl Ether	1.0 U	U,P1	ug/L	1.0	SW846 8260D	1	12/01/2022 17:22	TMP	A
Methylene Chloride	1.0 U	U,P1	ug/L	1.0	SW846 8260D	1	12/01/2022 17:22	TMP	A
mp-Xylene	2.0 U	U,P1	ug/L	2.0	SW846 8260D	1	12/01/2022 17:22	TMP	A
Naphthalene	2.0 U	U,P1	ug/L	2.0	SW846 8260D	1	12/01/2022 17:22	TMP	A
o-Chlorotoluene	1.0 U	U,P1	ug/L	1.0	SW846 8260D	1	12/01/2022 17:22	TMP	A
o-Xylene	1.0 U	U,P1	ug/L	1.0	SW846 8260D	1	12/01/2022 17:22	TMP	A
p-Chlorotoluene	1.0 U	U,P1	ug/L	1.0	SW846 8260D	1	12/01/2022 17:22	TMP	A
p-Isopropyltoluene	1.0 U	U,P1	ug/L	1.0	SW846 8260D	1	12/01/2022 17:22	TMP	A
Styrene	1.0 U	U,P1	ug/L	1.0	SW846 8260D	1	12/01/2022 17:22	TMP	A
Tetrachloroethene	1.0 U	U,P1	ug/L	1.0	SW846 8260D	1	12/01/2022 17:22	TMP	A
Toluene	1.0 U	U,P1	ug/L	1.0	SW846 8260D	1	12/01/2022 17:22	TMP	A
Total Xylenes	3.0 U	U,P1	ug/L	3.0	SW846 8260D	1	12/01/2022 17:22	TMP	A
trans-1,2-Dichloroethene	1.0 U	U,P1	ug/L	1.0	SW846 8260D	1	12/01/2022 17:22	TMP	A
trans-1,3-Dichloropropene	1.0 U	U,P1	ug/L	1.0	SW846 8260D	1	12/01/2022 17:22	TMP	A
Trichloroethene	1.0 U	U,P1	ug/L	1.0	SW846 8260D	1	12/01/2022 17:22	TMP	A
Trichlorofluoromethane	1.0 U	U,P1	ug/L	1.0	SW846 8260D	1	12/01/2022 17:22	TMP	A
Vinyl Acetate	5.0 U	U,P1	ug/L	5.0	SW846 8260D	1	12/01/2022 17:22	TMP	A
Vinyl Chloride	1.0 U	U,P1	ug/L	1.0	SW846 8260D	1	12/01/2022 17:22	TMP	A

SURROGATES

Compound	CAS No	Recovery	Limits(%)	Analysis Date/Time	Qualifiers
1,2-Dichloroethane-d4	17060-07-0	92.7%	62 – 133	12/01/2022 17:22	
4-Bromofluorobenzene	460-00-4	102%	79 – 114	12/01/2022 17:22	
Dibromofluoromethane	1868-53-7	91.5%	78 – 116	12/01/2022 17:22	
Toluene-d8	2037-26-5	93.7%	76 – 127	12/01/2022 17:22	



Results

Client Sample ID	MW-31D	Collected	11/21/2022 10:05
Lab Sample ID	3275166005	Lab Receipt	11/21/2022 17:40

SEMIVOLATILE SIM

Compound	Result	Flag	Units	RDL	Method	Dilution	Analysis Date/Time	By	Cntr
1,4-Dioxane	1.0 U	U,P1	ug/L	1.0	SW846 8270E SIM	1	11/29/2022 07:10	M1O	C

SURROGATES

Compound	CAS No	Recovery	Limits(%)	Analysis Date/Time	Qualifiers
2-Methylnaphthalene-d10	7297-45-2	77.3%	29 - 112	11/29/2022 07:10	
Fluoranthene-d10	93951-69-0	99.1%	45 - 130	11/29/2022 07:10	

VOLATILE ORGANICS

Compound	Result	Flag	Units	RDL	Method	Dilution	Analysis Date/Time	By	Cntr
1,1,1,2-Tetrachloroethane	1.0 U	U,P1	ug/L	1.0	SW846 8260D	1	12/01/2022 17:45	TMP	A
1,1,1-Trichloroethane	1.0 U	U,P1	ug/L	1.0	SW846 8260D	1	12/01/2022 17:45	TMP	A
1,1,2,2-Tetrachloroethane	1.0 U	U,P1	ug/L	1.0	SW846 8260D	1	12/01/2022 17:45	TMP	A
1,1,2-Trichloroethane	1.0 U	U,P1	ug/L	1.0	SW846 8260D	1	12/01/2022 17:45	TMP	A
1,1-Dichloroethane	1.0 U	U,P1	ug/L	1.0	SW846 8260D	1	12/01/2022 17:45	TMP	A
1,1-Dichloroethene	1.0 U	U,P1	ug/L	1.0	SW846 8260D	1	12/01/2022 17:45	TMP	A
1,1-Dichloropropene	1.0 U	U,P1	ug/L	1.0	SW846 8260D	1	12/01/2022 17:45	TMP	A
1,2,3-Trichlorobenzene	2.0 U	U,P1	ug/L	2.0	SW846 8260D	1	12/01/2022 17:45	TMP	A
1,2,3-Trichloropropane	2.0 U	U,P1	ug/L	2.0	SW846 8260D	1	12/01/2022 17:45	TMP	A
1,2,4-Trichlorobenzene	2.0 U	U,P1	ug/L	2.0	SW846 8260D	1	12/01/2022 17:45	TMP	A
1,2-Dibromo-3-chloropropane	7.0 U	U,P1	ug/L	7.0	SW846 8260D	1	12/01/2022 17:45	TMP	A
1,2-Dibromoethane	1.0 U	U,P1	ug/L	1.0	SW846 8260D	1	12/01/2022 17:45	TMP	A
1,2-Dichlorobenzene	1.0 U	U,P1	ug/L	1.0	SW846 8260D	1	12/01/2022 17:45	TMP	A
1,2-Dichloroethane	1.3	P1	ug/L	1.0	SW846 8260D	1	12/01/2022 17:45	TMP	A
1,2-Dichloropropane	1.0 U	U,P1	ug/L	1.0	SW846 8260D	1	12/01/2022 17:45	TMP	A
1,3-Dichlorobenzene	1.0 U	U,P1	ug/L	1.0	SW846 8260D	1	12/01/2022 17:45	TMP	A
1,3-Dichloropropane	3.4	P1	ug/L	1.0	SW846 8260D	1	12/01/2022 17:45	TMP	A
1,4-Dichlorobenzene	1.0 U	U,P1	ug/L	1.0	SW846 8260D	1	12/01/2022 17:45	TMP	A
2,2-Dichloropropane	1.0 U	U,P1	ug/L	1.0	SW846 8260D	1	12/01/2022 17:45	TMP	A
2-Butanone	10.0 U	U,P1	ug/L	10.0	SW846 8260D	1	12/01/2022 17:45	TMP	A
2-Hexanone	5.0 U	U,P1	ug/L	5.0	SW846 8260D	1	12/01/2022 17:45	TMP	A
4-Methyl-2-Pentanone(MIBK)	5.0 U	U,P1	ug/L	5.0	SW846 8260D	1	12/01/2022 17:45	TMP	A
Acetone	10.0 U	U,P1	ug/L	10.0	SW846 8260D	1	12/01/2022 17:45	TMP	A
Benzene	1.0 U	U,P1	ug/L	1.0	SW846 8260D	1	12/01/2022 17:45	TMP	A
Bromobenzene	1.0 U	U,P1	ug/L	1.0	SW846 8260D	1	12/01/2022 17:45	TMP	A
Bromochloromethane	1.0 U	U,P1	ug/L	1.0	SW846 8260D	1	12/01/2022 17:45	TMP	A
Bromodichloromethane	1.0 U	U,P1	ug/L	1.0	SW846 8260D	1	12/01/2022 17:45	TMP	A
Bromoform	1.0 U	U,P1	ug/L	1.0	SW846 8260D	1	12/01/2022 17:45	TMP	A
Bromomethane	1.0 U	U,P1	ug/L	1.0	SW846 8260D	1	12/01/2022 17:45	TMP	A
Carbon Tetrachloride	1.0 U	U,P1	ug/L	1.0	SW846 8260D	1	12/01/2022 17:45	TMP	A
Chlorobenzene	1.0 U	U,P1	ug/L	1.0	SW846 8260D	1	12/01/2022 17:45	TMP	A
Chlorodibromomethane	1.0 U	U,P1	ug/L	1.0	SW846 8260D	1	12/01/2022 17:45	TMP	A
Chloroethane	1.0 U	U,P1	ug/L	1.0	SW846 8260D	1	12/01/2022 17:45	TMP	A
Chloroform	1.0 U	U,P1	ug/L	1.0	SW846 8260D	1	12/01/2022 17:45	TMP	A
Chloromethane	1.0 U	U,P1	ug/L	1.0	SW846 8260D	1	12/01/2022 17:45	TMP	A



Results

Client Sample ID	MW-31D	Collected	11/21/2022 10:05
Lab Sample ID	3275166005	Lab Receipt	11/21/2022 17:40

VOLATILE ORGANICS (cont.)

Compound	Result	Flag	Units	RDL	Method	Dilution	Analysis Date/Time	By	Cntr
cis-1,2-Dichloroethene	1.0 U	U,P1	ug/L	1.0	SW846 8260D	1	12/01/2022 17:45	TMP	A
cis-1,3-Dichloropropene	1.0 U	U,P1	ug/L	1.0	SW846 8260D	1	12/01/2022 17:45	TMP	A
Dibromomethane	1.0 U	U,P1	ug/L	1.0	SW846 8260D	1	12/01/2022 17:45	TMP	A
Dichlorodifluoromethane	1.0 U	U,P1	ug/L	1.0	SW846 8260D	1	12/01/2022 17:45	TMP	A
Diisopropyl ether	1.0 U	U,P1	ug/L	1.0	SW846 8260D	1	12/01/2022 17:45	TMP	A
Ethylbenzene	1.0 U	U,P1	ug/L	1.0	SW846 8260D	1	12/01/2022 17:45	TMP	A
Hexachlorobutadiene	5.0 U	U,P1	ug/L	5.0	SW846 8260D	1	12/01/2022 17:45	TMP	A
Methyl t-Butyl Ether	1.0 U	U,P1	ug/L	1.0	SW846 8260D	1	12/01/2022 17:45	TMP	A
Methylene Chloride	1.0 U	U,P1	ug/L	1.0	SW846 8260D	1	12/01/2022 17:45	TMP	A
mp-Xylene	2.0 U	U,P1	ug/L	2.0	SW846 8260D	1	12/01/2022 17:45	TMP	A
Naphthalene	2.0 U	U,P1	ug/L	2.0	SW846 8260D	1	12/01/2022 17:45	TMP	A
o-Chlorotoluene	1.0 U	U,P1	ug/L	1.0	SW846 8260D	1	12/01/2022 17:45	TMP	A
o-Xylene	1.0 U	U,P1	ug/L	1.0	SW846 8260D	1	12/01/2022 17:45	TMP	A
p-Chlorotoluene	1.0 U	U,P1	ug/L	1.0	SW846 8260D	1	12/01/2022 17:45	TMP	A
p-Isopropyltoluene	1.0 U	U,P1	ug/L	1.0	SW846 8260D	1	12/01/2022 17:45	TMP	A
Styrene	1.0 U	U,P1	ug/L	1.0	SW846 8260D	1	12/01/2022 17:45	TMP	A
Tetrachloroethene	1.0 U	U,P1	ug/L	1.0	SW846 8260D	1	12/01/2022 17:45	TMP	A
Toluene	1.0 U	U,P1	ug/L	1.0	SW846 8260D	1	12/01/2022 17:45	TMP	A
Total Xylenes	3.0 U	U,P1	ug/L	3.0	SW846 8260D	1	12/01/2022 17:45	TMP	A
trans-1,2-Dichloroethene	1.0 U	U,P1	ug/L	1.0	SW846 8260D	1	12/01/2022 17:45	TMP	A
trans-1,3-Dichloropropene	1.0 U	U,P1	ug/L	1.0	SW846 8260D	1	12/01/2022 17:45	TMP	A
Trichloroethene	1.0 U	U,P1	ug/L	1.0	SW846 8260D	1	12/01/2022 17:45	TMP	A
Trichlorofluoromethane	1.0 U	U,P1	ug/L	1.0	SW846 8260D	1	12/01/2022 17:45	TMP	A
Vinyl Acetate	5.0 U	U,P1	ug/L	5.0	SW846 8260D	1	12/01/2022 17:45	TMP	A
Vinyl Chloride	1.0 U	U,P1	ug/L	1.0	SW846 8260D	1	12/01/2022 17:45	TMP	A

SURROGATES

Compound	CAS No	Recovery	Limits(%)	Analysis Date/Time	Qualifiers
1,2-Dichloroethane-d4	17060-07-0	93.2%	62 - 133	12/01/2022 17:45	
4-Bromofluorobenzene	460-00-4	103%	79 - 114	12/01/2022 17:45	
Dibromofluoromethane	1868-53-7	90.8%	78 - 116	12/01/2022 17:45	
Toluene-d8	2037-26-5	93.1%	76 - 127	12/01/2022 17:45	



Results

Client Sample ID	MW-29D	Collected	11/21/2022 10:15
Lab Sample ID	3275166006	Lab Receipt	11/21/2022 17:40

SEMIVOLATILE SIM

Compound	Result	Flag	Units	RDL	Method	Dilution	Analysis Date/Time	By	Cntr
1,4-Dioxane	1.0 U	U,P1	ug/L	1.0	SW846 8270E SIM	1	11/29/2022 07:36	M1O	C

SURROGATES

Compound	CAS No	Recovery	Limits(%)	Analysis Date/Time	Qualifiers
2-Methylnapthalene-d10	7297-45-2	77.8%	29 – 112	11/29/2022 07:36	
Fluoranthene-d10	93951-69-0	92%	45 – 130	11/29/2022 07:36	

VOLATILE ORGANICS

Compound	Result	Flag	Units	RDL	Method	Dilution	Analysis Date/Time	By	Cntr
1,1,1,2-Tetrachloroethane	1.0 U	U,P1	ug/L	1.0	SW846 8260D	1	12/01/2022 18:53	TMP	A
1,1,1-Trichloroethane	1.0 U	U,P1	ug/L	1.0	SW846 8260D	1	12/01/2022 18:53	TMP	A
1,1,2,2-Tetrachloroethane	1.0 U	U,P1	ug/L	1.0	SW846 8260D	1	12/01/2022 18:53	TMP	A
1,1,2-Trichloroethane	1.0 U	U,P1	ug/L	1.0	SW846 8260D	1	12/01/2022 18:53	TMP	A
1,1-Dichloroethane	1.0 U	U,P1	ug/L	1.0	SW846 8260D	1	12/01/2022 18:53	TMP	A
1,1-Dichloroethene	1.0 U	U,P1	ug/L	1.0	SW846 8260D	1	12/01/2022 18:53	TMP	A
1,1-Dichloropropene	1.0 U	U,P1	ug/L	1.0	SW846 8260D	1	12/01/2022 18:53	TMP	A
1,2,3-Trichlorobenzene	2.0 U	U,P1	ug/L	2.0	SW846 8260D	1	12/01/2022 18:53	TMP	A
1,2,3-Trichloropropane	2.0 U	U,P1	ug/L	2.0	SW846 8260D	1	12/01/2022 18:53	TMP	A
1,2,4-Trichlorobenzene	2.0 U	U,P1	ug/L	2.0	SW846 8260D	1	12/01/2022 18:53	TMP	A
1,2-Dibromo-3-chloropropane	7.0 U	U,P1	ug/L	7.0	SW846 8260D	1	12/01/2022 18:53	TMP	A
1,2-Dibromoethane	1.0 U	U,P1	ug/L	1.0	SW846 8260D	1	12/01/2022 18:53	TMP	A
1,2-Dichlorobenzene	1.0 U	U,P1	ug/L	1.0	SW846 8260D	1	12/01/2022 18:53	TMP	A
1,2-Dichloroethane	1.0 U	U,P1	ug/L	1.0	SW846 8260D	1	12/01/2022 18:53	TMP	A
1,2-Dichloropropane	1.0 U	U,P1	ug/L	1.0	SW846 8260D	1	12/01/2022 18:53	TMP	A
1,3-Dichlorobenzene	1.0 U	U,P1	ug/L	1.0	SW846 8260D	1	12/01/2022 18:53	TMP	A
1,3-Dichloropropane	1.0 U	U,P1	ug/L	1.0	SW846 8260D	1	12/01/2022 18:53	TMP	A
1,4-Dichlorobenzene	1.0 U	U,P1	ug/L	1.0	SW846 8260D	1	12/01/2022 18:53	TMP	A
2,2-Dichloropropane	1.0 U	U,P1	ug/L	1.0	SW846 8260D	1	12/01/2022 18:53	TMP	A
2-Butanone	10.0 U	U,P1	ug/L	10.0	SW846 8260D	1	12/01/2022 18:53	TMP	A
2-Hexanone	5.0 U	U,P1	ug/L	5.0	SW846 8260D	1	12/01/2022 18:53	TMP	A
4-Methyl-2-Pentanone(MIBK)	5.0 U	U,P1	ug/L	5.0	SW846 8260D	1	12/01/2022 18:53	TMP	A
Acetone	10.0 U	U,P1	ug/L	10.0	SW846 8260D	1	12/01/2022 18:53	TMP	A
Benzene	1.0 U	U,P1	ug/L	1.0	SW846 8260D	1	12/01/2022 18:53	TMP	A
Bromobenzene	1.0 U	U,P1	ug/L	1.0	SW846 8260D	1	12/01/2022 18:53	TMP	A
Bromochloromethane	1.0 U	U,P1	ug/L	1.0	SW846 8260D	1	12/01/2022 18:53	TMP	A
Bromodichloromethane	1.0 U	U,P1	ug/L	1.0	SW846 8260D	1	12/01/2022 18:53	TMP	A
Bromoform	1.0 U	U,P1	ug/L	1.0	SW846 8260D	1	12/01/2022 18:53	TMP	A
Bromomethane	1.0 U	U,P1	ug/L	1.0	SW846 8260D	1	12/01/2022 18:53	TMP	A
Carbon Tetrachloride	1.0 U	U,P1	ug/L	1.0	SW846 8260D	1	12/01/2022 18:53	TMP	A
Chlorobenzene	1.0 U	U,P1	ug/L	1.0	SW846 8260D	1	12/01/2022 18:53	TMP	A
Chlorodibromomethane	1.0 U	U,P1	ug/L	1.0	SW846 8260D	1	12/01/2022 18:53	TMP	A
Chloroethane	1.0 U	U,P1	ug/L	1.0	SW846 8260D	1	12/01/2022 18:53	TMP	A
Chloroform	1.0 U	U,P1	ug/L	1.0	SW846 8260D	1	12/01/2022 18:53	TMP	A
Chloromethane	1.0 U	U,P1	ug/L	1.0	SW846 8260D	1	12/01/2022 18:53	TMP	A



Results

Client Sample ID	MW-29D	Collected	11/21/2022 10:15
Lab Sample ID	3275166006	Lab Receipt	11/21/2022 17:40

VOLATILE ORGANICS (cont.)

Compound	Result	Flag	Units	RDL	Method	Dilution	Analysis Date/Time	By	Cntr
cis-1,2-Dichloroethene	1.0 U	U,P1	ug/L	1.0	SW846 8260D	1	12/01/2022 18:53	TMP	A
cis-1,3-Dichloropropene	1.0 U	U,P1	ug/L	1.0	SW846 8260D	1	12/01/2022 18:53	TMP	A
Dibromomethane	1.0 U	U,P1	ug/L	1.0	SW846 8260D	1	12/01/2022 18:53	TMP	A
Dichlorodifluoromethane	1.0 U	U,P1	ug/L	1.0	SW846 8260D	1	12/01/2022 18:53	TMP	A
Diisopropyl ether	1.0 U	U,P1	ug/L	1.0	SW846 8260D	1	12/01/2022 18:53	TMP	A
Ethylbenzene	1.0 U	U,P1	ug/L	1.0	SW846 8260D	1	12/01/2022 18:53	TMP	A
Hexachlorobutadiene	5.0 U	U,P1	ug/L	5.0	SW846 8260D	1	12/01/2022 18:53	TMP	A
Methyl t-Butyl Ether	1.0 U	U,P1	ug/L	1.0	SW846 8260D	1	12/01/2022 18:53	TMP	A
Methylene Chloride	1.0 U	U,P1	ug/L	1.0	SW846 8260D	1	12/01/2022 18:53	TMP	A
mp-Xylene	2.0 U	U,P1	ug/L	2.0	SW846 8260D	1	12/01/2022 18:53	TMP	A
Naphthalene	2.0 U	U,P1	ug/L	2.0	SW846 8260D	1	12/01/2022 18:53	TMP	A
o-Chlorotoluene	1.0 U	U,P1	ug/L	1.0	SW846 8260D	1	12/01/2022 18:53	TMP	A
o-Xylene	1.0 U	U,P1	ug/L	1.0	SW846 8260D	1	12/01/2022 18:53	TMP	A
p-Chlorotoluene	1.0 U	U,P1	ug/L	1.0	SW846 8260D	1	12/01/2022 18:53	TMP	A
p-Isopropyltoluene	1.0 U	U,P1	ug/L	1.0	SW846 8260D	1	12/01/2022 18:53	TMP	A
Styrene	1.0 U	U,P1	ug/L	1.0	SW846 8260D	1	12/01/2022 18:53	TMP	A
Tetrachloroethene	1.0 U	U,P1	ug/L	1.0	SW846 8260D	1	12/01/2022 18:53	TMP	A
Toluene	1.0 U	U,P1	ug/L	1.0	SW846 8260D	1	12/01/2022 18:53	TMP	A
Total Xylenes	3.0 U	U,P1	ug/L	3.0	SW846 8260D	1	12/01/2022 18:53	TMP	A
trans-1,2-Dichloroethene	1.0 U	U,P1	ug/L	1.0	SW846 8260D	1	12/01/2022 18:53	TMP	A
trans-1,3-Dichloropropene	1.0 U	U,P1	ug/L	1.0	SW846 8260D	1	12/01/2022 18:53	TMP	A
Trichloroethene	1.0 U	U,P1	ug/L	1.0	SW846 8260D	1	12/01/2022 18:53	TMP	A
Trichlorofluoromethane	1.0 U	U,P1	ug/L	1.0	SW846 8260D	1	12/01/2022 18:53	TMP	A
Vinyl Acetate	5.0 U	U,P1	ug/L	5.0	SW846 8260D	1	12/01/2022 18:53	TMP	A
Vinyl Chloride	1.0 U	U,P1	ug/L	1.0	SW846 8260D	1	12/01/2022 18:53	TMP	A

SURROGATES

Compound	CAS No	Recovery	Limits(%)	Analysis Date/Time	Qualifiers
1,2-Dichloroethane-d4	17060-07-0	92.2%	62 – 133	12/01/2022 18:53	
4-Bromofluorobenzene	460-00-4	102%	79 – 114	12/01/2022 18:53	
Dibromofluoromethane	1868-53-7	90.4%	78 – 116	12/01/2022 18:53	
Toluene-d8	2037-26-5	92.8%	76 – 127	12/01/2022 18:53	



Results

Client Sample ID	MW-30D-273	Collected	11/21/2022 10:30
Lab Sample ID	3275166007	Lab Receipt	11/21/2022 17:40

SEMIVOLATILE SIM

Compound	Result	Flag	Units	RDL	Method	Dilution	Analysis Date/Time	By	Cntr
1,4-Dioxane	7.0	P1	ug/L	1.0	SW846 8270E SIM	1	11/29/2022 08:03	M1O	C

SURROGATES

Compound	CAS No	Recovery	Limits(%)	Analysis Date/Time	Qualifiers
2-Methylnaphthalene-d10	7297-45-2	65.1%	29 - 112	11/29/2022 08:03	
Fluoranthene-d10	93951-69-0	96.6%	45 - 130	11/29/2022 08:03	

VOLATILE ORGANICS

Compound	Result	Flag	Units	RDL	Method	Dilution	Analysis Date/Time	By	Cntr
1,1,1,2-Tetrachloroethane	1.0 U	U,P1	ug/L	1.0	SW846 8260D	1	12/01/2022 15:28	TMP	A
1,1,1-Trichloroethane	1.2	P1	ug/L	1.0	SW846 8260D	1	12/01/2022 15:28	TMP	A
1,1,2,2-Tetrachloroethane	1.0 U	U,P1	ug/L	1.0	SW846 8260D	1	12/01/2022 15:28	TMP	A
1,1,2-Trichloroethane	1.0 U	U,P1	ug/L	1.0	SW846 8260D	1	12/01/2022 15:28	TMP	A
1,1-Dichloroethane	1.0 U	U,P1	ug/L	1.0	SW846 8260D	1	12/01/2022 15:28	TMP	A
1,1-Dichloroethene	31.3	P1	ug/L	1.0	SW846 8260D	1	12/01/2022 15:28	TMP	A
1,1-Dichloropropene	1.0 U	U,P1	ug/L	1.0	SW846 8260D	1	12/01/2022 15:28	TMP	A
1,2,3-Trichlorobenzene	2.0 U	U,P1	ug/L	2.0	SW846 8260D	1	12/01/2022 15:28	TMP	A
1,2,3-Trichloropropane	2.0 U	U,P1	ug/L	2.0	SW846 8260D	1	12/01/2022 15:28	TMP	A
1,2,4-Trichlorobenzene	2.0 U	U,P1	ug/L	2.0	SW846 8260D	1	12/01/2022 15:28	TMP	A
1,2-Dibromo-3-chloropropane	7.0 U	U,P1	ug/L	7.0	SW846 8260D	1	12/01/2022 15:28	TMP	A
1,2-Dibromoethane	1.0 U	U,P1	ug/L	1.0	SW846 8260D	1	12/01/2022 15:28	TMP	A
1,2-Dichlorobenzene	1.0 U	U,P1	ug/L	1.0	SW846 8260D	1	12/01/2022 15:28	TMP	A
1,2-Dichloroethane	1.0 U	U,P1	ug/L	1.0	SW846 8260D	1	12/01/2022 15:28	TMP	A
1,2-Dichloropropane	1.0 U	U,P1	ug/L	1.0	SW846 8260D	1	12/01/2022 15:28	TMP	A
1,3-Dichlorobenzene	1.0 U	U,P1	ug/L	1.0	SW846 8260D	1	12/01/2022 15:28	TMP	A
1,3-Dichloropropane	1.0 U	U,P1	ug/L	1.0	SW846 8260D	1	12/01/2022 15:28	TMP	A
1,4-Dichlorobenzene	1.0 U	U,P1	ug/L	1.0	SW846 8260D	1	12/01/2022 15:28	TMP	A
2,2-Dichloropropane	1.0 U	U,P1	ug/L	1.0	SW846 8260D	1	12/01/2022 15:28	TMP	A
2-Butanone	10.0 U	U,P1	ug/L	10.0	SW846 8260D	1	12/01/2022 15:28	TMP	A
2-Hexanone	5.0 U	U,P1	ug/L	5.0	SW846 8260D	1	12/01/2022 15:28	TMP	A
4-Methyl-2-Pentanone(MIBK)	5.0 U	U,P1	ug/L	5.0	SW846 8260D	1	12/01/2022 15:28	TMP	A
Acetone	10.0 U	U,P1	ug/L	10.0	SW846 8260D	1	12/01/2022 15:28	TMP	A
Benzene	1.0 U	U,P1	ug/L	1.0	SW846 8260D	1	12/01/2022 15:28	TMP	A
Bromobenzene	1.0 U	U,P1	ug/L	1.0	SW846 8260D	1	12/01/2022 15:28	TMP	A
Bromochloromethane	1.0 U	U,P1	ug/L	1.0	SW846 8260D	1	12/01/2022 15:28	TMP	A
Bromodichloromethane	1.0 U	U,P1	ug/L	1.0	SW846 8260D	1	12/01/2022 15:28	TMP	A
Bromoform	1.0 U	U,P1	ug/L	1.0	SW846 8260D	1	12/01/2022 15:28	TMP	A
Bromomethane	1.0 U	U,P1	ug/L	1.0	SW846 8260D	1	12/01/2022 15:28	TMP	A
Carbon Tetrachloride	1.0 U	U,P1	ug/L	1.0	SW846 8260D	1	12/01/2022 15:28	TMP	A
Chlorobenzene	1.0 U	U,P1	ug/L	1.0	SW846 8260D	1	12/01/2022 15:28	TMP	A
Chlorodibromomethane	1.0 U	U,P1	ug/L	1.0	SW846 8260D	1	12/01/2022 15:28	TMP	A
Chloroethane	1.0 U	U,P1	ug/L	1.0	SW846 8260D	1	12/01/2022 15:28	TMP	A
Chloroform	1.0 U	U,P1	ug/L	1.0	SW846 8260D	1	12/01/2022 15:28	TMP	A
Chloromethane	1.0 U	U,P1	ug/L	1.0	SW846 8260D	1	12/01/2022 15:28	TMP	A



Results

Client Sample ID	MW-30D-273	Collected	11/21/2022 10:30
Lab Sample ID	3275166007	Lab Receipt	11/21/2022 17:40

VOLATILE ORGANICS (cont.)

Compound	Result	Flag	Units	RDL	Method	Dilution	Analysis Date/Time	By	Cntr
cis-1,2-Dichloroethene	1.0 U	U,P1	ug/L	1.0	SW846 8260D	1	12/01/2022 15:28	TMP	A
cis-1,3-Dichloropropene	1.0 U	U,P1	ug/L	1.0	SW846 8260D	1	12/01/2022 15:28	TMP	A
Dibromomethane	1.0 U	U,P1	ug/L	1.0	SW846 8260D	1	12/01/2022 15:28	TMP	A
Dichlorodifluoromethane	1.0 U	U,P1	ug/L	1.0	SW846 8260D	1	12/01/2022 15:28	TMP	A
Diisopropyl ether	1.0 U	U,P1	ug/L	1.0	SW846 8260D	1	12/01/2022 15:28	TMP	A
Ethylbenzene	1.0 U	U,P1	ug/L	1.0	SW846 8260D	1	12/01/2022 15:28	TMP	A
Hexachlorobutadiene	5.0 U	U,P1	ug/L	5.0	SW846 8260D	1	12/01/2022 15:28	TMP	A
Methyl t-Butyl Ether	1.0 U	U,P1	ug/L	1.0	SW846 8260D	1	12/01/2022 15:28	TMP	A
Methylene Chloride	1.0 U	U,P1	ug/L	1.0	SW846 8260D	1	12/01/2022 15:28	TMP	A
mp-Xylene	2.0 U	U,P1	ug/L	2.0	SW846 8260D	1	12/01/2022 15:28	TMP	A
Naphthalene	2.0 U	U,P1	ug/L	2.0	SW846 8260D	1	12/01/2022 15:28	TMP	A
o-Chlorotoluene	1.0 U	U,P1	ug/L	1.0	SW846 8260D	1	12/01/2022 15:28	TMP	A
o-Xylene	1.0 U	U,P1	ug/L	1.0	SW846 8260D	1	12/01/2022 15:28	TMP	A
p-Chlorotoluene	1.0 U	U,P1	ug/L	1.0	SW846 8260D	1	12/01/2022 15:28	TMP	A
p-Isopropyltoluene	1.0 U	U,P1	ug/L	1.0	SW846 8260D	1	12/01/2022 15:28	TMP	A
Styrene	1.0 U	U,P1	ug/L	1.0	SW846 8260D	1	12/01/2022 15:28	TMP	A
Tetrachloroethene	1.0 U	U,P1	ug/L	1.0	SW846 8260D	1	12/01/2022 15:28	TMP	A
Toluene	1.0 U	U,P1	ug/L	1.0	SW846 8260D	1	12/01/2022 15:28	TMP	A
Total Xylenes	3.0 U	U,P1	ug/L	3.0	SW846 8260D	1	12/01/2022 15:28	TMP	A
trans-1,2-Dichloroethene	1.0 U	U,P1	ug/L	1.0	SW846 8260D	1	12/01/2022 15:28	TMP	A
trans-1,3-Dichloropropene	1.0 U	U,P1	ug/L	1.0	SW846 8260D	1	12/01/2022 15:28	TMP	A
Trichloroethene	1.0 U	U,P1	ug/L	1.0	SW846 8260D	1	12/01/2022 15:28	TMP	A
Trichlorofluoromethane	1.0 U	U,P1	ug/L	1.0	SW846 8260D	1	12/01/2022 15:28	TMP	A
Vinyl Acetate	5.0 U	U,P1	ug/L	5.0	SW846 8260D	1	12/01/2022 15:28	TMP	A
Vinyl Chloride	1.0 U	U,P1	ug/L	1.0	SW846 8260D	1	12/01/2022 15:28	TMP	A

SURROGATES

Compound	CAS No	Recovery	Limits(%)	Analysis Date/Time	Qualifiers
1,2-Dichloroethane-d4	17060-07-0	91.3%	62 – 133	12/01/2022 15:28	
4-Bromofluorobenzene	460-00-4	104%	79 – 114	12/01/2022 15:28	
Dibromofluoromethane	1868-53-7	88.9%	78 – 116	12/01/2022 15:28	
Toluene-d8	2037-26-5	91.6%	76 – 127	12/01/2022 15:28	



Results

Client Sample ID	MW-30D-413	Collected	11/21/2022 10:40
Lab Sample ID	3275166008	Lab Receipt	11/21/2022 17:40

SEMIVOLATILE SIM

Compound	Result	Flag	Units	RDL	Method	Dilution	Analysis Date/Time	By	Cntr
1,4-Dioxane	1.0 U	U,P1	ug/L	1.0	SW846 8270E SIM	1	11/29/2022 18:17	M1O	C

SURROGATES

Compound	CAS No	Recovery	Limits(%)	Analysis Date/Time	Qualifiers
2-Methylnaphthalene-d10	7297-45-2	61.1%	29 – 112	11/29/2022 18:17	
Fluoranthene-d10	93951-69-0	91.5%	45 – 130	11/29/2022 18:17	

VOLATILE ORGANICS

Compound	Result	Flag	Units	RDL	Method	Dilution	Analysis Date/Time	By	Cntr
1,1,1,2-Tetrachloroethane	1.0 U	U,P1	ug/L	1.0	SW846 8260D	1	12/01/2022 19:39	TMP	A
1,1,1-Trichloroethane	1.0 U	U,P1	ug/L	1.0	SW846 8260D	1	12/01/2022 19:39	TMP	A
1,1,2,2-Tetrachloroethane	1.0 U	U,P1	ug/L	1.0	SW846 8260D	1	12/01/2022 19:39	TMP	A
1,1,2-Trichloroethane	1.0 U	U,P1	ug/L	1.0	SW846 8260D	1	12/01/2022 19:39	TMP	A
1,1-Dichloroethane	1.0 U	U,P1	ug/L	1.0	SW846 8260D	1	12/01/2022 19:39	TMP	A
1,1-Dichloroethene	1.0 U	U,P1	ug/L	1.0	SW846 8260D	1	12/01/2022 19:39	TMP	A
1,1-Dichloropropene	1.0 U	U,P1	ug/L	1.0	SW846 8260D	1	12/01/2022 19:39	TMP	A
1,2,3-Trichlorobenzene	2.0 U	U,P1	ug/L	2.0	SW846 8260D	1	12/01/2022 19:39	TMP	A
1,2,3-Trichloropropane	2.0 U	U,P1	ug/L	2.0	SW846 8260D	1	12/01/2022 19:39	TMP	A
1,2,4-Trichlorobenzene	2.0 U	U,P1	ug/L	2.0	SW846 8260D	1	12/01/2022 19:39	TMP	A
1,2-Dibromo-3-chloropropane	7.0 U	U,P1	ug/L	7.0	SW846 8260D	1	12/01/2022 19:39	TMP	A
1,2-Dibromoethane	1.0 U	U,P1	ug/L	1.0	SW846 8260D	1	12/01/2022 19:39	TMP	A
1,2-Dichlorobenzene	1.0 U	U,P1	ug/L	1.0	SW846 8260D	1	12/01/2022 19:39	TMP	A
1,2-Dichloroethane	1.0 U	U,P1	ug/L	1.0	SW846 8260D	1	12/01/2022 19:39	TMP	A
1,2-Dichloropropane	1.0 U	U,P1	ug/L	1.0	SW846 8260D	1	12/01/2022 19:39	TMP	A
1,3-Dichlorobenzene	1.0 U	U,P1	ug/L	1.0	SW846 8260D	1	12/01/2022 19:39	TMP	A
1,3-Dichloropropane	1.0 U	U,P1	ug/L	1.0	SW846 8260D	1	12/01/2022 19:39	TMP	A
1,4-Dichlorobenzene	1.0 U	U,P1	ug/L	1.0	SW846 8260D	1	12/01/2022 19:39	TMP	A
2,2-Dichloropropane	1.0 U	U,P1	ug/L	1.0	SW846 8260D	1	12/01/2022 19:39	TMP	A
2-Butanone	10.0 U	U,P1	ug/L	10.0	SW846 8260D	1	12/01/2022 19:39	TMP	A
2-Hexanone	5.0 U	U,P1	ug/L	5.0	SW846 8260D	1	12/01/2022 19:39	TMP	A
4-Methyl-2-Pentanone(MIBK)	5.0 U	U,P1	ug/L	5.0	SW846 8260D	1	12/01/2022 19:39	TMP	A
Acetone	10.0 U	U,P1	ug/L	10.0	SW846 8260D	1	12/01/2022 19:39	TMP	A
Benzene	1.0 U	U,P1	ug/L	1.0	SW846 8260D	1	12/01/2022 19:39	TMP	A
Bromobenzene	1.0 U	U,P1	ug/L	1.0	SW846 8260D	1	12/01/2022 19:39	TMP	A
Bromochloromethane	1.0 U	U,P1	ug/L	1.0	SW846 8260D	1	12/01/2022 19:39	TMP	A
Bromodichloromethane	1.0 U	U,P1	ug/L	1.0	SW846 8260D	1	12/01/2022 19:39	TMP	A
Bromoform	1.0 U	U,P1	ug/L	1.0	SW846 8260D	1	12/01/2022 19:39	TMP	A
Bromomethane	1.0 U	U,P1	ug/L	1.0	SW846 8260D	1	12/01/2022 19:39	TMP	A
Carbon Tetrachloride	1.0 U	U,P1	ug/L	1.0	SW846 8260D	1	12/01/2022 19:39	TMP	A
Chlorobenzene	1.0 U	U,P1	ug/L	1.0	SW846 8260D	1	12/01/2022 19:39	TMP	A
Chlorodibromomethane	1.0 U	U,P1	ug/L	1.0	SW846 8260D	1	12/01/2022 19:39	TMP	A
Chloroethane	1.0 U	U,P1	ug/L	1.0	SW846 8260D	1	12/01/2022 19:39	TMP	A
Chloroform	1.0 U	U,P1	ug/L	1.0	SW846 8260D	1	12/01/2022 19:39	TMP	A
Chloromethane	1.0 U	U,P1	ug/L	1.0	SW846 8260D	1	12/01/2022 19:39	TMP	A



Results

Client Sample ID	MW-30D-413	Collected	11/21/2022 10:40
Lab Sample ID	3275166008	Lab Receipt	11/21/2022 17:40

VOLATILE ORGANICS (cont.)

Compound	Result	Flag	Units	RDL	Method	Dilution	Analysis Date/Time	By	Cntr
cis-1,2-Dichloroethene	1.0 U	U,P1	ug/L	1.0	SW846 8260D	1	12/01/2022 19:39	TMP	A
cis-1,3-Dichloropropene	1.0 U	U,P1	ug/L	1.0	SW846 8260D	1	12/01/2022 19:39	TMP	A
Dibromomethane	1.0 U	U,P1	ug/L	1.0	SW846 8260D	1	12/01/2022 19:39	TMP	A
Dichlorodifluoromethane	1.0 U	U,P1	ug/L	1.0	SW846 8260D	1	12/01/2022 19:39	TMP	A
Diisopropyl ether	1.0 U	U,P1	ug/L	1.0	SW846 8260D	1	12/01/2022 19:39	TMP	A
Ethylbenzene	1.0 U	U,P1	ug/L	1.0	SW846 8260D	1	12/01/2022 19:39	TMP	A
Hexachlorobutadiene	5.0 U	U,P1	ug/L	5.0	SW846 8260D	1	12/01/2022 19:39	TMP	A
Methyl t-Butyl Ether	1.0 U	U,P1	ug/L	1.0	SW846 8260D	1	12/01/2022 19:39	TMP	A
Methylene Chloride	1.0 U	U,P1	ug/L	1.0	SW846 8260D	1	12/01/2022 19:39	TMP	A
mp-Xylene	2.0 U	U,P1	ug/L	2.0	SW846 8260D	1	12/01/2022 19:39	TMP	A
Naphthalene	2.0 U	U,P1	ug/L	2.0	SW846 8260D	1	12/01/2022 19:39	TMP	A
o-Chlorotoluene	1.0 U	U,P1	ug/L	1.0	SW846 8260D	1	12/01/2022 19:39	TMP	A
o-Xylene	1.0 U	U,P1	ug/L	1.0	SW846 8260D	1	12/01/2022 19:39	TMP	A
p-Chlorotoluene	1.0 U	U,P1	ug/L	1.0	SW846 8260D	1	12/01/2022 19:39	TMP	A
p-Isopropyltoluene	1.0 U	U,P1	ug/L	1.0	SW846 8260D	1	12/01/2022 19:39	TMP	A
Styrene	1.0 U	U,P1	ug/L	1.0	SW846 8260D	1	12/01/2022 19:39	TMP	A
Tetrachloroethene	1.0 U	U,P1	ug/L	1.0	SW846 8260D	1	12/01/2022 19:39	TMP	A
Toluene	1.0 U	U,P1	ug/L	1.0	SW846 8260D	1	12/01/2022 19:39	TMP	A
Total Xylenes	3.0 U	U,P1	ug/L	3.0	SW846 8260D	1	12/01/2022 19:39	TMP	A
trans-1,2-Dichloroethene	1.0 U	U,P1	ug/L	1.0	SW846 8260D	1	12/01/2022 19:39	TMP	A
trans-1,3-Dichloropropene	1.0 U	U,P1	ug/L	1.0	SW846 8260D	1	12/01/2022 19:39	TMP	A
Trichloroethene	1.0 U	U,P1	ug/L	1.0	SW846 8260D	1	12/01/2022 19:39	TMP	A
Trichlorofluoromethane	1.0 U	U,P1	ug/L	1.0	SW846 8260D	1	12/01/2022 19:39	TMP	A
Vinyl Acetate	5.0 U	U,P1	ug/L	5.0	SW846 8260D	1	12/01/2022 19:39	TMP	A
Vinyl Chloride	1.0 U	U,P1	ug/L	1.0	SW846 8260D	1	12/01/2022 19:39	TMP	A

SURROGATES

Compound	CAS No	Recovery	Limits(%)	Analysis Date/Time	Qualifiers
1,2-Dichloroethane-d4	17060-07-0	91.4 %	62 - 133	12/01/2022 19:39	
4-Bromofluorobenzene	460-00-4	104 %	79 - 114	12/01/2022 19:39	
Dibromofluoromethane	1868-53-7	89.9 %	78 - 116	12/01/2022 19:39	
Toluene-d8	2037-26-5	93 %	76 - 127	12/01/2022 19:39	



Results

Client Sample ID	MW-32D	Collected	11/21/2022 11:45
Lab Sample ID	3275166009	Lab Receipt	11/21/2022 17:40

SEMIVOLATILE SIM

Compound	Result	Flag	Units	RDL	Method	Dilution	Analysis Date/Time	By	Cntr
1,4-Dioxane	1.0 U	U,P1	ug/L	1.0	SW846 8270E SIM	1	11/29/2022 18:43	M1O	C

SURROGATES

Compound	CAS No	Recovery	Limits(%)	Analysis Date/Time	Qualifiers
2-Methylnapthalene-d10	7297-45-2	64.6%	29 - 112	11/29/2022 18:43	
Fluoranthene-d10	93951-69-0	43.9*%	45 - 130	11/29/2022 18:43	1

VOLATILE ORGANICS

Compound	Result	Flag	Units	RDL	Method	Dilution	Analysis Date/Time	By	Cntr
1,1,1,2-Tetrachloroethane	1.0 U	U,P1	ug/L	1.0	SW846 8260D	1	12/01/2022 19:16	TMP	A
1,1,1-Trichloroethane	1.0 U	U,P1	ug/L	1.0	SW846 8260D	1	12/01/2022 19:16	TMP	A
1,1,2,2-Tetrachloroethane	1.0 U	U,P1	ug/L	1.0	SW846 8260D	1	12/01/2022 19:16	TMP	A
1,1,2-Trichloroethane	1.0 U	U,P1	ug/L	1.0	SW846 8260D	1	12/01/2022 19:16	TMP	A
1,1-Dichloroethane	1.0 U	U,P1	ug/L	1.0	SW846 8260D	1	12/01/2022 19:16	TMP	A
1,1-Dichloroethene	1.0 U	U,P1	ug/L	1.0	SW846 8260D	1	12/01/2022 19:16	TMP	A
1,1-Dichloropropene	1.0 U	U,P1	ug/L	1.0	SW846 8260D	1	12/01/2022 19:16	TMP	A
1,2,3-Trichlorobenzene	2.0 U	U,P1	ug/L	2.0	SW846 8260D	1	12/01/2022 19:16	TMP	A
1,2,3-Trichloropropane	2.0 U	U,P1	ug/L	2.0	SW846 8260D	1	12/01/2022 19:16	TMP	A
1,2,4-Trichlorobenzene	2.0 U	U,P1	ug/L	2.0	SW846 8260D	1	12/01/2022 19:16	TMP	A
1,2-Dibromo-3-chloropropane	7.0 U	U,P1	ug/L	7.0	SW846 8260D	1	12/01/2022 19:16	TMP	A
1,2-Dibromoethane	1.0 U	U,P1	ug/L	1.0	SW846 8260D	1	12/01/2022 19:16	TMP	A
1,2-Dichlorobenzene	1.0 U	U,P1	ug/L	1.0	SW846 8260D	1	12/01/2022 19:16	TMP	A
1,2-Dichloroethane	1.0 U	U,P1	ug/L	1.0	SW846 8260D	1	12/01/2022 19:16	TMP	A
1,2-Dichloropropane	1.0 U	U,P1	ug/L	1.0	SW846 8260D	1	12/01/2022 19:16	TMP	A
1,3-Dichlorobenzene	1.0 U	U,P1	ug/L	1.0	SW846 8260D	1	12/01/2022 19:16	TMP	A
1,3-Dichloropropane	1.0 U	U,P1	ug/L	1.0	SW846 8260D	1	12/01/2022 19:16	TMP	A
1,4-Dichlorobenzene	1.0 U	U,P1	ug/L	1.0	SW846 8260D	1	12/01/2022 19:16	TMP	A
2,2-Dichloropropane	1.0 U	U,P1	ug/L	1.0	SW846 8260D	1	12/01/2022 19:16	TMP	A
2-Butanone	10.0 U	U,P1	ug/L	10.0	SW846 8260D	1	12/01/2022 19:16	TMP	A
2-Hexanone	5.0 U	U,P1	ug/L	5.0	SW846 8260D	1	12/01/2022 19:16	TMP	A
4-Methyl-2-Pentanone(MIBK)	5.0 U	U,P1	ug/L	5.0	SW846 8260D	1	12/01/2022 19:16	TMP	A
Acetone	10.0 U	U,P1	ug/L	10.0	SW846 8260D	1	12/01/2022 19:16	TMP	A
Benzene	1.0 U	U,P1	ug/L	1.0	SW846 8260D	1	12/01/2022 19:16	TMP	A
Bromobenzene	1.0 U	U,P1	ug/L	1.0	SW846 8260D	1	12/01/2022 19:16	TMP	A
Bromochloromethane	1.0 U	U,P1	ug/L	1.0	SW846 8260D	1	12/01/2022 19:16	TMP	A
Bromodichloromethane	1.0 U	U,P1	ug/L	1.0	SW846 8260D	1	12/01/2022 19:16	TMP	A
Bromoform	1.0 U	U,P1	ug/L	1.0	SW846 8260D	1	12/01/2022 19:16	TMP	A
Bromomethane	1.0 U	U,P1	ug/L	1.0	SW846 8260D	1	12/01/2022 19:16	TMP	A
Carbon Tetrachloride	1.0 U	U,P1	ug/L	1.0	SW846 8260D	1	12/01/2022 19:16	TMP	A
Chlorobenzene	1.0 U	U,P1	ug/L	1.0	SW846 8260D	1	12/01/2022 19:16	TMP	A
Chlorodibromomethane	1.0 U	U,P1	ug/L	1.0	SW846 8260D	1	12/01/2022 19:16	TMP	A
Chloroethane	1.0 U	U,P1	ug/L	1.0	SW846 8260D	1	12/01/2022 19:16	TMP	A
Chloroform	1.0 U	U,P1	ug/L	1.0	SW846 8260D	1	12/01/2022 19:16	TMP	A
Chloromethane	1.0 U	U,P1	ug/L	1.0	SW846 8260D	1	12/01/2022 19:16	TMP	A



Results

Client Sample ID	MW-32D	Collected	11/21/2022 11:45
Lab Sample ID	3275166009	Lab Receipt	11/21/2022 17:40

VOLATILE ORGANICS (cont.)

Compound	Result	Flag	Units	RDL	Method	Dilution	Analysis Date/Time	By	Cntr
cis-1,2-Dichloroethene	1.0 U	U,P1	ug/L	1.0	SW846 8260D	1	12/01/2022 19:16	TMP	A
cis-1,3-Dichloropropene	1.0 U	U,P1	ug/L	1.0	SW846 8260D	1	12/01/2022 19:16	TMP	A
Dibromomethane	1.0 U	U,P1	ug/L	1.0	SW846 8260D	1	12/01/2022 19:16	TMP	A
Dichlorodifluoromethane	1.0 U	U,P1	ug/L	1.0	SW846 8260D	1	12/01/2022 19:16	TMP	A
Diisopropyl ether	1.0 U	U,P1	ug/L	1.0	SW846 8260D	1	12/01/2022 19:16	TMP	A
Ethylbenzene	1.0 U	U,P1	ug/L	1.0	SW846 8260D	1	12/01/2022 19:16	TMP	A
Hexachlorobutadiene	5.0 U	U,P1	ug/L	5.0	SW846 8260D	1	12/01/2022 19:16	TMP	A
Methyl t-Butyl Ether	1.0 U	U,P1	ug/L	1.0	SW846 8260D	1	12/01/2022 19:16	TMP	A
Methylene Chloride	1.0 U	U,P1	ug/L	1.0	SW846 8260D	1	12/01/2022 19:16	TMP	A
mp-Xylene	2.0 U	U,P1	ug/L	2.0	SW846 8260D	1	12/01/2022 19:16	TMP	A
Naphthalene	2.0 U	U,P1	ug/L	2.0	SW846 8260D	1	12/01/2022 19:16	TMP	A
o-Chlorotoluene	1.0 U	U,P1	ug/L	1.0	SW846 8260D	1	12/01/2022 19:16	TMP	A
o-Xylene	1.0 U	U,P1	ug/L	1.0	SW846 8260D	1	12/01/2022 19:16	TMP	A
p-Chlorotoluene	1.0 U	U,P1	ug/L	1.0	SW846 8260D	1	12/01/2022 19:16	TMP	A
p-Isopropyltoluene	1.0 U	U,P1	ug/L	1.0	SW846 8260D	1	12/01/2022 19:16	TMP	A
Styrene	1.0 U	U,P1	ug/L	1.0	SW846 8260D	1	12/01/2022 19:16	TMP	A
Tetrachloroethene	1.0 U	U,P1	ug/L	1.0	SW846 8260D	1	12/01/2022 19:16	TMP	A
Toluene	1.0 U	U,P1	ug/L	1.0	SW846 8260D	1	12/01/2022 19:16	TMP	A
Total Xylenes	3.0 U	U,P1	ug/L	3.0	SW846 8260D	1	12/01/2022 19:16	TMP	A
trans-1,2-Dichloroethene	1.0 U	U,P1	ug/L	1.0	SW846 8260D	1	12/01/2022 19:16	TMP	A
trans-1,3-Dichloropropene	1.0 U	U,P1	ug/L	1.0	SW846 8260D	1	12/01/2022 19:16	TMP	A
Trichloroethene	1.0 U	U,P1	ug/L	1.0	SW846 8260D	1	12/01/2022 19:16	TMP	A
Trichlorofluoromethane	1.0 U	U,P1	ug/L	1.0	SW846 8260D	1	12/01/2022 19:16	TMP	A
Vinyl Acetate	5.0 U	U,P1	ug/L	5.0	SW846 8260D	1	12/01/2022 19:16	TMP	A
Vinyl Chloride	1.0 U	U,P1	ug/L	1.0	SW846 8260D	1	12/01/2022 19:16	TMP	A

SURROGATES

Compound	CAS No	Recovery	Limits(%)	Analysis Date/Time	Qualifiers
1,2-Dichloroethane-d4	17060-07-0	93.5%	62 – 133	12/01/2022 19:16	
4-Bromofluorobenzene	460-00-4	103%	79 – 114	12/01/2022 19:16	
Dibromofluoromethane	1868-53-7	90.7%	78 – 116	12/01/2022 19:16	
Toluene-d8	2037-26-5	93.9%	76 – 127	12/01/2022 19:16	



Results

Client Sample ID	MW-28D	Collected	11/21/2022 11:30
Lab Sample ID	3275166010	Lab Receipt	11/21/2022 17:40

SEMIVOLATILE SIM

Compound	Result	Flag	Units	RDL	Method	Dilution	Analysis Date/Time	By	Cntr
1,4-Dioxane	3.1	P1	ug/L	1.0	SW846 8270E SIM	1	11/29/2022 19:10	M1O	C

SURROGATES

Compound	CAS No	Recovery	Limits(%)	Analysis Date/Time	Qualifiers
2-Methylnaphthalene-d10	7297-45-2	74%	29 - 112	11/29/2022 19:10	
Fluoranthene-d10	93951-69-0	89.9%	45 - 130	11/29/2022 19:10	

VOLATILE ORGANICS

Compound	Result	Flag	Units	RDL	Method	Dilution	Analysis Date/Time	By	Cntr
1,1,1,2-Tetrachloroethane	1.0 U	U,P1	ug/L	1.0	SW846 8260D	1	12/02/2022 01:24	PDK	A
1,1,1-Trichloroethane	1.0 U	U,P1	ug/L	1.0	SW846 8260D	1	12/02/2022 01:24	PDK	A
1,1,2,2-Tetrachloroethane	1.0 U	U,P1	ug/L	1.0	SW846 8260D	1	12/02/2022 01:24	PDK	A
1,1,2-Trichloroethane	1.0 U	U,P1	ug/L	1.0	SW846 8260D	1	12/02/2022 01:24	PDK	A
1,1-Dichloroethane	1.0 U	U,P1	ug/L	1.0	SW846 8260D	1	12/02/2022 01:24	PDK	A
1,1-Dichloroethene	6.2	P1	ug/L	1.0	SW846 8260D	1	12/02/2022 01:24	PDK	A
1,1-Dichloropropene	1.0 U	U,P1	ug/L	1.0	SW846 8260D	1	12/02/2022 01:24	PDK	A
1,2,3-Trichlorobenzene	2.0 U	U,P1	ug/L	2.0	SW846 8260D	1	12/02/2022 01:24	PDK	A
1,2,3-Trichloropropane	2.0 U	U,P1	ug/L	2.0	SW846 8260D	1	12/02/2022 01:24	PDK	A
1,2,4-Trichlorobenzene	2.0 U	U,P1	ug/L	2.0	SW846 8260D	1	12/02/2022 01:24	PDK	A
1,2-Dibromo-3-chloropropane	7.0 U	U,P1	ug/L	7.0	SW846 8260D	1	12/02/2022 01:24	PDK	A
1,2-Dibromoethane	1.0 U	U,P1	ug/L	1.0	SW846 8260D	1	12/02/2022 01:24	PDK	A
1,2-Dichlorobenzene	1.0 U	U,P1	ug/L	1.0	SW846 8260D	1	12/02/2022 01:24	PDK	A
1,2-Dichloroethane	1.0 U	U,P1	ug/L	1.0	SW846 8260D	1	12/02/2022 01:24	PDK	A
1,2-Dichloropropane	1.0 U	U,P1	ug/L	1.0	SW846 8260D	1	12/02/2022 01:24	PDK	A
1,3-Dichlorobenzene	1.0 U	U,P1	ug/L	1.0	SW846 8260D	1	12/02/2022 01:24	PDK	A
1,3-Dichloropropane	1.0 U	U,P1	ug/L	1.0	SW846 8260D	1	12/02/2022 01:24	PDK	A
1,4-Dichlorobenzene	1.0 U	U,P1	ug/L	1.0	SW846 8260D	1	12/02/2022 01:24	PDK	A
2,2-Dichloropropane	1.0 U	U,P1	ug/L	1.0	SW846 8260D	1	12/02/2022 01:24	PDK	A
2-Butanone	10.0 U	U,P1	ug/L	10.0	SW846 8260D	1	12/02/2022 01:24	PDK	A
2-Hexanone	5.0 U	U,P1	ug/L	5.0	SW846 8260D	1	12/02/2022 01:24	PDK	A
4-Methyl-2-Pentanone(MIBK)	5.0 U	U,P1	ug/L	5.0	SW846 8260D	1	12/02/2022 01:24	PDK	A
Acetone	10.0 U	U,P1	ug/L	10.0	SW846 8260D	1	12/02/2022 01:24	PDK	A
Benzene	1.0 U	U,P1	ug/L	1.0	SW846 8260D	1	12/02/2022 01:24	PDK	A
Bromobenzene	1.0 U	U,P1	ug/L	1.0	SW846 8260D	1	12/02/2022 01:24	PDK	A
Bromochloromethane	1.0 U	U,P1	ug/L	1.0	SW846 8260D	1	12/02/2022 01:24	PDK	A
Bromodichloromethane	1.0 U	U,P1	ug/L	1.0	SW846 8260D	1	12/02/2022 01:24	PDK	A
Bromoform	1.0 U	U,P1	ug/L	1.0	SW846 8260D	1	12/02/2022 01:24	PDK	A
Bromomethane	1.0 U	U,P1	ug/L	1.0	SW846 8260D	1	12/02/2022 01:24	PDK	A
Carbon Tetrachloride	1.0 U	U,P1	ug/L	1.0	SW846 8260D	1	12/02/2022 01:24	PDK	A
Chlorobenzene	1.0 U	U,P1	ug/L	1.0	SW846 8260D	1	12/02/2022 01:24	PDK	A
Chlorodibromomethane	1.0 U	U,P1	ug/L	1.0	SW846 8260D	1	12/02/2022 01:24	PDK	A
Chloroethane	1.0 U	U,P1	ug/L	1.0	SW846 8260D	1	12/02/2022 01:24	PDK	A
Chloroform	1.0 U	U,P1	ug/L	1.0	SW846 8260D	1	12/02/2022 01:24	PDK	A
Chloromethane	1.0 U	U,P1	ug/L	1.0	SW846 8260D	1	12/02/2022 01:24	PDK	A



Results

Client Sample ID	MW-28D	Collected	11/21/2022 11:30
Lab Sample ID	3275166010	Lab Receipt	11/21/2022 17:40

VOLATILE ORGANICS (cont.)

Compound	Result	Flag	Units	RDL	Method	Dilution	Analysis Date/Time	By	Cntr
cis-1,2-Dichloroethene	1.0 U	U,P1	ug/L	1.0	SW846 8260D	1	12/02/2022 01:24	PDK	A
cis-1,3-Dichloropropene	1.0 U	U,P1	ug/L	1.0	SW846 8260D	1	12/02/2022 01:24	PDK	A
Dibromomethane	1.0 U	U,P1	ug/L	1.0	SW846 8260D	1	12/02/2022 01:24	PDK	A
Dichlorodifluoromethane	1.0 U	U,P1	ug/L	1.0	SW846 8260D	1	12/02/2022 01:24	PDK	A
Diisopropyl ether	1.0 U	U,P1	ug/L	1.0	SW846 8260D	1	12/02/2022 01:24	PDK	A
Ethylbenzene	1.0 U	U,P1	ug/L	1.0	SW846 8260D	1	12/02/2022 01:24	PDK	A
Hexachlorobutadiene	5.0 U	U,P1	ug/L	5.0	SW846 8260D	1	12/02/2022 01:24	PDK	A
Methyl t-Butyl Ether	1.0 U	U,P1	ug/L	1.0	SW846 8260D	1	12/02/2022 01:24	PDK	A
Methylene Chloride	1.0 U	U,P1	ug/L	1.0	SW846 8260D	1	12/02/2022 01:24	PDK	A
mp-Xylene	2.0 U	U,P1	ug/L	2.0	SW846 8260D	1	12/02/2022 01:24	PDK	A
Naphthalene	2.0 U	U,P1	ug/L	2.0	SW846 8260D	1	12/02/2022 01:24	PDK	A
o-Chlorotoluene	1.0 U	U,P1	ug/L	1.0	SW846 8260D	1	12/02/2022 01:24	PDK	A
o-Xylene	1.0 U	U,P1	ug/L	1.0	SW846 8260D	1	12/02/2022 01:24	PDK	A
p-Chlorotoluene	1.0 U	U,P1	ug/L	1.0	SW846 8260D	1	12/02/2022 01:24	PDK	A
p-Isopropyltoluene	1.0 U	U,P1	ug/L	1.0	SW846 8260D	1	12/02/2022 01:24	PDK	A
Styrene	1.0 U	U,P1	ug/L	1.0	SW846 8260D	1	12/02/2022 01:24	PDK	A
Tetrachloroethene	1.0 U	U,P1	ug/L	1.0	SW846 8260D	1	12/02/2022 01:24	PDK	A
Toluene	1.0 U	U,P1	ug/L	1.0	SW846 8260D	1	12/02/2022 01:24	PDK	A
Total Xylenes	3.0 U	U,P1	ug/L	3.0	SW846 8260D	1	12/02/2022 01:24	PDK	A
trans-1,2-Dichloroethene	1.0 U	U,P1	ug/L	1.0	SW846 8260D	1	12/02/2022 01:24	PDK	A
trans-1,3-Dichloropropene	1.0 U	U,P1	ug/L	1.0	SW846 8260D	1	12/02/2022 01:24	PDK	A
Trichloroethene	1.0 U	U,P1	ug/L	1.0	SW846 8260D	1	12/02/2022 01:24	PDK	A
Trichlorofluoromethane	1.0 U	U,P1	ug/L	1.0	SW846 8260D	1	12/02/2022 01:24	PDK	A
Vinyl Acetate	5.0 U	U,P1	ug/L	5.0	SW846 8260D	1	12/02/2022 01:24	PDK	A
Vinyl Chloride	1.0 U	U,P1	ug/L	1.0	SW846 8260D	1	12/02/2022 01:24	PDK	A

SURROGATES

Compound	CAS No	Recovery	Limits(%)	Analysis Date/Time	Qualifiers
1,2-Dichloroethane-d4	17060-07-0	94.9%	62 - 133	12/02/2022 01:24	
4-Bromofluorobenzene	460-00-4	101%	79 - 114	12/02/2022 01:24	
Dibromofluoromethane	1868-53-7	93.6%	78 - 116	12/02/2022 01:24	
Toluene-d8	2037-26-5	94.9%	76 - 127	12/02/2022 01:24	



Results

Client Sample ID	MW-36D	Collected	11/21/2022 11:45
Lab Sample ID	3275166011	Lab Receipt	11/21/2022 17:40

VOLATILE ORGANICS

Compound	Result	Flag	Units	RDL	Method	Dilution	Analysis Date/Time	By	Cntr
1,1,1,2-Tetrachloroethane	1.0 U	U,P1	ug/L	1.0	SW846 8260D	1	12/02/2022 01:47	PDK	A
1,1,1-Trichloroethane	1.0 U	U,P1	ug/L	1.0	SW846 8260D	1	12/02/2022 01:47	PDK	A
1,1,2,2-Tetrachloroethane	1.0 U	U,P1	ug/L	1.0	SW846 8260D	1	12/02/2022 01:47	PDK	A
1,1,2-Trichloroethane	1.0 U	U,P1	ug/L	1.0	SW846 8260D	1	12/02/2022 01:47	PDK	A
1,1-Dichloroethane	1.0 U	U,P1	ug/L	1.0	SW846 8260D	1	12/02/2022 01:47	PDK	A
1,1-Dichloroethene	1.0 U	U,P1	ug/L	1.0	SW846 8260D	1	12/02/2022 01:47	PDK	A
1,1-Dichloropropene	1.0 U	U,P1	ug/L	1.0	SW846 8260D	1	12/02/2022 01:47	PDK	A
1,2,3-Trichlorobenzene	2.0 U	U,P1	ug/L	2.0	SW846 8260D	1	12/02/2022 01:47	PDK	A
1,2,3-Trichloropropane	2.0 U	U,P1	ug/L	2.0	SW846 8260D	1	12/02/2022 01:47	PDK	A
1,2,4-Trichlorobenzene	2.0 U	U,P1	ug/L	2.0	SW846 8260D	1	12/02/2022 01:47	PDK	A
1,2-Dibromo-3-chloropropane	7.0 U	U,P1	ug/L	7.0	SW846 8260D	1	12/02/2022 01:47	PDK	A
1,2-Dibromoethane	1.0 U	U,P1	ug/L	1.0	SW846 8260D	1	12/02/2022 01:47	PDK	A
1,2-Dichlorobenzene	1.0 U	U,P1	ug/L	1.0	SW846 8260D	1	12/02/2022 01:47	PDK	A
1,2-Dichloroethane	1.0 U	U,P1	ug/L	1.0	SW846 8260D	1	12/02/2022 01:47	PDK	A
1,2-Dichloropropane	1.0 U	U,P1	ug/L	1.0	SW846 8260D	1	12/02/2022 01:47	PDK	A
1,3-Dichlorobenzene	1.0 U	U,P1	ug/L	1.0	SW846 8260D	1	12/02/2022 01:47	PDK	A
1,3-Dichloropropane	1.0 U	U,P1	ug/L	1.0	SW846 8260D	1	12/02/2022 01:47	PDK	A
1,4-Dichlorobenzene	1.0 U	U,P1	ug/L	1.0	SW846 8260D	1	12/02/2022 01:47	PDK	A
2,2-Dichloropropane	1.0 U	U,P1	ug/L	1.0	SW846 8260D	1	12/02/2022 01:47	PDK	A
2-Butanone	10.0 U	U,P1	ug/L	10.0	SW846 8260D	1	12/02/2022 01:47	PDK	A
2-Hexanone	5.0 U	U,P1	ug/L	5.0	SW846 8260D	1	12/02/2022 01:47	PDK	A
4-Methyl-2-Pentanone(MIBK)	5.0 U	U,P1	ug/L	5.0	SW846 8260D	1	12/02/2022 01:47	PDK	A
Acetone	10.0 U	U,P1	ug/L	10.0	SW846 8260D	1	12/02/2022 01:47	PDK	A
Benzene	1.0 U	U,P1	ug/L	1.0	SW846 8260D	1	12/02/2022 01:47	PDK	A
Bromobenzene	1.0 U	U,P1	ug/L	1.0	SW846 8260D	1	12/02/2022 01:47	PDK	A
Bromochloromethane	1.0 U	U,P1	ug/L	1.0	SW846 8260D	1	12/02/2022 01:47	PDK	A
Bromodichloromethane	1.0 U	U,P1	ug/L	1.0	SW846 8260D	1	12/02/2022 01:47	PDK	A
Bromoform	1.0 U	U,P1	ug/L	1.0	SW846 8260D	1	12/02/2022 01:47	PDK	A
Bromomethane	1.0 U	U,P1	ug/L	1.0	SW846 8260D	1	12/02/2022 01:47	PDK	A
Carbon Tetrachloride	1.0 U	U,P1	ug/L	1.0	SW846 8260D	1	12/02/2022 01:47	PDK	A
Chlorobenzene	1.0 U	U,P1	ug/L	1.0	SW846 8260D	1	12/02/2022 01:47	PDK	A
Chlorodibromomethane	1.0 U	U,P1	ug/L	1.0	SW846 8260D	1	12/02/2022 01:47	PDK	A
Chloroethane	1.0 U	U,P1	ug/L	1.0	SW846 8260D	1	12/02/2022 01:47	PDK	A
Chloroform	1.0 U	U,P1	ug/L	1.0	SW846 8260D	1	12/02/2022 01:47	PDK	A
Chloromethane	1.0 U	U,P1	ug/L	1.0	SW846 8260D	1	12/02/2022 01:47	PDK	A
cis-1,2-Dichloroethene	1.0 U	U,P1	ug/L	1.0	SW846 8260D	1	12/02/2022 01:47	PDK	A
cis-1,3-Dichloropropene	1.0 U	U,P1	ug/L	1.0	SW846 8260D	1	12/02/2022 01:47	PDK	A
Dibromomethane	1.0 U	U,P1	ug/L	1.0	SW846 8260D	1	12/02/2022 01:47	PDK	A
Dichlorodifluoromethane	1.0 U	U,P1	ug/L	1.0	SW846 8260D	1	12/02/2022 01:47	PDK	A
Diisopropyl ether	1.0 U	U,P1	ug/L	1.0	SW846 8260D	1	12/02/2022 01:47	PDK	A
Ethylbenzene	1.0 U	U,P1	ug/L	1.0	SW846 8260D	1	12/02/2022 01:47	PDK	A
Hexachlorobutadiene	5.0 U	U,P1	ug/L	5.0	SW846 8260D	1	12/02/2022 01:47	PDK	A
Methyl t-Butyl Ether	1.0 U	U,P1	ug/L	1.0	SW846 8260D	1	12/02/2022 01:47	PDK	A
Methylene Chloride	1.0 U	U,P1	ug/L	1.0	SW846 8260D	1	12/02/2022 01:47	PDK	A
mp-Xylene	2.0 U	U,P1	ug/L	2.0	SW846 8260D	1	12/02/2022 01:47	PDK	A
Naphthalene	2.0 U	U,P1	ug/L	2.0	SW846 8260D	1	12/02/2022 01:47	PDK	A
o-Chlorotoluene	1.0 U	U,P1	ug/L	1.0	SW846 8260D	1	12/02/2022 01:47	PDK	A



Results

Client Sample ID	MW-36D	Collected	11/21/2022 11:45
Lab Sample ID	3275166011	Lab Receipt	11/21/2022 17:40

VOLATILE ORGANICS (cont.)

Compound	Result	Flag	Units	RDL	Method	Dilution	Analysis Date/Time	By	Cntr
o-Xylene	1.0 U	U,P1	ug/L	1.0	SW846 8260D	1	12/02/2022 01:47	PDK	A
p-Chlorotoluene	1.0 U	U,P1	ug/L	1.0	SW846 8260D	1	12/02/2022 01:47	PDK	A
p-Isopropyltoluene	1.0 U	U,P1	ug/L	1.0	SW846 8260D	1	12/02/2022 01:47	PDK	A
Styrene	1.0 U	U,P1	ug/L	1.0	SW846 8260D	1	12/02/2022 01:47	PDK	A
Tetrachloroethene	1.0 U	U,P1	ug/L	1.0	SW846 8260D	1	12/02/2022 01:47	PDK	A
Toluene	1.0 U	U,P1	ug/L	1.0	SW846 8260D	1	12/02/2022 01:47	PDK	A
Total Xylenes	3.0 U	U,P1	ug/L	3.0	SW846 8260D	1	12/02/2022 01:47	PDK	A
trans-1,2-Dichloroethene	1.0 U	U,P1	ug/L	1.0	SW846 8260D	1	12/02/2022 01:47	PDK	A
trans-1,3-Dichloropropene	1.0 U	U,P1	ug/L	1.0	SW846 8260D	1	12/02/2022 01:47	PDK	A
Trichloroethene	1.0 U	U,P1	ug/L	1.0	SW846 8260D	1	12/02/2022 01:47	PDK	A
Trichlorofluoromethane	1.0 U	U,P1	ug/L	1.0	SW846 8260D	1	12/02/2022 01:47	PDK	A
Vinyl Acetate	5.0 U	U,P1	ug/L	5.0	SW846 8260D	1	12/02/2022 01:47	PDK	A
Vinyl Chloride	1.0 U	U,P1	ug/L	1.0	SW846 8260D	1	12/02/2022 01:47	PDK	A

SURROGATES

Compound	CAS No	Recovery	Limits(%)	Analysis Date/Time	Qualifiers
1,2-Dichloroethane-d4	17060-07-0	91.6%	62 – 133	12/02/2022 01:47	
4-Bromofluorobenzene	460-00-4	101%	79 – 114	12/02/2022 01:47	
Dibromofluoromethane	1868-53-7	90.4%	78 – 116	12/02/2022 01:47	
Toluene-d8	2037-26-5	93.3%	76 – 127	12/02/2022 01:47	



Results

Client Sample ID	MW-45	Collected	11/21/2022 13:05
Lab Sample ID	3275166012	Lab Receipt	11/21/2022 17:40

SEMIVOLATILE SIM

Compound	Result	Flag	Units	RDL	Method	Dilution	Analysis Date/Time	By	Cntr
1,4-Dioxane	1.0 U	U,P1	ug/L	1.0	SW846 8270E SIM	1	11/29/2022 20:03	M1O	C

SURROGATES

Compound	CAS No	Recovery	Limits(%)	Analysis Date/Time	Qualifiers
2-Methylnaphthalene-d10	7297-45-2	66%	29 - 112	11/29/2022 20:03	
Fluoranthene-d10	93951-69-0	93.2%	45 - 130	11/29/2022 20:03	

VOLATILE ORGANICS

Compound	Result	Flag	Units	RDL	Method	Dilution	Analysis Date/Time	By	Cntr
1,1,1,2-Tetrachloroethane	1.0 U	U,P1	ug/L	1.0	SW846 8260D	1	12/02/2022 02:10	PDK	A
1,1,1-Trichloroethane	1.0 U	U,P1	ug/L	1.0	SW846 8260D	1	12/02/2022 02:10	PDK	A
1,1,2,2-Tetrachloroethane	1.0 U	U,P1	ug/L	1.0	SW846 8260D	1	12/02/2022 02:10	PDK	A
1,1,2-Trichloroethane	1.0 U	U,P1	ug/L	1.0	SW846 8260D	1	12/02/2022 02:10	PDK	A
1,1-Dichloroethane	1.0 U	U,P1	ug/L	1.0	SW846 8260D	1	12/02/2022 02:10	PDK	A
1,1-Dichloroethene	1.0 U	U,P1	ug/L	1.0	SW846 8260D	1	12/02/2022 02:10	PDK	A
1,1-Dichloropropene	1.0 U	U,P1	ug/L	1.0	SW846 8260D	1	12/02/2022 02:10	PDK	A
1,2,3-Trichlorobenzene	2.0 U	U,P1	ug/L	2.0	SW846 8260D	1	12/02/2022 02:10	PDK	A
1,2,3-Trichloropropane	2.0 U	U,P1	ug/L	2.0	SW846 8260D	1	12/02/2022 02:10	PDK	A
1,2,4-Trichlorobenzene	2.0 U	U,P1	ug/L	2.0	SW846 8260D	1	12/02/2022 02:10	PDK	A
1,2-Dibromo-3-chloropropane	7.0 U	U,P1	ug/L	7.0	SW846 8260D	1	12/02/2022 02:10	PDK	A
1,2-Dibromoethane	1.0 U	U,P1	ug/L	1.0	SW846 8260D	1	12/02/2022 02:10	PDK	A
1,2-Dichlorobenzene	1.0 U	U,P1	ug/L	1.0	SW846 8260D	1	12/02/2022 02:10	PDK	A
1,2-Dichloroethane	1.0 U	U,P1	ug/L	1.0	SW846 8260D	1	12/02/2022 02:10	PDK	A
1,2-Dichloropropane	1.0 U	U,P1	ug/L	1.0	SW846 8260D	1	12/02/2022 02:10	PDK	A
1,3-Dichlorobenzene	1.0 U	U,P1	ug/L	1.0	SW846 8260D	1	12/02/2022 02:10	PDK	A
1,3-Dichloropropane	1.0 U	U,P1	ug/L	1.0	SW846 8260D	1	12/02/2022 02:10	PDK	A
1,4-Dichlorobenzene	1.0 U	U,P1	ug/L	1.0	SW846 8260D	1	12/02/2022 02:10	PDK	A
2,2-Dichloropropane	1.0 U	U,P1	ug/L	1.0	SW846 8260D	1	12/02/2022 02:10	PDK	A
2-Butanone	10.0 U	U,P1	ug/L	10.0	SW846 8260D	1	12/02/2022 02:10	PDK	A
2-Hexanone	5.0 U	U,P1	ug/L	5.0	SW846 8260D	1	12/02/2022 02:10	PDK	A
4-Methyl-2-Pentanone(MIBK)	5.0 U	U,P1	ug/L	5.0	SW846 8260D	1	12/02/2022 02:10	PDK	A
Acetone	10.0 U	U,P1	ug/L	10.0	SW846 8260D	1	12/02/2022 02:10	PDK	A
Benzene	1.0 U	U,P1	ug/L	1.0	SW846 8260D	1	12/02/2022 02:10	PDK	A
Bromobenzene	1.0 U	U,P1	ug/L	1.0	SW846 8260D	1	12/02/2022 02:10	PDK	A
Bromochloromethane	1.0 U	U,P1	ug/L	1.0	SW846 8260D	1	12/02/2022 02:10	PDK	A
Bromodichloromethane	1.0 U	U,P1	ug/L	1.0	SW846 8260D	1	12/02/2022 02:10	PDK	A
Bromoform	1.0 U	U,P1	ug/L	1.0	SW846 8260D	1	12/02/2022 02:10	PDK	A
Bromomethane	1.0 U	U,P1	ug/L	1.0	SW846 8260D	1	12/02/2022 02:10	PDK	A
Carbon Tetrachloride	1.0 U	U,P1	ug/L	1.0	SW846 8260D	1	12/02/2022 02:10	PDK	A
Chlorobenzene	1.0 U	U,P1	ug/L	1.0	SW846 8260D	1	12/02/2022 02:10	PDK	A
Chlorodibromomethane	1.0 U	U,P1	ug/L	1.0	SW846 8260D	1	12/02/2022 02:10	PDK	A
Chloroethane	1.0 U	U,P1	ug/L	1.0	SW846 8260D	1	12/02/2022 02:10	PDK	A
Chloroform	1.0 U	U,P1	ug/L	1.0	SW846 8260D	1	12/02/2022 02:10	PDK	A
Chloromethane	1.0 U	U,P1	ug/L	1.0	SW846 8260D	1	12/02/2022 02:10	PDK	A



Results

Client Sample ID	MW-45	Collected	11/21/2022 13:05
Lab Sample ID	3275166012	Lab Receipt	11/21/2022 17:40

VOLATILE ORGANICS (cont.)

Compound	Result	Flag	Units	RDL	Method	Dilution	Analysis Date/Time	By	Cntr
cis-1,2-Dichloroethene	1.0 U	U,P1	ug/L	1.0	SW846 8260D	1	12/02/2022 02:10	PDK	A
cis-1,3-Dichloropropene	1.0 U	U,P1	ug/L	1.0	SW846 8260D	1	12/02/2022 02:10	PDK	A
Dibromomethane	1.0 U	U,P1	ug/L	1.0	SW846 8260D	1	12/02/2022 02:10	PDK	A
Dichlorodifluoromethane	1.0 U	U,P1	ug/L	1.0	SW846 8260D	1	12/02/2022 02:10	PDK	A
Diisopropyl ether	1.0 U	U,P1	ug/L	1.0	SW846 8260D	1	12/02/2022 02:10	PDK	A
Ethylbenzene	1.0 U	U,P1	ug/L	1.0	SW846 8260D	1	12/02/2022 02:10	PDK	A
Hexachlorobutadiene	5.0 U	U,P1	ug/L	5.0	SW846 8260D	1	12/02/2022 02:10	PDK	A
Methyl t-Butyl Ether	1.0 U	U,P1	ug/L	1.0	SW846 8260D	1	12/02/2022 02:10	PDK	A
Methylene Chloride	1.0 U	U,P1	ug/L	1.0	SW846 8260D	1	12/02/2022 02:10	PDK	A
mp-Xylene	2.0 U	U,P1	ug/L	2.0	SW846 8260D	1	12/02/2022 02:10	PDK	A
Naphthalene	2.0 U	U,P1	ug/L	2.0	SW846 8260D	1	12/02/2022 02:10	PDK	A
o-Chlorotoluene	1.0 U	U,P1	ug/L	1.0	SW846 8260D	1	12/02/2022 02:10	PDK	A
o-Xylene	1.0 U	U,P1	ug/L	1.0	SW846 8260D	1	12/02/2022 02:10	PDK	A
p-Chlorotoluene	1.0 U	U,P1	ug/L	1.0	SW846 8260D	1	12/02/2022 02:10	PDK	A
p-Isopropyltoluene	1.0 U	U,P1	ug/L	1.0	SW846 8260D	1	12/02/2022 02:10	PDK	A
Styrene	1.0 U	U,P1	ug/L	1.0	SW846 8260D	1	12/02/2022 02:10	PDK	A
Tetrachloroethene	1.0 U	U,P1	ug/L	1.0	SW846 8260D	1	12/02/2022 02:10	PDK	A
Toluene	1.0 U	U,P1	ug/L	1.0	SW846 8260D	1	12/02/2022 02:10	PDK	A
Total Xylenes	3.0 U	U,P1	ug/L	3.0	SW846 8260D	1	12/02/2022 02:10	PDK	A
trans-1,2-Dichloroethene	1.0 U	U,P1	ug/L	1.0	SW846 8260D	1	12/02/2022 02:10	PDK	A
trans-1,3-Dichloropropene	1.0 U	U,P1	ug/L	1.0	SW846 8260D	1	12/02/2022 02:10	PDK	A
Trichloroethene	1.0 U	U,P1	ug/L	1.0	SW846 8260D	1	12/02/2022 02:10	PDK	A
Trichlorofluoromethane	1.0 U	U,P1	ug/L	1.0	SW846 8260D	1	12/02/2022 02:10	PDK	A
Vinyl Acetate	5.0 U	U,P1	ug/L	5.0	SW846 8260D	1	12/02/2022 02:10	PDK	A
Vinyl Chloride	1.0 U	U,P1	ug/L	1.0	SW846 8260D	1	12/02/2022 02:10	PDK	A

SURROGATES

Compound	CAS No	Recovery	Limits(%)	Analysis Date/Time	Qualifiers
1,2-Dichloroethane-d4	17060-07-0	93.7%	62 - 133	12/02/2022 02:10	
4-Bromofluorobenzene	460-00-4	102%	79 - 114	12/02/2022 02:10	
Dibromofluoromethane	1868-53-7	91.4%	78 - 116	12/02/2022 02:10	
Toluene-d8	2037-26-5	93.4%	76 - 127	12/02/2022 02:10	



Results

Client Sample ID	MW-24D	Collected	11/21/2022 13:15
Lab Sample ID	3275166013	Lab Receipt	11/21/2022 17:40

SEMIVOLATILE SIM

Compound	Result	Flag	Units	RDL	Method	Dilution	Analysis Date/Time	By	Cntr
1,4-Dioxane	148	P1	ug/L	26.3	SW846 8270E SIM	20	12/01/2022 10:00	S7M	C

SURROGATES

Compound	CAS No	Recovery	Limits(%)	Analysis Date/Time	Qualifiers
2-Methylnaphthalene-d10	7297-45-2	70.8%	29 – 112	11/29/2022 20:30	
2-Methylnaphthalene-d10	7297-45-2	0*%	29 – 112	12/01/2022 10:00	
Fluoranthene-d10	93951-69-0	84.1%	45 – 130	11/29/2022 20:30	
Fluoranthene-d10	93951-69-0	92.3%	45 – 130	12/01/2022 10:00	

VOLATILE ORGANICS

Compound	Result	Flag	Units	RDL	Method	Dilution	Analysis Date/Time	By	Cntr
1,1,1,2-Tetrachloroethane	1.0 U	U,P1	ug/L	1.0	SW846 8260D	1	12/02/2022 07:28	PDK	A
1,1,1-Trichloroethane	15.3	P1	ug/L	1.0	SW846 8260D	1	12/02/2022 07:28	PDK	A
1,1,2,2-Tetrachloroethane	1.0 U	U,P1	ug/L	1.0	SW846 8260D	1	12/02/2022 07:28	PDK	A
1,1,2-Trichloroethane	1.2	P1	ug/L	1.0	SW846 8260D	1	12/02/2022 07:28	PDK	A
1,1-Dichloroethane	114	P1	ug/L	1.0	SW846 8260D	1	12/02/2022 07:28	PDK	A
1,1-Dichloroethene	1020	P1	ug/L	20.0	SW846 8260D	20	12/05/2022 01:59	PDK	B
1,1-Dichloropropene	1.0 U	U,P1	ug/L	1.0	SW846 8260D	1	12/02/2022 07:28	PDK	A
1,2,3-Trichlorobenzene	2.0 U	U,P1	ug/L	2.0	SW846 8260D	1	12/02/2022 07:28	PDK	A
1,2,3-Trichloropropane	2.0 U	U,P1	ug/L	2.0	SW846 8260D	1	12/02/2022 07:28	PDK	A
1,2,4-Trichlorobenzene	2.0 U	U,P1	ug/L	2.0	SW846 8260D	1	12/02/2022 07:28	PDK	A
1,2-Dibromo-3-chloropropane	7.0 U	U,P1	ug/L	7.0	SW846 8260D	1	12/02/2022 07:28	PDK	A
1,2-Dibromoethane	1.0 U	U,P1	ug/L	1.0	SW846 8260D	1	12/02/2022 07:28	PDK	A
1,2-Dichlorobenzene	1.0 U	U,P1	ug/L	1.0	SW846 8260D	1	12/02/2022 07:28	PDK	A
1,2-Dichloroethane	7.5	P1	ug/L	1.0	SW846 8260D	1	12/02/2022 07:28	PDK	A
1,2-Dichloropropane	1.0 U	U,P1	ug/L	1.0	SW846 8260D	1	12/02/2022 07:28	PDK	A
1,3-Dichlorobenzene	1.0 U	U,P1	ug/L	1.0	SW846 8260D	1	12/02/2022 07:28	PDK	A
1,3-Dichloropropane	1.0 U	U,P1	ug/L	1.0	SW846 8260D	1	12/02/2022 07:28	PDK	A
1,4-Dichlorobenzene	1.0 U	U,P1	ug/L	1.0	SW846 8260D	1	12/02/2022 07:28	PDK	A
2,2-Dichloropropane	1.0 U	U,P1	ug/L	1.0	SW846 8260D	1	12/02/2022 07:28	PDK	A
2-Butanone	10.0 U	U,P1	ug/L	10.0	SW846 8260D	1	12/02/2022 07:28	PDK	A
2-Hexanone	5.0 U	U,P1	ug/L	5.0	SW846 8260D	1	12/02/2022 07:28	PDK	A
4-Methyl-2-Pentanone(MIBK)	5.0 U	U,P1	ug/L	5.0	SW846 8260D	1	12/02/2022 07:28	PDK	A
Acetone	10.0 U	U,P1	ug/L	10.0	SW846 8260D	1	12/02/2022 07:28	PDK	A
Benzene	1.0 U	U,P1	ug/L	1.0	SW846 8260D	1	12/02/2022 07:28	PDK	A
Bromobenzene	1.0 U	U,P1	ug/L	1.0	SW846 8260D	1	12/02/2022 07:28	PDK	A
Bromochloromethane	1.0 U	U,P1	ug/L	1.0	SW846 8260D	1	12/02/2022 07:28	PDK	A
Bromodichloromethane	1.0 U	U,P1	ug/L	1.0	SW846 8260D	1	12/02/2022 07:28	PDK	A
Bromoform	1.0 U	U,P1	ug/L	1.0	SW846 8260D	1	12/02/2022 07:28	PDK	A
Bromomethane	1.0 U	U,P1	ug/L	1.0	SW846 8260D	1	12/02/2022 07:28	PDK	A
Carbon Tetrachloride	1.0 U	U,P1	ug/L	1.0	SW846 8260D	1	12/02/2022 07:28	PDK	A
Chlorobenzene	1.0 U	U,P1	ug/L	1.0	SW846 8260D	1	12/02/2022 07:28	PDK	A
Chlorodibromomethane	1.0 U	U,P1	ug/L	1.0	SW846 8260D	1	12/02/2022 07:28	PDK	A
Chloroethane	2.8	P1	ug/L	1.0	SW846 8260D	1	12/02/2022 07:28	PDK	A



Results

Client Sample ID	MW-24D	Collected	11/21/2022 13:15
Lab Sample ID	3275166013	Lab Receipt	11/21/2022 17:40

VOLATILE ORGANICS (cont.)

Compound	Result	Flag	Units	RDL	Method	Dilution	Analysis Date/Time	By	Cntr
Chloroform	1.0 U	U,P1	ug/L	1.0	SW846 8260D	1	12/02/2022 07:28	PDK	A
Chloromethane	1.0 U	U,P1	ug/L	1.0	SW846 8260D	1	12/02/2022 07:28	PDK	A
cis-1,2-Dichloroethene	5.5	P1	ug/L	1.0	SW846 8260D	1	12/02/2022 07:28	PDK	A
cis-1,3-Dichloropropene	1.0 U	U,P1	ug/L	1.0	SW846 8260D	1	12/02/2022 07:28	PDK	A
Dibromomethane	1.0 U	U,P1	ug/L	1.0	SW846 8260D	1	12/02/2022 07:28	PDK	A
Dichlorodifluoromethane	1.0 U	U,P1	ug/L	1.0	SW846 8260D	1	12/02/2022 07:28	PDK	A
Diisopropyl ether	1.0 U	U,P1	ug/L	1.0	SW846 8260D	1	12/02/2022 07:28	PDK	A
Ethylbenzene	1.0 U	U,P1	ug/L	1.0	SW846 8260D	1	12/02/2022 07:28	PDK	A
Hexachlorobutadiene	5.0 U	U,P1	ug/L	5.0	SW846 8260D	1	12/02/2022 07:28	PDK	A
Methyl t-Butyl Ether	1.0 U	U,P1	ug/L	1.0	SW846 8260D	1	12/02/2022 07:28	PDK	A
Methylene Chloride	1.0 U	U,P1	ug/L	1.0	SW846 8260D	1	12/02/2022 07:28	PDK	A
mp-Xylene	2.0 U	U,P1	ug/L	2.0	SW846 8260D	1	12/02/2022 07:28	PDK	A
Naphthalene	2.0 U	U,P1	ug/L	2.0	SW846 8260D	1	12/02/2022 07:28	PDK	A
o-Chlorotoluene	1.0 U	U,P1	ug/L	1.0	SW846 8260D	1	12/02/2022 07:28	PDK	A
o-Xylene	1.0 U	U,P1	ug/L	1.0	SW846 8260D	1	12/02/2022 07:28	PDK	A
p-Chlorotoluene	1.0 U	U,P1	ug/L	1.0	SW846 8260D	1	12/02/2022 07:28	PDK	A
p-Isopropyltoluene	1.0 U	U,P1	ug/L	1.0	SW846 8260D	1	12/02/2022 07:28	PDK	A
Styrene	1.0 U	U,P1	ug/L	1.0	SW846 8260D	1	12/02/2022 07:28	PDK	A
Tetrachloroethene	1.3	P1	ug/L	1.0	SW846 8260D	1	12/02/2022 07:28	PDK	A
Toluene	1.0 U	U,P1	ug/L	1.0	SW846 8260D	1	12/02/2022 07:28	PDK	A
Total Xylenes	3.0 U	U,P1	ug/L	3.0	SW846 8260D	1	12/02/2022 07:28	PDK	A
trans-1,2-Dichloroethene	1.0 U	U,P1	ug/L	1.0	SW846 8260D	1	12/02/2022 07:28	PDK	A
trans-1,3-Dichloropropene	1.0 U	U,P1	ug/L	1.0	SW846 8260D	1	12/02/2022 07:28	PDK	A
Trichloroethene	7.7	P1	ug/L	1.0	SW846 8260D	1	12/02/2022 07:28	PDK	A
Trichlorofluoromethane	1.0 U	U,P1	ug/L	1.0	SW846 8260D	1	12/02/2022 07:28	PDK	A
Vinyl Acetate	5.0 U	U,P1	ug/L	5.0	SW846 8260D	1	12/02/2022 07:28	PDK	A
Vinyl Chloride	1.0 U	U,P1	ug/L	1.0	SW846 8260D	1	12/02/2022 07:28	PDK	A

SURROGATES

Compound	CAS No	Recovery	Limits(%)	Analysis Date/Time	Qualifiers
1,2-Dichloroethane-d4	17060-07-0	98.2%	62 - 133	12/05/2022 01:59	
1,2-Dichloroethane-d4	17060-07-0	97.6%	62 - 133	12/02/2022 07:28	
4-Bromofluorobenzene	460-00-4	102%	79 - 114	12/05/2022 01:59	
4-Bromofluorobenzene	460-00-4	104%	79 - 114	12/02/2022 07:28	
Dibromofluoromethane	1868-53-7	100%	78 - 116	12/05/2022 01:59	
Dibromofluoromethane	1868-53-7	97%	78 - 116	12/02/2022 07:28	
Toluene-d8	2037-26-5	95.5%	76 - 127	12/05/2022 01:59	
Toluene-d8	2037-26-5	96.2%	76 - 127	12/02/2022 07:28	



Results

Client Sample ID	MW-25D-130	Collected	11/21/2022 14:00
Lab Sample ID	3275166014	Lab Receipt	11/21/2022 17:40

SEMIVOLATILE SIM

Compound	Result	Flag	Units	RDL	Method	Dilution	Analysis Date/Time	By	Cntr
1,4-Dioxane	16.1	P1	ug/L	10.0	SW846 8270E SIM	10	12/01/2022 10:27	S7M	C

SURROGATES

Compound	CAS No	Recovery	Limits(%)	Analysis Date/Time	Qualifiers
2-Methylnaphthalene-d10	7297-45-2	60.7%	29 – 112	11/29/2022 20:57	
2-Methylnaphthalene-d10	7297-45-2	59.1%	29 – 112	12/01/2022 10:27	
Fluoranthene-d10	93951-69-0	87%	45 – 130	11/29/2022 20:57	
Fluoranthene-d10	93951-69-0	93.2%	45 – 130	12/01/2022 10:27	

VOLATILE ORGANICS

Compound	Result	Flag	Units	RDL	Method	Dilution	Analysis Date/Time	By	Cntr
1,1,1,2-Tetrachloroethane	1.0 U	U,P1	ug/L	1.0	SW846 8260D	1	12/02/2022 02:33	PDK	A
1,1,1-Trichloroethane	5.6	P1	ug/L	1.0	SW846 8260D	1	12/02/2022 02:33	PDK	A
1,1,2,2-Tetrachloroethane	1.0 U	U,P1	ug/L	1.0	SW846 8260D	1	12/02/2022 02:33	PDK	A
1,1,2-Trichloroethane	1.0 U	U,P1	ug/L	1.0	SW846 8260D	1	12/02/2022 02:33	PDK	A
1,1-Dichloroethane	5.5	P1	ug/L	1.0	SW846 8260D	1	12/02/2022 02:33	PDK	A
1,1-Dichloroethene	80.2	P1	ug/L	1.0	SW846 8260D	1	12/02/2022 02:33	PDK	A
1,1-Dichloropropene	1.0 U	U,P1	ug/L	1.0	SW846 8260D	1	12/02/2022 02:33	PDK	A
1,2,3-Trichlorobenzene	2.0 U	U,P1	ug/L	2.0	SW846 8260D	1	12/02/2022 02:33	PDK	A
1,2,3-Trichloropropane	2.0 U	U,P1	ug/L	2.0	SW846 8260D	1	12/02/2022 02:33	PDK	A
1,2,4-Trichlorobenzene	2.0 U	U,P1	ug/L	2.0	SW846 8260D	1	12/02/2022 02:33	PDK	A
1,2-Dibromo-3-chloropropane	7.0 U	U,P1	ug/L	7.0	SW846 8260D	1	12/02/2022 02:33	PDK	A
1,2-Dibromoethane	1.0 U	U,P1	ug/L	1.0	SW846 8260D	1	12/02/2022 02:33	PDK	A
1,2-Dichlorobenzene	1.0 U	U,P1	ug/L	1.0	SW846 8260D	1	12/02/2022 02:33	PDK	A
1,2-Dichloroethane	1.0 U	U,P1	ug/L	1.0	SW846 8260D	1	12/02/2022 02:33	PDK	A
1,2-Dichloropropane	1.0 U	U,P1	ug/L	1.0	SW846 8260D	1	12/02/2022 02:33	PDK	A
1,3-Dichlorobenzene	1.0 U	U,P1	ug/L	1.0	SW846 8260D	1	12/02/2022 02:33	PDK	A
1,3-Dichloropropane	1.0 U	U,P1	ug/L	1.0	SW846 8260D	1	12/02/2022 02:33	PDK	A
1,4-Dichlorobenzene	1.0 U	U,P1	ug/L	1.0	SW846 8260D	1	12/02/2022 02:33	PDK	A
2,2-Dichloropropane	1.0 U	U,P1	ug/L	1.0	SW846 8260D	1	12/02/2022 02:33	PDK	A
2-Butanone	10.0 U	U,P1	ug/L	10.0	SW846 8260D	1	12/02/2022 02:33	PDK	A
2-Hexanone	5.0 U	U,P1	ug/L	5.0	SW846 8260D	1	12/02/2022 02:33	PDK	A
4-Methyl-2-Pentanone(MIBK)	5.0 U	U,P1	ug/L	5.0	SW846 8260D	1	12/02/2022 02:33	PDK	A
Acetone	10.0 U	U,P1	ug/L	10.0	SW846 8260D	1	12/02/2022 02:33	PDK	A
Benzene	1.0 U	U,P1	ug/L	1.0	SW846 8260D	1	12/02/2022 02:33	PDK	A
Bromobenzene	1.0 U	U,P1	ug/L	1.0	SW846 8260D	1	12/02/2022 02:33	PDK	A
Bromochloromethane	1.0 U	U,P1	ug/L	1.0	SW846 8260D	1	12/02/2022 02:33	PDK	A
Bromodichloromethane	1.0 U	U,P1	ug/L	1.0	SW846 8260D	1	12/02/2022 02:33	PDK	A
Bromoform	1.0 U	U,P1	ug/L	1.0	SW846 8260D	1	12/02/2022 02:33	PDK	A
Bromomethane	1.0 U	U,P1	ug/L	1.0	SW846 8260D	1	12/02/2022 02:33	PDK	A
Carbon Tetrachloride	1.0 U	U,P1	ug/L	1.0	SW846 8260D	1	12/02/2022 02:33	PDK	A
Chlorobenzene	1.0 U	U,P1	ug/L	1.0	SW846 8260D	1	12/02/2022 02:33	PDK	A
Chlorodibromomethane	1.0 U	U,P1	ug/L	1.0	SW846 8260D	1	12/02/2022 02:33	PDK	A
Chloroethane	1.0 U	U,P1	ug/L	1.0	SW846 8260D	1	12/02/2022 02:33	PDK	A



Results

Client Sample ID	MW-25D-130	Collected	11/21/2022 14:00
Lab Sample ID	3275166014	Lab Receipt	11/21/2022 17:40

VOLATILE ORGANICS (cont.)

Compound	Result	Flag	Units	RDL	Method	Dilution	Analysis Date/Time	By	Cntr
Chloroform	1.0 U	U,P1	ug/L	1.0	SW846 8260D	1	12/02/2022 02:33	PDK	A
Chloromethane	1.0 U	U,P1	ug/L	1.0	SW846 8260D	1	12/02/2022 02:33	PDK	A
cis-1,2-Dichloroethene	1.0 U	U,P1	ug/L	1.0	SW846 8260D	1	12/02/2022 02:33	PDK	A
cis-1,3-Dichloropropene	1.0 U	U,P1	ug/L	1.0	SW846 8260D	1	12/02/2022 02:33	PDK	A
Dibromomethane	1.0 U	U,P1	ug/L	1.0	SW846 8260D	1	12/02/2022 02:33	PDK	A
Dichlorodifluoromethane	1.0 U	U,P1	ug/L	1.0	SW846 8260D	1	12/02/2022 02:33	PDK	A
Diisopropyl ether	1.0 U	U,P1	ug/L	1.0	SW846 8260D	1	12/02/2022 02:33	PDK	A
Ethylbenzene	1.0 U	U,P1	ug/L	1.0	SW846 8260D	1	12/02/2022 02:33	PDK	A
Hexachlorobutadiene	5.0 U	U,P1	ug/L	5.0	SW846 8260D	1	12/02/2022 02:33	PDK	A
Methyl t-Butyl Ether	1.0 U	U,P1	ug/L	1.0	SW846 8260D	1	12/02/2022 02:33	PDK	A
Methylene Chloride	1.0 U	U,P1	ug/L	1.0	SW846 8260D	1	12/02/2022 02:33	PDK	A
mp-Xylene	2.0 U	U,P1	ug/L	2.0	SW846 8260D	1	12/02/2022 02:33	PDK	A
Naphthalene	2.0 U	U,P1	ug/L	2.0	SW846 8260D	1	12/02/2022 02:33	PDK	A
o-Chlorotoluene	1.0 U	U,P1	ug/L	1.0	SW846 8260D	1	12/02/2022 02:33	PDK	A
o-Xylene	1.0 U	U,P1	ug/L	1.0	SW846 8260D	1	12/02/2022 02:33	PDK	A
p-Chlorotoluene	1.0 U	U,P1	ug/L	1.0	SW846 8260D	1	12/02/2022 02:33	PDK	A
p-Isopropyltoluene	1.0 U	U,P1	ug/L	1.0	SW846 8260D	1	12/02/2022 02:33	PDK	A
Styrene	1.0 U	U,P1	ug/L	1.0	SW846 8260D	1	12/02/2022 02:33	PDK	A
Tetrachloroethene	1.0 U	U,P1	ug/L	1.0	SW846 8260D	1	12/02/2022 02:33	PDK	A
Toluene	1.0 U	U,P1	ug/L	1.0	SW846 8260D	1	12/02/2022 02:33	PDK	A
Total Xylenes	3.0 U	U,P1	ug/L	3.0	SW846 8260D	1	12/02/2022 02:33	PDK	A
trans-1,2-Dichloroethene	1.0 U	U,P1	ug/L	1.0	SW846 8260D	1	12/02/2022 02:33	PDK	A
trans-1,3-Dichloropropene	1.0 U	U,P1	ug/L	1.0	SW846 8260D	1	12/02/2022 02:33	PDK	A
Trichloroethene	1.0 U	U,P1	ug/L	1.0	SW846 8260D	1	12/02/2022 02:33	PDK	A
Trichlorofluoromethane	1.0 U	U,P1	ug/L	1.0	SW846 8260D	1	12/02/2022 02:33	PDK	A
Vinyl Acetate	5.0 U	U,P1	ug/L	5.0	SW846 8260D	1	12/02/2022 02:33	PDK	A
Vinyl Chloride	1.0 U	U,P1	ug/L	1.0	SW846 8260D	1	12/02/2022 02:33	PDK	A

SURROGATES

Compound	CAS No	Recovery	Limits(%)	Analysis Date/Time	Qualifiers
1,2-Dichloroethane-d4	17060-07-0	93%	62 - 133	12/02/2022 02:33	
4-Bromofluorobenzene	460-00-4	103%	79 - 114	12/02/2022 02:33	
Dibromofluoromethane	1868-53-7	92.3%	78 - 116	12/02/2022 02:33	
Toluene-d8	2037-26-5	95%	76 - 127	12/02/2022 02:33	



Results

Client Sample ID	MW-25D-190	Collected	11/21/2022 13:45
Lab Sample ID	3275166015	Lab Receipt	11/21/2022 17:40

SEMIVOLATILE SIM

Compound	Result	Flag	Units	RDL	Method	Dilution	Analysis Date/Time	By	Cntr
1,4-Dioxane	10.2	2,3,P1	ug/L	1.0	SW846 8270E SIM	1	11/29/2022 21:24	M1O	G

SURROGATES

Compound	CAS No	Recovery	Limits(%)	Analysis Date/Time	Qualifiers
2-Methylnapthalene-d10	7297-45-2	70.1%	29 - 112	11/29/2022 21:24	
Fluoranthene-d10	93951-69-0	87%	45 - 130	11/29/2022 21:24	

VOLATILE ORGANICS

Compound	Result	Flag	Units	RDL	Method	Dilution	Analysis Date/Time	By	Cntr
1,1,1,2-Tetrachloroethane	1.0 U	U,P1	ug/L	1.0	SW846 8260D	1	12/02/2022 02:55	PDK	A
1,1,1-Trichloroethane	3.7	P1	ug/L	1.0	SW846 8260D	1	12/02/2022 02:55	PDK	A
1,1,2,2-Tetrachloroethane	1.0 U	U,P1	ug/L	1.0	SW846 8260D	1	12/02/2022 02:55	PDK	A
1,1,2-Trichloroethane	1.0 U	U,P1	ug/L	1.0	SW846 8260D	1	12/02/2022 02:55	PDK	A
1,1-Dichloroethane	7.3	P1	ug/L	1.0	SW846 8260D	1	12/02/2022 02:55	PDK	A
1,1-Dichloroethene	29.1	P1	ug/L	1.0	SW846 8260D	1	12/02/2022 02:55	PDK	A
1,1-Dichloropropene	1.0 U	U,P1	ug/L	1.0	SW846 8260D	1	12/02/2022 02:55	PDK	A
1,2,3-Trichlorobenzene	2.0 U	U,P1	ug/L	2.0	SW846 8260D	1	12/02/2022 02:55	PDK	A
1,2,3-Trichloropropane	2.0 U	U,P1	ug/L	2.0	SW846 8260D	1	12/02/2022 02:55	PDK	A
1,2,4-Trichlorobenzene	2.0 U	U,P1	ug/L	2.0	SW846 8260D	1	12/02/2022 02:55	PDK	A
1,2-Dibromo-3-chloropropane	7.0 U	U,P1	ug/L	7.0	SW846 8260D	1	12/02/2022 02:55	PDK	A
1,2-Dibromoethane	1.0 U	U,P1	ug/L	1.0	SW846 8260D	1	12/02/2022 02:55	PDK	A
1,2-Dichlorobenzene	1.0 U	U,P1	ug/L	1.0	SW846 8260D	1	12/02/2022 02:55	PDK	A
1,2-Dichloroethane	1.0 U	U,P1	ug/L	1.0	SW846 8260D	1	12/02/2022 02:55	PDK	A
1,2-Dichloropropane	1.0 U	U,P1	ug/L	1.0	SW846 8260D	1	12/02/2022 02:55	PDK	A
1,3-Dichlorobenzene	1.0 U	U,P1	ug/L	1.0	SW846 8260D	1	12/02/2022 02:55	PDK	A
1,3-Dichloropropane	1.0 U	U,P1	ug/L	1.0	SW846 8260D	1	12/02/2022 02:55	PDK	A
1,4-Dichlorobenzene	1.0 U	U,P1	ug/L	1.0	SW846 8260D	1	12/02/2022 02:55	PDK	A
2,2-Dichloropropane	1.0 U	U,P1	ug/L	1.0	SW846 8260D	1	12/02/2022 02:55	PDK	A
2-Butanone	10.0 U	U,P1	ug/L	10.0	SW846 8260D	1	12/02/2022 02:55	PDK	A
2-Hexanone	5.0 U	U,P1	ug/L	5.0	SW846 8260D	1	12/02/2022 02:55	PDK	A
4-Methyl-2-Pentanone(MIBK)	5.0 U	U,P1	ug/L	5.0	SW846 8260D	1	12/02/2022 02:55	PDK	A
Acetone	10.0 U	U,P1	ug/L	10.0	SW846 8260D	1	12/02/2022 02:55	PDK	A
Benzene	1.0 U	U,P1	ug/L	1.0	SW846 8260D	1	12/02/2022 02:55	PDK	A
Bromobenzene	1.0 U	U,P1	ug/L	1.0	SW846 8260D	1	12/02/2022 02:55	PDK	A
Bromochloromethane	1.0 U	U,P1	ug/L	1.0	SW846 8260D	1	12/02/2022 02:55	PDK	A
Bromodichloromethane	1.0 U	U,P1	ug/L	1.0	SW846 8260D	1	12/02/2022 02:55	PDK	A
Bromoform	1.0 U	U,P1	ug/L	1.0	SW846 8260D	1	12/02/2022 02:55	PDK	A
Bromomethane	1.0 U	U,P1	ug/L	1.0	SW846 8260D	1	12/02/2022 02:55	PDK	A
Carbon Tetrachloride	1.0 U	U,P1	ug/L	1.0	SW846 8260D	1	12/02/2022 02:55	PDK	A
Chlorobenzene	1.0 U	U,P1	ug/L	1.0	SW846 8260D	1	12/02/2022 02:55	PDK	A
Chlorodibromomethane	1.0 U	U,P1	ug/L	1.0	SW846 8260D	1	12/02/2022 02:55	PDK	A
Chloroethane	1.0 U	U,P1	ug/L	1.0	SW846 8260D	1	12/02/2022 02:55	PDK	A
Chloroform	1.0 U	U,P1	ug/L	1.0	SW846 8260D	1	12/02/2022 02:55	PDK	A
Chloromethane	1.0 U	U,P1	ug/L	1.0	SW846 8260D	1	12/02/2022 02:55	PDK	A



Results

Client Sample ID	MW-25D-190	Collected	11/21/2022 13:45
Lab Sample ID	3275166015	Lab Receipt	11/21/2022 17:40

VOLATILE ORGANICS (cont.)

Compound	Result	Flag	Units	RDL	Method	Dilution	Analysis Date/Time	By	Cntr
cis-1,2-Dichloroethene	1.0 U	U,P1	ug/L	1.0	SW846 8260D	1	12/02/2022 02:55	PDK	A
cis-1,3-Dichloropropene	1.0 U	U,P1	ug/L	1.0	SW846 8260D	1	12/02/2022 02:55	PDK	A
Dibromomethane	1.0 U	U,P1	ug/L	1.0	SW846 8260D	1	12/02/2022 02:55	PDK	A
Dichlorodifluoromethane	1.0 U	U,P1	ug/L	1.0	SW846 8260D	1	12/02/2022 02:55	PDK	A
Diisopropyl ether	1.0 U	U,P1	ug/L	1.0	SW846 8260D	1	12/02/2022 02:55	PDK	A
Ethylbenzene	1.0 U	U,P1	ug/L	1.0	SW846 8260D	1	12/02/2022 02:55	PDK	A
Hexachlorobutadiene	5.0 U	U,P1	ug/L	5.0	SW846 8260D	1	12/02/2022 02:55	PDK	A
Methyl t-Butyl Ether	1.2	P1	ug/L	1.0	SW846 8260D	1	12/02/2022 02:55	PDK	A
Methylene Chloride	1.0 U	U,P1	ug/L	1.0	SW846 8260D	1	12/02/2022 02:55	PDK	A
mp-Xylene	2.0 U	U,P1	ug/L	2.0	SW846 8260D	1	12/02/2022 02:55	PDK	A
Naphthalene	2.0 U	U,P1	ug/L	2.0	SW846 8260D	1	12/02/2022 02:55	PDK	A
o-Chlorotoluene	1.0 U	U,P1	ug/L	1.0	SW846 8260D	1	12/02/2022 02:55	PDK	A
o-Xylene	1.0 U	U,P1	ug/L	1.0	SW846 8260D	1	12/02/2022 02:55	PDK	A
p-Chlorotoluene	1.0 U	U,P1	ug/L	1.0	SW846 8260D	1	12/02/2022 02:55	PDK	A
p-Isopropyltoluene	1.0 U	U,P1	ug/L	1.0	SW846 8260D	1	12/02/2022 02:55	PDK	A
Styrene	1.0 U	U,P1	ug/L	1.0	SW846 8260D	1	12/02/2022 02:55	PDK	A
Tetrachloroethene	1.0 U	U,P1	ug/L	1.0	SW846 8260D	1	12/02/2022 02:55	PDK	A
Toluene	1.0 U	U,P1	ug/L	1.0	SW846 8260D	1	12/02/2022 02:55	PDK	A
Total Xylenes	3.0 U	U,P1	ug/L	3.0	SW846 8260D	1	12/02/2022 02:55	PDK	A
trans-1,2-Dichloroethene	1.0 U	U,P1	ug/L	1.0	SW846 8260D	1	12/02/2022 02:55	PDK	A
trans-1,3-Dichloropropene	1.0 U	U,P1	ug/L	1.0	SW846 8260D	1	12/02/2022 02:55	PDK	A
Trichloroethene	1.0 U	U,P1	ug/L	1.0	SW846 8260D	1	12/02/2022 02:55	PDK	A
Trichlorofluoromethane	1.0 U	U,P1	ug/L	1.0	SW846 8260D	1	12/02/2022 02:55	PDK	A
Vinyl Acetate	5.0 U	U,P1	ug/L	5.0	SW846 8260D	1	12/02/2022 02:55	PDK	A
Vinyl Chloride	1.0 U	U,P1	ug/L	1.0	SW846 8260D	1	12/02/2022 02:55	PDK	A

SURROGATES

Compound	CAS No	Recovery	Limits(%)	Analysis Date/Time	Qualifiers
1,2-Dichloroethane-d4	17060-07-0	94.8%	62 - 133	12/02/2022 02:55	
4-Bromofluorobenzene	460-00-4	103%	79 - 114	12/02/2022 02:55	
Dibromofluoromethane	1868-53-7	93.4%	78 - 116	12/02/2022 02:55	
Toluene-d8	2037-26-5	95.2%	76 - 127	12/02/2022 02:55	



Results

Client Sample ID	Dup-112122	Collected	11/21/2022 12:10
Lab Sample ID	3275166016	Lab Receipt	11/21/2022 17:40

SEMIVOLATILE SIM

Compound	Result	Flag	Units	RDL	Method	Dilution	Analysis Date/Time	By	Cntr
1,4-Dioxane	19.1	P1	ug/L	2.5	SW846 8270E SIM	1	11/29/2022 21:50	M1O	C

SURROGATES

Compound	CAS No	Recovery	Limits(%)	Analysis Date/Time	Qualifiers
2-Methylnaphthalene-d10	7297-45-2	67%	29 - 112	11/29/2022 21:50	
Fluoranthene-d10	93951-69-0	76.7%	45 - 130	11/29/2022 21:50	

VOLATILE ORGANICS

Compound	Result	Flag	Units	RDL	Method	Dilution	Analysis Date/Time	By	Cntr
1,1,1,2-Tetrachloroethane	1.0 U	U,P1	ug/L	1.0	SW846 8260D	1	12/02/2022 03:18	PDK	A
1,1,1-Trichloroethane	5.6	P1	ug/L	1.0	SW846 8260D	1	12/02/2022 03:18	PDK	A
1,1,2,2-Tetrachloroethane	1.0 U	U,P1	ug/L	1.0	SW846 8260D	1	12/02/2022 03:18	PDK	A
1,1,2-Trichloroethane	1.0 U	U,P1	ug/L	1.0	SW846 8260D	1	12/02/2022 03:18	PDK	A
1,1-Dichloroethane	5.3	P1	ug/L	1.0	SW846 8260D	1	12/02/2022 03:18	PDK	A
1,1-Dichloroethene	76.2	P1	ug/L	1.0	SW846 8260D	1	12/02/2022 03:18	PDK	A
1,1-Dichloropropene	1.0 U	U,P1	ug/L	1.0	SW846 8260D	1	12/02/2022 03:18	PDK	A
1,2,3-Trichlorobenzene	2.0 U	U,P1	ug/L	2.0	SW846 8260D	1	12/02/2022 03:18	PDK	A
1,2,3-Trichloropropane	2.0 U	U,P1	ug/L	2.0	SW846 8260D	1	12/02/2022 03:18	PDK	A
1,2,4-Trichlorobenzene	2.0 U	U,P1	ug/L	2.0	SW846 8260D	1	12/02/2022 03:18	PDK	A
1,2-Dibromo-3-chloropropane	7.0 U	U,P1	ug/L	7.0	SW846 8260D	1	12/02/2022 03:18	PDK	A
1,2-Dibromoethane	1.0 U	U,P1	ug/L	1.0	SW846 8260D	1	12/02/2022 03:18	PDK	A
1,2-Dichlorobenzene	1.0 U	U,P1	ug/L	1.0	SW846 8260D	1	12/02/2022 03:18	PDK	A
1,2-Dichloroethane	1.0 U	U,P1	ug/L	1.0	SW846 8260D	1	12/02/2022 03:18	PDK	A
1,2-Dichloropropane	1.0 U	U,P1	ug/L	1.0	SW846 8260D	1	12/02/2022 03:18	PDK	A
1,3-Dichlorobenzene	1.0 U	U,P1	ug/L	1.0	SW846 8260D	1	12/02/2022 03:18	PDK	A
1,3-Dichloropropane	1.0 U	U,P1	ug/L	1.0	SW846 8260D	1	12/02/2022 03:18	PDK	A
1,4-Dichlorobenzene	1.0 U	U,P1	ug/L	1.0	SW846 8260D	1	12/02/2022 03:18	PDK	A
2,2-Dichloropropane	1.0 U	U,P1	ug/L	1.0	SW846 8260D	1	12/02/2022 03:18	PDK	A
2-Butanone	10.0 U	U,P1	ug/L	10.0	SW846 8260D	1	12/02/2022 03:18	PDK	A
2-Hexanone	5.0 U	U,P1	ug/L	5.0	SW846 8260D	1	12/02/2022 03:18	PDK	A
4-Methyl-2-Pentanone(MIBK)	5.0 U	U,P1	ug/L	5.0	SW846 8260D	1	12/02/2022 03:18	PDK	A
Acetone	10.0 U	U,P1	ug/L	10.0	SW846 8260D	1	12/02/2022 03:18	PDK	A
Benzene	1.0 U	U,P1	ug/L	1.0	SW846 8260D	1	12/02/2022 03:18	PDK	A
Bromobenzene	1.0 U	U,P1	ug/L	1.0	SW846 8260D	1	12/02/2022 03:18	PDK	A
Bromochloromethane	1.0 U	U,P1	ug/L	1.0	SW846 8260D	1	12/02/2022 03:18	PDK	A
Bromodichloromethane	1.0 U	U,P1	ug/L	1.0	SW846 8260D	1	12/02/2022 03:18	PDK	A
Bromoform	1.0 U	U,P1	ug/L	1.0	SW846 8260D	1	12/02/2022 03:18	PDK	A
Bromomethane	1.0 U	U,P1	ug/L	1.0	SW846 8260D	1	12/02/2022 03:18	PDK	A
Carbon Tetrachloride	1.0 U	U,P1	ug/L	1.0	SW846 8260D	1	12/02/2022 03:18	PDK	A
Chlorobenzene	1.0 U	U,P1	ug/L	1.0	SW846 8260D	1	12/02/2022 03:18	PDK	A
Chlorodibromomethane	1.0 U	U,P1	ug/L	1.0	SW846 8260D	1	12/02/2022 03:18	PDK	A
Chloroethane	1.0 U	U,P1	ug/L	1.0	SW846 8260D	1	12/02/2022 03:18	PDK	A
Chloroform	1.0 U	U,P1	ug/L	1.0	SW846 8260D	1	12/02/2022 03:18	PDK	A
Chloromethane	1.0 U	U,P1	ug/L	1.0	SW846 8260D	1	12/02/2022 03:18	PDK	A



Results

Client Sample ID	Dup-112122	Collected	11/21/2022 12:10
Lab Sample ID	3275166016	Lab Receipt	11/21/2022 17:40

VOLATILE ORGANICS (cont.)

Compound	Result	Flag	Units	RDL	Method	Dilution	Analysis Date/Time	By	Cntr
cis-1,2-Dichloroethene	1.0 U	U,P1	ug/L	1.0	SW846 8260D	1	12/02/2022 03:18	PDK	A
cis-1,3-Dichloropropene	1.0 U	U,P1	ug/L	1.0	SW846 8260D	1	12/02/2022 03:18	PDK	A
Dibromomethane	1.0 U	U,P1	ug/L	1.0	SW846 8260D	1	12/02/2022 03:18	PDK	A
Dichlorodifluoromethane	1.0 U	U,P1	ug/L	1.0	SW846 8260D	1	12/02/2022 03:18	PDK	A
Diisopropyl ether	1.0 U	U,P1	ug/L	1.0	SW846 8260D	1	12/02/2022 03:18	PDK	A
Ethylbenzene	1.0 U	U,P1	ug/L	1.0	SW846 8260D	1	12/02/2022 03:18	PDK	A
Hexachlorobutadiene	5.0 U	U,P1	ug/L	5.0	SW846 8260D	1	12/02/2022 03:18	PDK	A
Methyl t-Butyl Ether	1.0 U	U,P1	ug/L	1.0	SW846 8260D	1	12/02/2022 03:18	PDK	A
Methylene Chloride	1.0 U	U,P1	ug/L	1.0	SW846 8260D	1	12/02/2022 03:18	PDK	A
mp-Xylene	2.0 U	U,P1	ug/L	2.0	SW846 8260D	1	12/02/2022 03:18	PDK	A
Naphthalene	2.0 U	U,P1	ug/L	2.0	SW846 8260D	1	12/02/2022 03:18	PDK	A
o-Chlorotoluene	1.0 U	U,P1	ug/L	1.0	SW846 8260D	1	12/02/2022 03:18	PDK	A
o-Xylene	1.0 U	U,P1	ug/L	1.0	SW846 8260D	1	12/02/2022 03:18	PDK	A
p-Chlorotoluene	1.0 U	U,P1	ug/L	1.0	SW846 8260D	1	12/02/2022 03:18	PDK	A
p-Isopropyltoluene	1.0 U	U,P1	ug/L	1.0	SW846 8260D	1	12/02/2022 03:18	PDK	A
Styrene	1.0 U	U,P1	ug/L	1.0	SW846 8260D	1	12/02/2022 03:18	PDK	A
Tetrachloroethene	1.0 U	U,P1	ug/L	1.0	SW846 8260D	1	12/02/2022 03:18	PDK	A
Toluene	1.0 U	U,P1	ug/L	1.0	SW846 8260D	1	12/02/2022 03:18	PDK	A
Total Xylenes	3.0 U	U,P1	ug/L	3.0	SW846 8260D	1	12/02/2022 03:18	PDK	A
trans-1,2-Dichloroethene	1.0 U	U,P1	ug/L	1.0	SW846 8260D	1	12/02/2022 03:18	PDK	A
trans-1,3-Dichloropropene	1.0 U	U,P1	ug/L	1.0	SW846 8260D	1	12/02/2022 03:18	PDK	A
Trichloroethene	1.0 U	U,P1	ug/L	1.0	SW846 8260D	1	12/02/2022 03:18	PDK	A
Trichlorofluoromethane	1.0 U	U,P1	ug/L	1.0	SW846 8260D	1	12/02/2022 03:18	PDK	A
Vinyl Acetate	5.0 U	U,P1	ug/L	5.0	SW846 8260D	1	12/02/2022 03:18	PDK	A
Vinyl Chloride	1.0 U	U,P1	ug/L	1.0	SW846 8260D	1	12/02/2022 03:18	PDK	A

SURROGATES

Compound	CAS No	Recovery	Limits(%)	Analysis Date/Time	Qualifiers
1,2-Dichloroethane-d4	17060-07-0	94.4%	62 - 133	12/02/2022 03:18	
4-Bromofluorobenzene	460-00-4	103%	79 - 114	12/02/2022 03:18	
Dibromofluoromethane	1868-53-7	92%	78 - 116	12/02/2022 03:18	
Toluene-d8	2037-26-5	95%	76 - 127	12/02/2022 03:18	



Results

Client Sample ID	Trip Blank-C	Collected	11/21/2022 12:10
Lab Sample ID	3275166017	Lab Receipt	11/21/2022 17:40

VOLATILE ORGANICS

Compound	Result	Flag	Units	RDL	Method	Dilution	Analysis Date/Time	By	Cntr
1,1,1,2-Tetrachloroethane	1.0 U	U,P1	ug/L	1.0	SW846 8260D	1	12/02/2022 00:39	PDK	A
1,1,1-Trichloroethane	1.0 U	U,P1	ug/L	1.0	SW846 8260D	1	12/02/2022 00:39	PDK	A
1,1,2,2-Tetrachloroethane	1.0 U	U,P1	ug/L	1.0	SW846 8260D	1	12/02/2022 00:39	PDK	A
1,1,2-Trichloroethane	1.0 U	U,P1	ug/L	1.0	SW846 8260D	1	12/02/2022 00:39	PDK	A
1,1-Dichloroethane	1.0 U	U,P1	ug/L	1.0	SW846 8260D	1	12/02/2022 00:39	PDK	A
1,1-Dichloroethene	1.0 U	U,P1	ug/L	1.0	SW846 8260D	1	12/02/2022 00:39	PDK	A
1,1-Dichloropropene	1.0 U	U,P1	ug/L	1.0	SW846 8260D	1	12/02/2022 00:39	PDK	A
1,2,3-Trichlorobenzene	2.0 U	U,P1	ug/L	2.0	SW846 8260D	1	12/02/2022 00:39	PDK	A
1,2,3-Trichloropropane	2.0 U	U,P1	ug/L	2.0	SW846 8260D	1	12/02/2022 00:39	PDK	A
1,2,4-Trichlorobenzene	2.0 U	U,P1	ug/L	2.0	SW846 8260D	1	12/02/2022 00:39	PDK	A
1,2-Dibromo-3-chloropropane	7.0 U	U,P1	ug/L	7.0	SW846 8260D	1	12/02/2022 00:39	PDK	A
1,2-Dibromoethane	1.0 U	U,P1	ug/L	1.0	SW846 8260D	1	12/02/2022 00:39	PDK	A
1,2-Dichlorobenzene	1.0 U	U,P1	ug/L	1.0	SW846 8260D	1	12/02/2022 00:39	PDK	A
1,2-Dichloroethane	1.0 U	U,P1	ug/L	1.0	SW846 8260D	1	12/02/2022 00:39	PDK	A
1,2-Dichloropropane	1.0 U	U,P1	ug/L	1.0	SW846 8260D	1	12/02/2022 00:39	PDK	A
1,3-Dichlorobenzene	1.0 U	U,P1	ug/L	1.0	SW846 8260D	1	12/02/2022 00:39	PDK	A
1,3-Dichloropropane	1.0 U	U,P1	ug/L	1.0	SW846 8260D	1	12/02/2022 00:39	PDK	A
1,4-Dichlorobenzene	1.0 U	U,P1	ug/L	1.0	SW846 8260D	1	12/02/2022 00:39	PDK	A
2,2-Dichloropropane	1.0 U	U,P1	ug/L	1.0	SW846 8260D	1	12/02/2022 00:39	PDK	A
2-Butanone	10.0 U	U,P1	ug/L	10.0	SW846 8260D	1	12/02/2022 00:39	PDK	A
2-Hexanone	5.0 U	U,P1	ug/L	5.0	SW846 8260D	1	12/02/2022 00:39	PDK	A
4-Methyl-2-Pentanone(MIBK)	5.0 U	U,P1	ug/L	5.0	SW846 8260D	1	12/02/2022 00:39	PDK	A
Acetone	10.0 U	U,P1	ug/L	10.0	SW846 8260D	1	12/02/2022 00:39	PDK	A
Benzene	1.0 U	U,P1	ug/L	1.0	SW846 8260D	1	12/02/2022 00:39	PDK	A
Bromobenzene	1.0 U	U,P1	ug/L	1.0	SW846 8260D	1	12/02/2022 00:39	PDK	A
Bromochloromethane	1.0 U	U,P1	ug/L	1.0	SW846 8260D	1	12/02/2022 00:39	PDK	A
Bromodichloromethane	1.0 U	U,P1	ug/L	1.0	SW846 8260D	1	12/02/2022 00:39	PDK	A
Bromoform	1.0 U	U,P1	ug/L	1.0	SW846 8260D	1	12/02/2022 00:39	PDK	A
Bromomethane	1.0 U	U,P1	ug/L	1.0	SW846 8260D	1	12/02/2022 00:39	PDK	A
Carbon Tetrachloride	1.0 U	U,P1	ug/L	1.0	SW846 8260D	1	12/02/2022 00:39	PDK	A
Chlorobenzene	1.0 U	U,P1	ug/L	1.0	SW846 8260D	1	12/02/2022 00:39	PDK	A
Chlorodibromomethane	1.0 U	U,P1	ug/L	1.0	SW846 8260D	1	12/02/2022 00:39	PDK	A
Chloroethane	1.0 U	U,P1	ug/L	1.0	SW846 8260D	1	12/02/2022 00:39	PDK	A
Chloroform	1.1	P1	ug/L	1.0	SW846 8260D	1	12/02/2022 00:39	PDK	A
Chloromethane	1.0 U	U,P1	ug/L	1.0	SW846 8260D	1	12/02/2022 00:39	PDK	A
cis-1,2-Dichloroethene	1.0 U	U,P1	ug/L	1.0	SW846 8260D	1	12/02/2022 00:39	PDK	A
cis-1,3-Dichloropropene	1.0 U	U,P1	ug/L	1.0	SW846 8260D	1	12/02/2022 00:39	PDK	A
Dibromomethane	1.0 U	U,P1	ug/L	1.0	SW846 8260D	1	12/02/2022 00:39	PDK	A
Dichlorodifluoromethane	1.0 U	U,P1	ug/L	1.0	SW846 8260D	1	12/02/2022 00:39	PDK	A
Diisopropyl ether	1.0 U	U,P1	ug/L	1.0	SW846 8260D	1	12/02/2022 00:39	PDK	A
Ethylbenzene	1.0 U	U,P1	ug/L	1.0	SW846 8260D	1	12/02/2022 00:39	PDK	A
Hexachlorobutadiene	5.0 U	U,P1	ug/L	5.0	SW846 8260D	1	12/02/2022 00:39	PDK	A
Methyl t-Butyl Ether	1.0 U	U,P1	ug/L	1.0	SW846 8260D	1	12/02/2022 00:39	PDK	A
Methylene Chloride	1.0 U	U,P1	ug/L	1.0	SW846 8260D	1	12/02/2022 00:39	PDK	A
mp-Xylene	2.0 U	U,P1	ug/L	2.0	SW846 8260D	1	12/02/2022 00:39	PDK	A
Naphthalene	2.0 U	U,P1	ug/L	2.0	SW846 8260D	1	12/02/2022 00:39	PDK	A
o-Chlorotoluene	1.0 U	U,P1	ug/L	1.0	SW846 8260D	1	12/02/2022 00:39	PDK	A



Results

Client Sample ID	Trip Blank-C	Collected	11/21/2022 12:10
Lab Sample ID	3275166017	Lab Receipt	11/21/2022 17:40

VOLATILE ORGANICS (cont.)

Compound	Result	Flag	Units	RDL	Method	Dilution	Analysis Date/Time	By	Cntr
o-Xylene	1.0 U	U,P1	ug/L	1.0	SW846 8260D	1	12/02/2022 00:39	PDK	A
p-Chlorotoluene	1.0 U	U,P1	ug/L	1.0	SW846 8260D	1	12/02/2022 00:39	PDK	A
p-Isopropyltoluene	1.0 U	U,P1	ug/L	1.0	SW846 8260D	1	12/02/2022 00:39	PDK	A
Styrene	1.0 U	U,P1	ug/L	1.0	SW846 8260D	1	12/02/2022 00:39	PDK	A
Tetrachloroethene	1.0 U	U,P1	ug/L	1.0	SW846 8260D	1	12/02/2022 00:39	PDK	A
Toluene	1.0 U	U,P1	ug/L	1.0	SW846 8260D	1	12/02/2022 00:39	PDK	A
Total Xylenes	3.0 U	U,P1	ug/L	3.0	SW846 8260D	1	12/02/2022 00:39	PDK	A
trans-1,2-Dichloroethene	1.0 U	U,P1	ug/L	1.0	SW846 8260D	1	12/02/2022 00:39	PDK	A
trans-1,3-Dichloropropene	1.0 U	U,P1	ug/L	1.0	SW846 8260D	1	12/02/2022 00:39	PDK	A
Trichloroethene	1.0 U	U,P1	ug/L	1.0	SW846 8260D	1	12/02/2022 00:39	PDK	A
Trichlorofluoromethane	1.0 U	U,P1	ug/L	1.0	SW846 8260D	1	12/02/2022 00:39	PDK	A
Vinyl Acetate	5.0 U	U,P1	ug/L	5.0	SW846 8260D	1	12/02/2022 00:39	PDK	A
Vinyl Chloride	1.0 U	U,P1	ug/L	1.0	SW846 8260D	1	12/02/2022 00:39	PDK	A

SURROGATES

Compound	CAS No	Recovery	Limits(%)	Analysis Date/Time	Qualifiers
1,2-Dichloroethane-d4	17060-07-0	92.4%	62 - 133	12/02/2022 00:39	
4-Bromofluorobenzene	460-00-4	102%	79 - 114	12/02/2022 00:39	
Dibromofluoromethane	1868-53-7	89.9%	78 - 116	12/02/2022 00:39	
Toluene-d8	2037-26-5	94.4%	76 - 127	12/02/2022 00:39	



Results

Client Sample ID	Trip Blank-D	Collected	11/21/2022 12:10
Lab Sample ID	3275166018	Lab Receipt	11/21/2022 17:40

VOLATILE ORGANICS

Compound	Result	Flag	Units	RDL	Method	Dilution	Analysis Date/Time	By	Cntr
1,1,1,2-Tetrachloroethane	1.0 U	U,P1	ug/L	1.0	SW846 8260D	1	12/02/2022 01:02	PDK	A
1,1,1-Trichloroethane	1.0 U	U,P1	ug/L	1.0	SW846 8260D	1	12/02/2022 01:02	PDK	A
1,1,2,2-Tetrachloroethane	1.0 U	U,P1	ug/L	1.0	SW846 8260D	1	12/02/2022 01:02	PDK	A
1,1,2-Trichloroethane	1.0 U	U,P1	ug/L	1.0	SW846 8260D	1	12/02/2022 01:02	PDK	A
1,1-Dichloroethane	1.0 U	U,P1	ug/L	1.0	SW846 8260D	1	12/02/2022 01:02	PDK	A
1,1-Dichloroethene	1.0 U	U,P1	ug/L	1.0	SW846 8260D	1	12/02/2022 01:02	PDK	A
1,1-Dichloropropene	1.0 U	U,P1	ug/L	1.0	SW846 8260D	1	12/02/2022 01:02	PDK	A
1,2,3-Trichlorobenzene	2.0 U	U,P1	ug/L	2.0	SW846 8260D	1	12/02/2022 01:02	PDK	A
1,2,3-Trichloropropane	2.0 U	U,P1	ug/L	2.0	SW846 8260D	1	12/02/2022 01:02	PDK	A
1,2,4-Trichlorobenzene	2.0 U	U,P1	ug/L	2.0	SW846 8260D	1	12/02/2022 01:02	PDK	A
1,2-Dibromo-3-chloropropane	7.0 U	U,P1	ug/L	7.0	SW846 8260D	1	12/02/2022 01:02	PDK	A
1,2-Dibromoethane	1.0 U	U,P1	ug/L	1.0	SW846 8260D	1	12/02/2022 01:02	PDK	A
1,2-Dichlorobenzene	1.0 U	U,P1	ug/L	1.0	SW846 8260D	1	12/02/2022 01:02	PDK	A
1,2-Dichloroethane	1.0 U	U,P1	ug/L	1.0	SW846 8260D	1	12/02/2022 01:02	PDK	A
1,2-Dichloropropane	1.0 U	U,P1	ug/L	1.0	SW846 8260D	1	12/02/2022 01:02	PDK	A
1,3-Dichlorobenzene	1.0 U	U,P1	ug/L	1.0	SW846 8260D	1	12/02/2022 01:02	PDK	A
1,3-Dichloropropane	1.0 U	U,P1	ug/L	1.0	SW846 8260D	1	12/02/2022 01:02	PDK	A
1,4-Dichlorobenzene	1.0 U	U,P1	ug/L	1.0	SW846 8260D	1	12/02/2022 01:02	PDK	A
2,2-Dichloropropane	1.0 U	U,P1	ug/L	1.0	SW846 8260D	1	12/02/2022 01:02	PDK	A
2-Butanone	10.0 U	U,P1	ug/L	10.0	SW846 8260D	1	12/02/2022 01:02	PDK	A
2-Hexanone	5.0 U	U,P1	ug/L	5.0	SW846 8260D	1	12/02/2022 01:02	PDK	A
4-Methyl-2-Pentanone(MIBK)	5.0 U	U,P1	ug/L	5.0	SW846 8260D	1	12/02/2022 01:02	PDK	A
Acetone	10.0 U	U,P1	ug/L	10.0	SW846 8260D	1	12/02/2022 01:02	PDK	A
Benzene	1.0 U	U,P1	ug/L	1.0	SW846 8260D	1	12/02/2022 01:02	PDK	A
Bromobenzene	1.0 U	U,P1	ug/L	1.0	SW846 8260D	1	12/02/2022 01:02	PDK	A
Bromochloromethane	1.0 U	U,P1	ug/L	1.0	SW846 8260D	1	12/02/2022 01:02	PDK	A
Bromodichloromethane	1.0 U	U,P1	ug/L	1.0	SW846 8260D	1	12/02/2022 01:02	PDK	A
Bromoform	1.0 U	U,P1	ug/L	1.0	SW846 8260D	1	12/02/2022 01:02	PDK	A
Bromomethane	1.0 U	U,P1	ug/L	1.0	SW846 8260D	1	12/02/2022 01:02	PDK	A
Carbon Tetrachloride	1.0 U	U,P1	ug/L	1.0	SW846 8260D	1	12/02/2022 01:02	PDK	A
Chlorobenzene	1.0 U	U,P1	ug/L	1.0	SW846 8260D	1	12/02/2022 01:02	PDK	A
Chlorodibromomethane	1.0 U	U,P1	ug/L	1.0	SW846 8260D	1	12/02/2022 01:02	PDK	A
Chloroethane	1.0 U	U,P1	ug/L	1.0	SW846 8260D	1	12/02/2022 01:02	PDK	A
Chloroform	1.1	P1	ug/L	1.0	SW846 8260D	1	12/02/2022 01:02	PDK	A
Chloromethane	1.0 U	U,P1	ug/L	1.0	SW846 8260D	1	12/02/2022 01:02	PDK	A
cis-1,2-Dichloroethene	1.0 U	U,P1	ug/L	1.0	SW846 8260D	1	12/02/2022 01:02	PDK	A
cis-1,3-Dichloropropene	1.0 U	U,P1	ug/L	1.0	SW846 8260D	1	12/02/2022 01:02	PDK	A
Dibromomethane	1.0 U	U,P1	ug/L	1.0	SW846 8260D	1	12/02/2022 01:02	PDK	A
Dichlorodifluoromethane	1.0 U	U,P1	ug/L	1.0	SW846 8260D	1	12/02/2022 01:02	PDK	A
Diisopropyl ether	1.0 U	U,P1	ug/L	1.0	SW846 8260D	1	12/02/2022 01:02	PDK	A
Ethylbenzene	1.0 U	U,P1	ug/L	1.0	SW846 8260D	1	12/02/2022 01:02	PDK	A
Hexachlorobutadiene	5.0 U	U,P1	ug/L	5.0	SW846 8260D	1	12/02/2022 01:02	PDK	A
Methyl t-Butyl Ether	1.0 U	U,P1	ug/L	1.0	SW846 8260D	1	12/02/2022 01:02	PDK	A
Methylene Chloride	1.0 U	U,P1	ug/L	1.0	SW846 8260D	1	12/02/2022 01:02	PDK	A
mp-Xylene	2.0 U	U,P1	ug/L	2.0	SW846 8260D	1	12/02/2022 01:02	PDK	A
Naphthalene	2.0 U	U,P1	ug/L	2.0	SW846 8260D	1	12/02/2022 01:02	PDK	A
o-Chlorotoluene	1.0 U	U,P1	ug/L	1.0	SW846 8260D	1	12/02/2022 01:02	PDK	A



Results

Client Sample ID	Trip Blank-D	Collected	11/21/2022 12:10
Lab Sample ID	3275166018	Lab Receipt	11/21/2022 17:40

VOLATILE ORGANICS (cont.)

Compound	Result	Flag	Units	RDL	Method	Dilution	Analysis Date/Time	By	Cntr
o-Xylene	1.0 U	U,P1	ug/L	1.0	SW846 8260D	1	12/02/2022 01:02	PDK	A
p-Chlorotoluene	1.0 U	U,P1	ug/L	1.0	SW846 8260D	1	12/02/2022 01:02	PDK	A
p-Isopropyltoluene	1.0 U	U,P1	ug/L	1.0	SW846 8260D	1	12/02/2022 01:02	PDK	A
Styrene	1.0 U	U,P1	ug/L	1.0	SW846 8260D	1	12/02/2022 01:02	PDK	A
Tetrachloroethene	1.0 U	U,P1	ug/L	1.0	SW846 8260D	1	12/02/2022 01:02	PDK	A
Toluene	1.0 U	U,P1	ug/L	1.0	SW846 8260D	1	12/02/2022 01:02	PDK	A
Total Xylenes	3.0 U	U,P1	ug/L	3.0	SW846 8260D	1	12/02/2022 01:02	PDK	A
trans-1,2-Dichloroethene	1.0 U	U,P1	ug/L	1.0	SW846 8260D	1	12/02/2022 01:02	PDK	A
trans-1,3-Dichloropropene	1.0 U	U,P1	ug/L	1.0	SW846 8260D	1	12/02/2022 01:02	PDK	A
Trichloroethene	1.0 U	U,P1	ug/L	1.0	SW846 8260D	1	12/02/2022 01:02	PDK	A
Trichlorofluoromethane	1.0 U	U,P1	ug/L	1.0	SW846 8260D	1	12/02/2022 01:02	PDK	A
Vinyl Acetate	5.0 U	U,P1	ug/L	5.0	SW846 8260D	1	12/02/2022 01:02	PDK	A
Vinyl Chloride	1.0 U	U,P1	ug/L	1.0	SW846 8260D	1	12/02/2022 01:02	PDK	A

SURROGATES

Compound	CAS No	Recovery	Limits(%)	Analysis Date/Time	Qualifiers
1,2-Dichloroethane-d4	17060-07-0	94.7%	62 – 133	12/02/2022 01:02	
4-Bromofluorobenzene	460-00-4	103%	79 – 114	12/02/2022 01:02	
Dibromofluoromethane	1868-53-7	92.4%	78 – 116	12/02/2022 01:02	
Toluene-d8	2037-26-5	94.6%	76 – 127	12/02/2022 01:02	



Sample - Method Cross Reference Table

Lab ID	Sample ID	Analysis Method	Preparation Method	Leachate Method
3275166001	MW-34D	SW846 8270E SIM SW846 8260D	SW846 3510C N/A	
3275166002	MW-35D	SW846 8270E SIM SW846 8260D	SW846 3510C N/A	
3275166003	MW-33D-235	SW846 8270E SIM SW846 8260D	SW846 3510C N/A	
3275166004	MW-33D-295	SW846 8270E SIM SW846 8260D	SW846 3510C N/A	
3275166005	MW-31D	SW846 8270E SIM SW846 8260D	SW846 3510C N/A	
3275166006	MW-29D	SW846 8270E SIM SW846 8260D	SW846 3510C N/A	
3275166007	MW-30D-273	SW846 8270E SIM SW846 8260D	SW846 3510C N/A	
3275166008	MW-30D-413	SW846 8270E SIM SW846 8260D	SW846 3510C N/A	
3275166009	MW-32D	SW846 8270E SIM SW846 8260D	SW846 3510C N/A	
3275166010	MW-28D	SW846 8270E SIM SW846 8260D	SW846 3510C N/A	
3275166011	MW-36D	SW846 8270E SIM SW846 8260D	SW846 3510C N/A	
3275166012	MW-45	SW846 8270E SIM SW846 8260D	SW846 3510C N/A	
3275166013	MW-24D	SW846 8270E SIM SW846 8260D SW846 8260D	SW846 3510C N/A N/A	
3275166014	MW-25D-130	SW846 8270E SIM SW846 8260D	SW846 3510C N/A	
3275166015	MW-25D-190	SW846 8270E SIM SW846 8260D	SW846 3510C N/A	
3275166016	Dup-112122	SW846 8270E SIM SW846 8260D	SW846 3510C N/A	
3275166017	Trip Blank-C	SW846 8260D	N/A	
3275166018	Trip Blank-D	SW846 8260D	N/A	



QUALITY CONTROL SAMPLES

SEMIVOLATILE SIM

QC Batch			
QC Batch	912308	Prep Method	SW846 3510C
Date	11/25/2022 06:25	Analysis Method	SW846 8270E SIM
Tech.	MXL		

Associated Samples			
3275166003	3275166004	3275166005	3275166001
3275166006	3275166002	3275166007	

Matrix Spike 3591159 (MS) 3275168012 (non-Project Sample) For QC Batch 912308

****NOTE - The Original Result shown below is a raw result and is only used for the purpose of calculating Matrix Spike percent recoveries. This result is not a final value and cannot be used as such.

RESULTS

Compound	CAS No		Result (ug/L)	Orig. Result (ug/L)	Spk Added (ug/L)	Rec. (%)	Limits (%)	RPD Limit (%)	Qualifiers
1,4-Dioxane	123-91-1	MS	1.30	1.10	1	14.2*	22 - 75		

SURROGATES

Compound	CAS No		Result (ug/L)	Expected (ug/L)	Rec. (%)	Limits (%)	Qualifiers
2-Methylnaphthalene-d10	7297-45-2	MS	0.79	1	78.8	29 - 112	
Fluoranthene-d10	93951-69-0	MS	0.97	1	97.3	45 - 130	

Duplicate 3591160 (DUP) 3275168014 (non-Project Sample) For QC Batch 912308

****NOTE - The Original Result and Duplicate Result shown below are raw results and are only used for the purpose of calculating Sample Duplicate percent recoveries. This result is not a final value and cannot be used as such.

RESULTS

Compound	CAS No		Result (ug/L)	Orig. Result (ug/L)	Qualifiers
1,4-Dioxane	123-91-1	DUP	62.8599	59.6334	RPD <u>5.27</u> (Max-30)

SURROGATES

Compound	CAS No		Result (ug/L)	Expected (ug/L)	Rec. (%)	Limits (%)	Qualifiers
2-Methylnaphthalene-d10	7297-45-2	DUP	0.72	1	71.7	29 - 112	
2-Methylnaphthalene-d10	7297-45-2	DUP	0	1	0*	29 - 112	
Fluoranthene-d10	93951-69-0	DUP	0.87	1	86.8	45 - 130	
Fluoranthene-d10	93951-69-0	DUP	0	1	0*	45 - 130	

Method Blank 3591157 (MB) Created on 11/23/2022 08:33 For QC Batch 912308

RESULTS

Compound	CAS No		Result	Units	RDL	Qualifiers
1,4-Dioxane	123-91-1	BLK	1.0	ug/L	1.0	U



QUALITY CONTROL SAMPLES

SEMIVOLATILE SIM (cont.)

SURROGATES

Compound	CAS No		Result (ug/L)	Expected (ug/L)	Rec. (%)	Limits (%)	Qualifiers
2-Methylnaphthalene-d10	7297-45-2	BLK	0.75	1	75.4	29 - 112	
Fluoranthene-d10	93951-69-0	BLK	1.10	1	108	45 - 130	

Lab Control Standard 3591158 (LCS) Created on 11/23/2022 08:33 For QC Batch 912308

RESULTS

Compound	CAS No		Result (ug/L)	Orig. Result (ug/L)	Spk Added (ug/L)	Rec. (%)	Limits (%)	RPD Limit (%)	Qualifiers
1,4-Dioxane	123-91-1	LCS	0.55		1	55.3	22 - 75		U

SURROGATES

Compound	CAS No		Result (ug/L)	Expected (ug/L)	Rec. (%)	Limits (%)	Qualifiers
2-Methylnaphthalene-d10	7297-45-2	LCS	0.78	1	78.2	29 - 112	
Fluoranthene-d10	93951-69-0	LCS	0.99	1	99	45 - 130	

QC Batch		Prep Method	
QC Batch	913853	SW846	3510C
Date	11/28/2022 10:50	Analysis Method	SW846 8270E SIM
Tech.	LDC		

Associated Samples			
3275166014	3275166015	3275166011	3275166012
3275166008	3275166009	3275166013	3275166010
3275166016			

Method Blank 3591831 (MB) Created on 11/28/2022 08:00 For QC Batch 913853

RESULTS

Compound	CAS No		Result	Units	RDL	Qualifiers
1,4-Dioxane	123-91-1	BLK	1.0	ug/L	1.0	U

SURROGATES

Compound	CAS No		Result (ug/L)	Expected (ug/L)	Rec. (%)	Limits (%)	Qualifiers
2-Methylnaphthalene-d10	7297-45-2	BLK	0.77	1	76.9	29 - 112	
Fluoranthene-d10	93951-69-0	BLK	1.10	1	108	45 - 130	

Lab Control Standard 3591832 (LCS) Created on 11/28/2022 08:00 For QC Batch 913853

RESULTS

Compound	CAS No		Result (ug/L)	Orig. Result (ug/L)	Spk Added (ug/L)	Rec. (%)	Limits (%)	RPD Limit (%)	Qualifiers
1,4-Dioxane	123-91-1	LCS	0.63		1	62.9	22 - 75		U



QUALITY CONTROL SAMPLES

SEMIVOLATILE SIM (cont.)

SURROGATES

Compound	CAS No		Result (ug/L)	Expected (ug/L)	Rec. (%)	Limits (%)	Qualifiers
2-Methylnapthalene-d10	7297-45-2	LCS	0.78	1	77.8	29 - 112	
Fluoranthene-d10	93951-69-0	LCS	1	1	104	45 - 130	

Matrix Spike 3591833 (MS) 3275166015 For QC Batch 913853

****NOTE - The Original Result shown below is a raw result and is only used for the purpose of calculating Matrix Spike percent recoveries. This result is not a final value and cannot be used as such.

Matrix Spike Duplicate 3591834 (MSD) 3275166015 For QC Batch 913853

RESULTS

Compound	CAS No		Result (ug/L)	Orig. Result (ug/L)	Spk Added (ug/L)	Rec. (%)	Limits (%)	RPD Limit (%)	Qualifiers
1,4-Dioxane	123-91-1	MS	12.10	10.20	1	NC	22 - 75		
1,4-Dioxane	123-91-1	MSD	11.50	10.20	1	NC	22 - 75	RPD <u>5.47</u> (Max-30)	

SURROGATES

Compound	CAS No		Result (ug/L)	Expected (ug/L)	Rec. (%)	Limits (%)	Qualifiers
2-Methylnapthalene-d10	7297-45-2	MS	0.79	1	76.3	29 - 112	
2-Methylnapthalene-d10	7297-45-2	MSD	0.75	1	75.1	29 - 112	
Fluoranthene-d10	93951-69-0	MS	0.92	1	88.3	45 - 130	
Fluoranthene-d10	93951-69-0	MSD	0.97	1	96.6	45 - 130	



QUALITY CONTROL SAMPLES

VOLATILE ORGANICS

QC Batch			
QC Batch	915259	Prep Method	N/A
Date	N/A	Analysis Method	SW846 8260D
Tech.			

Associated Samples			
3275166003	3275166004	3275166005	3275166001
3275166006	3275166002	3275166007	3275166008
3275166009			

Method Blank 3594076 (MB) Created on 12/01/2022 10:21 For QC Batch 915259

RESULTS

Compound	CAS No		Result	Units	RDL	Qualifiers
1,1,1,2-Tetrachloroethane	630-20-6	BLK	1.0	ug/L	1.0	U
1,1,1-Trichloroethane	71-55-6	BLK	1.0	ug/L	1.0	U
1,1,2,2-Tetrachloroethane	79-34-5	BLK	1.0	ug/L	1.0	U
1,1,2-Trichloroethane	79-00-5	BLK	1.0	ug/L	1.0	U
1,1-Dichloroethane	75-34-3	BLK	1.0	ug/L	1.0	U
1,1-Dichloroethene	75-35-4	BLK	1.0	ug/L	1.0	U
1,1-Dichloropropene	563-58-6	BLK	1.0	ug/L	1.0	U
1,2,3-Trichlorobenzene	87-61-6	BLK	2.0	ug/L	2.0	U
1,2,3-Trichloropropane	96-18-4	BLK	2.0	ug/L	2.0	U
1,2,4-Trichlorobenzene	120-82-1	BLK	2.0	ug/L	2.0	U
1,2-Dibromo-3-chloropropane	96-12-8	BLK	7.0	ug/L	7.0	U
1,2-Dibromoethane	106-93-4	BLK	1.0	ug/L	1.0	U
1,2-Dichlorobenzene	95-50-1	BLK	1.0	ug/L	1.0	U
1,2-Dichloroethane	107-06-2	BLK	1.0	ug/L	1.0	U
1,2-Dichloropropane	78-87-5	BLK	1.0	ug/L	1.0	U
1,3-Dichlorobenzene	541-73-1	BLK	1.0	ug/L	1.0	U
1,3-Dichloropropane	142-28-9	BLK	1.0	ug/L	1.0	U
1,4-Dichlorobenzene	106-46-7	BLK	1.0	ug/L	1.0	U
2,2-Dichloropropane	594-20-7	BLK	1.0	ug/L	1.0	U
2-Butanone	78-93-3	BLK	10.0	ug/L	10.0	U
2-Hexanone	591-78-6	BLK	5.0	ug/L	5.0	U
4-Methyl-2-Pentanone(MIBK)	108-10-1	BLK	5.0	ug/L	5.0	U
Acetone	67-64-1	BLK	10.0	ug/L	10.0	U
Benzene	71-43-2	BLK	1.0	ug/L	1.0	U
Bromobenzene	108-86-1	BLK	1.0	ug/L	1.0	U
Bromochloromethane	74-97-5	BLK	1.0	ug/L	1.0	U
Bromodichloromethane	75-27-4	BLK	1.0	ug/L	1.0	U
Bromoform	75-25-2	BLK	1.0	ug/L	1.0	U
Bromomethane	74-83-9	BLK	1.0	ug/L	1.0	U
Carbon Tetrachloride	56-23-5	BLK	1.0	ug/L	1.0	U
Chlorobenzene	108-90-7	BLK	1.0	ug/L	1.0	U
Chlorodibromomethane	124-48-1	BLK	1.0	ug/L	1.0	U
Chloroethane	75-00-3	BLK	1.0	ug/L	1.0	U
Chloroform	67-66-3	BLK	1.0	ug/L	1.0	U
Chloromethane	74-87-3	BLK	1.0	ug/L	1.0	U
cis-1,2-Dichloroethene	156-59-2	BLK	1.0	ug/L	1.0	U
cis-1,3-Dichloropropene	10061-01-5	BLK	1.0	ug/L	1.0	U
Dibromomethane	74-95-3	BLK	1.0	ug/L	1.0	U
Dichlorodifluoromethane	75-71-8	BLK	1.0	ug/L	1.0	U



QUALITY CONTROL SAMPLES

VOLATILE ORGANICS (cont.)

RESULTS

Compound	CAS No		Result	Units	RDL	Qualifiers
Diisopropyl ether	108-20-3	BLK	1.0 U	ug/L	1.0	U
Ethylbenzene	100-41-4	BLK	1.0 U	ug/L	1.0	U
Hexachlorobutadiene	87-68-3	BLK	5.0 U	ug/L	5.0	U
Methyl t-Butyl Ether	1634-04-4	BLK	1.0 U	ug/L	1.0	U
Methylene Chloride	75-09-2	BLK	1.0 U	ug/L	1.0	U
mp-Xylene	108383/106423	BLK	2.0 U	ug/L	2.0	U
Naphthalene	91-20-3	BLK	2.0 U	ug/L	2.0	U
o-Chlorotoluene	95-49-8	BLK	1.0 U	ug/L	1.0	U
o-Xylene	95-47-6	BLK	1.0 U	ug/L	1.0	U
p-Chlorotoluene	106-43-4	BLK	1.0 U	ug/L	1.0	U
p-Isopropyltoluene	99-87-6	BLK	1.0 U	ug/L	1.0	U
Styrene	100-42-5	BLK	1.0 U	ug/L	1.0	U
Tetrachloroethene	127-18-4	BLK	1.0 U	ug/L	1.0	U
Toluene	108-88-3	BLK	1.0 U	ug/L	1.0	U
Total Xylenes	1330-20-7	BLK	3.0 U	ug/L	3.0	U
trans-1,2-Dichloroethene	156-60-5	BLK	1.0 U	ug/L	1.0	U
trans-1,3-Dichloropropene	10061-02-6	BLK	1.0 U	ug/L	1.0	U
Trichloroethene	79-01-6	BLK	1.0 U	ug/L	1.0	U
Trichlorofluoromethane	75-69-4	BLK	1.0 U	ug/L	1.0	U
Vinyl Acetate	108-05-4	BLK	5.0 U	ug/L	5.0	U
Vinyl Chloride	75-01-4	BLK	1.0 U	ug/L	1.0	U

SURROGATES

Compound	CAS No		Result (ug/L)	Expected (ug/L)	Rec. (%)	Limits (%)	Qualifiers
1,2-Dichloroethane-d4	17060-07-0	BLK	26.50	30	88.2	62 - 133	
4-Bromofluorobenzene	460-00-4	BLK	30.90	30	103	79 - 114	
Dibromofluoromethane	1868-53-7	BLK	26	30	86.6	78 - 116	
Toluene-d8	2037-26-5	BLK	27.60	30	91.9	76 - 127	

Lab Control Standard 3594077 (LCS) Created on 12/01/2022 10:21 For QC Batch 915259

RESULTS

Compound	CAS No		Result (ug/L)	Orig. Result (ug/L)	Spk Added (ug/L)	Rec. (%)	Limits (%)	RPD Limit (%)	Qualifiers
1,1,1,2-Tetrachloroethane	630-20-6	LCS	21.10		20	105	78 - 121		
1,1,1-Trichloroethane	71-55-6	LCS	20.90		20	105	66 - 130		
1,1,2,2-Tetrachloroethane	79-34-5	LCS	20.70		20	103	74 - 135		
1,1,2-Trichloroethane	79-00-5	LCS	20.40		20	102	82 - 126		
1,1-Dichloroethane	75-34-3	LCS	20.30		20	101	78 - 124		
1,1-Dichloroethene	75-35-4	LCS	21.20		20	106	63 - 128		
1,1-Dichloropropene	563-58-6	LCS	21.10		20	105	76 - 126		
1,2,3-Trichlorobenzene	87-61-6	LCS	20.20		20	101	61 - 126		
1,2,3-Trichloropropane	96-18-4	LCS	20.50		20	102	75 - 132		
1,2,4-Trichlorobenzene	120-82-1	LCS	20.40		20	102	67 - 123		
1,2-Dibromo-3-chloropropane	96-12-8	LCS	18.90		20	94.7	59 - 133		



QUALITY CONTROL SAMPLES

VOLATILE ORGANICS (cont.)

RESULTS

Compound	CAS No		Result (ug/L)	Orig. Result (ug/L)	Spk Added (ug/L)	Rec. (%)	Limits (%)	RPD Limit (%)	Qualifiers
1,2-Dibromoethane	106-93-4	LCS	20.50		20	102	80 - 124		
1,2-Dichlorobenzene	95-50-1	LCS	19.70		20	98.4	82 - 118		
1,2-Dichloroethane	107-06-2	LCS	19.90		20	99.7	70 - 133		
1,2-Dichloropropane	78-87-5	LCS	20.30		20	102	81 - 127		
1,3-Dichlorobenzene	541-73-1	LCS	20.30		20	101	81 - 118		
1,3-Dichloropropane	142-28-9	LCS	20		20	100	82 - 126		
1,4-Dichlorobenzene	106-46-7	LCS	20.10		20	100	81 - 116		
2,2-Dichloropropane	594-20-7	LCS	22.70		20	113	64 - 129		
2-Butanone	78-93-3	LCS	109		100	109	50 - 152		
2-Hexanone	591-78-6	LCS	111		100	111	65 - 154		
4-Methyl-2-Pentanone(MIBK)	108-10-1	LCS	111		100	111	71 - 146		
Acetone	67-64-1	LCS	104		100	104	40 - 151		
Benzene	71-43-2	LCS	20.60		20	103	80 - 124		
Bromobenzene	108-86-1	LCS	20.90		20	104	81 - 119		
Bromochloromethane	74-97-5	LCS	20		20	100	73 - 117		
Bromodichloromethane	75-27-4	LCS	20.30		20	102	79 - 126		
Bromoform	75-25-2	LCS	20.20		20	101	70 - 123		
Bromomethane	74-83-9	LCS	20.40		20	102	45 - 148		
Carbon Tetrachloride	56-23-5	LCS	21.30		20	107	62 - 132		
Chlorobenzene	108-90-7	LCS	20.30		20	102	85 - 117		
Chlorodibromomethane	124-48-1	LCS	20.80		20	104	77 - 122		
Chloroethane	75-00-3	LCS	21.80		20	109	51 - 142		
Chloroform	67-66-3	LCS	20.50		20	103	78 - 122		
Chloromethane	74-87-3	LCS	22.20		20	111	38 - 156		
cis-1,2-Dichloroethene	156-59-2	LCS	20.70		20	103	78 - 125		
cis-1,3-Dichloropropene	10061-01-5	LCS	20.60		20	103	81 - 121		
Dibromomethane	74-95-3	LCS	19.90		20	99.3	81 - 125		
Dichlorodifluoromethane	75-71-8	LCS	25.50		20	127	17 - 166		
Diisopropyl ether	108-20-3	LCS	20.90		20	104	74 - 131		
Ethylbenzene	100-41-4	LCS	20.70		20	104	80 - 124		
Hexachlorobutadiene	87-68-3	LCS	21.10		20	106	55 - 128		
Methyl t-Butyl Ether	1634-04-4	LCS	21		20	105	69 - 115		
Methylene Chloride	75-09-2	LCS	19.60		20	97.9	76 - 121		
mp-Xylene	108383/106423	LCS	42.50		40	106	79 - 125		
Naphthalene	91-20-3	LCS	16.30		20	81.5	56 - 134		
o-Chlorotoluene	95-49-8	LCS	21.70		20	108	78 - 126		
o-Xylene	95-47-6	LCS	20.60		20	103	79 - 124		
p-Chlorotoluene	106-43-4	LCS	21.40		20	107	78 - 125		
p-Isopropyltoluene	99-87-6	LCS	22.80		20	114	72 - 123		
Styrene	100-42-5	LCS	22		20	110	79 - 123		
Tetrachloroethene	127-18-4	LCS	20.10		20	101	72 - 124		
Toluene	108-88-3	LCS	20.90		20	104	80 - 125		
Total Xylenes	1330-20-7	LCS	63.10		60	105	79 - 125		
trans-1,2-Dichloroethene	156-60-5	LCS	20.70		20	104	71 - 122		
trans-1,3-Dichloropropene	10061-02-6	LCS	21.30		20	106	78 - 126		
Trichloroethene	79-01-6	LCS	19		20	94.8	77 - 124		
Trichlorofluoromethane	75-69-4	LCS	21		20	105	38 - 123		



QUALITY CONTROL SAMPLES

VOLATILE ORGANICS (cont.)

RESULTS

Compound	CAS No		Result (ug/L)	Orig. Result (ug/L)	Spk Added (ug/L)	Rec. (%)	Limits (%)	RPD Limit (%)	Qualifiers
Vinyl Acetate	108-05-4	LCS	19.70		20	98.5	58 - 136		
Vinyl Chloride	75-01-4	LCS	22.80		20	114	27 - 138		

SURROGATES

Compound	CAS No		Result (ug/L)	Expected (ug/L)	Rec. (%)	Limits (%)	Qualifiers
1,2-Dichloroethane-d4	17060-07-0	LCS	28.10	30	93.8	62 - 133	
4-Bromofluorobenzene	460-00-4	LCS	31.10	30	104	79 - 114	
Dibromofluoromethane	1868-53-7	LCS	27.30	30	90.9	78 - 116	
Toluene-d8	2037-26-5	LCS	27.70	30	92.3	76 - 127	

QC Batch

Associated Samples

QC Batch	915795	Prep Method	N/A
Date	N/A	Analysis Method	SW846 8260D
Tech.			

3275166013	3275166014	3275166015	3275166010
3275166011	3275166012	3275166016	3275166017
3275166018			

Method Blank

3594420 (MB)

Created on 12/01/2022 23:48

For QC Batch 915795

RESULTS

Compound	CAS No		Result	Units	RDL	Qualifiers
1,1,1,2-Tetrachloroethane	630-20-6	BLK	1.0 U	ug/L	1.0	U
1,1,1-Trichloroethane	71-55-6	BLK	1.0 U	ug/L	1.0	U
1,1,2,2-Tetrachloroethane	79-34-5	BLK	1.0 U	ug/L	1.0	U
1,1,2-Trichloroethane	79-00-5	BLK	1.0 U	ug/L	1.0	U
1,1-Dichloroethane	75-34-3	BLK	1.0 U	ug/L	1.0	U
1,1-Dichloroethene	75-35-4	BLK	1.0 U	ug/L	1.0	U
1,1-Dichloropropene	563-58-6	BLK	1.0 U	ug/L	1.0	U
1,2,3-Trichlorobenzene	87-61-6	BLK	2.0 U	ug/L	2.0	U
1,2,3-Trichloropropane	96-18-4	BLK	2.0 U	ug/L	2.0	U
1,2,4-Trichlorobenzene	120-82-1	BLK	2.0 U	ug/L	2.0	U
1,2-Dibromo-3-chloropropane	96-12-8	BLK	7.0 U	ug/L	7.0	U
1,2-Dibromoethane	106-93-4	BLK	1.0 U	ug/L	1.0	U
1,2-Dichlorobenzene	95-50-1	BLK	1.0 U	ug/L	1.0	U
1,2-Dichloroethane	107-06-2	BLK	1.0 U	ug/L	1.0	U
1,2-Dichloropropane	78-87-5	BLK	1.0 U	ug/L	1.0	U
1,3-Dichlorobenzene	541-73-1	BLK	1.0 U	ug/L	1.0	U
1,3-Dichloropropane	142-28-9	BLK	1.0 U	ug/L	1.0	U
1,4-Dichlorobenzene	106-46-7	BLK	1.0 U	ug/L	1.0	U
2,2-Dichloropropane	594-20-7	BLK	1.0 U	ug/L	1.0	U
2-Butanone	78-93-3	BLK	10.0 U	ug/L	10.0	U
2-Hexanone	591-78-6	BLK	5.0 U	ug/L	5.0	U
4-Methyl-2-Pentanone(MIBK)	108-10-1	BLK	5.0 U	ug/L	5.0	U
Acetone	67-64-1	BLK	10.0 U	ug/L	10.0	U



QUALITY CONTROL SAMPLES

VOLATILE ORGANICS (cont.)

RESULTS

Compound	CAS No	Result	Units	RDL	Qualifiers
Benzene	71-43-2	BLK	1.0 U ug/L	1.0	U
Bromobenzene	108-86-1	BLK	1.0 U ug/L	1.0	U
Bromochloromethane	74-97-5	BLK	1.0 U ug/L	1.0	U
Bromodichloromethane	75-27-4	BLK	1.0 U ug/L	1.0	U
Bromoform	75-25-2	BLK	1.0 U ug/L	1.0	U
Bromomethane	74-83-9	BLK	1.0 U ug/L	1.0	U
Carbon Tetrachloride	56-23-5	BLK	1.0 U ug/L	1.0	U
Chlorobenzene	108-90-7	BLK	1.0 U ug/L	1.0	U
Chlorodibromomethane	124-48-1	BLK	1.0 U ug/L	1.0	U
Chloroethane	75-00-3	BLK	1.0 U ug/L	1.0	U
Chloroform	67-66-3	BLK	1.0 U ug/L	1.0	U
Chloromethane	74-87-3	BLK	1.0 U ug/L	1.0	U
cis-1,2-Dichloroethene	156-59-2	BLK	1.0 U ug/L	1.0	U
cis-1,3-Dichloropropene	10061-01-5	BLK	1.0 U ug/L	1.0	U
Dibromomethane	74-95-3	BLK	1.0 U ug/L	1.0	U
Dichlorodifluoromethane	75-71-8	BLK	1.0 U ug/L	1.0	U
Diisopropyl ether	108-20-3	BLK	1.0 U ug/L	1.0	U
Ethylbenzene	100-41-4	BLK	1.0 U ug/L	1.0	U
Hexachlorobutadiene	87-68-3	BLK	5.0 U ug/L	5.0	U
Methyl t-Butyl Ether	1634-04-4	BLK	1.0 U ug/L	1.0	U
Methylene Chloride	75-09-2	BLK	1.0 U ug/L	1.0	U
mp-Xylene	108383/106423	BLK	2.0 U ug/L	2.0	U
Naphthalene	91-20-3	BLK	2.0 U ug/L	2.0	U
o-Chlorotoluene	95-49-8	BLK	1.0 U ug/L	1.0	U
o-Xylene	95-47-6	BLK	1.0 U ug/L	1.0	U
p-Chlorotoluene	106-43-4	BLK	1.0 U ug/L	1.0	U
p-Isopropyltoluene	99-87-6	BLK	1.0 U ug/L	1.0	U
Styrene	100-42-5	BLK	1.0 U ug/L	1.0	U
Tetrachloroethene	127-18-4	BLK	1.0 U ug/L	1.0	U
Toluene	108-88-3	BLK	1.0 U ug/L	1.0	U
Total Xylenes	1330-20-7	BLK	3.0 U ug/L	3.0	U
trans-1,2-Dichloroethene	156-60-5	BLK	1.0 U ug/L	1.0	U
trans-1,3-Dichloropropene	10061-02-6	BLK	1.0 U ug/L	1.0	U
Trichloroethene	79-01-6	BLK	1.0 U ug/L	1.0	U
Trichlorofluoromethane	75-69-4	BLK	1.0 U ug/L	1.0	U
Vinyl Acetate	108-05-4	BLK	5.0 U ug/L	5.0	U
Vinyl Chloride	75-01-4	BLK	1.0 U ug/L	1.0	U

SURROGATES

Compound	CAS No	Result (ug/L)	Expected (ug/L)	Rec. (%)	Limits (%)	Qualifiers
1,2-Dichloroethane-d4	17060-07-0	BLK 27.90	30	92.9	62 - 133	
4-Bromofluorobenzene	460-00-4	BLK 30.40	30	101	79 - 114	
Dibromofluoromethane	1868-53-7	BLK 27.20	30	90.8	78 - 116	
Toluene-d8	2037-26-5	BLK 28.20	30	93.9	76 - 127	



QUALITY CONTROL SAMPLES

VOLATILE ORGANICS (cont.)

Lab Control Standard

3594421 (LCS)

Created on 12/01/2022 23:48

For QC Batch 915795

RESULTS

Compound	CAS No		Result (ug/L)	Orig. Result (ug/L)	Spk Added (ug/L)	Rec. (%)	Limits (%)	RPD Limit (%)	Qualifiers
1,1,1,2-Tetrachloroethane	630-20-6	LCS	20.30		20	101	78 - 121		
1,1,1-Trichloroethane	71-55-6	LCS	20.20		20	101	66 - 130		
1,1,2,2-Tetrachloroethane	79-34-5	LCS	19.60		20	98.1	74 - 135		
1,1,2-Trichloroethane	79-00-5	LCS	19.80		20	98.9	82 - 126		
1,1-Dichloroethane	75-34-3	LCS	19.70		20	98.3	78 - 124		
1,1-Dichloroethene	75-35-4	LCS	20.70		20	103	63 - 128		
1,1-Dichloropropene	563-58-6	LCS	20.30		20	101	76 - 126		
1,2,3-Trichlorobenzene	87-61-6	LCS	20.10		20	101	61 - 126		
1,2,3-Trichloropropane	96-18-4	LCS	19.10		20	95.7	75 - 132		
1,2,4-Trichlorobenzene	120-82-1	LCS	21		20	105	67 - 123		
1,2-Dibromo-3-chloropropane	96-12-8	LCS	17.30		20	86.6	59 - 133		
1,2-Dibromoethane	106-93-4	LCS	19.40		20	97.1	80 - 124		
1,2-Dichlorobenzene	95-50-1	LCS	19.70		20	98.3	82 - 118		
1,2-Dichloroethane	107-06-2	LCS	18.70		20	93.7	70 - 133		
1,2-Dichloropropane	78-87-5	LCS	19.70		20	98.7	81 - 127		
1,3-Dichlorobenzene	541-73-1	LCS	20.10		20	100	81 - 118		
1,3-Dichloropropane	142-28-9	LCS	19.30		20	96.4	82 - 126		
1,4-Dichlorobenzene	106-46-7	LCS	20.20		20	101	81 - 116		
2,2-Dichloropropane	594-20-7	LCS	20.10		20	101	64 - 129		
2-Butanone	78-93-3	LCS	90.40		100	90.4	50 - 152		
2-Hexanone	591-78-6	LCS	96.80		100	96.8	65 - 154		
4-Methyl-2-Pentanone(MIBK)	108-10-1	LCS	99.40		100	99.4	71 - 146		
Acetone	67-64-1	LCS	86.60		100	86.6	40 - 151		
Benzene	71-43-2	LCS	20.20		20	101	80 - 124		
Bromobenzene	108-86-1	LCS	20.60		20	103	81 - 119		
Bromochloromethane	74-97-5	LCS	19.30		20	96.6	73 - 117		
Bromodichloromethane	75-27-4	LCS	19.60		20	98	79 - 126		
Bromoform	75-25-2	LCS	18.90		20	94.6	70 - 123		
Bromomethane	74-83-9	LCS	21.90		20	110	45 - 148		
Carbon Tetrachloride	56-23-5	LCS	20.70		20	104	62 - 132		
Chlorobenzene	108-90-7	LCS	19.90		20	99.5	85 - 117		
Chlorodibromomethane	124-48-1	LCS	19.60		20	98.2	77 - 122		
Chloroethane	75-00-3	LCS	22.70		20	113	51 - 142		
Chloroform	67-66-3	LCS	19.70		20	98.4	78 - 122		
Chloromethane	74-87-3	LCS	21.20		20	106	38 - 156		
cis-1,2-Dichloroethene	156-59-2	LCS	19.80		20	99	78 - 125		
cis-1,3-Dichloropropene	10061-01-5	LCS	19.60		20	98.1	81 - 121		
Dibromomethane	74-95-3	LCS	18.80		20	93.8	81 - 125		
Dichlorodifluoromethane	75-71-8	LCS	24.30		20	121	17 - 166		
Diisopropyl ether	108-20-3	LCS	20.20		20	101	74 - 131		
Ethylbenzene	100-41-4	LCS	20.70		20	103	80 - 124		
Hexachlorobutadiene	87-68-3	LCS	22.80		20	114	55 - 128		
Methyl t-Butyl Ether	1634-04-4	LCS	19.50		20	97.3	69 - 115		
Methylene Chloride	75-09-2	LCS	19		20	94.9	76 - 121		



QUALITY CONTROL SAMPLES

VOLATILE ORGANICS (cont.)

RESULTS

Compound	CAS No		Result (ug/L)	Orig. Result (ug/L)	Spk Added (ug/L)	Rec. (%)	Limits (%)	RPD Limit (%)	Qualifiers
mp-Xylene	108383/106423	LCS	41.60		40	104	79 - 125		
Naphthalene	91-20-3	LCS	16		20	80.2	56 - 134		
o-Chlorotoluene	95-49-8	LCS	21.50		20	107	78 - 126		
o-Xylene	95-47-6	LCS	20.40		20	102	79 - 124		
p-Chlorotoluene	106-43-4	LCS	21.40		20	107	78 - 125		
p-Isopropyltoluene	99-87-6	LCS	22.70		20	114	72 - 123		
Styrene	100-42-5	LCS	21.90		20	110	79 - 123		
Tetrachloroethene	127-18-4	LCS	20.30		20	101	72 - 124		
Toluene	108-88-3	LCS	20.40		20	102	80 - 125		
Total Xylenes	1330-20-7	LCS	62		60	103	79 - 125		
trans-1,2-Dichloroethene	156-60-5	LCS	20.30		20	102	71 - 122		
trans-1,3-Dichloropropene	10061-02-6	LCS	20.60		20	103	78 - 126		
Trichloroethene	79-01-6	LCS	20.20		20	101	77 - 124		
Trichlorofluoromethane	75-69-4	LCS	20.60		20	103	38 - 123		
Vinyl Acetate	108-05-4	LCS	15.80		20	79.2	58 - 136		
Vinyl Chloride	75-01-4	LCS	22.10		20	111	27 - 138		

SURROGATES

Compound	CAS No		Result (ug/L)	Expected (ug/L)	Rec. (%)	Limits (%)	Qualifiers
1,2-Dichloroethane-d4	17060-07-0	LCS	28.10	30	93.5	62 - 133	
4-Bromofluorobenzene	460-00-4	LCS	30.30	30	101	79 - 114	
Dibromofluoromethane	1868-53-7	LCS	27.70	30	92.3	78 - 116	
Toluene-d8	2037-26-5	LCS	28.40	30	94.7	76 - 127	

Matrix Spike 3594440 (MS) 3275166015 For QC Batch 915795

****NOTE - The Original Result shown below is a raw result and is only used for the purpose of calculating Matrix Spike percent recoveries. This result is not a final value and cannot be used as such.

Matrix Spike Duplicate 3594441 (MSD) 3275166015 For QC Batch 915795

RESULTS

Compound	CAS No		Result (ug/L)	Orig. Result (ug/L)	Spk Added (ug/L)	Rec. (%)	Limits (%)	RPD Limit (%)	Qualifiers
1,1,1,2-Tetrachloroethane	630-20-6	MS	20.70	0	20	104	78 - 121		
1,1,1,2-Tetrachloroethane	630-20-6	MSD	20.80	0	20	104	78 - 121	RPD 0.43 (Max-16)	
1,1,1-Trichloroethane	71-55-6	MS	24.10	3.70	20	102	66 - 130		
1,1,1-Trichloroethane	71-55-6	MSD	23.60	3.70	20	99.7	66 - 130	RPD 1.84 (Max-20)	
1,1,2,2-Tetrachloroethane	79-34-5	MS	19.20	0	20	96.2	74 - 135		
1,1,2,2-Tetrachloroethane	79-34-5	MSD	19.30	0	20	96.5	74 - 135	RPD 0.30 (Max-16)	
1,1,2-Trichloroethane	79-00-5	MS	19.50	0	20	97.4	82 - 126		
1,1,2-Trichloroethane	79-00-5	MSD	19.80	0	20	98.9	82 - 126	RPD 1.51 (Max-15)	
1,1-Dichloroethane	75-34-3	MS	25.20	7.30	20	90	78 - 124		
1,1-Dichloroethane	75-34-3	MSD	25.40	7.30	20	90.5	78 - 124	RPD 0.43 (Max-15)	
1,1-Dichloroethane	75-35-4	MS	46.90	29.10	20	88.8	63 - 128		



QUALITY CONTROL SAMPLES

VOLATILE ORGANICS (cont.)

RESULTS

Compound	CAS No		Result (ug/L)	Orig. Result (ug/L)	Spk Added (ug/L)	Rec. (%)	Limits (%)	RPD Limit (%)	Qualifiers
1,1-Dichloroethene	75-35-4	MSD	44.90	29.10	20	79	63 - 128	RPD 4.27 (Max-21)	
1,1-Dichloropropene	563-58-6	MS	19.70	0	20	98.7	76 - 126		
1,1-Dichloropropene	563-58-6	MSD	19.70	0	20	98.7	76 - 126	RPD 0.0020 (Max-16)	
1,2,3-Trichlorobenzene	87-61-6	MS	17.90	0	20	89.5	61 - 126		
1,2,3-Trichlorobenzene	87-61-6	MSD	19.70	0	20	98.5	61 - 126	RPD 9.55 (Max-36)	
1,2,3-Trichloropropane	96-18-4	MS	19.10	0	20	95.5	75 - 132		
1,2,3-Trichloropropane	96-18-4	MSD	18.80	0	20	94	75 - 132	RPD 1.63 (Max-19)	
1,2,4-Trichlorobenzene	120-82-1	MS	17.60	0	20	87.8	67 - 123		
1,2,4-Trichlorobenzene	120-82-1	MSD	19	0	20	95	67 - 123	RPD 7.97 (Max-22)	
1,2-Dibromo-3-chloropropane	96-12-8	MS	16.80	0	20	84	59 - 133		
1,2-Dibromo-3-chloropropane	96-12-8	MSD	17.10	0	20	85.5	59 - 133	RPD 1.77 (Max-26)	
1,2-Dibromoethane	106-93-4	MS	19.70	0	20	98.4	80 - 124		
1,2-Dibromoethane	106-93-4	MSD	19.90	0	20	99.4	80 - 124	RPD 1 (Max-19)	
1,2-Dichlorobenzene	95-50-1	MS	19	0	20	94.8	82 - 118		
1,2-Dichlorobenzene	95-50-1	MSD	19.20	0	20	95.8	82 - 118	RPD 1.13 (Max-15)	
1,2-Dichloroethane	107-06-2	MS	19	0.39	20	93.2	70 - 133		
1,2-Dichloroethane	107-06-2	MSD	19.30	0.39	20	94.4	70 - 133	RPD 1.25 (Max-19)	
1,2-Dichloropropane	78-87-5	MS	18.40	0	20	91.9	81 - 127		
1,2-Dichloropropane	78-87-5	MSD	18.70	0	20	93.5	81 - 127	RPD 1.66 (Max-15)	
1,3-Dichlorobenzene	541-73-1	MS	19.40	0	20	97.1	81 - 118		
1,3-Dichlorobenzene	541-73-1	MSD	19.10	0	20	95.6	81 - 118	RPD 1.59 (Max-16)	
1,3-Dichloropropane	142-28-9	MS	19	0	20	94.9	82 - 126		
1,3-Dichloropropane	142-28-9	MSD	19.30	0	20	96.3	82 - 126	RPD 1.45 (Max-15)	
1,4-Dichlorobenzene	106-46-7	MS	19.40	0	20	96.9	81 - 116		
1,4-Dichlorobenzene	106-46-7	MSD	19.30	0	20	96.5	81 - 116	RPD 0.39 (Max-15)	
2,2-Dichloropropane	594-20-7	MS	20	0	20	100	64 - 129		
2,2-Dichloropropane	594-20-7	MSD	19.70	0	20	98.4	64 - 129	RPD 1.75 (Max-18)	
2-Butanone	78-93-3	MS	88.60	0	100	88.6	50 - 152		
2-Butanone	78-93-3	MSD	90.10	0	100	90.1	50 - 152	RPD 1.69 (Max-16)	
2-Hexanone	591-78-6	MS	95.60	0	100	95.6	65 - 154		
2-Hexanone	591-78-6	MSD	96.30	0	100	96.3	65 - 154	RPD 0.80 (Max-17)	
4-Methyl-2-Pentanone(MIBK)	108-10-1	MS	96.40	0	100	96.4	71 - 146		
4-Methyl-2-Pentanone(MIBK)	108-10-1	MSD	98	0	100	98	71 - 146	RPD 1.64 (Max-16)	
Acetone	67-64-1	MS	77.80	0	100	77.8	40 - 151		
Acetone	67-64-1	MSD	81.90	0	100	81.9	40 - 151	RPD 5.22 (Max-40)	
Benzene	71-43-2	MS	19.20	0	20	96	80 - 124		
Benzene	71-43-2	MSD	19	0	20	95.1	80 - 124	RPD 0.90 (Max-26)	
Bromobenzene	108-86-1	MS	20.10	0	20	100	81 - 119		
Bromobenzene	108-86-1	MSD	20.10	0	20	101	81 - 119	RPD 0.06 (Max-17)	
Bromochloromethane	74-97-5	MS	19.90	0	20	99.4	73 - 117		
Bromochloromethane	74-97-5	MSD	20.10	0	20	101	73 - 117	RPD 1.28 (Max-19)	
Bromodichloromethane	75-27-4	MS	19.50	0	20	97.3	79 - 126		
Bromodichloromethane	75-27-4	MSD	19.50	0	20	97.7	79 - 126	RPD 0.42 (Max-16)	
Bromoform	75-25-2	MS	19.10	0	20	95.6	70 - 123		
Bromoform	75-25-2	MSD	19.20	0	20	95.8	70 - 123	RPD 0.13 (Max-16)	
Bromomethane	74-83-9	MS	17.60	0	20	88	45 - 148		
Bromomethane	74-83-9	MSD	19.60	0	20	97.9	45 - 148	RPD 10.60 (Max-26)	
Carbon Tetrachloride	56-23-5	MS	20.90	0	20	104	62 - 132		
Carbon Tetrachloride	56-23-5	MSD	20.90	0	20	104	62 - 132	RPD 0.05 (Max-17)	



QUALITY CONTROL SAMPLES

VOLATILE ORGANICS (cont.)

RESULTS

Compound	CAS No		Result (ug/L)	Orig. Result (ug/L)	Spk Added (ug/L)	Rec. (%)	Limits (%)	RPD Limit (%)	Qualifiers
Chlorobenzene	108-90-7	MS	19.90	0	20	99.3	85 - 117		
Chlorobenzene	108-90-7	MSD	19.60	0	20	98.1	85 - 117	RPD	1.18 (Max-15)
Chlorodibromomethane	124-48-1	MS	20.10	0	20	100	77 - 122		
Chlorodibromomethane	124-48-1	MSD	20.50	0	20	102	77 - 122	RPD	2.05 (Max-15)
Chloroethane	75-00-3	MS	22	0	20	110	51 - 142		
Chloroethane	75-00-3	MSD	21.10	0	20	106	51 - 142	RPD	4.09 (Max-24)
Chloroform	67-66-3	MS	19	0	20	94.8	78 - 122		
Chloroform	67-66-3	MSD	19.30	0	20	96.5	78 - 122	RPD	1.80 (Max-16)
Chloromethane	74-87-3	MS	21.20	0	20	106	38 - 156		
Chloromethane	74-87-3	MSD	21.30	0	20	106	38 - 156	RPD	0.43 (Max-27)
cis-1,2-Dichloroethene	156-59-2	MS	18.70	0	20	93.7	78 - 125		
cis-1,2-Dichloroethene	156-59-2	MSD	19	0	20	94.8	78 - 125	RPD	1.10 (Max-21)
cis-1,3-Dichloropropene	10061-01-5	MS	18.80	0	20	94	81 - 121		
cis-1,3-Dichloropropene	10061-01-5	MSD	19.10	0	20	95.6	81 - 121	RPD	1.74 (Max-16)
Dibromomethane	74-95-3	MS	19	0	20	94.8	81 - 125		
Dibromomethane	74-95-3	MSD	19.60	0	20	98.2	81 - 125	RPD	3.54 (Max-16)
Dichlorodifluoromethane	75-71-8	MS	27.40	0	20	137	17 - 166		
Dichlorodifluoromethane	75-71-8	MSD	26.40	0	20	132	17 - 166	RPD	3.69 (Max-24)
Diisopropyl ether	108-20-3	MS	17.90	0	20	89.7	74 - 131		
Diisopropyl ether	108-20-3	MSD	18.50	0	20	92.3	74 - 131	RPD	2.84 (Max-15)
Ethylbenzene	100-41-4	MS	20.40	0	20	102	80 - 124		
Ethylbenzene	100-41-4	MSD	20.10	0	20	100	80 - 124	RPD	1.62 (Max-19)
Hexachlorobutadiene	87-68-3	MS	19.10	0	20	95.4	55 - 128		
Hexachlorobutadiene	87-68-3	MSD	19.60	0	20	98.1	55 - 128	RPD	2.76 (Max-35)
Methyl t-Butyl Ether	1634-04-4	MS	19.90	1.20	20	94	69 - 115		
Methyl t-Butyl Ether	1634-04-4	MSD	20.50	1.20	20	96.7	69 - 115	RPD	2.75 (Max-20)
Methylene Chloride	75-09-2	MS	18.20	0	20	90.8	76 - 121		
Methylene Chloride	75-09-2	MSD	18.60	0	20	92.8	76 - 121	RPD	2.24 (Max-17)
mp-Xylene	108383/106423	MS	41.20	0	40	103	79 - 125		
mp-Xylene	108383/106423	MSD	40.60	0	40	101	79 - 125	RPD	1.45 (Max-21)
Naphthalene	91-20-3	MS	13.20	0	20	66.2	56 - 134		
Naphthalene	91-20-3	MSD	14	0	20	69.8	56 - 134	RPD	5.33 (Max-40)
o-Chlorotoluene	95-49-8	MS	20.20	0	20	101	78 - 126		
o-Chlorotoluene	95-49-8	MSD	20.30	0	20	101	78 - 126	RPD	0.26 (Max-17)
o-Xylene	95-47-6	MS	20.20	0	20	101	79 - 124		
o-Xylene	95-47-6	MSD	19.90	0	20	99.4	79 - 124	RPD	1.47 (Max-19)
p-Chlorotoluene	106-43-4	MS	20	0	20	100	78 - 125		
p-Chlorotoluene	106-43-4	MSD	20	0	20	100	78 - 125	RPD	0.15 (Max-16)
p-Isopropyltoluene	99-87-6	MS	21.30	0	20	106	72 - 123		
p-Isopropyltoluene	99-87-6	MSD	22.50	0	20	113	72 - 123	RPD	5.65 (Max-17)
Styrene	100-42-5	MS	20.80	0	20	104	79 - 123		
Styrene	100-42-5	MSD	20.60	0	20	103	79 - 123	RPD	1.09 (Max-16)
Tetrachloroethene	127-18-4	MS	19.40	0	20	97.2	72 - 124		
Tetrachloroethene	127-18-4	MSD	19.10	0	20	95.6	72 - 124	RPD	1.71 (Max-38)
Toluene	108-88-3	MS	20	0	20	100	80 - 125		
Toluene	108-88-3	MSD	19.80	0	20	98.8	80 - 125	RPD	1.46 (Max-20)
Total Xylenes	1330-20-7	MS	61.30	0	60	102	79 - 125		
Total Xylenes	1330-20-7	MSD	60.50	0	60	101	79 - 125	RPD	1.45 (Max-35)



QUALITY CONTROL SAMPLES

VOLATILE ORGANICS (cont.)

RESULTS

Compound	CAS No		Result (ug/L)	Orig. Result (ug/L)	Spk Added (ug/L)	Rec. (%)	Limits (%)	RPD Limit (%)	Qualifiers
trans-1,2-Dichloroethene	156-60-5	MS	19	0	20	94.8	71 - 122		
trans-1,2-Dichloroethene	156-60-5	MSD	18.60	0	20	93	71 - 122	RPD <u>1.93</u> (Max-22)	
trans-1,3-Dichloropropene	10061-02-6	MS	19.90	0	20	99.5	78 - 126		
trans-1,3-Dichloropropene	10061-02-6	MSD	20.20	0	20	101	78 - 126	RPD <u>1.56</u> (Max-18)	
Trichloroethene	79-01-6	MS	19.50	0	20	97.4	77 - 124		
Trichloroethene	79-01-6	MSD	19.40	0	20	97	77 - 124	RPD <u>0.46</u> (Max-18)	
Trichlorofluoromethane	75-69-4	MS	22.40	0	20	112	38 - 123		
Trichlorofluoromethane	75-69-4	MSD	22.10	0	20	111	38 - 123	RPD <u>1.26</u> (Max-23)	
Vinyl Acetate	108-05-4	MS	16.50	0	20	82.7	58 - 136		
Vinyl Acetate	108-05-4	MSD	16.70	0	20	83.5	58 - 136	RPD <u>1.06</u> (Max-17)	
Vinyl Chloride	75-01-4	MS	22.80	0	20	114	27 - 138		
Vinyl Chloride	75-01-4	MSD	21.90	0	20	110	27 - 138	RPD <u>3.87</u> (Max-40)	

SURROGATES

Compound	CAS No		Result (ug/L)	Expected (ug/L)	Rec. (%)	Limits (%)	Qualifiers
1,2-Dichloroethane-d4	17060-07-0	MS	28.80	30	96	62 - 133	
1,2-Dichloroethane-d4	17060-07-0	MSD	28.90	30	96.3	62 - 133	
4-Bromofluorobenzene	460-00-4	MS	30.20	30	101	79 - 114	
4-Bromofluorobenzene	460-00-4	MSD	30.10	30	100	79 - 114	
Dibromofluoromethane	1868-53-7	MS	28.40	30	94.6	78 - 116	
Dibromofluoromethane	1868-53-7	MSD	28.90	30	96.4	78 - 116	
Toluene-d8	2037-26-5	MS	28.30	30	94.3	76 - 127	
Toluene-d8	2037-26-5	MSD	28.30	30	94.2	76 - 127	

QC Batch

Associated Samples

QC Batch	916914	Prep Method	N/A
Date	N/A	Analysis Method	SW846 8260D
Tech.			

3275166013

Matrix Spike 3595075 (MS) 3276423001 (non-Project Sample) For QC Batch 916914

****NOTE - The Original Result shown below is a raw result and is only used for the purpose of calculating Matrix Spike percent recoveries. This result is not a final value and cannot be used as such.

Matrix Spike Duplicate 3595076 (MSD) 3276423001 (non-Project Sample) For QC Batch 916914

RESULTS

Compound	CAS No		Result (ug/L)	Orig. Result (ug/L)	Spk Added (ug/L)	Rec. (%)	Limits (%)	RPD Limit (%)	Qualifiers
1,1,1,2-Tetrachloroethane	630-20-6	MS	22.80	0	20	114	78 - 121		
1,1,1,2-Tetrachloroethane	630-20-6	MSD	22	0	20	110	78 - 121	RPD <u>3.57</u> (Max-16)	
1,1,1-Trichloroethane	71-55-6	MS	23.60	0	20	118	66 - 130		
1,1,1-Trichloroethane	71-55-6	MSD	22.50	0	20	113	66 - 130	RPD <u>4.74</u> (Max-20)	



QUALITY CONTROL SAMPLES

VOLATILE ORGANICS (cont.)

RESULTS

Compound	CAS No		Result (ug/L)	Orig. Result (ug/L)	Spk Added (ug/L)	Rec. (%)	Limits (%)	RPD Limit (%)	Qualifiers
1,1,2,2-Tetrachloroethane	79-34-5	MS	18.30	0	20	91.7	74 - 135		
1,1,2,2-Tetrachloroethane	79-34-5	MSD	18.20	0	20	90.8	74 - 135	RPD	<u>1.05</u> (Max-16)
1,1,2-Trichloroethane	79-00-5	MS	20.50	0	20	102	82 - 126		
1,1,2-Trichloroethane	79-00-5	MSD	20.40	0	20	102	82 - 126	RPD	<u>0.48</u> (Max-15)
1,1-Dichloroethane	75-34-3	MS	20.90	0	20	104	78 - 124		
1,1-Dichloroethane	75-34-3	MSD	19.80	0	20	99.1	78 - 124	RPD	<u>5.17</u> (Max-15)
1,1-Dichloroethene	75-35-4	MS	21	0	20	105	63 - 128		
1,1-Dichloroethene	75-35-4	MSD	18.90	0	20	94.3	63 - 128	RPD	<u>10.70</u> (Max-21)
1,1-Dichloropropene	563-58-6	MS	22.70	0	20	113	76 - 126		
1,1-Dichloropropene	563-58-6	MSD	21.30	0	20	107	76 - 126	RPD	<u>5.97</u> (Max-16)
1,2,3-Trichlorobenzene	87-61-6	MS	18.70	0	20	93.3	61 - 126		
1,2,3-Trichlorobenzene	87-61-6	MSD	19.60	0	20	98.2	61 - 126	RPD	<u>5.21</u> (Max-36)
1,2,3-Trichloropropane	96-18-4	MS	19.40	0	20	96.8	75 - 132		
1,2,3-Trichloropropane	96-18-4	MSD	18.70	0	20	93.7	75 - 132	RPD	<u>3.31</u> (Max-19)
1,2,4-Trichlorobenzene	120-82-1	MS	18.90	0	20	94.3	67 - 123		
1,2,4-Trichlorobenzene	120-82-1	MSD	18.60	0	20	93	67 - 123	RPD	<u>1.44</u> (Max-22)
1,2-Dibromo-3-chloropropane	96-12-8	MS	15.60	0	20	78	59 - 133		
1,2-Dibromo-3-chloropropane	96-12-8	MSD	16.20	0	20	80.9	59 - 133	RPD	<u>3.58</u> (Max-26)
1,2-Dibromoethane	106-93-4	MS	20.60	0	20	103	80 - 124		
1,2-Dibromoethane	106-93-4	MSD	21.10	0	20	105	80 - 124	RPD	<u>2.37</u> (Max-19)
1,2-Dichlorobenzene	95-50-1	MS	19.70	0	20	98.3	82 - 118		
1,2-Dichlorobenzene	95-50-1	MSD	19.40	0	20	96.8	82 - 118	RPD	<u>1.62</u> (Max-15)
1,2-Dichloroethane	107-06-2	MS	21.30	0	20	107	70 - 133		
1,2-Dichloroethane	107-06-2	MSD	21.10	0	20	106	70 - 133	RPD	<u>0.96</u> (Max-19)
1,2-Dichloropropane	78-87-5	MS	20	0	20	99.8	81 - 127		
1,2-Dichloropropane	78-87-5	MSD	19.60	0	20	98.1	81 - 127	RPD	<u>1.68</u> (Max-15)
1,3-Dichlorobenzene	541-73-1	MS	20.10	0	20	100	81 - 118		
1,3-Dichlorobenzene	541-73-1	MSD	19.80	0	20	99.1	81 - 118	RPD	<u>1.34</u> (Max-16)
1,3-Dichloropropane	142-28-9	MS	19.50	0	20	97.6	82 - 126		
1,3-Dichloropropane	142-28-9	MSD	19.60	0	20	98.2	82 - 126	RPD	<u>0.60</u> (Max-15)
1,4-Dichlorobenzene	106-46-7	MS	20.20	0	20	101	81 - 116		
1,4-Dichlorobenzene	106-46-7	MSD	19.40	0	20	97.1	81 - 116	RPD	<u>3.92</u> (Max-15)
2,2-Dichloropropane	594-20-7	MS	23.30	0	20	116	64 - 129		
2,2-Dichloropropane	594-20-7	MSD	21.70	0	20	108	64 - 129	RPD	<u>7.27</u> (Max-18)
2-Butanone	78-93-3	MS	95.40	0	100	95.4	50 - 152		
2-Butanone	78-93-3	MSD	96.10	0	100	96.1	50 - 152	RPD	<u>0.78</u> (Max-16)
2-Hexanone	591-78-6	MS	87.70	0	100	87.7	65 - 154		
2-Hexanone	591-78-6	MSD	86	0	100	86	65 - 154	RPD	<u>2.02</u> (Max-17)
4-Methyl-2-Pentanone(MIBK)	108-10-1	MS	89.60	0	100	89.6	71 - 146		
4-Methyl-2-Pentanone(MIBK)	108-10-1	MSD	91.90	0	100	91.9	71 - 146	RPD	<u>2.57</u> (Max-16)
Acetone	67-64-1	MS	83.80	0	100	83.8	40 - 151		
Acetone	67-64-1	MSD	78.40	0	100	78.4	40 - 151	RPD	<u>6.58</u> (Max-40)
Benzene	71-43-2	MS	21.80	0	20	109	80 - 124		
Benzene	71-43-2	MSD	20.80	0	20	104	80 - 124	RPD	<u>4.45</u> (Max-26)
Bromobenzene	108-86-1	MS	21.60	0	20	108	81 - 119		
Bromobenzene	108-86-1	MSD	20.70	0	20	103	81 - 119	RPD	<u>4.72</u> (Max-17)
Bromochloromethane	74-97-5	MS	23.50	0	20	118*	73 - 117		
Bromochloromethane	74-97-5	MSD	23.10	0	20	115	73 - 117	RPD	<u>2.06</u> (Max-19)
Bromodichloromethane	75-27-4	MS	22	0	20	110	79 - 126		



QUALITY CONTROL SAMPLES

VOLATILE ORGANICS (cont.)

RESULTS

Compound	CAS No		Result (ug/L)	Orig. Result (ug/L)	Spk Added (ug/L)	Rec. (%)	Limits (%)	RPD Limit (%)	Qualifiers
Bromodichloromethane	75-27-4	MSD	21.80	0	20	109	79 - 126	RPD <u>0.65</u> (Max-16)	
Bromoform	75-25-2	MS	19.30	0	20	96.5	70 - 123		
Bromoform	75-25-2	MSD	19.80	0	20	99.1	70 - 123	RPD <u>2.59</u> (Max-16)	
Bromomethane	74-83-9	MS	19.80	0	20	99	45 - 148		
Bromomethane	74-83-9	MSD	20.50	0	20	102	45 - 148	RPD <u>3.42</u> (Max-26)	
Carbon Tetrachloride	56-23-5	MS	24.70	0	20	124	62 - 132		
Carbon Tetrachloride	56-23-5	MSD	23	0	20	115	62 - 132	RPD <u>7.15</u> (Max-17)	
Chlorobenzene	108-90-7	MS	21.50	0	20	107	85 - 117		
Chlorobenzene	108-90-7	MSD	20.30	0	20	102	85 - 117	RPD <u>5.43</u> (Max-15)	
Chlorodibromomethane	124-48-1	MS	22.10	0	20	110	77 - 122		
Chlorodibromomethane	124-48-1	MSD	21.80	0	20	109	77 - 122	RPD <u>1.23</u> (Max-15)	
Chloroethane	75-00-3	MS	21.40	0	20	107	51 - 142		
Chloroethane	75-00-3	MSD	19.90	0	20	99.7	51 - 142	RPD <u>6.98</u> (Max-24)	
Chloroform	67-66-3	MS	21.90	0	20	109	78 - 122		
Chloroform	67-66-3	MSD	21.10	0	20	106	78 - 122	RPD <u>3.64</u> (Max-16)	
Chloromethane	74-87-3	MS	20	0	20	100	38 - 156		
Chloromethane	74-87-3	MSD	19	0	20	95.2	38 - 156	RPD <u>5.16</u> (Max-27)	
cis-1,2-Dichloroethene	156-59-2	MS	21.20	0	20	106	78 - 125		
cis-1,2-Dichloroethene	156-59-2	MSD	20.40	0	20	102	78 - 125	RPD <u>3.74</u> (Max-21)	
cis-1,3-Dichloropropene	10061-01-5	MS	19.70	0	20	98.4	81 - 121		
cis-1,3-Dichloropropene	10061-01-5	MSD	19.10	0	20	95.6	81 - 121	RPD <u>2.84</u> (Max-16)	
Dibromomethane	74-95-3	MS	21.70	0	20	109	81 - 125		
Dibromomethane	74-95-3	MSD	21.30	0	20	106	81 - 125	RPD <u>1.95</u> (Max-16)	
Dichlorodifluoromethane	75-71-8	MS	28.20	0	20	141	17 - 166		
Dichlorodifluoromethane	75-71-8	MSD	26.20	0	20	131	17 - 166	RPD <u>7.28</u> (Max-24)	
Diisopropyl ether	108-20-3	MS	19.20	0	20	95.8	74 - 131		
Diisopropyl ether	108-20-3	MSD	18.50	0	20	92.5	74 - 131	RPD <u>3.48</u> (Max-15)	
Ethylbenzene	100-41-4	MS	22.10	0	20	110	80 - 124		
Ethylbenzene	100-41-4	MSD	20.70	0	20	104	80 - 124	RPD <u>6.26</u> (Max-19)	
Hexachlorobutadiene	87-68-3	MS	21	0	20	105	55 - 128		
Hexachlorobutadiene	87-68-3	MSD	20	0	20	100	55 - 128	RPD <u>4.74</u> (Max-35)	
Methyl t-Butyl Ether	1634-04-4	MS	21.20	0	20	106	69 - 115		
Methyl t-Butyl Ether	1634-04-4	MSD	20.70	0	20	104	69 - 115	RPD <u>2.35</u> (Max-20)	
Methylene Chloride	75-09-2	MS	21	0	20	105	76 - 121		
Methylene Chloride	75-09-2	MSD	19.50	0	20	97.3	76 - 121	RPD <u>7.88</u> (Max-17)	
mp-Xylene	108383/106423	MS	44.70	0	40	112	79 - 125		
mp-Xylene	108383/106423	MSD	42.10	0	40	105	79 - 125	RPD <u>5.96</u> (Max-21)	
Naphthalene	91-20-3	MS	12.90	0	20	64.7	56 - 134		
Naphthalene	91-20-3	MSD	13.30	0	20	66.5	56 - 134	RPD <u>2.77</u> (Max-40)	
o-Chlorotoluene	95-49-8	MS	20.60	0	20	103	78 - 126		
o-Chlorotoluene	95-49-8	MSD	19.80	0	20	99.2	78 - 126	RPD <u>3.66</u> (Max-17)	
o-Xylene	95-47-6	MS	20.70	0	20	103	79 - 124		
o-Xylene	95-47-6	MSD	20.90	0	20	105	79 - 124	RPD <u>1.32</u> (Max-19)	
p-Chlorotoluene	106-43-4	MS	20.40	0	20	102	78 - 125		
p-Chlorotoluene	106-43-4	MSD	19.30	0	20	96.6	78 - 125	RPD <u>5.52</u> (Max-16)	
p-Isopropyltoluene	99-87-6	MS	22.40	0	20	112	72 - 123		
p-Isopropyltoluene	99-87-6	MSD	22.30	0	20	111	72 - 123	RPD <u>0.68</u> (Max-17)	
Styrene	100-42-5	MS	20	0	20	99.8	79 - 123		
Styrene	100-42-5	MSD	20.20	0	20	101	79 - 123	RPD <u>1.02</u> (Max-16)	



QUALITY CONTROL SAMPLES

VOLATILE ORGANICS (cont.)

RESULTS

Compound	CAS No		Result (ug/L)	Orig. Result (ug/L)	Spk Added (ug/L)	Rec. (%)	Limits (%)	RPD Limit (%)	Qualifiers
Tetrachloroethene	127-18-4	MS	22	0	20	110	72 - 124		
Tetrachloroethene	127-18-4	MSD	20.90	0	20	105	72 - 124	RPD 4.85 (Max-38)	
Toluene	108-88-3	MS	21.10	0	20	106	80 - 125		
Toluene	108-88-3	MSD	20.50	0	20	103	80 - 125	RPD 2.85 (Max-20)	
Total Xylenes	1330-20-7	MS	65.30	0	60	109	79 - 125		
Total Xylenes	1330-20-7	MSD	63	0	60	105	79 - 125	RPD 3.60 (Max-35)	
trans-1,2-Dichloroethene	156-60-5	MS	21.50	0	20	107	71 - 122		
trans-1,2-Dichloroethene	156-60-5	MSD	19.20	0	20	96	71 - 122	RPD 11.20 (Max-22)	
trans-1,3-Dichloropropene	10061-02-6	MS	20.70	0	20	103	78 - 126		
trans-1,3-Dichloropropene	10061-02-6	MSD	20.80	0	20	104	78 - 126	RPD 0.44 (Max-18)	
Trichloroethene	79-01-6	MS	22.70	0.72	20	110	77 - 124		
Trichloroethene	79-01-6	MSD	21.60	0.72	20	104	77 - 124	RPD 5.37 (Max-18)	
Trichlorofluoromethane	75-69-4	MS	24.70	0	20	123	38 - 123		
Trichlorofluoromethane	75-69-4	MSD	22.90	0	20	115	38 - 123	RPD 7.46 (Max-23)	
Vinyl Acetate	108-05-4	MS	17.40	0	20	87.2	58 - 136		
Vinyl Acetate	108-05-4	MSD	18.50	0	20	92.5	58 - 136	RPD 5.91 (Max-17)	
Vinyl Chloride	75-01-4	MS	21.20	0	20	106	27 - 138		
Vinyl Chloride	75-01-4	MSD	19.60	0	20	98	27 - 138	RPD 8.01 (Max-40)	

SURROGATES

Compound	CAS No		Result (ug/L)	Expected (ug/L)	Rec. (%)	Limits (%)	Qualifiers
1,2-Dichloroethane-d4	17060-07-0	MS	30.30	30	101	62 - 133	
1,2-Dichloroethane-d4	17060-07-0	MSD	31.30	30	104	62 - 133	
4-Bromofluorobenzene	460-00-4	MS	30.10	30	100	79 - 114	
4-Bromofluorobenzene	460-00-4	MSD	30.80	30	103	79 - 114	
Dibromofluoromethane	1868-53-7	MS	30.90	30	103	78 - 116	
Dibromofluoromethane	1868-53-7	MSD	31.90	30	106	78 - 116	
Toluene-d8	2037-26-5	MS	28	30	93.4	76 - 127	
Toluene-d8	2037-26-5	MSD	29.10	30	97	76 - 127	

Method Blank

3595069 (MB)

Created on 12/04/2022 22:58

For QC Batch 916914

RESULTS

Compound	CAS No		Result	Units	RDL	Qualifiers
1,1,1,2-Tetrachloroethane	630-20-6		BLK	1.0 U ug/L	1.0	U
1,1,1-Trichloroethane	71-55-6		BLK	1.0 U ug/L	1.0	U
1,1,2,2-Tetrachloroethane	79-34-5		BLK	1.0 U ug/L	1.0	U
1,1,2-Trichloroethane	79-00-5		BLK	1.0 U ug/L	1.0	U
1,1-Dichloroethane	75-34-3		BLK	1.0 U ug/L	1.0	U
1,1-Dichloroethene	75-35-4		BLK	1.0 U ug/L	1.0	U
1,1-Dichloropropene	563-58-6		BLK	1.0 U ug/L	1.0	U
1,2,3-Trichlorobenzene	87-61-6		BLK	2.0 U ug/L	2.0	U
1,2,3-Trichloropropane	96-18-4		BLK	2.0 U ug/L	2.0	U
1,2,4-Trichlorobenzene	120-82-1		BLK	2.0 U ug/L	2.0	U



QUALITY CONTROL SAMPLES

VOLATILE ORGANICS (cont.)

RESULTS

Compound	CAS No		Result	Units	RDL	Qualifiers
1,2-Dibromo-3-chloropropane	96-12-8	BLK	7.0 U	ug/L	7.0	U
1,2-Dibromoethane	106-93-4	BLK	1.0 U	ug/L	1.0	U
1,2-Dichlorobenzene	95-50-1	BLK	1.0 U	ug/L	1.0	U
1,2-Dichloroethane	107-06-2	BLK	1.0 U	ug/L	1.0	U
1,2-Dichloropropane	78-87-5	BLK	1.0 U	ug/L	1.0	U
1,3-Dichlorobenzene	541-73-1	BLK	1.0 U	ug/L	1.0	U
1,3-Dichloropropane	142-28-9	BLK	1.0 U	ug/L	1.0	U
1,4-Dichlorobenzene	106-46-7	BLK	1.0 U	ug/L	1.0	U
2,2-Dichloropropane	594-20-7	BLK	1.0 U	ug/L	1.0	U
2-Butanone	78-93-3	BLK	10.0 U	ug/L	10.0	U
2-Hexanone	591-78-6	BLK	5.0 U	ug/L	5.0	U
4-Methyl-2-Pentanone(MIBK)	108-10-1	BLK	5.0 U	ug/L	5.0	U
Acetone	67-64-1	BLK	10.0 U	ug/L	10.0	U
Benzene	71-43-2	BLK	1.0 U	ug/L	1.0	U
Bromobenzene	108-86-1	BLK	1.0 U	ug/L	1.0	U
Bromochloromethane	74-97-5	BLK	1.0 U	ug/L	1.0	U
Bromodichloromethane	75-27-4	BLK	1.0 U	ug/L	1.0	U
Bromoform	75-25-2	BLK	1.0 U	ug/L	1.0	U
Bromomethane	74-83-9	BLK	1.0 U	ug/L	1.0	U
Carbon Tetrachloride	56-23-5	BLK	1.0 U	ug/L	1.0	U
Chlorobenzene	108-90-7	BLK	1.0 U	ug/L	1.0	U
Chlorodibromomethane	124-48-1	BLK	1.0 U	ug/L	1.0	U
Chloroethane	75-00-3	BLK	1.0 U	ug/L	1.0	U
Chloroform	67-66-3	BLK	1.0 U	ug/L	1.0	U
Chloromethane	74-87-3	BLK	1.0 U	ug/L	1.0	U
cis-1,2-Dichloroethene	156-59-2	BLK	1.0 U	ug/L	1.0	U
cis-1,3-Dichloropropene	10061-01-5	BLK	1.0 U	ug/L	1.0	U
Dibromomethane	74-95-3	BLK	1.0 U	ug/L	1.0	U
Dichlorodifluoromethane	75-71-8	BLK	1.0 U	ug/L	1.0	U
Diisopropyl ether	108-20-3	BLK	1.0 U	ug/L	1.0	U
Ethylbenzene	100-41-4	BLK	1.0 U	ug/L	1.0	U
Hexachlorobutadiene	87-68-3	BLK	5.0 U	ug/L	5.0	U
Methyl t-Butyl Ether	1634-04-4	BLK	1.0 U	ug/L	1.0	U
Methylene Chloride	75-09-2	BLK	1.0 U	ug/L	1.0	U
mp-Xylene	108383/106423	BLK	2.0 U	ug/L	2.0	U
Naphthalene	91-20-3	BLK	2.0 U	ug/L	2.0	U
o-Chlorotoluene	95-49-8	BLK	1.0 U	ug/L	1.0	U
o-Xylene	95-47-6	BLK	1.0 U	ug/L	1.0	U
p-Chlorotoluene	106-43-4	BLK	1.0 U	ug/L	1.0	U
p-Isopropyltoluene	99-87-6	BLK	1.0 U	ug/L	1.0	U
Styrene	100-42-5	BLK	1.0 U	ug/L	1.0	U
Tetrachloroethene	127-18-4	BLK	1.0 U	ug/L	1.0	U
Toluene	108-88-3	BLK	1.0 U	ug/L	1.0	U
Total Xylenes	1330-20-7	BLK	3.0 U	ug/L	3.0	U
trans-1,2-Dichloroethene	156-60-5	BLK	1.0 U	ug/L	1.0	U
trans-1,3-Dichloropropene	10061-02-6	BLK	1.0 U	ug/L	1.0	U
Trichloroethene	79-01-6	BLK	1.0 U	ug/L	1.0	U
Trichlorofluoromethane	75-69-4	BLK	1.0 U	ug/L	1.0	U



QUALITY CONTROL SAMPLES

VOLATILE ORGANICS (cont.)

RESULTS

Compound	CAS No	Result	Units	RDL	Qualifiers
Vinyl Acetate	108-05-4	BLK	5.0 U ug/L	5.0	U
Vinyl Chloride	75-01-4	BLK	1.0 U ug/L	1.0	U

SURROGATES

Compound	CAS No	Result (ug/L)	Expected (ug/L)	Rec. (%)	Limits (%)	Qualifiers
1,2-Dichloroethane-d4	17060-07-0	BLK	29.40	30	98.1	62 - 133
4-Bromofluorobenzene	460-00-4	BLK	30.50	30	102	79 - 114
Dibromofluoromethane	1868-53-7	BLK	30.50	30	102	78 - 116
Toluene-d8	2037-26-5	BLK	28.70	30	95.5	76 - 127

Lab Control Standard 3595070 (LCS) Created on 12/04/2022 22:58 For QC Batch 916914

RESULTS

Compound	CAS No	Result (ug/L)	Orig. Result (ug/L)	Spk Added (ug/L)	Rec. (%)	Limits (%)	RPD Limit (%)	Qualifiers
1,1,1,2-Tetrachloroethane	630-20-6	LCS	22.60	20	113	78 - 121		
1,1,1-Trichloroethane	71-55-6	LCS	22.70	20	114	66 - 130		
1,1,2,2-Tetrachloroethane	79-34-5	LCS	18.40	20	92.1	74 - 135		
1,1,2-Trichloroethane	79-00-5	LCS	20.10	20	101	82 - 126		
1,1-Dichloroethane	75-34-3	LCS	20.20	20	101	78 - 124		
1,1-Dichloroethene	75-35-4	LCS	21.30	20	107	63 - 128		
1,1-Dichloropropene	563-58-6	LCS	22	20	110	76 - 126		
1,2,3-Trichlorobenzene	87-61-6	LCS	20.30	20	101	61 - 126		
1,2,3-Trichloropropane	96-18-4	LCS	18.20	20	90.8	75 - 132		
1,2,4-Trichlorobenzene	120-82-1	LCS	21.40	20	107	67 - 123		
1,2-Dibromo-3-chloropropane	96-12-8	LCS	16.40	20	81.8	59 - 133		
1,2-Dibromoethane	106-93-4	LCS	20.50	20	102	80 - 124		
1,2-Dichlorobenzene	95-50-1	LCS	20.40	20	102	82 - 118		
1,2-Dichloroethane	107-06-2	LCS	20.40	20	102	70 - 133		
1,2-Dichloropropane	78-87-5	LCS	19.70	20	98.7	81 - 127		
1,3-Dichlorobenzene	541-73-1	LCS	21.20	20	106	81 - 118		
1,3-Dichloropropane	142-28-9	LCS	19.60	20	98.2	82 - 126		
1,4-Dichlorobenzene	106-46-7	LCS	21	20	105	81 - 116		
2,2-Dichloropropane	594-20-7	LCS	25.60	20	128	64 - 129		
2-Butanone	78-93-3	LCS	92.20	100	92.2	50 - 152		
2-Hexanone	591-78-6	LCS	85.80	100	85.8	65 - 154		
4-Methyl-2-Pentanone(MIBK)	108-10-1	LCS	88.10	100	88.1	71 - 146		
Acetone	67-64-1	LCS	89.50	100	89.5	40 - 151		
Benzene	71-43-2	LCS	20.90	20	105	80 - 124		
Bromobenzene	108-86-1	LCS	21.50	20	108	81 - 119		
Bromochloromethane	74-97-5	LCS	22.30	20	112	73 - 117		
Bromodichloromethane	75-27-4	LCS	21.80	20	109	79 - 126		
Bromoform	75-25-2	LCS	20.80	20	104	70 - 123		
Bromomethane	74-83-9	LCS	24.30	20	122	45 - 148		
Carbon Tetrachloride	56-23-5	LCS	23.10	20	116	62 - 132		



QUALITY CONTROL SAMPLES

VOLATILE ORGANICS (cont.)

RESULTS

Compound	CAS No		Result (ug/L)	Orig. Result (ug/L)	Spk Added (ug/L)	Rec. (%)	Limits (%)	RPD Limit (%)	Qualifiers
Chlorobenzene	108-90-7	LCS	21.20		20	106	85 - 117		
Chlorodibromomethane	124-48-1	LCS	22.20		20	111	77 - 122		
Chloroethane	75-00-3	LCS	23.40		20	117	51 - 142		
Chloroform	67-66-3	LCS	21.70		20	108	78 - 122		
Chloromethane	74-87-3	LCS	21.40		20	107	38 - 156		
cis-1,2-Dichloroethene	156-59-2	LCS	20.80		20	104	78 - 125		
cis-1,3-Dichloropropene	10061-01-5	LCS	20.60		20	103	81 - 121		
Dibromomethane	74-95-3	LCS	20.70		20	103	81 - 125		
Dichlorodifluoromethane	75-71-8	LCS	25.90		20	130	17 - 166		
Diisopropyl ether	108-20-3	LCS	19.50		20	97.4	74 - 131		
Ethylbenzene	100-41-4	LCS	21.50		20	107	80 - 124		
Hexachlorobutadiene	87-68-3	LCS	24.80		20	124	55 - 128		
Methyl t-Butyl Ether	1634-04-4	LCS	20.80		20	104	69 - 115		
Methylene Chloride	75-09-2	LCS	20.10		20	101	76 - 121		
mp-Xylene	108383/106423	LCS	44.20		40	111	79 - 125		
Naphthalene	91-20-3	LCS	14.60		20	73.2	56 - 134		
o-Chlorotoluene	95-49-8	LCS	21		20	105	78 - 126		
o-Xylene	95-47-6	LCS	21.40		20	107	79 - 124		
p-Chlorotoluene	106-43-4	LCS	21.10		20	105	78 - 125		
p-Isopropyltoluene	99-87-6	LCS	23.50		20	117	72 - 123		
Styrene	100-42-5	LCS	21.70		20	109	79 - 123		
Tetrachloroethene	127-18-4	LCS	21.40		20	107	72 - 124		
Toluene	108-88-3	LCS	21.10		20	106	80 - 125		
Total Xylenes	1330-20-7	LCS	65.60		60	109	79 - 125		
trans-1,2-Dichloroethene	156-60-5	LCS	20.70		20	104	71 - 122		
trans-1,3-Dichloropropene	10061-02-6	LCS	21.70		20	109	78 - 126		
Trichloroethene	79-01-6	LCS	21.50		20	107	77 - 124		
Trichlorofluoromethane	75-69-4	LCS	24.60		20	123	38 - 123		
Vinyl Acetate	108-05-4	LCS	18.90		20	94.5	58 - 136		
Vinyl Chloride	75-01-4	LCS	23		20	115	27 - 138		

SURROGATES

Compound	CAS No		Result (ug/L)	Expected (ug/L)	Rec. (%)	Limits (%)	Qualifiers
1,2-Dichloroethane-d4	17060-07-0	LCS	28.40	30	94.6	62 - 133	
4-Bromofluorobenzene	460-00-4	LCS	30.70	30	102	79 - 114	
Dibromofluoromethane	1868-53-7	LCS	30.60	30	102	78 - 116	
Toluene-d8	2037-26-5	LCS	28.60	30	95.4	76 - 127	



QUALITY CONTROL DATA CROSS REFERENCE TABLE

Lab ID	Sample ID	Preparation Method	Prep Batch	Prep Date/Time	By	Analysis Method	Anly Batch
3275166001	MW-34D	SW846 3510C N/A	912308 N/A	11/25/2022 06:25 N/A	MXL	SW846 8270E SIM SW846 8260D	914158 915259
3275166002	MW-35D	SW846 3510C N/A	912308 N/A	11/25/2022 06:25 N/A	MXL	SW846 8270E SIM SW846 8260D	914158 915259
3275166003	MW-33D-235	SW846 3510C N/A	912308 N/A	11/25/2022 06:25 N/A	MXL	SW846 8270E SIM SW846 8260D	914158 915259
3275166004	MW-33D-295	SW846 3510C N/A	912308 N/A	11/25/2022 06:25 N/A	MXL	SW846 8270E SIM SW846 8260D	914158 915259
3275166005	MW-31D	SW846 3510C N/A	912308 N/A	11/25/2022 06:25 N/A	MXL	SW846 8270E SIM SW846 8260D	914158 915259
3275166006	MW-29D	SW846 3510C N/A	912308 N/A	11/25/2022 06:25 N/A	MXL	SW846 8270E SIM SW846 8260D	914158 915259
3275166007	MW-30D-273	SW846 3510C N/A	912308 N/A	11/25/2022 06:25 N/A	MXL	SW846 8270E SIM SW846 8260D	914158 915259
3275166008	MW-30D-413	SW846 3510C N/A	913853 N/A	11/28/2022 10:50 N/A	LDC	SW846 8270E SIM SW846 8260D	914227 915259
3275166009	MW-32D	SW846 3510C N/A	913853 N/A	11/28/2022 10:50 N/A	LDC	SW846 8270E SIM SW846 8260D	914227 915259
3275166010	MW-28D	SW846 3510C N/A	913853 N/A	11/28/2022 10:50 N/A	LDC	SW846 8270E SIM SW846 8260D	914227 915795
3275166011	MW-36D	SW846 3510C N/A	913853 N/A	11/28/2022 10:50 N/A	LDC	SW846 8270E SIM SW846 8260D	914227 915795
3275166012	MW-45	SW846 3510C N/A	913853 N/A	11/28/2022 10:50 N/A	LDC	SW846 8270E SIM SW846 8260D	914227 915795
3275166013	MW-24D	SW846 3510C SW846 3510C N/A N/A	913853 913853 N/A N/A	11/28/2022 10:50 11/28/2022 10:50 N/A N/A	LDC LDC	SW846 8270E SIM SW846 8270E SIM SW846 8260D SW846 8260D	914227 915208 916914 915795
3275166014	MW-25D-130	SW846 3510C SW846 3510C N/A	913853 913853 N/A	11/28/2022 10:50 11/28/2022 10:50 N/A	LDC LDC	SW846 8270E SIM SW846 8270E SIM SW846 8260D	915208 914227 915795
3275166015	MW-25D-190	SW846 3510C N/A	913853 N/A	11/28/2022 10:50 N/A	LDC	SW846 8270E SIM SW846 8260D	914227 915795
3275166016	Dup-112122	SW846 3510C N/A	913853 N/A	11/28/2022 10:50 N/A	LDC	SW846 8270E SIM SW846 8260D	914227 915795
3275166017	Trip Blank-C	N/A	N/A	N/A		SW846 8260D	915795
3275166018	Trip Blank-D	N/A	N/A	N/A		SW846 8260D	915795



301 Fulling Mill Rd, Suite A
Middletown, PA 17057
P. 717-944-5541

**CHAIN OF CUSTODY/
REQUEST FOR ANALYSIS**
**ALL SHADED AREAS MUST BE COMPLETED BY THE CLIENT /
SAMPLER. INSTRUCTIONS ON THE BACK.**

Client Name: WSP
Address: 13530 Dulles Technology Or
Suite 300
Herndon VA 20171
Contact: Eric Johnson
Phone#: (703) 709-6500
Project Name#: 31405608.011
Bill To:
Purchase Order #: TAT
 Normal-Standard TAT is 10-12 business days.
 Rush-Subject to ALS approval and surcharges.
Date Required: 11/21/22 Approved?
Email? eric.johnson@wsp.com

Container Type: CG AG
Container Size: 40 250
Preservative: HCl Nom
Unless otherwise indicated, preservation indicates field filtration on applicable methods

ANALYSES/METHOD REQUESTED

SDWA Sample Type (see key)	Enter Number of Containers Per Sample or Field Results Below.
VOCs	2
1,4-Dioxin	2

Sample Description/Location (as it will appear on the lab report)	Date Collected mm/dd/yy	Time hh:mm
1 MW-340	11/21/22	0840
2 MW-350	11/21/22	0855
3 MW-330-235	11/21/22	0935
4 MW-330-295	11/21/22	0940
5 MW-310	11/21/22	1005
6 MW-29	11/21/22	1015
7 MW-30-273	11/21/22	1030
8 MW-300-413	11/21/22	1040
9 MW-330	11/21/22	1150
10 MW-28D	11/21/22	1130

Temp Taken By: MJE Therm ID: TH510 WO Temp (°C) 32
Receipt Info completed by:
Cooler Custody Seals Intact: Y N NA
S: Y N NA
R: Y N NA
C: Y N NA
Temp Taken By: DPB MJE
WO Temp (°C): 520 32
Receipt Info Completed By:
Cooler Custody Seal Intact: Y N NA
Sample Custody Seal Intact: Y N NA
Received on Ice: Y N NA
Cooler & Samples Intact: Y N NA
Correct Containers Provided: Y N NA
Sample Label/COC Agree: Y N NA
Adequate Sample Volumes: Y N NA
VDA Headspace Present: Y N NA
Voa Trip Blank: Y N NA
NLS 4 Days? Y N NA
Rad Screen (uCi): Y N NA
New Source? Y N NA
New Source Contact:
SDWA Compliance: Y N NA
PWSID: Y N NA
WV Containers 0.6°C: Y N NA

Client contact: _____
Date/Tech: _____
Rad Screen (uCi): _____
New Source? Y N NA
New Source Contact: _____
SDWA Compliance: Y N NA
PWSID: Y N NA
WV Containers 0.6°C: Y N NA
R-Raw P=Plant U=Urnck V=Special A=Annual Startup
on E-Entry Point
Sample/COC Remarks:
No Collection
DPB
11/21/22
Contains Short Hold Testing YES NO
Internal Use: If less than 48 hours - notify lab upon receipt

Deliverables
Standard Lvl 1: CLP-like HSCA
Standard Lvl 2: DOD Landfill
Standard Lvl 3: NJ RED NJ GW
Standard Lvl 4: NJ Full
Excel Summary
Equis: Lab
Custom: Special
State Samples Collected In: NY NJ PA WV FL other

Comments:
Received By / Company Name: Eric Johnson
Relinquished By / Company Name: Eric Johnson
Date: 11/21/22 Time: 1530 ID: 21330
11-21-22 1740 ALS Exor P
4 6 8 10

*G=Grab; C=Composite
*Matrix - A=Air; D=Drinking Water; GW=Groundwater; O=Oil; LW=Liquid Waste; S=Solid Soil/Sludge; SW=Surface Water; WP=Wipes; WW=Wastewater
ALS CHAIN OF CUSTODY REQUEST FOR ANALYSIS FORM - 11/2018

COC #: 1092
ALS Quote #:



3275166
Logged By: CXM
PH: SJB

