VIA ELECTRONIC MAIL

July 31, 2024

Moshood Oduwole
Remedial Project Manager
U.S. Environmental Protection Agency, Region III
4 Penn Center
Mail Code – 3LD10
Philadelphia, PA 19103

Subject: **Quarterly Progress Report No. 31**
Former Kop-Flex Facility Site, Hanover, Maryland
USEPA ID No. MDD043373935
Administrative Order on Consent, Docket No. RCRA-03-2016-0170 CA

Dear Moshood:

On behalf of EMERSUB 16, LLC, a subsidiary of Emerson Electric Co. (Emerson), WSP USA, Inc. (WSP) is submitting this quarterly progress report describing the activities conducted in the 2nd Quarter of calendar year 2024 (April 1st through June 30th) as part of the corrective measures implementation at the former Kop-Flex, Inc. facility property located at 7555 Harmans Road (Site) in Hanover, Maryland. The Site is identical to the area described as the "Facility" in the Administrative Order on Consent, Docket No. RCRA-03-2016-0170 CA (Consent Order). The report also describes the activities planned for the 3rd Quarter of calendar year 2024 (July 1st through September 30th).

This progress report is being submitted to the U.S. Environmental Protection Agency (EPA) pursuant to Section VI.C.3 of the Consent Order. Please note that, in addition to performing the work conducted under the Consent Order, EMERSUB 16 continues to perform the remedial activities specified in the October 2015 Response Action Plan (RAP) approved by the Maryland Department of the Environment (MDE) Voluntary Cleanup Program, and that EMERSUB 16 copies USEPA on all submittals required under that program.

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

Kind regards,

Robert E. Johnson
Vice President – Earth & Environment

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Encl.

cc: Mr. Stephen Clarke, EMERSUB 16 LLC
Mr. Tate Stevens, Voluntary Cleanup Program Section, MDE
Mr. Brian Deitz, Site Assessment and Remediation Division, MDE

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CERTIFICATION

I certify that the information contained in or accompanying this quarterly progress report is true, accurate, and complete.

As to those portions of this quarterly progress report for which I cannot personally verify their accuracy, I certify under penalty of law that this quarterly report and all attachments were prepared in accordance with procedures designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, or the immediate supervisor of such person(s), the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fines and imprisonment for knowing violations.

Signature: 

Name: Stephen L. Clarke

Title: President of EMERSUB 16, LLC

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Site Name: Former Kop-Flex Inc.
Site Address: 7555 Harmans Road
Hanover, Maryland 21077

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

Project Coordinator: Eric Johnson
Alternate: Lisa Kelly

1.0 ACTIVITIES COMPLETED DURING APRIL 2024 – JUNE 2024 REPORTING PERIOD

1.1 HYDRAULIC CONTAINMENT SYSTEM OPERATION

– The hydraulic containment system (System) operated for 90 of the 91 days during the second quarter of 2024, which equates to a 99% run-time efficiency over this 3-month period. There was one very brief system shutdown on June 27th during the reporting period due to a breaker being tripped by the system's air compressor operation.

  On May 20th, during a routine operation and maintenance (O&M) visit, the System technician noticed the submersible pump in well RW-2D was not running due to a tripped circuit breaker. Upon resetting the breaker and restarting the pump, a loud "pop" was heard coming from the panel housing electrical components for the recovery wells. Examination of the components indicated damage to the variable frequency drive (VFD) and load reactor, which is used to protect the VFD and pump motor. Given the failure of the load reactor, electrical power was no longer being provided to run the RW-2D pump. WSP has been working to assess the electrical components for the deep recovery wells and make repairs and modifications to bring well RW-2D back on-line and limit future damage to the load reactors and VFDs.

  As during the previous reporting periods, there was no extraction of groundwater from shallow recovery well RW-3S. Given the adequate hydraulic influence via pumping of RW-1S and RW-2S and minimal contaminant mass recovery from RW-3S, WSP plans to keep this well temporarily shut-down to allow for the completion of additional rehabilitation activities to improve well performance.

– A total of approximately 6.30 million gallons of impacted groundwater were extracted and treated during the second quarter of 2024, with the combined average daily withdrawal rate ranging from 35 gallons per minute (GPM) to 63 GPM. The low end of the flow range reflects the absence of groundwater pumping from well RW-2D, while the high end corresponds to the full-scale operation of the System, with both deep recovery wells in operation. Effluent samples were collected for chemical analysis in accordance with the requirements specified in the renewed National Pollutant Discharge Elimination System (NPDES) Permit for the System, which became effective on November 1, 2023. The analytical results for all monitoring parameters complied with the effluent limitations specified in the NPDES Permit.

– To monitor chlorinated volatile organic compounds (CVOCs) and 1,4-dioxane mass removal and treatment efficiency by the System, samples of both the influent and effluent were collected and analyzed during the reporting period. Monthly effluent samples were collected from April 2024 through June 2024 in accordance with the NPDES Permit. The total concentration of CVOCs and 1,4-dioxane in the April influent sample was 450 micrograms per liter (µg/L), which is higher than the results for the samples collected in 2023, but lower than the results for the sample collected in the first quarter of 2024. Since the majority of the influent water was derived from the deep recovery wells, the relative proportions of the various Site-related constituents likely reflect the contaminant distribution in the deep zone of the Lower Patapsco aquifer. As of the end of June 2024, an estimated total

of 541 pounds of CVOCs and 217 pounds of 1,4-dioxane have been recovered from the impacted portion of the Lower Patapsco aquifer.

– Non-detect CVOC and 1,4-dioxane results were reported for the effluent samples collected during the reporting period, with the exception of the May 2024 monitoring event where 1,4-dioxane was present at a concentration of 2.0 µg/L. This 1,4-dioxane level is well below the site-specific cleanup level of 15 µg/L and generally consistent with concentrations detected in previous samples of the treated groundwater. The non-detect to very low concentrations of 1,4-dioxane in the samples reflect the presence of sufficient treatment capacity for the System resin.

1.2 REMOVAL OF IRON-CONTAINING DEPOSITS FROM SHALLOW RECOVERY WELL CONVEYANCE PIPING

- Since 2022, regular maintenance has been necessary to remove reddish-colored, iron-containing deposits from the submersible pumps, in-well water discharge lines, and in-vault water conveyance piping for shallow recovery wells RW-1S and RW-2S. Even with the periodic cleaning of the iron precipitates from these components, the flow rates from these wells have exhibited a gradual decline. This flow reduction is believed to be largely due to the accumulation of these iron-containing deposits within the water conveyance lines extending from the well vaults to the treatment building.
- Based on these findings, on May 13th, the jetting, or flushing, of high-pressure, potable water was used to remove the accumulated iron deposits from the water conveyance piping extending from the RW-1S and RW-2S well vaults to the treatment building. Iron-containing wastewater generated during the line jetting activities was containerized in two 55-gallon drums, sampled for chemical characterization and shipped offsite on June 7th for disposal by Clean Harbors Environmental Services.
- Prior to line-jetting activities, RW-1S and RW-2S had average flow rates of 1-2 GPM. Upon completion of line-jetting of the conveyance lines, the rates for RW-1S and RW-2S were reading approximately 5 GPM and 1 GPM, respectively, a flow increase of approximately 4 GPM from the shallow portion of the Lower Patapsco aquifer into the System.

1.3 GROUNDWATER LEVEL MONITORING

– Groundwater level monitoring is conducted semi-annually to gather data to evaluate the hydraulic head conditions in both the shallow and deep zones of the Lower Patapsco aquifer at the Site. Based on historical water level data collected under non-remedial pumping conditions, groundwater in the shallow zone of the Lower Patapsco aquifer flows to the north and west toward Stony Run, while flow paths are to the south-southeast in the deep (confined) zone of the aquifer.

  During the reporting period, water level measurements were collected from the shallow and deep monitoring wells and all recovery well piezometers except RW-2D the week of May 19, 2024. The water level data for this and previous measurement rounds is provided in Table 1. A measurement could not be obtained at the RW-2D piezometer due to the presence of the transducer cable. WSP plans to re-deploy the pressure transducer inside the well casing to ensure water level readings can be obtained during future measurement events.

– Contour maps depicting the water table (Figure 1) and piezometric surface in the lower portion of the shallow zone (Figure 2) were generated from the May 2024, measurements. Evaluation of the groundwater elevations and gradients in the shallow zone are discussed separately below.

– The contouring of the groundwater elevations determined from the May data showed spatial variations in the water table and piezometric surface for the lower portion of the shallow zone that closely resemble those from previous measurement rounds under remedial pumping conditions.

  The water table contour map (Figure 1) indicates a generally west-northwest flow of groundwater in the uppermost portion of the shallow zone of the Lower Patapsco aquifer across the Site, with the continued presence of a lowering in the groundwater surface around well MW-38R that is associated with pumping from recovery wells RW-1S and RW-2S. A slight rise of the water table in the area around MW-09 is interpreted to reflect the enhanced recharge (movement of water downward through the soils) to the groundwater system, which is associated with the routing of surface water runoff to the small storm water management area

(SWMA) located in the east-central portion of the Site. The enhanced infiltration of runoff in this SWMA, compared to the surrounding paved area, causes the localized increase in the water table elevation in the immediate area, and results in localized groundwater flow to the east away from the SWMA towards MW-04R and a small portion of the adjoining William-Scotsman property.

As with previous measurement rounds, the most pronounced decline in water levels in the shallow zone of the Lower Patapsco aquifer occurred within the permeable sand deposits comprising the lower portion of this hydrogeologic unit, with a well-developed cone of depression in the piezometric surface in the vicinity of recovery well RW-1S and extending to the north and south (Figure 2). Based on the head contours, groundwater in the eastern portion of the Site flows in a north and west direction toward the recovery wells. (This flow of groundwater in the shallow zone differs from the southerly direction of groundwater movement in the deep confined zone discussed below.) The May 2024 contour map for the lower portion of the shallow zone depicts a hydraulic capture zone extending northward toward monitoring well MW-43 and underneath most of Catalent Building 1 and southward below Catalent Building 2 toward MW-44 and the property boundary (Figure 2). The capture area also extends westward toward Stony Run and its bordering flood zone. The extraction of groundwater from RW-1S and RW-2S appears to impart sufficient hydraulic influence to contain the migration of Site-related contaminants in the shallow zone of the Lower Patapsco aquifer.

– The potentiometric surface contour map for the deep, confined zone of the Lower Patapsco aquifer generated from the May 2024 water level data is provided in Figure 3. The hydraulic head distribution shows a perturbation in the flow field around RW-1D, indicating a slight depression in the potentiometric surface along the southern property boundary in response to groundwater withdrawals from this well. Evaluation of the head distribution indicates drawdown of the potentiometric surface extending south onto the adjoining William Scotsman property. However, with RW-2D being off-line, the observed drawdown area does not extend toward the southeastern portion of the Site. The decline in the head caused by the pumping at RW-1D results in the movement of groundwater toward this extraction well, with the potential for COC-affected groundwater near the southeast corner of the Site to bypass the radius of influence of this well.

1.4 GROUNDWATER QUALITY MONITORING

– In accordance with the Groundwater Monitoring Plan, groundwater quality samples were collected during the week of May 19, 2024, from all but one of the onsite monitoring wells identified for semi-annual sampling. Samples were also obtained of the groundwater discharge from the operating shallow and deep recovery wells at this time to assess the contaminant concentrations at each extraction point. Monitoring well MW-39 was not sampled during the May field activities because the HydraSleeve™ dropped from its tether line during removal. The sampler was ultimately retrieved but had to be re-deployed in the well. WSP returned to the Site in mid-June 2024 to collect the water quality sample from this monitoring well.

  Groundwater samples from the shallow and deep monitoring wells were collected using 38-inch or 3.2-foot HydraSleeve™ samplers. The HydraSleeves™ were suspended with the top, or inlet port, of the sampler placed at the midpoint of the 10-foot screened interval in each well. Given this deployment depth, retrieval would fill the sampler through the overlying interval of the well screen equal to the length of the sampler (Table 2).

– Samples from the monitoring wells were obtained by carefully removing the HydraSleeve™ sampler from the well and decanting a representative portion of the collected water into the laboratory-supplied containers. A separate aliquot of sample was poured into the sampling cup of a hand-held water quality meter to measure temperature, pH, specific conductance, and turbidity in the field. The results of these measurements for each sampling location are provided in Table 3. At well MW-16, which is designated for the collection of a matrix spike/matrix spike duplicate (MS/MSD) sample and MW-16D where a field duplicate is collected, insufficient volume was left over to collect field parameters for the groundwater.

  Samples of the groundwater discharge from on-line recovery wells were collected via sampling ports located in the well head piping. A small amount of water was purged from the sampling port and collected in a 5-gallon bucket followed by the collection of the sample directly into the containers.

All water samples were submitted to the Australian Laboratory Services (ALS) Global laboratory in Middletown, Pennsylvania, and analyzed for VOCs using USEPA SW-846 Test Method 8260D and 1,4-dioxane using USEPA Test Method 8270E with selected ion monitoring (SIM).

- Analytical results for the site-related CVOCs and 1,4-dioxane are summarized in Table 4 for the monitoring well samples. A copy of the certified laboratory analytical report for the samples is included in Enclosures A and B. Historical (December 2016 to present) data for the monitoring well samples are provided in Table 5. Analytical results for the site-related CVOCs and 1,4-dioxane in the recovery well discharge samples are summarized in Table 6. The certified analytical results for these samples are included in the laboratory report provided in Enclosure C.

- The distribution of CVOC and 1,4-dioxane concentrations in the May 2024 groundwater samples from the monitoring wells in the shallow zone of the Lower Patapsco Aquifer mostly decreased relative to levels detected in the December 2023 samples (Table 5). As with previous sampling events, the highest concentrations of site-related contaminants of concern (COCs) were detected in the sample collected from MW-16, which had a total concentration of COCs of 3,796 µg/l (Table 4). This total concentration reflects a decrease in COC levels from December 2023, with concentrations of 1,1-dichloroethane (1,1-DCA), 1,1-dichlorothene (1,1-DCE), and 1,4-dioxane all decreasing by approximately 60 percent. In contrast, 1,1,1-trichlorothane (1,1,1-TCA) concentrations were relatively similar between the December 2023 and May 2024 sampling events (Figure 4; Table 5). Overall, the recent concentrations in this well mark a return to levels observed in samples collected between 2019 and 2022 and may be representative of a return to normal pumping conditions during the last half of 2023 and beginning of 2024.

  In the eastern part of the Site upgradient of the recovery wells, concentrations of 1,1-DCA (386 µg/l) and 1,1-DCE (560 µg/l) both decreased slightly between December 2023 and May 2024 at the MW-20 location. Despite this decrease, these concentrations are historically high compared to the sampling history of the well prior to December 2023. As noted in the prior report, the recent increase in the levels of these two compounds indicate a marked change from the long-term trend. A possible explanation for higher CVOC levels is the change in both the sampling interval depth and length of the sampler compared to historical sampling events, with higher concentrations in the groundwater flowing into the upper portion of the screened interval compared to the middle portion of the screen. Vertical changes in the CVOC concentrations could be related to subtle differences in the sandy aquifer materials within the screened interval and matrix diffusion effects from a clayey layer immediately overlying the sandy deposits. The concentration of 1,4-dioxane (396 µg/l), remained nearly constant between the last two sampling events. This relative stability may be because 1,4-dioxane is more mobile in groundwater than the CVOCs, and therefore less susceptible to vertical changes in concentration. The results of the May 2024 sample collected from MW-04R continue to indicate lower concentrations of 1,1-DCA (36.0 µg/l), 1,1-DCE (76.0 µg/l), and 1,4-dioxane (26.7 µg/l) compared to the historical samples collected from MW-04 (Table 5; Figure 4). Concentrations of 1,1-DCA and 1,1-DCE have fluctuated by approximately 15 percent or less in MW-04R with slightly greater variations (on the order of 20 to 50 percent) in the concentrations of 1,4-dioxane. Generally, these variations are less than those that were historically observed in MW-04 and may reflect less influence of water moving downward from the SWMA through the soil to the water table. Concentrations of 1,1-DCE continue to exceed its groundwater quality criterion at well MW-09, which is located downgradient (northwest) of MW-04R and the SWMA, and a slight exceedence was observed in the concentration of 1,1-DCA (2.7 µg/l).

  Overall, lower COC concentrations were detected in the shallow monitoring wells in the western part of the Site where the recovery wells are in operation (Table 4, Figure 4). Concentrations of one or more site-related COCs exceeded the groundwater quality criteria in the samples from wells MW-38R, MW-43, and MW-44. At MW-43, concentrations of 1,1-DCA (1.5 µg/l) and 1,1-DCE (17.3 µg/l), and 1,4-dioxane (6.3 µg/l) remain unchanged or decreasing slightly during the last four sampling events and are at historical lows. These results are consistent with a trend of decreasing VOC concentrations in this well throughout its sampling history.

- For the deep monitoring well samples, the CVOC and 1,4-dioxane concentrations in the May 2024 results are generally similar to levels detected historically with some exceptions (Table 5; Figure 5). At MW-16D, which has the highest concentrations of site-related COCs, the latest results indicate slight decreases in 1,1-DCA (20.5 µg/l) and 1,1-DCE (96.6 µg/l) relative to the December 2023 sample. These declines are consistent with the historical trend of decreasing concentrations of COCs at this location

throughout its sampling history. The concentration of 1,4-dioxane (19.1 µg/l) decreased by nearly 50 percent between the two most recent sampling events (Table 5).

In the upgradient portion of the plume (MW-23D), typical seasonal variations resulted in the concentration of 1,4-dioxane decreasing between December 2023 and May 2024, from 56 µg/l to 24 µg/l.[1] Concentrations of 1,1-DCA (32.7 µg/l) and 1,1-DCE (134 µg/l) decreased by 21 percent and 24 percent, respectively, in this well between the December 2023 and May 2024 sampling events.

In the southern portion of the Site, the concentrations of 1,1-DCE (6.3 µg/l) and 1,4-dioxane (4.3 µg/l) in the May 2024 sample from well MW-21D decreased significantly relative to the December 2023 event. The recent decreases in these CVOCs mark a reversal in a trend of increasing concentrations observed in the sample results since 2022. The sample collected from MW-22D, which is situated near the eastern boundary of the COC plume, had concentrations of 1,1-DCE (5.5 µg/l) and 1,4-dioxane (1.1 µg/l) below the comparative criteria.

- Total concentrations of detectable CVOCs and 1,4-dioxane in the May samples from recovery wells RW-1S and RW-2S were 942 µg/l and 907 µg/l, respectively, which are lower than the concentrations detected in previous samples from December 2023. The COC concentrations in the sample from deep recovery well RW-1D (563.6 µg/l) were also slightly lower than the previous (December 2023) sample (580.4 µg/l), with 1,1-DCA (81.2 µg/l), 1,1-DCE (329 µg/l), and 1,4-dioxane (127 µg/l) detected at concentrations above the comparative criteria (Table 6; Figure 6). The decreased COC levels in the May 2024 samples are believed to reflect temporal changes in mass-removal after the system was restarted during the 3rd quarter of 2023.

2.0 PLANNED ONSITE ACTIVITIES FOR THE THIRD QUARTER OF 2024

- Continue with the operation and as needed maintenance activities for the System, along with the collection and assessment of operational data to evaluate System performance.
- Complete the necessary maintenance and repairs to the electrical panel to bring recovery well RW-2D back on-line and improve the operation of the submersible pumps in the deep recovery wells.
- Conduct the required monthly effluent monitoring and reporting pursuant to the renewed NPDES Permit.
- Complete the redevelopment and post-redevelopment yield testing of shallow recovery well RW-3S and decide on the future status of this well based on the results of the rehabilitation activities.
- Submit the 2023 Operation, Maintenance and Monitoring Report for the System to MDE and USEPA.
- Update the informational content related to the onsite corrective measures/response action activities on the Former Kop-Flex Inc. website.

3.0 KEY PERSONNEL/FACILITY CHANGES

There were no changes to key personnel for the corrective action or onsite conditions related to the activities conducted by the facility operator during the reporting period.

[1] This change is similar to seasonal variations of the same magnitude in the 2022 and 2023 samples.

FIGURES

STONY RUN

POND

WILLIAMS SCOTSMAN, INC.

TREATMENT EQUIPMENT BUILDING

CATALENT BUILDING 1

CATALENT BUILDING 2

MW-03

MW-43

MW-09 115.07

MW-39

MW-38R 107.12

RW-1S

RW-2S

RW-3S

MW-42 107.93

MW-18

MW-5R 108.52

MW-44

MW-01 115.40

MW-16

MW-04R 114.64

MW-20

MW-45 114.32

107.5

108.5

109.5

110.5

111.5

112.5

113.5

114.5

114.5

POND

LEGEND

- PROPERTY LINE
- STREAM/EDGE OF WATER
- FENCE LINE
- STORMWATER MANAGEMENT AREA
- SHALLOW MONITORING WELL
- SHALLOW EXTRACTION WELL
- 115.40 GROUNDWATER SURFACE ELEVATION (FEET MSL)
- GROUNDWATER SURFACE CONTOUR (DASHED WHERE INFERRED)
- GROUNDWATER FLOW PATH

NOTE:

THE MAY 2024 GROUNDWATER ELEVATION CONTOURS ARE REPRESENTATIVE OF PUMPING CONDITIONS AT RECOVERY WELLS RW-1S AND RW-2S (RW-3S WAS OFF-LINE).

0 140 280

SCALE IN FEET

THE ORIGINAL VERSION OF THIS DRAWING IS IN COLOR. BLACK & WHITE COPIES MAY NOT ACCURATELY DEPICT CERTAIN INFORMATION.

B

Drawn By: EGC
Checked: [signature] 7/17/2024
Approved: [signature]
DWG Name: 314V5608.010-079

FORMER KOP-FLEX FACILITY SITE
HANOVER, MARYLAND

PREPARED FOR
EMERSUB 16 LLC
ST. LOUIS, MISSOURI

FIGURE 1

WATER TABLE CONTOUR MAP, PUMPING CONDITIONS (MAY 2024)

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TEL: +1 703.709.6500

STONY RUN

POND

WILLIAMS SCOTSMAN, INC.

CATALENT BUILDING 1

CATALENT BUILDING 2

TREATMENT EQUIPMENT BUILDING

MW-03 106.67

MW-09

MW-43 100.88

MW-39 101.40

MW-38R

RW-1S 102.23

MW-42

RW-2S 102.93

MW-18 102.24

MW-5R

RW-3S NM

MW-44 111.59

MW-01

MW-16 113.23

MW-04R

MW-20 114.33

106 105 104 102 103 104 105 106 107 108 109 110 111 112 113 114 104 105 106 107 108 109 110 111 112 113 114

?

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POND

LEGEND

- PROPERTY LINE
- STREAM/EDGE OF WATER
- FENCE LINE
- STORMWATER MANAGEMENT AREA
- SHALLOW MONITORING WELL
- SHALLOW EXTRACTION WELL
- 100.88 PIEZOMETRIC SURFACE ELEVATION (FEET MSL
- PIEZOMETRIC SURFACE CONTOUR (DASHED WHERE INFERRED)
- GROUNDWATER FLOW PATH
- APPROXIMATE RADIUS OF HYDRAULIC CAPTURE

NOTE:

THE MAY 2024 GROUNDWATER ELEVATION CONTOURS ARE REPRESENTATIVE OF PUMPING CONDITIONS AT RECOVERY WELLS RW-1S AND RW-2S (RW-3S WAS OFF-LINE).

0 140 280

SCALE IN FEET

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Drawn By: EGC
Checked: 7/17/2024
Approved: RM
DWG Name: 314V5608.010-080

FORMER KOP-FLEX FACILITY SITE
HANOVER, MARYLAND

PREPARED FOR
EMERSUB 16 LLC
ST. LOUIS, MISSOURI

FIGURE 2

PIEZOMETRIC SURFACE CONTOUR MAP FOR THE LOWER PORTION OF THE SHALLOW ZONE OF THE LOWER PATASPCO AQUIFER (MAY 2024)

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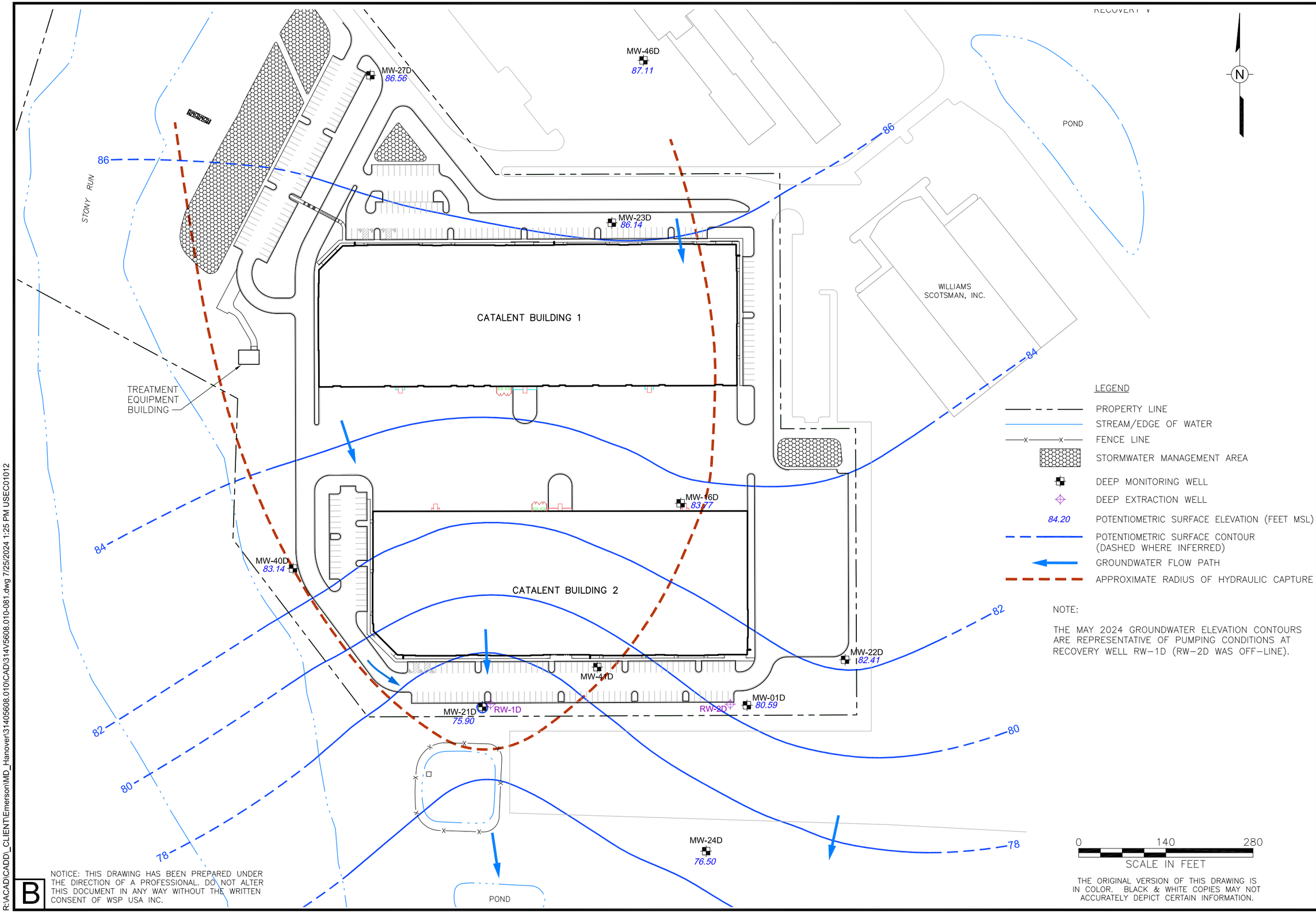

LEGEND

- PROPERTY LINE
- STREAM/EDGE OF WATER
- FENCE LINE
- STORMWATER MANAGEMENT AREA
- DEEP MONITORING WELL
- DEEP EXTRACTION WELL
- 84.20 POTENTIOMETRIC SURFACE ELEVATION (FEET MSL)
- POTENTIOMETRIC SURFACE CONTOUR (DASHED WHERE INFERRED)
- GROUNDWATER FLOW PATH
- APPROXIMATE RADIUS OF HYDRAULIC CAPTURE

NOTE:

THE MAY 2024 GROUNDWATER ELEVATION CONTOURS ARE REPRESENTATIVE OF PUMPING CONDITIONS AT RECOVERY WELL RW-1D (RW-2D WAS OFF-LINE).

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Drawn By: EGC
Checked: 7/17/2024
Approved: 7/25/2024
DWG Name: 314V5608.010-081

FORMER KOP-FLEX FACILITY SITE
HANOVER, MARYLAND

PREPARED FOR
EMERSUB 16 LLC
ST. LOUIS, MISSOURI

FIGURE 3

POTENTIOMETRIC SURFACE CONTOUR MAP FOR THE DEEP ZONE OF THE LOWER PATAPSCO AQUIFER (DECEMBER 2023)

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VERIZON

MW-46D

MW-27D

STONY RUN

POND

MW-23D

CATALENT BUILDING 1

CATALENT BUILDING 2

TREATMENT EQUIPMENT BUILDING

MW-03

WILLIAMS SCOTSMAN, INC.

MW-09	5/19/24
1,1-DCA	***2.9***
1,2-DCA	ND
1,1-DCE	***60.7***
1,4-Dioxane	3.8
1,1,1-TCA	ND
TCE	ND

MW-16	5/19/24
1,1-DCA	***1,160***
1,2-DCA	ND
1,1-DCE	***1,640***
1,4-Dioxane	***91.4***
1,1,1-TCA	***905***
TCE	ND

MW-04R	5/19/24
1,1-DCA	***36.0***
1,2-DCA	ND
1,1-DCE	***76.0***
1,4-Dioxane	***26.7***
1,1,1-TCA	ND
TCE	ND

MW-20	5/19/24
1,1-DCA	***386***
1,2-DCA	***12.6***
1,1-DCE	***560***
1,4-Dioxane	***396***
1,1,1-TCA	ND
TCE	***5.1***

MW-43	5/19/24
1,1-DCA	1.5
1,2-DCA	ND
1,1-DCE	***17.3***
1,4-Dioxane	6.3
1,1,1-TCA	ND
TCE	ND

MW-39	6/12/24
1,1-DCA	ND
1,2-DCA	ND
1,1-DCE	ND
1,4-Dioxane	ND
1,1,1-TCA	ND
TCE	ND

MW-38R	5/19/24
1,1-DCA	***8.1***
1,2-DCA	ND
1,1-DCE	ND
1,4-Dioxane	10.0
1,1,1-TCA	ND
TCE	ND

MW-42	5/19/24
1,1-DCA	ND
1,2-DCA	ND
1,1-DCE	ND
1,4-Dioxane	3.7
1,1,1-TCA	ND
TCE	ND

MW-44	5/19/24
1,1-DCA	***3.3***
1,2-DCA	ND
1,1-DCE	5.0
1,4-Dioxane	1.9
1,1,1-TCA	5.8
TCE	ND

MW-43 MW-39 MW-38R MW-42 MW-18 MW-40D MW-5R RW-1S RW-2S RW-3S MW-44 MW-21D RW-1D MW-41D MW-16 MW-16D MW-04 MW-04R MW-20 MW-45 MW-09 MW-22D MW-01D MW-01 RW-2D MW-24D

LEGEND

- PROPERTY LINE
- STREAM/EDGE OF WATER
- FENCE LINE
- STORMWATER MANAGEMENT AREA
- SHALLOW MONITORING WELL
- DEEP MONITORING WELL
- ABANDONED WELL
- SHALLOW EXTRACTION WELL
- DEEP EXTRACTION WELL

MW-44 / 5/19/24 — WELL ID / DATE

1,1-DCA	***3.3***
1,2-DCA	ND
1,1-DCE	5.0
1,4-Dioxane	1.9
1,1,1-TCA	5.8
TCE	ND

CONCENTRATION (ug/l) (BOLD ITALIC EXCEEDS CLEANUP LEVELS)

CONSTITUENT

ND	NON DETECT
1,1-DCA	1,1–DICHLOROETHANE
1,2-DCA	1,2–DICHLOROETHANE
1,1-DCE	1,1–DICHLOROETHENE
1,1,1-TCA	1,1,1–TRICHLOROETHANE
TCE	TRICHLOROETHENE

Cleanup Levels	µg/l
1,1-DCA	2.8
1,2-DCA	5
1,1-DCE	7
1,4-Dioxane	15
1,1,1-TCA	200
TCE	5

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SCALE IN FEET

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Checked: 7/17/2024
Approved: 7/25/2024
DWG Name: 314V5608.010-082

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

FIGURE 4

SAMPLING RESULTS FOR THE MONITORING WELLS SCREENED IN THE SHALLOW ZONE OF THE LOWER PATAPSCO AQUIFER (MAY AND JUNE 2024)

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

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VERIZON

STONY RUN

POND

WILLIAMS SCOTSMAN, INC.

CATALENT BUILDING 1

CATALENT BUILDING 2

TREATMENT EQUIPMENT BUILDING

MW-46D

MW-27D

MW-23D

MW-23D	
	5/19/24
1,1-DCA	***32.7***
1,2-DCA	1.4
1,1-DCE	***134***
1,4-Dioxane	***24.2***
1,1,1-TCA	6,9
TCE	ND

MW-03

MW-43

MW-09

MW-39

MW-38R

RW-1S

MW-42

MW-18

RW-2S

MW-5R

MW-40D

RW-3S

MW-44

MW-41D

MW-04R

MW-20

MW-04

MW-16

MW-16D

MW-16D		
	5/19/24	5/19/24
1,1-DCA	***20.5***	***20.7***
1,2-DCA	1.1	1.1
1,1-DCE	***96.6***	***96.6***
1,4-Dioxane	***18.7***	***19.1***
1,1,1-TCA	4.5	4.4
TCE	ND	ND

MW-22D

MW-22D	
	5/19/24
1,1-DCA	ND
1,2-DCA	ND
1,1-DCE	***5.5***
1,4-Dioxane	1.1
1,1,1-TCA	ND
TCE	ND

MW-01D

MW-01

RW-2D

MW-21D

RW-1D

MW-21D	
	5/19/24
1,1-DCA	ND
1,2-DCA	ND
1,1-DCE	***6.3***
1,4-Dioxane	4.3
1,1,1-TCA	ND
TCE	ND

MW-01D	
	5/19/24
1,1-DCA	2.4
1,2-DCA	ND
1,1-DCE	***17.1***
1,4-Dioxane	3.1
1,1,1-TCA	ND
TCE	ND

MW-24D

MW-45

LEGEND

- PROPERTY LINE
- STREAM/EDGE OF WATER
- FENCE LINE
- STORMWATER MANAGEMENT AREA
- SHALLOW MONITORING WELL
- DEEP MONITORING WELL
- ABANDONED WELL
- SHALLOW EXTRACTION WELL
- DEEP EXTRACTION WELL

MW-01D — WELL ID
5/19/24 — DATE
2.4 — CONCENTRATION (ug/l) (BOLD ITALIC EXCEEDS CLEANUP LEVELS)
TCE — CONSTITUENT

ND	NON DETECT
1,1-DCA	1,1-DICHLOROETHANE
1,2-DCA	1,2-DICHLOROETHANE
1,1-DCE	1,1-DICHLOROETHENE
1,1,1-TCA	1,1,1-TRICHLOROETHANE
TCE	TRICHLOROETHENE

Cleanup Levels	
	µg/l
1,1-DCA	2.8
1,2-DCA	5
1,1-DCE	7
1,4-Dioxane	15
1,1,1-TCA	200
TCE	5

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SCALE IN FEET

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Drawn By: EGC
Checked: 7/17/2024
Approved: 7/25/2024
DWG Name: 314V5608.010-082

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

FIGURE 5

SAMPLING RESULTS FOR THE MONITORING WELLS SCREENED IN THE DEEP ZONE OF THE LOWER PATAPSCO AQUIFER (MAY 2024)

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

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VERIZON

MW-46D

MW-27D

STONY RUN

POND

MW-23D

WILLIAMS SCOTSMAN, INC.

TREATMENT EQUIPMENT BUILDING

MW-03

CATALENT BUILDING 1

MW-43

MW-09

MW-39

MW-04R

MW-45

MW-20

MW-04

MW-38R

RW-1S

MW-16

MW-16D

MW-42

MW-18

RW-2S

MW-5R

MW-40D

CATALENT BUILDING 2

RW-3S

MW-22D

MW-41D

MW-44

MW-01D

MW-01

MW-21D

RW-1D

RW-2D

MW-24D

RW-1S	
	5/19/24
1,1-DCA	***170***
1,2-DCA	ND
1,1-DCE	***574***
1,4-Dioxane	***128***
1,1,1-TCA	50.6
TCE	ND

RW-2S	
	5/19/24
1,1-DCA	***67.8***
1,2-DCA	ND
1,1-DCE	***406***
1,4-Dioxane	***27.9***
1,1,1-TCA	***405***
TCE	ND

RW-1D	
	5/19/24
1,1-DCA	***81.2***
1,2-DCA	ND
1,1-DCE	***329***
1,4-Dioxane	***127***
1,1,1-TCA	17.1
TCE	ND

LEGEND

- PROPERTY LINE
- STREAM/EDGE OF WATER
- FENCE LINE
- STORMWATER MANAGEMENT AREA
- SHALLOW MONITORING WELL
- DEEP MONITORING WELL
- ABANDONED WELL
- SHALLOW EXTRACTION WELL
- DEEP EXTRACTION WELL

RW-1S	
	5/19/24
1,1-DCA	***170***
1,2-DCA	ND
1,1-DCE	***574***
1,4-Dioxane	***128***
1,1,1-TCA	50.6
TCE	ND

WELL ID

DATE

CONCENTRATION (ug/l) (BOLD ITALIC EXCEEDS CLEANUP LEVELS)

CONSTITUENT

ND	NON DETECT
1,1-DCA	1,1–DICHLOROETHANE
1,2-DCA	1,2–DICHLOROETHANE
1,1-DCE	1,1–DICHLOROETHENE
1,1,1-TCA	1,1,1–TRICHLOROETHANE
TCE	TRICHLOROETHENE

Cleanup Levels	
	µg/l
1,1-DCA	2.8
1,2-DCA	5
1,1-DCE	7
1,4-Dioxane	15
1,1,1-TCA	200
TCE	5

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SCALE IN FEET

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Approved: 7/25/2024
DWG Name: 314V5608.010-082

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

FIGURE 6

GROUNDWATER RECOVERY WELL RESULTS
(MAY 2024)

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

TABLES

Table 1

Historical Water Level Measurements in
Onsite Monitoring Wells and Recovery Well Piezometers
Former Kop-Flex Facility Site
Hanover, Maryland
(December 2016 to May 2024) (a)

Well ID	Zone	TOC elevation	12/7/2016 (c)		2/1/2017 (c)		3/21/2017		4/7/2017		4/10/2017	
			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-01	Shallow	129.8	NM	-	15.98	113.82	16.16	113.64	15.93	113.87	15.95	113.85
MW-03	Shallow	113.6	6.78	106.82	6.83	106.77	6.79	106.81	6.41	107.19	6.76	106.84
MW-04	Shallow	124.4	12.28	112.12	11.14	113.26	11.17	113.23	11.05	113.35	11.09	113.31
MW-04R (b)	Shallow	127.5	NA	-	NA	-	NA	-	NA	-	NA	-
MW-5R	Shallow	123.5	15.87	107.63	13.49	110.01	15.98	107.52	16.15	107.35	16.38	107.12
MW-09	Shallow	125.1	10.84	114.26	11.30	113.80	11.51	113.59	11.41	113.69	11.41	113.69
MW-16	Shallow	124.0	10.92	113.08	11.12	112.88	11.66	112.34	11.74	112.26	11.81	112.19
MW-18	Shallow	125.1	20.77	104.33	20.84	104.26	22.85	102.25	22.85	102.25	23.11	101.99
MW-20	Shallow	125.4	NM	-	12.24	113.16	12.5	112.90	12.33	113.07	12.31	113.09
MW-38R	Shallow	125.4	15.58	109.82	15.76	109.64	19.64	105.76	19.6	105.80	20.81	104.59
MW-39	Shallow	124.6	NM	-	20.96	103.64	22.64	101.96	22.55	102.05	21.86	102.74
MW-42	Shallow	125.9	16.18	109.72	16.26	109.64	19.28	106.62	19.33	106.57	19.52	106.38
MW-43	Shallow	122.8	19.25	103.55	19.31	103.49	20.68	102.12	20.31	102.49	20.61	102.19
MW-44	Shallow	127.1	14.93	112.17	15.25	111.85	17.7	109.40	17.08	110.02	17.18	109.92
MW-45	Shallow	126.7	NM	-	NM	-	14.1	112.62	13.85	112.87	13.85	112.87
RW-1S	Shallow	122.9	12.96	109.94	13.17	109.73	12.96	109.94	20.36	102.54	20.6	102.30
RW-2S	Shallow	123.5	14.12	109.38	14.02	109.48	28.55	94.95	28.88	94.62	29.81	93.69
RW-3S	Shallow	125.4	14.29	111.11	14.24	111.16	20.34	105.06	23.49	101.91	23.59	101.81
MW-01D	Deep	129.4	42.81	86.59	42.22	87.18	56.15	73.25	56.06	73.34	56.22	73.18
MW-16D	Deep	124.1	34.91	89.19	34.72	89.38	37.55	86.55	37.6	86.50	38.02	86.08
MW-21D	Deep	126.3	37.8	88.50	37.59	88.71	47.12	79.18	47.26	79.04	47.57	78.73
MW-22D	Deep	128.9	40.78	88.07	40.49	88.36	43.28	85.57	43.3	85.55	43.59	85.26
MW-23D	Deep	125.2	35.14	90.06	34.74	90.46	36.33	88.87	36.29	88.91	36.72	88.48
MW-24D	Deep	129.1	46.3	82.80	45.73	83.37	47.44	81.66	47.71	81.39	48	81.10
MW-27D	Deep	117.2	29.66	87.54	26.78	90.42	27.73	89.47	27.68	89.52	28.18	89.02
MW-40D	Deep	124.1	35.14	88.96	34.94	89.16	37.19	86.91	37.51	86.59	37.98	86.12
MW-41D	Deep	127.1	41.98	85.12	41.44	85.66	44.00	83.10	44.06	83.04	44.48	82.62
MW-46D	Deep	124.8	NM	-	NM	-	NM	-	NM	-	NM	-
RW-1D	Deep	126.9	38.53	88.37	38.19	88.71	58.69	68.21	59.02	67.88	59.06	67.84
RW-2D	Deep	127.4	42.31	85.09	41.62	85.78	68.82	58.58	68.51	58.89	68.39	59.01

a/ Vertical datum is NAVD-88
NM = not measured
TOC = top of casing
NA = not available because the well had not been installed
Light gray shading denotes wells screened in the shallow (unconfined) zone; blue shading denotes wells screened in the deep (confined) zone.
Continuous pumping of the groundwater recovery well system started on March 29, 2017.
Water levels from both shallow and deep recovery wells were measured in piezometers co-located with the wells.
b/ MW-04 was replaced in September 2022 with MW-04R.
c/ Water level measurements representative of non-pumping conditions in the aquifer system.

Table 1

Historical Water Level Measurements in
Onsite Monitoring Wells and Recovery Well Piezometers
Former Kop-Flex Facility Site
Hanover, Maryland
(December 2016 to May 2024) (a)

Well ID	Zone	TOC elevation	4/13/2017		4/17/2017		5/1/2017		5/8/2017		8/31/2017	
			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-01	Shallow	129.8	15.94	113.86	15.90	113.90	15.92	113.88	15.81	113.99	15.49	114.31
MW-03	Shallow	113.6	6.91	106.69	6.90	106.70	6.96	106.64	6.87	106.73	7.59	106.01
MW-04	Shallow	124.4	11.06	113.34	11.13	113.27	10.95	113.45	10.91	113.49	10.66	113.74
MW-04R (b)	Shallow	127.5	NA	-	NA	-	NA	-	NA	-	NA	-
MW-5R	Shallow	123.5	16.45	107.05	16.47	107.03	16.60	106.90	16.60	106.90	16.90	106.60
MW-09	Shallow	125.1	11.51	113.59	11.48	113.62	11.41	113.69	11.34	113.76	11.09	114.01
MW-16	Shallow	124.0	11.82	112.18	12.08	111.92	11.99	112.01	11.81	112.19	11.90	112.10
MW-18	Shallow	125.1	23.18	101.92	23.19	101.91	23.30	101.80	23.28	101.82	24.63	100.47
MW-20	Shallow	125.4	12.3	113.10	13.38	112.02	13.01	112.39	12.24	113.16	12.39	113.01
MW-38R	Shallow	125.4	19.81	105.59	19.84	105.56	19.94	105.46	19.96	105.44	20.16	105.24
MW-39	Shallow	124.6	23	101.60	23.01	101.59	23.05	101.55	23.00	101.60	24.51	100.09
MW-42	Shallow	125.9	19.49	106.41	19.55	106.35	19.68	106.22	19.67	106.23	19.95	105.95
MW-43	Shallow	122.8	21.81	100.99	20.92	101.88	21.11	101.69	20.90	101.90	21.73	101.07
MW-44	Shallow	127.1	17.35	109.75	17.23	109.87	17.31	109.79	17.27	109.83	17.18	109.92
MW-45	Shallow	126.7	13.85	112.87	13.75	112.97	13.67	113.05	13.60	113.12	13.20	113.52
RW-1S	Shallow	122.9	20.56	102.34	20.60	102.30	20.80	102.10	20.79	102.11	21.49	101.41
RW-2S	Shallow	123.5	29	94.50	29.14	94.36	29.61	93.89	29.74	93.76	32.10	91.40
RW-3S	Shallow	125.4	23.69	101.71	23.73	101.67	24.32	101.08	24.46	100.94	26.20	99.20
MW-01D	Deep	129.4	56.44	72.96	56.37	73.03	56.40	73.00	56.29	73.11	56.70	72.70
MW-16D	Deep	124.1	38.1	86.00	37.94	86.16	37.98	86.12	38.08	86.02	41.1	83.00
MW-21D	Deep	126.3	47.61	78.69	47.58	78.72	47.54	78.76	47.61	78.69	56.7	69.60
MW-22D	Deep	128.9	43.76	85.09	43.73	85.12	43.82	85.03	43.81	85.04	46.71	82.14
MW-23D	Deep	125.2	36.81	88.39	36.61	88.59	36.71	88.49	36.77	88.43	39.9	85.30
MW-24D	Deep	129.1	48.16	80.94	48.29	80.81	48.35	80.75	48.37	80.73	55.82	73.28
MW-27D	Deep	117.2	28.3	88.90	28.03	89.17	28.21	88.99	28.21	88.99	31.11	86.09
MW-40D	Deep	124.1	37.98	86.12	37.85	86.25	38.01	86.09	38.04	86.06	41.00	83.10
MW-41D	Deep	127.1	44.56	82.54	44.43	82.67	44.61	82.49	44.62	82.48	49.18	77.92
MW-46D	Deep	124.8	NM	-	NM	-	NM	-	NM	-	NM	-
RW-1D	Deep	126.9	59.02	67.88	59.26	67.64	58.88	68.02	58.99	67.91	60.23	66.67
RW-2D	Deep	127.4	68.78	58.62	68.63	58.77	68.70	58.70	68.44	58.96	70.11	57.29

a/ Vertical datum is NAVD-88
NM = not measured
TOC = top of casing
NA = not available because the well had not been installed
Light gray shading denotes wells screened in the shallow (unconfined) zone; blue shading denotes wells screened in the deep (confined) zone.
Continuous pumping of the groundwater recovery well system started on March 29, 2017.
Water levels from both shallow and deep recovery wells were measured in piezometers co-located with the wells.
c/ MW-04 was replaced in September 2022 with MW-04R.
b/ Water level measurements representative of non-pumping conditions in the aquifer system.

Table 1

Historical Water Level Measurements in
Onsite Monitoring Wells and Recovery Well Piezometers
Former Kop-Flex Facility Site
Hanover, Maryland
(December 2016 to May 2024) (a)

Well ID	Zone	TOC elevation	10/25/2017		11/14/2017		5/30/2018		11/7/2018		5/21/2019	
			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-01	Shallow	129.8	NA	NA	14.17	115.63	15.52	114.28	13.99	115.81	13.98	115.82
MW-03	Shallow	113.6	NA	NA	7.27	106.33	7.17	106.43	6.43	107.17	7.08	106.52
MW-04	Shallow	124.4	NA	NA	10.97	113.43	10.19	114.21	9.16	115.24	8.80	115.60
MW-04R (b)	Shallow	127.5	NA	-	NA	-	NA	-	NA	-	NA	-
MW-5R	Shallow	123.5	NA	NA	16.78	106.72	15.89	107.61	15.51	107.99	15.74	107.76
MW-09	Shallow	125.1	NA	NA	NA	NA	10.78	114.32	9.16	115.94	9.61	115.49
MW-16	Shallow	124.0	NA	NA	12.00	112.00	11.76	112.24	10.96	113.04	9.37	114.63
MW-18	Shallow	125.1	NA	NA	24.41	100.69	23.80	101.30	23.13	101.97	22.97	102.13
MW-20	Shallow	125.4	NA	NA	11.98	113.42	12.15	113.25	11.74	113.66	10.64	114.76
MW-38R	Shallow	125.4	NA	NA	19.93	105.47	19.35	106.05	18.67	106.73	19.13	106.27
MW-39	Shallow	124.6	NA	NA	23.93	100.67	23.72	100.88	23.09	101.51	23.00	101.60
MW-42	Shallow	125.9	NA	NA	19.82	106.08	19.16	106.74	18.55	107.35	18.91	106.99
MW-43	Shallow	122.8	NA	NA	21.66	101.14	20.47	102.33	20.60	102.20	21.46	101.34
MW-44	Shallow	127.1	NA	NA	17.00	110.10	16.32	110.78	15.78	111.32	15.91	111.19
MW-45	Shallow	126.7	NA	NA	13.80	112.92	12.98	113.74	12.00	114.72	11.75	114.97
RW-1S	Shallow	122.9	NA	NA	21.98	100.92	22.88	100.02	23.97	98.93	26.42	96.48
RW-2S	Shallow	123.5	NA	NA	30.76	92.74	28.37	95.13	27.48	96.02	31.16	92.34
RW-3S	Shallow	125.4	NA	NA	28.47	96.93	26.91	98.49	24.39	101.01	22.10	103.30
MW-01D	Deep	129.4	58.17	71.23	58.09	71.31	58.03	71.37	57.22	72.18	56.55	72.85
MW-16D	Deep	124.1	40.71	83.39	40.63	83.47	40.37	83.73	39.33	84.77	38.30	85.80
MW-21D	Deep	126.3	50.61	75.69	50.53	75.77	50.38	75.92	49.61	76.69	48.38	77.92
MW-22D	Deep	128.9	46.74	82.11	46.25	82.60	46.30	82.55	35.31	93.54	44.02	84.83
MW-23D	Deep	125.2	39.21	85.99	39.04	86.16	38.87	86.33	37.72	87.48	36.88	88.32
MW-24D	Deep	129.1	52.15	76.95	51.99	77.11	50.94	78.16	50.72	78.38	49.67	79.43
MW-27D	Deep	117.2	30.52	86.68	30.34	86.86	30.20	87.00	29.17	88.03	28.15	89.05
MW-40D	Deep	124.1	40.75	83.35	40.50	83.60	40.44	83.66	39.60	84.50	38.50	85.60
MW-41D	Deep	127.1	47.94	79.16	47.71	79.39	47.56	79.54	46.56	80.54	45.42	81.68
MW-46D	Deep	124.8	NM	-	NM	-	37.37	87.40	32.65	92.12	35.47	89.30
RW-1D	Deep	126.9	62.62	64.28	63.62	63.28	62.75	64.15	62.97	63.93	62.44	64.46
RW-2D	Deep	127.4	68.90	58.50	68.95	58.45	69.21	58.19	68.34	59.06	68.19	59.21

a/ Vertical datum is NAVD-88
NM = not measured
TOC = top of casing
NA = not available because the well had not been installed
Light gray shading denotes wells screened in the shallow (unconfined) zone; blue shading denotes wells screened in the deep (confined) zone.
Continuous pumping of the groundwater recovery well system started on March 29, 2017.
Water levels from both shallow and deep recovery wells were measured in piezometers co-located with the wells.
c/ MW-04 was replaced in September 2022 with MW-04R.
b/ Water level measurements representative of non-pumping conditions in the aquifer system.

Table 1

Historical Water Level Measurements in
Onsite Monitoring Wells and Recovery Well Piezometers
Former Kop-Flex Facility Site
Hanover, Maryland
(December 2016 to May 2024) (a)

Well ID	Zone	TOC elevation	11/19/2019		5/12/2020		11/22/2020		5/9/2021		11/14/2021 (c)	
			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-01	Shallow	129.8	16.47	113.33	15.67	114.13	15.58	114.22	14.75	115.05	15.35	114.45
MW-03	Shallow	113.6	7.02	106.58	6.09	107.51	6.1	107.50	6.4	107.20	5.86	107.74
MW-04	Shallow	124.4	11.07	113.33	11.00	113.40	10.85	113.55	9.75	114.65	10.43	113.97
MW-04R (b)	Shallow	127.5	NA	-	NA	-	NA	-	NA	-	NA	-
MW-5R	Shallow	123.5	16.61	106.89	16.55	106.95	15.84	107.66	NM	-	13.52	109.98
MW-09	Shallow	125.1	12.00	113.10	11.57	113.53	11.23	113.87	10.35	114.75	10.85	114.25
MW-16	Shallow	124.0	12.43	111.57	11.66	112.34	11.68	112.32	11.15	112.85	11.05	112.95
MW-18	Shallow	125.1	21.12	103.98	23.10	102.00	23.80	101.30	26.71	98.39	21.42	103.68
MW-20	Shallow	125.4	12.98	112.42	12.57	112.83	12.11	113.29	11.22	114.18	11.34	114.06
MW-38R	Shallow	125.4	19.83	105.57	19.03	106.37	19.25	106.15	18.55	106.85	15.63	109.77
MW-39	Shallow	124.6	23.94	100.66	23.04	101.56	23.52	101.08	22.98	101.62	21.29	103.31
MW-42	Shallow	125.9	19.44	106.46	18.85	107.05	NM	-	17.98	107.92	15.64	110.26
MW-43	Shallow	122.8	22.04	100.76	20.98	101.82	21.91	100.89	21.02	101.78	20.10	102.70
MW-44	Shallow	127.1	17.24	109.86	16.30	110.80	16.52	110.58	16.26	110.84	15.21	111.89
MW-45	Shallow	126.7	14.55	112.17	NM	-	13.61	113.11	12.69	114.03	13.35	113.37
RW-1S	Shallow	122.9	28.64	94.26	29.16	93.74	28.13	94.77	25.00	97.90	13.28	109.62
RW-2S	Shallow	123.5	31.70	91.80	33.33	90.17	35.31	88.19	34.85	88.65	16.02	107.48
RW-3S	Shallow	125.4	23.24	102.16	22.85	102.55	26.72	98.68	25.36	100.04	15.69	109.71
MW-01D	Deep	129.4	59.49	69.91	57.17	72.23	59.91	69.49	57.46	71.94	45.20	84.20
MW-16D	Deep	124.1	40.99	83.11	38.67	85.43	39.97	84.13	38.81	85.29	37.06	87.04
MW-21D	Deep	126.3	50.75	75.55	48.50	77.80	50.37	75.93	48.64	77.66	41.50	84.80
MW-22D	Deep	128.9	46.20	82.65	44.05	84.80	46.55	82.30	44.72	84.13	43.36	85.49
MW-23D	Deep	125.2	39.40	85.80	37.16	88.04	39.22	85.98	37.36	87.84	36.73	88.47
MW-24D	Deep	129.1	51.12	77.98	48.80	80.30	53.02	76.08	50.01	79.09	49.40	79.70
MW-27D	Deep	117.2	30.68	86.52	28.64	88.56	30.62	86.58	28.89	88.31	28.72	88.48
MW-40D	Deep	124.1	41.16	82.94	38.59	85.51	40.97	83.13	39.00	85.10	37.48	86.62
MW-41D	Deep	127.1	48.50	78.60	45.28	81.82	48.65	78.45	45.95	81.15	44.51	82.59
MW-46D	Deep	124.8	37.90	86.87	35.73	89.04	37.72	87.05	35.95	88.82	35.62	89.15
RW-1D	Deep	126.9	64.86	62.04	NM	-	NM	-	NM	-	41.71	85.19
RW-2D	Deep	127.4	71.36	56.04	69.35	58.05	69.72	57.68	69.41	57.99	43.90	83.50

a/ Vertical datum is NAVD-88
NM = not measured
TOC = top of casing
NA = not available because the well had not been installed
Light gray shading denotes wells screened in the shallow (unconfined) zone; blue shading denotes wells screened in the deep (confined) zone.
Continuous pumping of the groundwater recovery well system started on March 29, 2017.
Water levels from both shallow and deep recovery wells were measured in piezometers co-located with the wells.
b/ MW-04 was replaced in September 2022 with MW-04R.
c/ Water level measurements representative of non-pumping conditions in the aquifer system.

Table 1

Historical Water Level Measurements in
Onsite Monitoring Wells and Recovery Well Piezometers
Former Kop-Flex Facility Site
Hanover, Maryland
(December 2016 to May 2024) (a)

Well ID	Zone	TOC elevation	6/26/2022 (c)		11/7/2022		11/20/2022		5/21/2023		12/3/2023		5/19-5/20/2024	
			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-01	Shallow	129.8	14.85	114.95	15.66	114.14	15.65	114.15	15.22	114.58	15.73	114.07	14.4	115.40
MW-03	Shallow	113.6	6.21	107.39	6.39	107.21	6.29	107.31	6.63	106.97	6.9	106.70	6.93	106.67
MW-04	Shallow	124.4	9.90	114.50	-	- (b)	-	- (b)	-	- (b)	-	- (b)	-	- (b)
MW-04R (b)	Shallow	127.5	NA	-	13.93	113.54	14.01	113.46	13.60	113.87	14.11	113.36	12.83	114.64
MW-5R	Shallow	123.5	14.36	109.14	NM	-	15.95	107.55	13.53	109.97	15.32	108.18	14.98	108.52
MW-09	Shallow	125.1	10.50	114.60	10.81	114.29	11.08	114.02	10.90	114.20	11.29	113.81	10.03	115.07
MW-16	Shallow	124.0	11.22	112.78	11.84	112.16	11.75	112.25	11.79	112.21	11.68	112.32	10.77	113.23
MW-18	Shallow	125.1	22.05	103.05	23.37	101.73	23.39	101.71	21.46	103.64	23.69	101.41	22.86	102.24
MW-20	Shallow	125.4	14.41	110.99	11.35	114.05	11.73	113.67	11.80	113.60	11.81	113.59	11.07	114.33
MW-38R	Shallow	125.4	17.66	107.74	19.32	106.08	19.01	106.39	16.76	108.64	18.18	107.22	18.28	107.12
MW-39	Shallow	124.6	22.22	102.38	23.74	100.86	23.49	101.11	21.72	102.88	23.63	100.97	23.20	101.40
MW-42	Shallow	125.9	NM	-	18.68	107.22	18.48	107.42	15.89	110.01	17.83	108.07	17.97	107.93
MW-43	Shallow	122.8	20.47	102.33	21.58	101.22	21.51	101.29	20.10	102.70	22.15	100.65	21.92	100.88
MW-44	Shallow	127.1	15.80	111.30	16.12	110.98	15.85	111.25	15.30	111.80	15.91	111.19	15.51	111.59
MW-45	Shallow	126.7	12.91	113.81	NM	-	13.54	113.18	13.08	113.64	13.54	113.18	12.40	114.32
RW-1S	Shallow	122.9	NM	-	20.77	102.13	20.41	102.49	13.22	109.68	18.10	104.80	20.67	102.23
RW-2S	Shallow	123.5	NM	-	29.30	94.20	28.82	94.68	14.70	108.80	28.91	94.59	20.57	102.93
RW-3S	Shallow	125.4	NM	-	NM	-	16.94	108.46	15.82	109.58	NM	-	16.97	108.43
MW-01D	Deep	129.4	47.46	81.94	NM	-	60.02	69.38	45.61	83.79	58.66	70.74	48.81	80.59
MW-16D	Deep	124.1	NM	-	NM	-	NM	-	37.56	86.54	41.89	82.21	40.33	83.77
MW-21D	Deep	126.3	43.11	83.19	NM	-	51.95	74.35	40.86	85.44	51.76	74.54	50.40	75.90
MW-22D	Deep	128.9	44.90	83.95	NM	-	46.90	81.95	43.52	85.33	48.10	80.75	46.44	82.41
MW-23D	Deep	125.2	38.36	86.84	NM	-	39.85	85.35	37.31	87.89	40.28	84.92	39.06	86.14
MW-24D	Deep	129.1	51.06	78.04	NM	-	53.11	75.99	49.42	79.68	53.83	75.27	52.60	76.50
MW-27D	Deep	117.2	29.82	87.38	NM	-	31.18	86.02	29.24	87.96	31.71	85.49	30.64	86.56
MW-40D	Deep	124.1	40.04	84.06	NM	-	41.58	82.52	37.80	86.30	42.06	82.04	40.96	83.14
MW-41D	Deep	127.1	46.96	80.14	NM	-	48.78	78.32	44.84	82.26	49.37	77.73	47.50	79.60
MW-46D	Deep	124.8	37.13	87.64	NM	-	38.38	86.39	36.26	88.51	38.88	85.89	37.66	87.11
RW-1D	Deep	126.9	NM	-	NM	-	64.80	62.10	42.00	84.90	64.03	62.87	63.31	63.59
RW-2D	Deep	127.4	NM	-	NM	-	71.59	55.81	45.25	82.15	NM	-	NM	-

a/ Vertical datum is NAVD-88
NM = not measured
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NA = not available because the well had not been installed
Light gray shading denotes wells screened in the shallow (unconfined) zone; blue shading denotes wells screened in the deep (confined) zone.
Continuous pumping of the groundwater recovery well system started on March 29, 2017.
Water levels from both shallow and deep recovery wells were measured in piezometers co-located with the wells.
b/ MW-04 was replaced in September 2022 with MW-04R.
c/ Water level measurements representative of non-pumping conditions in the aquifer system.

Table 2

Deployment Depths for New HydraSleeve Samplers
Former Kop-Flex Facility Site
Hanover, Maryland (a)

Well ID	Well Depth (ft bgs)	Top of Screen (ft bgs)	Deployment Depth (ft bgs) (b)	Sample Interval (ft bgs)
Shallow Wells				
MW-04R	40	30	35	31.8-35
MW-09	25	15	20	16.8 - 20
MW-16	50	40	45	40.7 - 45
MW-20	60	50	55	51.8 - 55
MW-38R	28	18	23	20.9 - 24.1
MW-39	50	40	45	41.8 - 45
MW-42	30	20	25	21.8 - 25.0
MW-43	46	36	41	37.8 - 41.0
MW-44	42	32	37	33.8 - 37.0
Deep Wells				
MW-01D	112	102	107	103.8 - 107.0
MW-16D	101	91	98	95.2 - 98.4
MW-21D	102	92	97	93.8 - 97.0
MW-22D	114	104	109	105.8 - 109.0
MW-23D	92	82	87	83.8 - 87

a/ ft bgs = feet below ground surface
b/ Deployment depth is measured at the top of the sampler

Table 3

Field Water Quality Measurements
Former Kop-Flex Facility Site
Hanover, MD
May 2024 (a)

Well ID	Sample Date	Temperature (°C)	pH	Specific Conductivity (mS/cm)	ORP (mV)	Turbidity(NTU)
Shallow Wells						
MW-04R	5/19/2024	18.24	6.41	0.349	141	825
MW-09	5/19/2024	18.59	6.62	0.717	234	502
MW-16	5/19/2024	Parameters Not Collected Due to Insufficient Sample Volume				
MW-20	5/19/2024	19.02	5.62	0.083	255	101
MW-39	6/12/2024	19.77	4.26	0.201	418	222
MW-42	5/19/2024	17.52	4.53	0.134	339	144
MW-43	5/19/2024	18.17	4.03	0.335	332	71.1
MW-44	5/19/2024	18.49	5.35	0.471	327	130
Deep Wells						
MW-01D	5/19/2024	18.58	5.72	0.145	397	0
MW-16D	5/19/2024	Parameters Not Collected Due to Insufficient Sample Volume				
MW-21D	5/19/2024	17.87	4.68	0.166	341	30.4
MW-22D	5/19/2024	18.28	4.9	0.126	445	735
MW-23D	5/19/2024	18.74	5.65	0.194	310	0

a/ °C = degrees Celsius; mS/cm = milliSiemens/centimeter; ORP = oxidation-reduction potential; mV = millivolts; NTU = nephelometric turbidity units.

Table 4

May 2024 Monitoring Well Sampling Results
Former Kop-Flex Facility Site
Hanover, Maryland (a)

Parameters	Groundwater Cleanup Standards (µg/L) (b)		Well ID:	Shallow Wells								
				MW-04R	(d)	MW-09	MW-16	MW-20	MW-38R	MW-39	MW-42	MW-43	MW-44
			Sampling Date:	5/19/2024		5/19/2024	5/19/2024	5/19/2024	5/19/2024	6/12/2024	5/19/2024	5/19/2024	5/19/2024
Chloroethane	2,100			1.0 U		1.0 U	34.5	5.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,1-Dichloroethane	2.8			**36.0**		**2.9**	**1,160**	**386**	**8.1**	1.0 U	1.0 U	1.5	**3.3**
1,2-Dichloroethane	5			1.0 U		1.0 U	20.0 U	**12.6**	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,1-Dichloroethene	7			**76.0**		**60.7**	**1,640**	**560**	1.0 U	1.0 U	1.0 U	**17.3**	5.0
1,4-Dioxane	15	(c)		**26.7**		3.8	**91.4**	**396**	10.0	1.0 U	3.7	6.3	1.9
Methyl t-Butyl Ether	20			1.0 U		1.0 U	20.0 U	5.0 U	1.0 U	1.0 U	1.0 U	2.0	1.0 U
1,1,1-Trichloroethane	200			1.0 U		1.0 U	**905**	5.0 U	1.0 U	1.0 U	1.0 U	1.0 U	5.8
Trichloroethene	5			1.0 U		1.0 U	20.0 U	**5.1**	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
		Total COCs & 1,4-Dioxane		**138.7**		**67.4**	**3,796**	**1,355**	**18.1**	**ND**	**3.7**	**25.1**	**16**

Table 4

May 2024 Monitoring Well Sampling Results
Former Kop-Flex Facility Site
Hanover, Maryland (a)

Parameters	Groundwater Cleanup Standards (µg/L) (b)		Well ID:	Deep Wells MW-01D	MW-16D	MW-100 (e)	MW-21D	MW-22D	MW-23D
			Sampling Date:	5/19/2024	5/19/2024	5/19/2024	5/19/2024	5/19/2024	5/19/2024
Chloroethane	2,100			1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,1-Dichloroethane	2.8			2.4	**20.5**	**20.7**	1.0 U	1.0 U	**32.7**
1,2-Dichloroethane	5			1.0 U	1.1	1.1	1.0 U	1.0 U	1.4
1,1-Dichloroethene	7			**17.1**	**96.6**	**96.6**	6.3	5.5	**134**
1,4-Dioxane	15	(c)		3.1	**18.7**	**19.1**	4.3	1.1	**24.2**
Methyl t-Butyl Ether	20			1.0 U	1.1	1.1	1.3	1.0 U	1.0 U
1,1,1-Trichloroethane	200			1.0 U	4.5	4.4	1.0 U	1.0 U	6.9
Trichloroethene	5			1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
		Total COCs & 1,4-Dioxane		**22.6**	**141**	**141.9**	**10.6**	**6.6**	**199.2**

a/ U = not detected above the method detection limit; NS = not sampled; ID = identification;
COCs = Site-specific contaminants of concern (sum of 1,1-dichloroethane, 1,2-dichloroethane, 1,1-dichloroethene, 1,1,1-trichloroethane, and 1,4-dioxane)
Bolded values indicate an exceedence of the Groundwater Quality Standards
All sample concentrations in micrograms per liter (µg/l)
Collected samples representative of non-pumping conditions in the aquifer system

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/w

c/ Numeric cleanup standards from WSP's October 2, 2015, Response Action Plan, Revision 2.

d/ MW-04 was replaced in September 2022 with monitoring well MW-4R

e/ MW-100 is a blind duplicate of MW-16D

Table 5

Historical Monitoring Well Sampling Results
Former Kop-Flex Facility Site
Hanover, Maryland
(December 2016 - May 2024) (a)

Well ID	Sample Date	Chloroethane	1,1-Dichloroethane	1,2-Dichloroethane	1,1-Dichloroethene	cis-1,2-Dichloroethene	1,4-Dioxane	Methylene Chloride	Tetrachloroethene	1,1,1-Trichloroethane	1,1,2-Trichloroethane	Trichloroethene	Vinyl chloride
Groundwater Cleanup Standards (b)		2,100	2.8	5	7	70	15 (c)	5	5	200	5	5	2
MW-01	5/14/2020	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	2.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
	5/9/2021	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	2.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
	11/14/2021	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	2.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
	6/26/2022	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	0.23	2.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
	11/20/2022	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	1.0 U	1.0 U
	12/3/2023	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	1.0 U	1.0 U
MW-03	12/8/2016	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	4.6	2.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
	5/1/2017	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	1.0 U	1.0 U
	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	1.0 U	1.0 U
	5/21/2019	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	1.0 U	1.0 U
	5/12/2020	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	1.0 U	1.0 U
	5/9/2021	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	1.0 U	1.0 U
	11/14/2021	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	1.0 U	1.0 U
	6/26/2022	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	1.0 U	1.0 U
	11/20/2022	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	1.0 U	1.0 U
	12/3/2023	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	1.0 U	1.0 U
MW-04	12/7/2016	10.0 U	**259**	10.0 U	**1,020**	10.0 U	**576**	20.0 U	4.0 U	31.7	10.0 U	10.0 U	10.0 U
	5/2/2017	4.0 U	**103**	4.0 U	**459**	4.0 U	**252**	8.0 U	4.0 U	13.0	4.0 U	4.0 U	4.0 U
	11/15/2017	5.0 U	**29.2**	1.0 J	**151**	1.0 U	**121**	**10.5**	0.687 J	4.3	1.0 U	1.4	1.0 U
	5/30/2018	1.0 U	**33.3**	1.0 U	**153**	1.0 U	**92.7**	2.0 U	1.0 U	4.0	1.0 U	1.0 U	1.0 U
	11/7/2018	1.0 U	**23.3**	1.0 U	**89.9**	1.0 U	1.0 U	2.0 U	1.0 U	1.6	1.0 U	1.0 U	1.0 U
	5/21/2019	1.0 U	**57.7**	1.1	**142**	1.0 U	**111**	5.0 U	1.0 U	1.7	1.0 U	1.1	1.0 U
	11/19/2019	1.0 U	**45.1**	1.1	**126**	1.0 U	**94.2**	5.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
	5/13/2020	1.0 U	**58.6**	1.3	**149**	1.0 U	**84.6**	5.0 U	1.0 U	1.4	1.2	1.2	1.0 U
	11/22/2020	1.0 U	**62.0**	1.6	**141**	1.0 U	**151**	5.0 U	1.0 U	1.0 U	1.0 U	1.2	1.0 U
	5/9/2021	2.5 U	**130**	2.9	**361**	2.5 U	**303**	12.5 U	2.5 U	3.4	2.5 U	2.5 U	2.5 U
	11/14/2021	1.0 U	**82.7**	1.2	**175**	1.0 U	**134**	5.0 U	1.0 U	1.0 U	1.0 U	1.5	1.0 U
	6/26/2022	1.0 U	**173**	3.1	**339**	1.0 U	**86.8**	5.0 U	1.0 U	1.8	1.0 U	3.0	1.0 U
MW-04R	11/20/2022	1.0 U	**37.4**	1.1	**76.0**	1.0 U	**57.3**	1.0 U	1.0 U	1.1	1.0 U	1.0 U	1.0 U
	5/21/2023	1.0 U	**33.2**	1.0 U	**65.5**	1.0 U	**30.8**	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
	12/3/2023	5.0 U	**31.3**	5.0 U	**65.8**	5.0 U	**35.9**	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
	5/19/2024	1.0 U	**36.0**	1.1	**76.0**	1.0 U	**26.7**	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U

Table 5

Historical Monitoring Well Sampling Results
Former Kop-Flex Facility Site
Hanover, Maryland
(December 2016 - May 2024) (a)

Well ID	Sample Date	Chloroethane	1,1-Dichloroethane	1,2-Dichloroethane	1,1-Dichloroethene	cis-1,2-Dichloroethene	1,4-Dioxane	Methylene Chloride	Tetrachloroethene	1,1,1-Trichloroethane	1,1,2-Trichloroethane	Trichloroethene	Vinyl chloride
Groundwater Cleanup Standards (b)		2,100	2.8	5	7	70	15 (c)	5	5	200	5	5	2
MW-5R	12/7/2016	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	**16.5**	2.0 U	1.0 U	1.4	1.0 U	1.0 U	1.0 U
	5/1/2017	1.0 U	1.4	1.0 U	1.4	1.0 U	**16.5**	2.0 U	1.0 U	2.7	1.0 U	1.0 U	1.0 U
	11/15/2017	5.0 U	1.6	1.0 U	2.5	1.0 U	11.0	**10.2**	1.0 U	1.7	1.0 U	1.0 U	1.0 U
	5/30/2018	1.0 U	1.8	1.0 U	2.7	1.0 U	11.5	2.0 U	1.0 U	1.4	1.0 U	1.0 U	1.0 U
	11/7/2018	1.0 U	1.0 U	1.0 U	1.3	1.0 U	2.0 U	2.0 U	1.0 U	1.5	1.0 U	1.0 U	1.0 U
	5/21/2019	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	7.6	5.0 U	1.0 U	1.9	1.0 U	1.0 U	1.0 U
	11/19/2019	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	6.8	5.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
	5/12/2020	1.0 U	1.8	1.0 U	1.7	1.0 U	13.4	5.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
	11/22/2020	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	2.2	5.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
	11/14/2021	1.0 U	1.6	1.0 U	1.4	1.0 U	12.0	5.0 U	1.0 U	2.4	1.0 U	1.0 U	1.0 U
	6/26/2022	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0	5.0 U	1.0 U	1.2	1.0 U	1.0 U	1.0 U
	11/20/2022	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.1	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
	5/21/2023	1.0 U	1.2	1.0 U	1.0 U	1.0 U	3.3	1.0 U	1.0 U	1.6	1.0 U	1.0 U	1.0 U
	12/3/2023	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	2.5	1.0 U	1.0 U	1.5	1.0 U	1.0 U	1.0 U
MW-09	12/8/2016	1.0 U	**4.5**	1.0 U	**104**	1.0 U	**95.5**	2.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
	5/2/2017	1.0 U	**2.9**	1.0 U	**63.8**	1.0 U	**20.8**	2.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
	11/15/2017	5.0 U	**3.1**	0.4 J	**60.2**	1.0 U	**32.4**	5.0 U	1.0 U	0.7 J	1.0 U	1.0 U	1.0 U
	5/30/2018	1.0 U	2.2	1.0 U	**49.2**	1.0 U	**23.4**	2.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
	11/7/2018	1.0 U	**4.5**	1.0 U	**75.9**	1.0 U	**37.4**	2.0 U	1.0 U	1.1	1.0 U	1.0 U	1.0 U
	5/21/2019	1.0 U	**3.6**	1.0 U	**70.8**	1.0 U	**32.8**	5.0 U	1.0 U	1.2	1.0 U	1.0 U	1.0 U
	11/19/2019	1.0 U	2.6	1.0 U	**48.7**	1.0 U	**24.4**	5.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
	5/13/2020	1.0 U	2.6	1.0 U	**50.5**	1.0 U	**18.7**	5.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
	11/22/2020	1.0 U	2.5	1.0 U	**56.4**	1.0 U	**25.7**	5.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
	5/9/2021	1.0 U	**3.0**	1.0 U	**56.3**	1.0 U	**23.6**	5.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
	11/14/2021	1.0 U	2.5	1.0 U	**53.3**	1.0 U	**22.6**	5.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
	6/26/2022	1.0 U	**3.0**	1.0 U	**57.7**	1.0 U	4.5	5.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
	11/20/2022	1.0 U	1.9	1.0 U	**35.7**	1.0 U	7.5	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
	5/21/2023	1.0 U	1.9	1.0 U	**36.0**	1.0 U	4.5	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
	12/3/2023	1.0 U	2.6	1.0 U	**53.4**	1.0 U	6.4	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
	5/19/2024	1.0 U	**2.9**	1.0 U	**60.7**	1.0 U	3.8	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U

Table 5

Historical Monitoring Well Sampling Results
Former Kop-Flex Facility Site
Hanover, Maryland
(December 2016 - May 2024) (a)

Well ID	Sample Date	Chloroethane	1,1-Dichloroethane	1,2-Dichloroethane	1,1-Dichloroethene	cis-1,2-Dichloroethene	1,4-Dioxane	Methylene Chloride	Tetrachloroethene	1,1,1-Trichloroethane	1,1,2-Trichloroethane	Trichloroethene	Vinyl chloride
Groundwater Cleanup Standards (b)		2,100	2.8	5	7	70	15 (c)	5	5	200	5	5	2
MW-16	12/8/2016	200 U	**6,420**	200 U	**26,200**	200 U	**1,450**	400 U	100 U	**4,390**	200 U	200 U	200 U
	5/2/2017	225	**7,910**	100 U	**10,500**	100 U	**971**	200 U	100 U	**8,930**	100 U	100 U	100 U
	11/15/2017	732	**7,110**	**22**	**7,740**	46	**836**	**11**	**18.4**	**5,590**	1.0 U	**69**	**19**
	5/30/2018	249	**6,250**	50 U	**4,690**	50 U	**636**	100 U	50 U	**7,360**	50.0 U	50 U	50 U
	11/7/2018	275	**7,360**	50 U	**7,800**	50 U	**866**	100 U	50 U	**6,420**	50.0 U	**74.2**	50 U
	5/22/2019	10 U	**343**	10 U	**1,160**	10 U	**1,230**	50 U	10 U	**216**	10.0 U	**13.7**	10.0 U
	11/19/2019	23.4	**608**	10 U	**1,440**	10 U	**81.9**	50 U	10 U	**314**	10.0 U	**18.3**	10.0 U
	5/13/2020	10.9	**394**	5.0 U	**571**	5.0 U	**39.2**	5.0 U	5.0 U	**487**	5.0 U	**10.7**	5.0 U
	11/22/2020	20.0 U	**1,560**	20 U	**1,130**	20 U	**84.2**	100 U	20 U	**2,060**	5.0 U	20.0 U	20.0 U
	5/9/2021	4.2	**169**	2.0 U	**276**	2.1	**19.3**	10 U	2.2	123	2.0 U	**6.2**	2.0 U
	11/14/2021	12.5 U	**1,350**	12.5 U	**1,630**	12.5 U	**76.0**	62.5 U	12.5 U	**1,720**	12.5 U	12.5 U	12.5 U
	6/26/2022	42.6	**1,030**	1.0 U	**1,210**	1.0 U	**26.4**	1.4	**5.5**	**1,610**	1.0 U	**13.8**	**2.3**
	11/20/2022	136.0	**3,290**	1.0 U	**4,290**	1.0 U	**143.0**	2.2	**9.4**	**2,960**	1.0 U	**28.0**	**13.2**
	5/21/2023	96.1	**2,230**	1.0 U	**2,510**	1.0 U	**89.5**	3.7	**6.3**	**2,230**	1.0 U	**19.1**	**6.7**
	12/3/2023	124.0	**3,040**	20.0 U	**3,990**	20.0 U	**96.3**	20.0 U	20.0 U	**2,200**	20.0 U	**20.5**	20 U
	5/19/2024	34.5	**1,160**	20.0 U	**1,640**	20.0 U	**91.4**	20.0 U	20.0 U	**905**	20.0 U	20.0 U	20 U
MW-18	12/7/2016	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	1.0 U	1.0 U
	5/1/2017	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	1.0 U	1.0 U
	11/15/2017	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	**24.9**	5.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
	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	1.0 U	1.0 U
	11/7/2018	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	1.0 U	1.0 U
	5/21/2019	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	1.0 U	1.0 U
	11/19/2019	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	1.0 U	1.0 U
	5/12/2020	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	1.0 U	1.0 U
	11/22/2020	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	1.0 U	1.0 U
	5/9/2021	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	1.0 U	1.0 U
	11/14/2021	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	1.0 U	1.0 U
	6/26/2022	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	1.0 U	1.0 U
	11/20/2022	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	1.0 U	1.0 U
	5/21/2023	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	1.0 U	1.0 U
	12/3/2023	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	1.0 U	1.0 U

Table 5

Historical Monitoring Well Sampling Results
Former Kop-Flex Facility Site
Hanover, Maryland
(December 2016 - May 2024) (a)

Well ID	Sample Date	Chloroethane	1,1-Dichloroethane	1,2-Dichloroethane	1,1-Dichloroethene	cis-1,2-Dichloroethene	1,4-Dioxane	Methylene Chloride	Tetrachloroethene	1,1,1-Trichloroethane	1,1,2-Trichloroethane	Trichloroethene	Vinyl chloride
Groundwater Cleanup Standards (b)		2,100	2.8	5	7	70	15 (c)	5	5	200	5	5	2
MW-20	12/9/2016	2.0 U	**99.7**	**5.1**	**173**	2.0 U	**767**	4.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U
	5/2/2017	2.0 U	**161**	**7.3**	**286**	2.0 U	**967**	4.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U
	11/15/2017	5.0 U	**136**	**5.7**	**223**	1.4	**969**	5.0 U	1.0 U	1.0 U	1.9	1.0 U	1.0 U
	5/30/2018	2.0 U	**115**	**5.5**	**205**	2.0 U	**966**	4.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U
	11/7/2018	2.5 U	**145**	**6.3**	**233**	2.5 U	**986**	5.0 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
	5/21/2019	2.0 U	**157**	**6.5**	**226**	2.0 U	**1,620**	10.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U
	11/19/2019	2.0 U	**175**	**7.5**	**244**	2.0 U	**1,220**	10.0 U	2.0 U	2.0 U	2.1	2.0 U	2.0 U
	5/13/2020	2.0 U	**188**	**7.7**	**232**	2.0 U	**1,000**	10.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U
	11/22/2020	2.0 U	**205**	**7.5**	**272**	2.0 U	**1,260**	4.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U
	5/9/2021	2.0 U	**214**	**7.5**	**267**	2.2	**1,010**	4.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U
	11/14/2021	2.0 U	**256**	**8.7**	**321**	2.0 U	**1,210**	4.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U
	6/26/2022	1.0 U	**294**	**10.8**	**426**	2.9	**377**	5.0 U	1.0 U	1.0 U	2.7	2.7	1.0 U
	11/20/2022	1.0 U	**258**	**9.7**	**348**	2.6	**560**	1.0 U	1.0 U	1.0 U	2.4	2.7	1.0 U
	5/21/2023	1.0 U	**252**	**8.9**	**307**	1.0 U	**407**	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
	12/3/2023	5.0 U	**432**	**13.1**	**631**	5.0 U	**404**	5.0 U	5.0 U	5.0 U	5.0 U	**5.9**	1.0 U
	5/19/2024	5.0 U	**386**	**12.6**	**560**	5.0 U	**396**	5.0 U	5.0 U	5.0 U	5.0 U	**5.1**	1.0 U
MW-38R	12/9/2016	1.0 U	**3.8**	1.0 U	1.0 U	1.0 U	**18.3**	2.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
	5/1/2017	1.0 U	**6.0**	1.0 U	1.0 U	1.0 U	**42.6**	2.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
	11/15/2017	5.0 U	**8.3**	1.0 U	1.0 U	1.0 U	**62.5**	**8.1**	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
	5/30/2018	1.0 U	**4.3**	1.0 U	1.0 U	1.0 U	**40.7**	2.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
	11/7/2018	1.0 U	**6.9**	1.0 U	1.0 U	1.0 U	**39.4**	2.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
	5/21/2019	1.0 U	**4.7**	1.0 U	1.0 U	1.0 U	**43.2**	5.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
	11/19/2019	1.0 U	**7.7**	1.0 U	1.0 U	1.0 U	**51.5**	5.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
	5/12/2020	1.0 U	**6.2**	1.0 U	1.0 U	1.0 U	**40.8**	5.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
	11/22/2020	1.0 U	**6.5**	1.0 U	1.0 U	1.0 U	**40.9**	5.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
	5/9/2021	1.0 U	**5.5**	1.0 U	1.0 U	1.0 U	**47.0**	5.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
	11/19/2021	1.0 U	**6.7**	1.0 U	1.0 U	1.0 U	**46.2**	5.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
	6/26/2022	1.0 U	**7.6**	1.0 U	1.0 U	1.0 U	14.4	5.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
	11/20/2022	1.0 U	**7.1**	1.0 U	1.0 U	1.0 U	**20.1**	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
	5/21/2023	1.0 U	**6.8**	1.0 U	1.0 U	1.0 U	11.4	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
	12/3/2023	1.0 U	**4.2**	1.0 U	1.0 U	1.0 U	**18.2**	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U

Table 5

Historical Monitoring Well Sampling Results
Former Kop-Flex Facility Site
Hanover, Maryland
(December 2016 - May 2024) (a)

Well ID	Sample Date	Chloroethane	1,1-Dichloroethane	1,2-Dichloroethane	1,1-Dichloroethene	cis-1,2-Dichloroethene	1,4-Dioxane	Methylene Chloride	Tetrachloroethene	1,1,1-Trichloroethane	1,1,2-Trichloroethane	Trichloroethene	Vinyl chloride
Groundwater Cleanup Standards (b)		2,100	2.8	5	7	70	15 (c)	5	5	200	5	5	2
MW-39	12/7/2016	1.0 U	1.0 U	1.0 U	1.7	1.0 U	2.5	2.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
	5/1/2017	1.0 U	1.0 U	1.0 U	1.1	1.0 U	3.0	2.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
	11/15/2017	5.0 U	1.0 U	1.0 U	0.6 J	1.0 U	2.2	5.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
	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	1.0 U	1.0 U
	11/7/2018	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	1.0 U	1.0 U
	5/21/2019	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	1.0 U	1.0 U
	11/19/2019	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	1.0 U	1.0 U
	5/12/2020	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	1.0 U	1.0 U
	11/22/2020	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	1.0 U	1.0 U
	5/9/2021	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	1.0 U	1.0 U
	11/14/2021	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	1.0 U	1.0 U
	6/26/2022	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	0.22	5.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
	11/20/2022	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	1.0 U	1.0 U
	5/21/2023	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	1.0 U	1.0 U
	12/21/2023	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	1.0 U	1.0 U
	6/12/2024	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	1.0 U	1.0 U
MW-42	12/7/2016	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	4.8	2.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
	5/1/2017	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	8.0	2.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
	11/15/2017	5.0 U	1.0 U	1.0 U	1.0 U	1.0 U	**19.3**	5.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
	5/30/2018	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	7.4	2.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
	11/7/2018	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	10.3	2.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
	5/21/2019	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	10.6	5.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
	11/19/2019	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	5.6	5.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
	5/12/2020	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	11.2	5.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
	1/6/2021	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	13.2	5.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
	5/9/2021	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	13.3	5.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
	11/14/2021	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	12.5	5.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
	7/15/2022	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	5.6	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
	11/20/2022	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	5.4	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
	5/21/2023	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	5.8	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
	5/21/2023	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	4.1	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
	5/19/2024	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	3.7	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U

Table 5

Historical Monitoring Well Sampling Results
Former Kop-Flex Facility Site
Hanover, Maryland
(December 2016 - May 2024) (a)

Well ID	Sample Date	Chloroethane	1,1-Dichloroethane	1,2-Dichloroethane	1,1-Dichloroethene	cis-1,2-Dichloroethene	1,4-Dioxane	Methylene Chloride	Tetrachloroethene	1,1,1-Trichloroethane	1,1,2-Trichloroethane	Trichloroethene	Vinyl chloride
Groundwater Cleanup Standards (b)		2,100	2.8	5	7	70	15 (c)	5	5	200	5	5	2
MW-43	12/7/2016	2.0 U	**15.9**	2.1	**171**	2.0 U	**237**	4.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U
	5/1/2017	2.0 U	**21.3**	2.1	**177**	2.0 U	**206**	4.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U
	11/15/2017	5.0 U	**15.9**	1.3	**159**	1.0 U	**165**	5.0 U	1.0 U	1.2	1.0 U	1.0 U	1.0 U
	5/30/2018	2.0 U	**5.9**	1.0 U	**68**	1.0 U	**57.6**	2.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
	11/7/2018	1.0 U	**13.8**	1.2	**118**	1.0 U	**107**	2.0 U	1.0 U	1.0 U	1.0 U	1.3	1.0 U
	5/21/2019	1.0 U	**5.2**	1.0 U	**53.9**	1.0 U	**52.0**	5.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
	11/19/2019	1.0 U	**4.3**	1.0 U	**48.5**	1.0 U	**55.2**	5.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
	5/12/2020	1.0 U	**3.8**	1.0 U	**46.3**	1.0 U	**49.0**	5.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
	11/22/2020	1.0 U	**2.9**	1.0 U	**31.8**	1.0 U	**42.7**	5.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
	5/9/2021	1.0 U	2.7	1.0 U	**31.7**	1.0 U	**34.1**	5.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
	11/14/2021	1.0 U	2.6	1.0 U	**31.3**	1.0 U	**34.3**	5.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
	6/26/2022	1.0 U	2.5	1.0 U	**29.4**	1.0 U	7.0	5.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
	11/20/2022	1.0 U	1.7	1.0 U	**20.3**	1.0 U	9.6	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
	5/21/2023	1.0 U	1.6	1.0 U	**21.2**	1.0 U	9.0	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
	12/3/2023	1.0 U	1.6	1.0 U	**19.9**	1.0 U	8.5	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
	5/19/2024	1.0 U	1.5	1.0 U	**17.3**	1.0 U	6.3	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
MW-44	12/7/2016	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	1.0 U	1.0 U
	5/1/2017	1.0 U	**6.6**	1.0 U	5.9	1.0 U	**49.1**	2.0 U	1.0 U	27.7	1.0 U	1.0 U	1.0 U
	5/30/2018	1.0 U	1.4	1.0 U	1.4	1.0 U	8.4	2.0 U	1.0 U	4.9	1.0 U	1.0 U	1.0 U
	5/21/2019	1.0 U	**14.9**	1.0 U	**22.4**	1.0 U	**64.4**	5.0 U	1.0 U	74.3	1.0 U	1.0 U	1.0 U
	5/13/2020	1.0 U	**3.0**	1.0 U	4.1	1.0 U	**17.7**	5.0 U	1.0 U	11.9	1.0 U	1.0 U	1.0 U
	5/9/2021	1.0 U	1.7	1.0 U	2.9	1.0 U	10.2	5.0 U	1.0 U	6.9	1.0 U	1.0 U	1.0 U
	11/14/2021	1.0 U	**3.8**	1.0 U	**7.2**	1.0 U	13.3	5.0 U	1.0 U	15.4	1.0 U	1.0 U	1.0 U
	6/26/2022	1.0 U	2.3	1.0 U	3.2	1.0 U	2.5	5.0 U	1.0 U	5.9	1.0 U	1.0 U	1.0 U
	11/20/2022	1.0 U	2.4	1.0 U	3.9	1.0 U	4.2	1.0 U	1.0 U	8.0	1.0 U	1.0 U	1.0 U
	5/21/2023	1.0 U	1.2	1.0 U	1.9	1.0 U	1.9	1.0 U	1.0 U	2.6	1.0 U	1.0 U	1.0 U
	12/3/2023	1.0 U	1.6	1.0 U	**6.8**	1.0 U	2.6	1.0 U	1.0 U	9.4	1.0 U	1.0 U	1.0 U
	5/19/2024	1.0 U	**3.3**	1.0 U	5.0	1.0 U	1.9	1.0 U	1.0 U	5.8	1.0 U	1.0 U	1.0 U
MW-1D	1/2/2017	2.0 U	**72**	4.7	**375**	2.0 U	**236**	4.0 U	2.5 U	37.5	2.0 U	2.0 U	2.0 U
	5/3/2017	2.5 U	**105**	**5.7**	**407**	2.5 U	**329**	5.0 U	2.5 U	37.1	2.5 U	2.5 U	2.5 U
	11/15/2017	5.0 U	**80**	3.8	**277**	0.6 J	**243**	5.0 U	0.519 J	29.8	0.8 J	1.7	1 U
	5/30/2018	1.0 U	**14.9**	1.0 U	**71.4**	1.0 U	**64.4**	2.0 U	1.0 U	5.3	1.0 U	1.0 U	1.0 U
	11/7/2018	1.0 U	**7.1**	1.0 U	**38.8**	1.0 U	2.0 U	2.0 U	1.0 U	3.3	1.0 U	1.0 U	1.0 U
	5/21/2019	1.0 U	2.1	1.0 U	**13.7**	1.0 U	12.8	5.0 U	1.0 U	1.1	1.0 U	1.0 U	1.0 U
	11/19/2019	1.0 U	**3.4**	1.0 U	**17.7**	1.0 U	**17.9**	5.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
	5/18/2020	1.0 U	2.6	1.0 U	**16.5**	1.0 U	12.8	5.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U

Table 5

Historical Monitoring Well Sampling Results
Former Kop-Flex Facility Site
Hanover, Maryland
(December 2016 - May 2024) (a)

Well ID	Sample Date	Chloroethane	1,1-Dichloroethane	1,2-Dichloroethane	1,1-Dichloroethene	cis-1,2-Dichloroethene	1,4-Dioxane	Methylene Chloride	Tetrachloroethene	1,1,1-Trichloroethane	1,1,2-Trichloroethane	Trichloroethene	Vinyl chloride
Groundwater Cleanup Standards (b)		2,100	2.8	5	7	70	15 (c)	5	5	200	5	5	2
MW-1D	11/22/2020	1.0 U	**3.1**	1.0 U	**17.6**	1.0 U	**16.9**	5.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
	5/9/2021	1.0 U	1.8	1.0 U	**12.2**	1.0 U	9.0	5.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
	11/14/2021	1.0 U	**3.8**	1.0 U	**22.4**	1.0 U	**16.5**	5.0 U	1.0 U	1.5	1.0 U	1.0 U	1.0 U
	6/26/2022	1.0 U	**3.1**	1.0 U	**19.1**	1.0 U	4.0	5.0 U	1.0 U	1.3	1.0 U	1.0 U	1.0 U
	11/20/2022	1.0 U	**3.0**	1.0 U	**16.8**	1.0 U	6.8	1.0 U	1.0 U	1.0	1.0 U	1.0 U	1.0 U
	5/21/2023	1.0 U	**1.8**	1.0 U	**11.1**	1.0 U	4.0	1.0 U	1.0 U	1.0	1.0 U	1.0 U	1.0 U
	12/3/2023	1.0 U	**3.8**	1.0 U	**21.3**	1.0 U	6.5	1.0 U	1.0 U	1.0	1.0 U	1.0 U	1.0 U
	5/19/2024	1.0 U	2.4	1.0 U	**17.1**	1.0 U	3.1	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
MW-16D	12/8/2016	2.0 U	**56.6**	2.9	**254**	2.0 U	**202**	4.0 U	2.0 U	21	2.0 U	2.0 U	2.0 U
	5/2/2017	2.0 U	**43.7**	2.9	**235**	2.0 U	**182**	4.0 U	2.0 U	16.4	2.0 U	2.0 U	2.0 U
	11/15/2017	5.0 U	**29.7**	1.9	**179**	0.3 J	**192**	**10.0**	1.0 U	15.1	0.5 **J**	0.9 J	1.0 U
	5/30/2018	1.0 U	**26.4**	1.6	**180**	1.0 U	**153**	2.0 U	1.0 U	10.3	1.0 U	1.0 U	1.0 U
	11/7/2018	1.0 U	**27.5**	1.8	**161**	1.0 U	**158**	2.0 U	1.0 U	12.5	1.0 U	1.0 U	1.0 U
	5/22/2019	1.0 U	**28.5**	2.1	**172**	1.0 U	**148**	5.0 U	1.0 U	14.5	1.0 U	1.0 U	1.0 U
	11/19/2019	1.0 U	**25.6**	1.7	**133**	1.0 U	**140**	5.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
	5/13/2020	1.0 U	**29.1**	1.9	**145**	1.0 U	**130**	5.0 U	1.0 U	11.7	1.0 U	1.0 U	1.0 U
	12/8/2020	1.0 U	**25.9**	1.6	**127**	1.0 U	**105**	5.0 U	1.0 U	10.1	1.0 U	1.0 U	1.0 U
	5/9/2021	1.0 U	**27.7**	1.7	**130**	1.0 U	**107**	5.0 U	1.0 U	9.5	1.0 U	1.0 U	1.0 U
	11/14/2021	1.0 U	**21.5**	1.1	**98.7**	1.0 U	**84.5**	5.0 U	1.0 U	6.9	1.0 U	1.0 U	1.0 U
	7/15/2022	1.0 U	**27.4**	1.7	**136.0**	1.0 U	**39.2**	1.0 U	1.0 U	8.3	1.0 U	1.0 U	1.0 U
	12/29/2022	1.0 U	**16.4**	1.0 U	**80.1**	1.0 U	**29.9**	5.0 U	1.0 U	4.7	1.0 U	1.0 U	1.0 U
	5/21/2023	1.0 U	**24.8**	1.4	**111.0**	1.0 U	**36.1**	1.0 U	1.0 U	6.5	1.0 U	1.0 U	1.0 U
Duplicate	5/21/2023	1.0 U	**24.9**	1.4	**110.0**	1.0 U	**21.3**	1.0 U	1.0 U	6.7	1.0 U	1.0 U	1.0 U
	12/3/2023	1.0 U	**21.8**	1.4	**103.0**	1.0 U	**34.5**	1.0 U	1.0 U	5.2	1.0 U	1.0 U	1.0 U
Duplicate	12/3/2023	1.0 U	**19.7**	1.0 U	**98.3**	1.0 U	**27.0**	1.0 U	1.0 U	4.7	1.0 U	1.0 U	1.0 U
	5/19/2024	1.0 U	**20.5**	1.1	**96.6**	1.0 U	**18.7**	1.0 U	1.0 U	4.5	1.0 U	1.0 U	1.0 U
Duplicate	5/19/2024	1.0 U	**20.7**	1.1	**96.6**	1.0 U	**19.1**	1.0 U	1.0 U	4.4	1.0 U	1.0 U	1.0 U
MW-21D	12/16/2016	1.0 U	2.6	1.0 U	**23.4**	1.0 U	**18.6**	2.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
	5/1/2017	1.0 U	**6.9**	1.4	**111**	1.0 U	**57.5**	2.0 U	1.0 U	2.3	1.0 U	1.0 U	1.0 U
	11/15/2017	5.0 U	2.0	1.0 U	**14.4**	1.0 U	**18.5**	5.0 U	1.0 U	0.7 J	1.0 U	1.0 U	1.0 U
	5/30/2018	1.0 U	1.0	1.0 U	**38.8**	1.0 U	**32.2**	2.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
	11/7/2018	1.0 U	1.0 U	1.0 U	**30.0**	1.0 U	**18.0**	2.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
	5/21/2019	1.0 U	1.0 U	1.0 U	**9.9**	1.0 U	8.4	5.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
	11/19/2019	1.0 U	1.0 U	1.0 U	4.1	1.0 U	4.1	5.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
	5/18/2020	1.0 U	1.0 U	1.0 U	**13.6**	1.0 U	7.6	5.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
	11/22/2020	1.0 U	1.0 U	1.0 U	**7.8**	1.0 U	5.1	5.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
	5/9/2021	1.0 U	1.0 U	1.0 U	4.1	1.0 U	2.8	5.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U

Table 5

Historical Monitoring Well Sampling Results
Former Kop-Flex Facility Site
Hanover, Maryland
(December 2016 - May 2024) (a)

Well ID	Sample Date	Chloroethane	1,1-Dichloroethane	1,2-Dichloroethane	1,1-Dichloroethene	cis-1,2-Dichloroethene	1,4-Dioxane	Methylene Chloride	Tetrachloroethene	1,1,1-Trichloroethane	1,1,2-Trichloroethane	Trichloroethene	Vinyl chloride
Groundwater Cleanup Standards (b)		2,100	2.8	5	7	70	15 (c)	5	5	200	5	5	2
MW-21D	11/14/2021	1.0 U	1.0 U	1.0 U	**18.7**	1.0 U	12.9	5.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
	6/26/2022	1.0 U	1.0 U	1.0 U	**24.5**	1.0 U	4.2	5.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
	11/20/2022	1.0 U	1.0 U	1.0 U	**17.6**	1.0 U	5.5	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
	5/21/2023	1.0 U	1.0 U	1.0 U	**26.1**	1.0 U	7.1	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
	12/3/2023	1.0 U	1.0 U	1.0 U	**30.8**	1.0 U	7.7	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
	5/19/2024	1.0 U	1.0 U	1.0 U	6.3	1.0 U	4.3	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
MW-22D	12/7/2016	1.0 U	2.5	1.0 U	**31.5**	1.0 U	**24.5**	2.0 U	1.0 U	4.1	1.0 U	1.0 U	1.0 U
	5/2/2017	1.0 U	2.5	1.0 U	**36.9**	1.0 U	**24.6**	2.0 U	1.0 U	3.7	1.0 U	1.0 U	1.0 U
	11/15/2017	5.0 U	1.72	1.0 U	**24.4**	1.0 U	**19.6**	5.0 U	1.0 U	2.8	1.0 U	1.0 U	1.0 U
	5/30/2018	1.0 U	1.0 U	1.0 U	**13.1**	1.0 U	7.9	2.0 U	1.0 U	1.1	1.0 U	1.0 U	1.0 U
	11/7/2018	1.0 U	1.0 U	1.0 U	**9.7**	1.0 U	2.0 U	2.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
	5/21/2019	1.0 U	1.0 U	1.0 U	6.3	1.0 U	5.1	5.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
	11/19/2019	1.0 U	1.0 U	1.0 U	5.6	1.0 U	4.9	5.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
	5/18/2020	1.0 U	1.0 U	1.0 U	6.2	1.0 U	4.6	5.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
	11/22/2020	1.0 U	1.0 U	1.0 U	**7.1**	1.0 U	4.9	5.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
	5/9/2021	1.0 U	1.0 U	1.0 U	5.9	1.0 U	4.0	5.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
	11/14/2021	1.0 U	1.0 U	1.0 U	6.2	1.0 U	5.2	5.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
	6/26/2022	1.0 U	1.0 U	1.0 U	**9.0**	1.0 U	1.6	5.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
	11/20/2022	1.0 U	1.0 U	1.0 U	6.1	1.0 U	2.7	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
	5/21/2023	1.0 U	1.0 U	1.0 U	**8.4**	1.0 U	3.0	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
	12/3/2023	1.0 U	1.0 U	1.0 U	**8.5**	1.0 U	2.0	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
	5/19/2024	1.0 U	1.0 U	1.0 U	5.5	1.0 U	1.1	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
MW-23D	1/2/2017	2.0 U	**26.4**	2.0 U	**140**	2.0 U	**151**	**8.3**	1.0 U	17.0	2.0 U	2.0 U	2.0 U
	5/1/2017	2.0 U	**39.1**	2.4	**208**	2.0 U	**177**	4.0 U	2.0 U	19.9	2.0 U	2.0 U	2.0 U
	11/15/2017	5.0 U	**31.1**	1.9	**179**	0.3 J	**158**	5.0 U	0.417 J	19.3	0.4 J	0.9 J	1.0 U
	5/30/2018	1.0 U	**30.5**	1.6	**172**	1.0 U	**148**	2.0 U	1.0 U	14.8	1.0 U	1.0 U	1.0 U
	11/7/2018	1.0 U	**36.2**	1.9	**185**	1.0 U	**146**	2.0 U	1.0 U	17.0	1.0 U	1.0 U	1.0 U
	5/21/2019	1.0 U	**18.5**	1.2	**96.4**	1.0 U	**70.7**	5.0 U	1.0 U	8.6	1.0 U	1.0 U	1.0 U
	11/19/2019	1.0 U	**22.7**	1.4	**107**	1.0 U	**109**	5.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
	5/13/2020	1.0 U	**35.2**	1.8	**142**	1.0 U	**112**	5.0 U	1.0 U	13.6	1.0 U	1.0 U	1.0 U
	11/22/2020	1.0 U	**26.3**	1.2	**106**	1.0 U	**96.7**	5.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
	5/9/2021	1.0 U	**31.8**	1.5	**126**	1.0 U	**99.0**	5.0 U	1.0 U	11.7	1.0 U	1.0 U	1.0 U
	11/14/2021	1.0 U	**28.5**	1.1	**110**	1.0 U	**92.4**	5.0 U	1.0 U	9.2	1.0 U	1.0 U	1.0 U
	6/26/2022	1.0 U	**34.6**	1.5	**138**	1.0 U	**27.0**	5.0 U	1.0 U	10.7	1.0 U	1.0 U	1.0 U
	11/20/2022	1.0 U	**33.6**	1.7	**140**	1.0 U	**59.6**	1.0 U	1.0 U	9.7	1.0 U	1.0 U	1.0 U
	5/21/2023	1.0 U	**32.4**	1.4	**116**	1.0 U	**27.0**	1.0 U	1.0 U	8.3	1.0 U	1.0 U	1.0 U

Table 5

Historical Monitoring Well Sampling Results
Former Kop-Flex Facility Site
Hanover, Maryland
(December 2016 - May 2024) (a)

Well ID	Sample Date	Chloroethane	1,1-Dichloroethane	1,2-Dichloroethane	1,1-Dichloroethene	cis-1,2-Dichloroethene	1,4-Dioxane	Methylene Chloride	Tetrachloroethene	1,1,1-Trichloroethane	1,1,2-Trichloroethane	Trichloroethene	Vinyl chloride
Groundwater Cleanup Standards (b)		2,100	2.8	5	7	70	15 (c)	5	5	200	5	5	2
MW-23D	12/3/2023	1.0 U	**41.2**	1.4	**177**	1.0 U	**56.1**	1.0 U	1.0 U	9.3	1.0 U	1.0 U	1.0 U
	5/19/2024	1.0 U	**32.7**	1.4	**134**	1.0 U	**24.2**	1.0 U	1.0 U	6.9	1.0 U	1.0 U	1.0 U
MW-27D	12/7/2016	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	1.0 U	1.0 U
	5/1/2017	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	3.6	2.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
	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	1.0 U	1.0 U
	5/21/2019	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	1.0 U	1.0 U
	5/13/2020	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	1.0 U	1.0 U
	5/9/2021	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	1.0 U	1.0 U
	11/14/2021	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	1.0 U	1.0 U
	6/26/2022	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	0.13	5.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
	11/20/2022	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	1.0 U	1.0 U
	12/3/2023	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	1.0 U	1.0 U
MW-40D	12/9/2016	1.0 U	**2.9**	1.0 U	**18.1**	1.0 U	9.4	2.0 U		1.0 U	1.0 U	1.0 U	1.0 U
	5/1/2017	1.0 U	**3.1**	1.0 U	**17.4**	1.0 U	8.5	2.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
	11/15/2017	5.0 U	0.9 J	1.0 U	5.2	1.0 U	5.2	**9.7**	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
	5/30/2018	1.0 U	1.0 U	1.0 U	2.9	1.0 U	2.0 U	2.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
	11/7/2018	1.0 U	1.0 U	1.0 U	4.4	1.0 U	2.7	2.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
	5/21/2019	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	1.0 U	1.0 U
	11/19/2019	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	1.0 U	1.0 U
	5/18/2020	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	1.0 U	1.0 U
	11/22/2020	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	1.0 U	1.0 U
	5/9/2021	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	1.0 U	1.0 U
	11/14/2021	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	1.0 U	1.0 U
	6/26/2022	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	0.18	5.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
	11/20/2022	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	1.0 U	1.0 U
	5/21/2023	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	1.0 U	1.0 U
	12/3/2023	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	1.0 U	1.0 U

Table 5

Historical Monitoring Well Sampling Results
Former Kop-Flex Facility Site
Hanover, Maryland
(December 2016 - May 2024) (a)

Well ID	Sample Date	Chloroethane	1,1-Dichloroethane	1,2-Dichloroethane	1,1-Dichloroethene	cis-1,2-Dichloroethene	1,4-Dioxane	Methylene Chloride	Tetrachloroethene	1,1,1-Trichloroethane	1,1,2-Trichloroethane	Trichloroethene	Vinyl chloride
Groundwater Cleanup Standards (b)		2,100	2.8	5	7	70	15 (c)	5	5	200	5	5	2
MW-41D	12/16/2016	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	2.8	2.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
	5/17/2017	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	2.4	2.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
	5/30/2018	1.0 U	1.0 U	1.0 U	1.1	1.0 U	2.0 U	2.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
	5/21/2019	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	2.1	5.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
	5/18/2020	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	1.0 U	1.0 U
	5/9/2021	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	1.0 U	1.0 U
	11/14/2021	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	1.0 U	1.0 U
	6/26/2022	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	0.62	5.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
	11/20/2022	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.1	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
	12/3/2023	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	1.0 U	1.0 U

a/ U = not detected above the method detection limit
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/M
c/ Numeric cleanup standards from WSP's October 2, 2015, Response Action Plan, Revision 2.

Table 6
May 2024 Recovery Well Sampling Results
Former Kop-Flex Facility
Hanover, Maryland (a)

Parameters	Groundwater Cleanup Standards (µg/L) (b)		Shallow Zone Wells			Deep Zone Wells	
		Well ID:	RW-1S	RW-2S	RW-3S	RW-1D	RW-2D
		Sampling Date:	5/19/2024	5/19/2024	---	5/19/2024	---
Chloroethane	2,100		19.6	5.0 U	NS	9.3	NS
1,1-Dichloroethane	2.8		**170**	**67.8**	NS	**81.2**	NS
1,1-Dichloroethene	7		**574**	**406**	NS	**329**	NS
1,4-Dioxane	15.0	(c)	**128**	**27.9**	NS	**127**	NS
Methylene Chloride	5		5.0 U	**5.2**	NS	5.0 U	NS
1,1,1-Trichloroethane	200		50.6	**405**	NS	17.1	NS
Total Detected CVOCs + 1,4-Dioxane			*942*	*907*	---	*563.6*	---

a/ U = not detected above the method detection limit
NS = not sampled
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%20Soil%2

c/ Numeric cleanup standards from WSP's October 2, 2015, Response Action Plan, Revision 2.

ENCLOSURE A - CERTIFIED LABORATORY ANALYTICAL REPORT FOR ONSITE MONITORING WELL SAMPLES (MAY 2024)

Main Site: 301 Fulling Mill Road | Middletown, PA 17057 | Phone: 717-944-5541 | Fax: 717-944-1430 | www.alsglobal.com
Associated Site: 20 Riverside Drive | Spring City, PA 19475 | Phone: 610-948-4903 | Fax: 717-944-1430 |

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, NJ PA101

Analytical Results Report For **WSP USA Inc.**

Project KOP-Flex Onsite 31405608.010
Workorder 3360617
Report ID 325701 on 5/31/2024

Certificate of Analysis

Enclosed are the analytical results for samples received by the laboratory on May 20, 2024.

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.

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

Recipient(s):
Elliott Martynkiewicz - WSP USA Inc.
Eric Johnson - WSP USA INC

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

Susan Scherer

Susan Scherer *(ALS Digital Signature)*
Project Coordinator

Sample Summary

Lab ID	Sample ID	Matrix	Date Collected	Date Received	Collector	Collection Company
3360617001	MW-22D	Ground Water	05/19/2024 14:55	05/20/2024 19:20	CBC	Collected By Client
3360617002	MW-04R	Ground Water	05/19/2024 15:10	05/20/2024 19:20	CBC	Collected By Client
3360617003	MW-44	Ground Water	05/19/2024 13:55	05/20/2024 19:20	CBC	Collected By Client
3360617004	MW-21D	Ground Water	05/19/2024 14:05	05/20/2024 19:20	CBC	Collected By Client
3360617005	MW-01D	Ground Water	05/19/2024 14:35	05/20/2024 19:20	CBC	Collected By Client
3360617007	MW-20	Ground Water	05/19/2024 15:15	05/20/2024 19:20	CBC	Collected By Client
3360617008	MW-16	Ground Water	05/19/2024 16:05	05/20/2024 19:20	CBC	Collected By Client
3360617009	MW-16D	Ground Water	05/19/2024 16:20	05/20/2024 19:20	CBC	Collected By Client
3360617010	Trip Blank-A	Ground Water	05/19/2024 00:00	05/20/2024 19:20	CBC	Collected By Client
3360617011	MW-43	Ground Water	05/19/2024 10:30	05/20/2024 19:20	CBC	Collected By Client
3360617012	MW-42	Ground Water	05/19/2024 11:05	05/20/2024 19:20	CBC	Collected By Client
3360617013	MW-38R	Ground Water	05/19/2024 11:15	05/20/2024 19:20	CBC	Collected By Client
3360617014	MW-09	Ground Water	05/19/2024 15:35	05/20/2024 19:20	CBC	Collected By Client
3360617015	MW-23D	Ground Water	05/19/2024 15:55	05/20/2024 19:20	CBC	Collected By Client
3360617016	MW-100	Ground Water	05/19/2024 12:15	05/20/2024 19:20	CBC	Collected By Client
3360617017	Trip Blank-B	Ground Water	05/19/2024 00:00	05/20/2024 19:20	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, including but not limited to the following EPA Method reference revisions:
  EPA 300.1 Rev. 1.0-1997
  EPA 300.0 Rev. 2.1-1993
  EPA 353.2 Rev. 2.0-1993
  EPA 410.4 Rev. 1.0-1993
  EPA 420.4 Rev. 1.0-1993
  EPA 365.1 Rev. 2.0-1993
  EPA 200.7 Rev. 4.4-1994
  EPA 200.8 Rev. 5.4-1994
  EPA 245.1 Rev. 3.0-1994
- 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 preformed 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 Notations

Sample Notations

Lab ID	Sample ID		
3360617004	MW-21D	**S1**	The sample analyzed for the volatiles analysis contained headspace, which was introduced during the primary run. The method requires that the samples not have headspace in order to prevent the loss of VOC's.

Result Notations

Notation Ref.	
1	This compound was recovered above the 20 percent 8260D criteria in the continuing calibration verification associated with this sample. The % difference was reported at 20.58%. Acceptable limits are +/-20%.
2	The surrogate 2-Methylnapthalene-d10 for method SW846 8270E SIM was outside of control limits. The % Recovery was reported as 562 and the control limits were 29 to 112. This result was reported at a dilution of 100.
3	The surrogate 2-Methylnapthalene-d10 for method SW846 8270E SIM was outside of control limits. The % Recovery was reported as 1760 and the control limits were 29 to 112. This result was reported at a dilution of 100.
4	The surrogate 2-Methylnapthalene-d10 for method SW846 8270E SIM was outside of control limits. The % Recovery was reported as 0 and the control limits were 29 to 112. This result was reported at a dilution of 10.
5	Chloromethane was recovered below the 20 percent 8260D criteria in the continuing calibration verification associated with this sample. The % drift was reported at -23.94%. Acceptable limits are +/-20%.

Detected Results Summary

Client Sample ID	MW-22D	Collected	05/19/2024 14:55
Lab Sample ID	3360617001	Lab Receipt	05/20/2024 19:20

Compound	Result	Units	RDL	Method	Flag
SEMIVOLATILE SIM					
1,4-Dioxane	1.1	ug/L	1.0	SW846 8270E SIM	#
VOLATILE ORGANICS					
1,1-Dichloroethene	5.5	ug/L	1.0	SW846 8260D	#

Detected Results Summary

Client Sample ID	MW-04R	Collected	05/19/2024 15:10
Lab Sample ID	3360617002	Lab Receipt	05/20/2024 19:20

Compound	Result	Units	RDL	Method	Flag
SEMIVOLATILE SIM					
1,4-Dioxane	26.7	ug/L	5.0	SW846 8270E SIM	#
VOLATILE ORGANICS					
1,1-Dichloroethane	36.0	ug/L	1.0	SW846 8260D	#
1,1-Dichloroethene	76.0	ug/L	1.0	SW846 8260D	#

Detected Results Summary

Client Sample ID	MW-44	Collected	05/19/2024 13:55
Lab Sample ID	3360617003	Lab Receipt	05/20/2024 19:20

Compound	Result	Units	RDL	Method	Flag
SEMIVOLATILE SIM					
1,4-Dioxane	1.9	ug/L	1.0	SW846 8270E SIM	#
VOLATILE ORGANICS					
1,1,1-Trichloroethane	5.8	ug/L	1.0	SW846 8260D	#
1,1-Dichloroethane	3.3	ug/L	1.0	SW846 8260D	#
1,1-Dichloroethene	5.0	ug/L	1.0	SW846 8260D	#

Detected Results Summary

Client Sample ID	MW-21D	Collected	05/19/2024 14:05
Lab Sample ID	3360617004	Lab Receipt	05/20/2024 19:20

Compound	Result	Units	RDL	Method	Flag
SEMIVOLATILE SIM					
1,4-Dioxane	4.3	ug/L	1.0	SW846 8270E SIM	#
VOLATILE ORGANICS					
1,1-Dichloroethene	6.3	ug/L	1.0	SW846 8260D	#
Methyl t-Butyl Ether	1.3	ug/L	1.0	SW846 8260D	#

Detected Results Summary

Client Sample ID	MW-01D	Collected	05/19/2024 14:35
Lab Sample ID	3360617005	Lab Receipt	05/20/2024 19:20

Compound	Result	Units	RDL	Method	Flag
SEMIVOLATILE SIM					
1,4-Dioxane	3.1	ug/L	1.0	SW846 8270E SIM	#
VOLATILE ORGANICS					
1,1-Dichloroethane	2.4	ug/L	1.0	SW846 8260D	#
1,1-Dichloroethene	17.1	ug/L	1.0	SW846 8260D	#

Detected Results Summary

Client Sample ID	MW-20	Collected	05/19/2024 15:15
Lab Sample ID	3360617007	Lab Receipt	05/20/2024 19:20

Compound	Result	Units	RDL	Method	Flag
SEMIVOLATILE SIM					
1,4-Dioxane	396	ug/L	100	SW846 8270E SIM	#
VOLATILE ORGANICS					
1,1-Dichloroethane	386	ug/L	5.0	SW846 8260D	#
1,1-Dichloroethene	560	ug/L	5.0	SW846 8260D	#
1,2-Dichloroethane	12.6	ug/L	5.0	SW846 8260D	#
Trichloroethene	5.1	ug/L	5.0	SW846 8260D	#

Detected Results Summary

Client Sample ID	MW-16	Collected	05/19/2024 16:05
Lab Sample ID	3360617008	Lab Receipt	05/20/2024 19:20

Compound	Result	Units	RDL	Method	Flag
SEMIVOLATILE SIM					
1,4-Dioxane	91.4	ug/L	19.2	SW846 8270E SIM	#
VOLATILE ORGANICS					
1,1,1-Trichloroethane	905	ug/L	20.0	SW846 8260D	#
1,1-Dichloroethane	1160	ug/L	20.0	SW846 8260D	#
1,1-Dichloroethene	1640	ug/L	20.0	SW846 8260D	#
Chloroethane	34.5	ug/L	20.0	SW846 8260D	#

Detected Results Summary

Client Sample ID	MW-16D	Collected	05/19/2024 16:20
Lab Sample ID	3360617009	Lab Receipt	05/20/2024 19:20

Compound	Result	Units	RDL	Method	Flag
SEMIVOLATILE SIM					
1,4-Dioxane	18.7	ug/L	5.0	SW846 8270E SIM	#
VOLATILE ORGANICS					
1,1,1-Trichloroethane	4.5	ug/L	1.0	SW846 8260D	#
1,1-Dichloroethane	20.5	ug/L	1.0	SW846 8260D	#
1,1-Dichloroethene	96.6	ug/L	1.0	SW846 8260D	#
1,2-Dichloroethane	1.1	ug/L	1.0	SW846 8260D	#
Methyl t-Butyl Ether	1.1	ug/L	1.0	SW846 8260D	#

Detected Results Summary

Client Sample ID	MW-43	Collected	05/19/2024 10:30
Lab Sample ID	3360617011	Lab Receipt	05/20/2024 19:20

Compound	Result	Units	RDL	Method	Flag
SEMIVOLATILE SIM					
1,4-Dioxane	6.3	ug/L	1.0	SW846 8270E SIM	#
VOLATILE ORGANICS					
1,1-Dichloroethane	1.5	ug/L	1.0	SW846 8260D	#
1,1-Dichloroethene	17.3	ug/L	1.0	SW846 8260D	#
Methyl t-Butyl Ether	2.0	ug/L	1.0	SW846 8260D	#

Detected Results Summary

Client Sample ID	MW-42	Collected	05/19/2024 11:05
Lab Sample ID	3360617012	Lab Receipt	05/20/2024 19:20

Compound	Result	Units	RDL	Method	Flag
SEMIVOLATILE SIM					
1,4-Dioxane	3.7	ug/L	1.0	SW846 8270E SIM	#

Detected Results Summary

Client Sample ID	MW-38R	Collected	05/19/2024 11:15
Lab Sample ID	3360617013	Lab Receipt	05/20/2024 19:20

Compound	Result	Units	RDL	Method	Flag
SEMIVOLATILE SIM					
1,4-Dioxane	10	ug/L	1.0	SW846 8270E SIM	#
VOLATILE ORGANICS					
1,1-Dichloroethane	8.1	ug/L	1.0	SW846 8260D	#

Detected Results Summary

Client Sample ID	MW-09	Collected	05/19/2024 15:35
Lab Sample ID	3360617014	Lab Receipt	05/20/2024 19:20

Compound	Result	Units	RDL	Method	Flag
SEMIVOLATILE SIM					
1,4-Dioxane	3.8	ug/L	1.0	SW846 8270E SIM	#
VOLATILE ORGANICS					
1,1-Dichloroethane	2.9	ug/L	1.0	SW846 8260D	#
1,1-Dichloroethene	60.7	ug/L	1.0	SW846 8260D	#

Detected Results Summary

Client Sample ID	MW-23D	Collected	05/19/2024 15:55
Lab Sample ID	3360617015	Lab Receipt	05/20/2024 19:20

Compound	Result	Units	RDL	Method	Flag
SEMIVOLATILE SIM					
1,4-Dioxane	24.2	ug/L	5.0	SW846 8270E SIM	#
VOLATILE ORGANICS					
1,1,1-Trichloroethane	6.9	ug/L	1.0	SW846 8260D	#
1,1-Dichloroethane	32.7	ug/L	1.0	SW846 8260D	#
1,1-Dichloroethene	134	ug/L	1.0	SW846 8260D	#
1,2-Dichloroethane	1.4	ug/L	1.0	SW846 8260D	#

Detected Results Summary

Client Sample ID	MW-100	Collected	05/19/2024 12:15
Lab Sample ID	3360617016	Lab Receipt	05/20/2024 19:20

Compound	Result	Units	RDL	Method	Flag
SEMIVOLATILE SIM					
1,4-Dioxane	19.1	ug/L	4.2	SW846 8270E SIM	#
VOLATILE ORGANICS					
1,1,1-Trichloroethane	4.4	ug/L	1.0	SW846 8260D	#
1,1-Dichloroethane	20.7	ug/L	1.0	SW846 8260D	#
1,1-Dichloroethene	96.6	ug/L	1.0	SW846 8260D	#
1,2-Dichloroethane	1.1	ug/L	1.0	SW846 8260D	#
Methyl t-Butyl Ether	1.1	ug/L	1.0	SW846 8260D	#

Results

Client Sample ID	MW-22D	Collected	05/19/2024 14:55
Lab Sample ID	3360617001	Lab Receipt	05/20/2024 19:20

SEMIVOLATILE SIM

Compound	Result	Flag	Units	RDL	Method	Dilution	Analysis Date/Time	By	Cntr
1,4-Dioxane	1.1		ug/L	1.0	SW846 8270E SIM	1	05/23/2024 06:13	S7M	C

SURROGATES

Compound	CAS No	Recovery	Limits(%)	Analysis Date/Time	Qualifiers
2-Methylnapthalene-d10	7297-45-2	73.2%	29 – 112	05/23/2024 06:13	
Fluoranthene-d10	93951-69-0	86.2%	45 – 130	05/23/2024 06:13	

VOLATILE ORGANICS

Compound	Result	Flag	Units	RDL	Method	Dilution	Analysis Date/Time	By	Cntr
1,1,1,2-Tetrachloroethane	1.0 U	U	ug/L	1.0	SW846 8260D	1	05/29/2024 02:40	PDK	B
1,1,1-Trichloroethane	1.0 U	U	ug/L	1.0	SW846 8260D	1	05/29/2024 02:40	PDK	B
1,1,2,2-Tetrachloroethane	1.0 U	U	ug/L	1.0	SW846 8260D	1	05/29/2024 02:40	PDK	B
1,1,2-Trichloroethane	1.0 U	U	ug/L	1.0	SW846 8260D	1	05/29/2024 02:40	PDK	B
1,1-Dichloroethane	1.0 U	U	ug/L	1.0	SW846 8260D	1	05/29/2024 02:40	PDK	B
1,1-Dichloroethene	5.5		ug/L	1.0	SW846 8260D	1	05/29/2024 02:40	PDK	B
1,1-Dichloropropene	1.0 U	U	ug/L	1.0	SW846 8260D	1	05/29/2024 02:40	PDK	B
1,2,3-Trichlorobenzene	2.0 U	U	ug/L	2.0	SW846 8260D	1	05/29/2024 02:40	PDK	B
1,2,3-Trichloropropane	2.0 U	U	ug/L	2.0	SW846 8260D	1	05/29/2024 02:40	PDK	B
1,2,4-Trichlorobenzene	2.0 U	U	ug/L	2.0	SW846 8260D	1	05/29/2024 02:40	PDK	B
1,2-Dibromo-3-chloropropane	7.0 U	U	ug/L	7.0	SW846 8260D	1	05/29/2024 02:40	PDK	B
1,2-Dibromoethane	1.0 U	U	ug/L	1.0	SW846 8260D	1	05/29/2024 02:40	PDK	B
1,2-Dichlorobenzene	1.0 U	U	ug/L	1.0	SW846 8260D	1	05/29/2024 02:40	PDK	B
1,2-Dichloroethane	1.0 U	U	ug/L	1.0	SW846 8260D	1	05/29/2024 02:40	PDK	B
1,2-Dichloropropane	1.0 U	U	ug/L	1.0	SW846 8260D	1	05/29/2024 02:40	PDK	B
1,3-Dichlorobenzene	1.0 U	U	ug/L	1.0	SW846 8260D	1	05/29/2024 02:40	PDK	B
1,3-Dichloropropane	1.0 U	U	ug/L	1.0	SW846 8260D	1	05/29/2024 02:40	PDK	B
1,4-Dichlorobenzene	1.0 U	U	ug/L	1.0	SW846 8260D	1	05/29/2024 02:40	PDK	B
2,2-Dichloropropane	1.0 U	U	ug/L	1.0	SW846 8260D	1	05/29/2024 02:40	PDK	B
2-Butanone	10.0 U	U	ug/L	10.0	SW846 8260D	1	05/29/2024 02:40	PDK	B
2-Hexanone	5.0 U	U,1	ug/L	5.0	SW846 8260D	1	05/29/2024 02:40	PDK	B
4-Methyl-2-Pentanone(MIBK)	5.0 U	U	ug/L	5.0	SW846 8260D	1	05/29/2024 02:40	PDK	B
Acetone	10.0 U	U	ug/L	10.0	SW846 8260D	1	05/29/2024 02:40	PDK	B
Benzene	1.0 U	U	ug/L	1.0	SW846 8260D	1	05/29/2024 02:40	PDK	B
Bromobenzene	1.0 U	U	ug/L	1.0	SW846 8260D	1	05/29/2024 02:40	PDK	B
Bromochloromethane	1.0 U	U	ug/L	1.0	SW846 8260D	1	05/29/2024 02:40	PDK	B
Bromodichloromethane	1.0 U	U	ug/L	1.0	SW846 8260D	1	05/29/2024 02:40	PDK	B
Bromoform	1.0 U	U	ug/L	1.0	SW846 8260D	1	05/29/2024 02:40	PDK	B
Bromomethane	1.0 U	U	ug/L	1.0	SW846 8260D	1	05/29/2024 02:40	PDK	B
Carbon Tetrachloride	1.0 U	U	ug/L	1.0	SW846 8260D	1	05/29/2024 02:40	PDK	B
Chlorobenzene	1.0 U	U	ug/L	1.0	SW846 8260D	1	05/29/2024 02:40	PDK	B
Chlorodibromomethane	1.0 U	U	ug/L	1.0	SW846 8260D	1	05/29/2024 02:40	PDK	B
Chloroethane	1.0 U	U	ug/L	1.0	SW846 8260D	1	05/29/2024 02:40	PDK	B
Chloroform	1.0 U	U	ug/L	1.0	SW846 8260D	1	05/29/2024 02:40	PDK	B
Chloromethane	1.0 U	U	ug/L	1.0	SW846 8260D	1	05/29/2024 02:40	PDK	B

Results

Client Sample ID	MW-22D	Collected	05/19/2024 14:55
Lab Sample ID	3360617001	Lab Receipt	05/20/2024 19:20

VOLATILE ORGANICS (cont.)

Compound	Result	Flag	Units	RDL	Method	Dilution	Analysis Date/Time	By	Cntr
cis-1,2-Dichloroethene	1.0 U	U	ug/L	1.0	SW846 8260D	1	05/29/2024 02:40	PDK	B
cis-1,3-Dichloropropene	1.0 U	U	ug/L	1.0	SW846 8260D	1	05/29/2024 02:40	PDK	B
Dibromomethane	1.0 U	U	ug/L	1.0	SW846 8260D	1	05/29/2024 02:40	PDK	B
Dichlorodifluoromethane	1.0 U	U	ug/L	1.0	SW846 8260D	1	05/29/2024 02:40	PDK	B
Diisopropyl ether	1.0 U	U	ug/L	1.0	SW846 8260D	1	05/29/2024 02:40	PDK	B
Ethylbenzene	1.0 U	U	ug/L	1.0	SW846 8260D	1	05/29/2024 02:40	PDK	B
Hexachlorobutadiene	5.0 U	U	ug/L	5.0	SW846 8260D	1	05/29/2024 02:40	PDK	B
Methyl t-Butyl Ether	1.0 U	U	ug/L	1.0	SW846 8260D	1	05/29/2024 02:40	PDK	B
Methylene Chloride	1.0 U	U	ug/L	1.0	SW846 8260D	1	05/29/2024 02:40	PDK	B
mp-Xylene	2.0 U	U	ug/L	2.0	SW846 8260D	1	05/29/2024 02:40	PDK	B
Naphthalene	2.0 U	U	ug/L	2.0	SW846 8260D	1	05/29/2024 02:40	PDK	B
o-Chlorotoluene	1.0 U	U	ug/L	1.0	SW846 8260D	1	05/29/2024 02:40	PDK	B
o-Xylene	1.0 U	U	ug/L	1.0	SW846 8260D	1	05/29/2024 02:40	PDK	B
p-Chlorotoluene	1.0 U	U	ug/L	1.0	SW846 8260D	1	05/29/2024 02:40	PDK	B
p-Isopropyltoluene	1.0 U	U	ug/L	1.0	SW846 8260D	1	05/29/2024 02:40	PDK	B
Styrene	1.0 U	U	ug/L	1.0	SW846 8260D	1	05/29/2024 02:40	PDK	B
Tetrachloroethene	1.0 U	U	ug/L	1.0	SW846 8260D	1	05/29/2024 02:40	PDK	B
Toluene	1.0 U	U	ug/L	1.0	SW846 8260D	1	05/29/2024 02:40	PDK	B
Total Xylenes	3.0 U	U	ug/L	3.0	SW846 8260D	1	05/29/2024 02:40	PDK	B
trans-1,2-Dichloroethene	1.0 U	U	ug/L	1.0	SW846 8260D	1	05/29/2024 02:40	PDK	B
trans-1,3-Dichloropropene	1.0 U	U	ug/L	1.0	SW846 8260D	1	05/29/2024 02:40	PDK	B
Trichloroethene	1.0 U	U	ug/L	1.0	SW846 8260D	1	05/29/2024 02:40	PDK	B
Trichlorofluoromethane	1.0 U	U	ug/L	1.0	SW846 8260D	1	05/29/2024 02:40	PDK	B
Vinyl Acetate	5.0 U	U	ug/L	5.0	SW846 8260D	1	05/29/2024 02:40	PDK	B
Vinyl Chloride	1.0 U	U	ug/L	1.0	SW846 8260D	1	05/29/2024 02:40	PDK	B

SURROGATES

Compound	CAS No	Recovery	Limits(%)	Analysis Date/Time	Qualifiers
1,2-Dichloroethane-d4	17060-07-0	110%	62 – 133	05/29/2024 02:40	
4-Bromofluorobenzene	460-00-4	93.1%	79 – 114	05/29/2024 02:40	
Dibromofluoromethane	1868-53-7	98.4%	78 – 116	05/29/2024 02:40	
Toluene-d8	2037-26-5	94.8%	76 – 127	05/29/2024 02:40	

Results

Client Sample ID	MW-04R	Collected	05/19/2024 15:10
Lab Sample ID	3360617002	Lab Receipt	05/20/2024 19:20

SEMIVOLATILE SIM

Compound	Result	Flag	Units	RDL	Method	Dilution	Analysis Date/Time	By	Cntr
1,4-Dioxane	26.7		ug/L	5.0	SW846 8270E SIM	5	05/29/2024 03:22	M1O	C

SURROGATES

Compound	CAS No	Recovery	Limits(%)	Analysis Date/Time	Qualifiers
2-Methylnapthalene-d10	7297-45-2	85.2%	29 – 112	05/23/2024 06:43	
2-Methylnapthalene-d10	7297-45-2	82.7%	29 – 112	05/29/2024 03:22	
Fluoranthene-d10	93951-69-0	98.9%	45 – 130	05/23/2024 06:43	
Fluoranthene-d10	93951-69-0	94%	45 – 130	05/29/2024 03:22	

VOLATILE ORGANICS

Compound	Result	Flag	Units	RDL	Method	Dilution	Analysis Date/Time	By	Cntr
1,1,1,2-Tetrachloroethane	1.0 U	U	ug/L	1.0	SW846 8260D	1	05/29/2024 03:01	PDK	B
1,1,1-Trichloroethane	1.0 U	U	ug/L	1.0	SW846 8260D	1	05/29/2024 03:01	PDK	B
1,1,2,2-Tetrachloroethane	1.0 U	U	ug/L	1.0	SW846 8260D	1	05/29/2024 03:01	PDK	B
1,1,2-Trichloroethane	1.0 U	U	ug/L	1.0	SW846 8260D	1	05/29/2024 03:01	PDK	B
1,1-Dichloroethane	36.0		ug/L	1.0	SW846 8260D	1	05/29/2024 03:01	PDK	B
1,1-Dichloroethene	76.0		ug/L	1.0	SW846 8260D	1	05/29/2024 03:01	PDK	B
1,1-Dichloropropene	1.0 U	U	ug/L	1.0	SW846 8260D	1	05/29/2024 03:01	PDK	B
1,2,3-Trichlorobenzene	2.0 U	U	ug/L	2.0	SW846 8260D	1	05/29/2024 03:01	PDK	B
1,2,3-Trichloropropane	2.0 U	U	ug/L	2.0	SW846 8260D	1	05/29/2024 03:01	PDK	B
1,2,4-Trichlorobenzene	2.0 U	U	ug/L	2.0	SW846 8260D	1	05/29/2024 03:01	PDK	B
1,2-Dibromo-3-chloropropane	7.0 U	U	ug/L	7.0	SW846 8260D	1	05/29/2024 03:01	PDK	B
1,2-Dibromoethane	1.0 U	U	ug/L	1.0	SW846 8260D	1	05/29/2024 03:01	PDK	B
1,2-Dichlorobenzene	1.0 U	U	ug/L	1.0	SW846 8260D	1	05/29/2024 03:01	PDK	B
1,2-Dichloroethane	1.0 U	U	ug/L	1.0	SW846 8260D	1	05/29/2024 03:01	PDK	B
1,2-Dichloropropane	1.0 U	U	ug/L	1.0	SW846 8260D	1	05/29/2024 03:01	PDK	B
1,3-Dichlorobenzene	1.0 U	U	ug/L	1.0	SW846 8260D	1	05/29/2024 03:01	PDK	B
1,3-Dichloropropane	1.0 U	U	ug/L	1.0	SW846 8260D	1	05/29/2024 03:01	PDK	B
1,4-Dichlorobenzene	1.0 U	U	ug/L	1.0	SW846 8260D	1	05/29/2024 03:01	PDK	B
2,2-Dichloropropane	1.0 U	U	ug/L	1.0	SW846 8260D	1	05/29/2024 03:01	PDK	B
2-Butanone	10.0 U	U	ug/L	10.0	SW846 8260D	1	05/29/2024 03:01	PDK	B
2-Hexanone	5.0 U	U,1	ug/L	5.0	SW846 8260D	1	05/29/2024 03:01	PDK	B
4-Methyl-2-Pentanone(MIBK)	5.0 U	U	ug/L	5.0	SW846 8260D	1	05/29/2024 03:01	PDK	B
Acetone	10.0 U	U	ug/L	10.0	SW846 8260D	1	05/29/2024 03:01	PDK	B
Benzene	1.0 U	U	ug/L	1.0	SW846 8260D	1	05/29/2024 03:01	PDK	B
Bromobenzene	1.0 U	U	ug/L	1.0	SW846 8260D	1	05/29/2024 03:01	PDK	B
Bromochloromethane	1.0 U	U	ug/L	1.0	SW846 8260D	1	05/29/2024 03:01	PDK	B
Bromodichloromethane	1.0 U	U	ug/L	1.0	SW846 8260D	1	05/29/2024 03:01	PDK	B
Bromoform	1.0 U	U	ug/L	1.0	SW846 8260D	1	05/29/2024 03:01	PDK	B
Bromomethane	1.0 U	U	ug/L	1.0	SW846 8260D	1	05/29/2024 03:01	PDK	B
Carbon Tetrachloride	1.0 U	U	ug/L	1.0	SW846 8260D	1	05/29/2024 03:01	PDK	B
Chlorobenzene	1.0 U	U	ug/L	1.0	SW846 8260D	1	05/29/2024 03:01	PDK	B
Chlorodibromomethane	1.0 U	U	ug/L	1.0	SW846 8260D	1	05/29/2024 03:01	PDK	B
Chloroethane	1.0 U	U	ug/L	1.0	SW846 8260D	1	05/29/2024 03:01	PDK	B

Results

Client Sample ID	MW-04R	Collected	05/19/2024 15:10
Lab Sample ID	3360617002	Lab Receipt	05/20/2024 19:20

VOLATILE ORGANICS (cont.)

Compound	Result	Flag	Units	RDL	Method	Dilution	Analysis Date/Time	By	Cntr
Chloroform	1.0 U	U	ug/L	1.0	SW846 8260D	1	05/29/2024 03:01	PDK	B
Chloromethane	1.0 U	U	ug/L	1.0	SW846 8260D	1	05/29/2024 03:01	PDK	B
cis-1,2-Dichloroethene	1.0 U	U	ug/L	1.0	SW846 8260D	1	05/29/2024 03:01	PDK	B
cis-1,3-Dichloropropene	1.0 U	U	ug/L	1.0	SW846 8260D	1	05/29/2024 03:01	PDK	B
Dibromomethane	1.0 U	U	ug/L	1.0	SW846 8260D	1	05/29/2024 03:01	PDK	B
Dichlorodifluoromethane	1.0 U	U	ug/L	1.0	SW846 8260D	1	05/29/2024 03:01	PDK	B
Diisopropyl ether	1.0 U	U	ug/L	1.0	SW846 8260D	1	05/29/2024 03:01	PDK	B
Ethylbenzene	1.0 U	U	ug/L	1.0	SW846 8260D	1	05/29/2024 03:01	PDK	B
Hexachlorobutadiene	5.0 U	U	ug/L	5.0	SW846 8260D	1	05/29/2024 03:01	PDK	B
Methyl t-Butyl Ether	1.0 U	U	ug/L	1.0	SW846 8260D	1	05/29/2024 03:01	PDK	B
Methylene Chloride	1.0 U	U	ug/L	1.0	SW846 8260D	1	05/29/2024 03:01	PDK	B
mp-Xylene	2.0 U	U	ug/L	2.0	SW846 8260D	1	05/29/2024 03:01	PDK	B
Naphthalene	2.0 U	U	ug/L	2.0	SW846 8260D	1	05/29/2024 03:01	PDK	B
o-Chlorotoluene	1.0 U	U	ug/L	1.0	SW846 8260D	1	05/29/2024 03:01	PDK	B
o-Xylene	1.0 U	U	ug/L	1.0	SW846 8260D	1	05/29/2024 03:01	PDK	B
p-Chlorotoluene	1.0 U	U	ug/L	1.0	SW846 8260D	1	05/29/2024 03:01	PDK	B
p-Isopropyltoluene	1.0 U	U	ug/L	1.0	SW846 8260D	1	05/29/2024 03:01	PDK	B
Styrene	1.0 U	U	ug/L	1.0	SW846 8260D	1	05/29/2024 03:01	PDK	B
Tetrachloroethene	1.0 U	U	ug/L	1.0	SW846 8260D	1	05/29/2024 03:01	PDK	B
Toluene	1.0 U	U	ug/L	1.0	SW846 8260D	1	05/29/2024 03:01	PDK	B
Total Xylenes	3.0 U	U	ug/L	3.0	SW846 8260D	1	05/29/2024 03:01	PDK	B
trans-1,2-Dichloroethene	1.0 U	U	ug/L	1.0	SW846 8260D	1	05/29/2024 03:01	PDK	B
trans-1,3-Dichloropropene	1.0 U	U	ug/L	1.0	SW846 8260D	1	05/29/2024 03:01	PDK	B
Trichloroethene	1.0 U	U	ug/L	1.0	SW846 8260D	1	05/29/2024 03:01	PDK	B
Trichlorofluoromethane	1.0 U	U	ug/L	1.0	SW846 8260D	1	05/29/2024 03:01	PDK	B
Vinyl Acetate	5.0 U	U	ug/L	5.0	SW846 8260D	1	05/29/2024 03:01	PDK	B
Vinyl Chloride	1.0 U	U	ug/L	1.0	SW846 8260D	1	05/29/2024 03:01	PDK	B

SURROGATES

Compound	CAS No	Recovery	Limits(%)	Analysis Date/Time	Qualifiers
1,2-Dichloroethane-d4	17060-07-0	107%	62 – 133	05/29/2024 03:01	
4-Bromofluorobenzene	460-00-4	102%	79 – 114	05/29/2024 03:01	
Dibromofluoromethane	1868-53-7	95%	78 – 116	05/29/2024 03:01	
Toluene-d8	2037-26-5	94.5%	76 – 127	05/29/2024 03:01	

Results

Client Sample ID	MW-44	Collected	05/19/2024 13:55
Lab Sample ID	3360617003	Lab Receipt	05/20/2024 19:20

SEMIVOLATILE SIM

Compound	Result	Flag	Units	RDL	Method	Dilution	Analysis Date/Time	By	Cntr
1,4-Dioxane	1.9		ug/L	1.0	SW846 8270E SIM	1	05/29/2024 03:49	M1O	C

SURROGATES

Compound	CAS No	Recovery	Limits(%)	Analysis Date/Time	Qualifiers
2-Methylnapthalene-d10	7297-45-2	79.8%	29 – 112	05/29/2024 03:49	
Fluoranthene-d10	93951-69-0	97.2%	45 – 130	05/29/2024 03:49	

VOLATILE ORGANICS

Compound	Result	Flag	Units	RDL	Method	Dilution	Analysis Date/Time	By	Cntr
1,1,1,2-Tetrachloroethane	1.0 U	U	ug/L	1.0	SW846 8260D	1	05/29/2024 03:21	PDK	B
1,1,1-Trichloroethane	5.8		ug/L	1.0	SW846 8260D	1	05/29/2024 03:21	PDK	B
1,1,2,2-Tetrachloroethane	1.0 U	U	ug/L	1.0	SW846 8260D	1	05/29/2024 03:21	PDK	B
1,1,2-Trichloroethane	1.0 U	U	ug/L	1.0	SW846 8260D	1	05/29/2024 03:21	PDK	B
1,1-Dichloroethane	3.3		ug/L	1.0	SW846 8260D	1	05/29/2024 03:21	PDK	B
1,1-Dichloroethene	5.0		ug/L	1.0	SW846 8260D	1	05/29/2024 03:21	PDK	B
1,1-Dichloropropene	1.0 U	U	ug/L	1.0	SW846 8260D	1	05/29/2024 03:21	PDK	B
1,2,3-Trichlorobenzene	2.0 U	U	ug/L	2.0	SW846 8260D	1	05/29/2024 03:21	PDK	B
1,2,3-Trichloropropane	2.0 U	U	ug/L	2.0	SW846 8260D	1	05/29/2024 03:21	PDK	B
1,2,4-Trichlorobenzene	2.0 U	U	ug/L	2.0	SW846 8260D	1	05/29/2024 03:21	PDK	B
1,2-Dibromo-3-chloropropane	7.0 U	U	ug/L	7.0	SW846 8260D	1	05/29/2024 03:21	PDK	B
1,2-Dibromoethane	1.0 U	U	ug/L	1.0	SW846 8260D	1	05/29/2024 03:21	PDK	B
1,2-Dichlorobenzene	1.0 U	U	ug/L	1.0	SW846 8260D	1	05/29/2024 03:21	PDK	B
1,2-Dichloroethane	1.0 U	U	ug/L	1.0	SW846 8260D	1	05/29/2024 03:21	PDK	B
1,2-Dichloropropane	1.0 U	U	ug/L	1.0	SW846 8260D	1	05/29/2024 03:21	PDK	B
1,3-Dichlorobenzene	1.0 U	U	ug/L	1.0	SW846 8260D	1	05/29/2024 03:21	PDK	B
1,3-Dichloropropane	1.0 U	U	ug/L	1.0	SW846 8260D	1	05/29/2024 03:21	PDK	B
1,4-Dichlorobenzene	1.0 U	U	ug/L	1.0	SW846 8260D	1	05/29/2024 03:21	PDK	B
2,2-Dichloropropane	1.0 U	U	ug/L	1.0	SW846 8260D	1	05/29/2024 03:21	PDK	B
2-Butanone	10.0 U	U	ug/L	10.0	SW846 8260D	1	05/29/2024 03:21	PDK	B
2-Hexanone	5.0 U	U,1	ug/L	5.0	SW846 8260D	1	05/29/2024 03:21	PDK	B
4-Methyl-2-Pentanone(MIBK)	5.0 U	U	ug/L	5.0	SW846 8260D	1	05/29/2024 03:21	PDK	B
Acetone	10.0 U	U	ug/L	10.0	SW846 8260D	1	05/29/2024 03:21	PDK	B
Benzene	1.0 U	U	ug/L	1.0	SW846 8260D	1	05/29/2024 03:21	PDK	B
Bromobenzene	1.0 U	U	ug/L	1.0	SW846 8260D	1	05/29/2024 03:21	PDK	B
Bromochloromethane	1.0 U	U	ug/L	1.0	SW846 8260D	1	05/29/2024 03:21	PDK	B
Bromodichloromethane	1.0 U	U	ug/L	1.0	SW846 8260D	1	05/29/2024 03:21	PDK	B
Bromoform	1.0 U	U	ug/L	1.0	SW846 8260D	1	05/29/2024 03:21	PDK	B
Bromomethane	1.0 U	U	ug/L	1.0	SW846 8260D	1	05/29/2024 03:21	PDK	B
Carbon Tetrachloride	1.0 U	U	ug/L	1.0	SW846 8260D	1	05/29/2024 03:21	PDK	B
Chlorobenzene	1.0 U	U	ug/L	1.0	SW846 8260D	1	05/29/2024 03:21	PDK	B
Chlorodibromomethane	1.0 U	U	ug/L	1.0	SW846 8260D	1	05/29/2024 03:21	PDK	B
Chloroethane	1.0 U	U	ug/L	1.0	SW846 8260D	1	05/29/2024 03:21	PDK	B
Chloroform	1.0 U	U	ug/L	1.0	SW846 8260D	1	05/29/2024 03:21	PDK	B
Chloromethane	1.0 U	U	ug/L	1.0	SW846 8260D	1	05/29/2024 03:21	PDK	B

Results

Client Sample ID	MW-44	Collected	05/19/2024 13:55
Lab Sample ID	3360617003	Lab Receipt	05/20/2024 19:20

VOLATILE ORGANICS (cont.)

Compound	Result	Flag	Units	RDL	Method	Dilution	Analysis Date/Time	By	Cntr
cis-1,2-Dichloroethene	1.0 U	U	ug/L	1.0	SW846 8260D	1	05/29/2024 03:21	PDK	B
cis-1,3-Dichloropropene	1.0 U	U	ug/L	1.0	SW846 8260D	1	05/29/2024 03:21	PDK	B
Dibromomethane	1.0 U	U	ug/L	1.0	SW846 8260D	1	05/29/2024 03:21	PDK	B
Dichlorodifluoromethane	1.0 U	U	ug/L	1.0	SW846 8260D	1	05/29/2024 03:21	PDK	B
Diisopropyl ether	1.0 U	U	ug/L	1.0	SW846 8260D	1	05/29/2024 03:21	PDK	B
Ethylbenzene	1.0 U	U	ug/L	1.0	SW846 8260D	1	05/29/2024 03:21	PDK	B
Hexachlorobutadiene	5.0 U	U	ug/L	5.0	SW846 8260D	1	05/29/2024 03:21	PDK	B
Methyl t-Butyl Ether	1.0 U	U	ug/L	1.0	SW846 8260D	1	05/29/2024 03:21	PDK	B
Methylene Chloride	1.0 U	U	ug/L	1.0	SW846 8260D	1	05/29/2024 03:21	PDK	B
mp-Xylene	2.0 U	U	ug/L	2.0	SW846 8260D	1	05/29/2024 03:21	PDK	B
Naphthalene	2.0 U	U	ug/L	2.0	SW846 8260D	1	05/29/2024 03:21	PDK	B
o-Chlorotoluene	1.0 U	U	ug/L	1.0	SW846 8260D	1	05/29/2024 03:21	PDK	B
o-Xylene	1.0 U	U	ug/L	1.0	SW846 8260D	1	05/29/2024 03:21	PDK	B
p-Chlorotoluene	1.0 U	U	ug/L	1.0	SW846 8260D	1	05/29/2024 03:21	PDK	B
p-Isopropyltoluene	1.0 U	U	ug/L	1.0	SW846 8260D	1	05/29/2024 03:21	PDK	B
Styrene	1.0 U	U	ug/L	1.0	SW846 8260D	1	05/29/2024 03:21	PDK	B
Tetrachloroethene	1.0 U	U	ug/L	1.0	SW846 8260D	1	05/29/2024 03:21	PDK	B
Toluene	1.0 U	U	ug/L	1.0	SW846 8260D	1	05/29/2024 03:21	PDK	B
Total Xylenes	3.0 U	U	ug/L	3.0	SW846 8260D	1	05/29/2024 03:21	PDK	B
trans-1,2-Dichloroethene	1.0 U	U	ug/L	1.0	SW846 8260D	1	05/29/2024 03:21	PDK	B
trans-1,3-Dichloropropene	1.0 U	U	ug/L	1.0	SW846 8260D	1	05/29/2024 03:21	PDK	B
Trichloroethene	1.0 U	U	ug/L	1.0	SW846 8260D	1	05/29/2024 03:21	PDK	B
Trichlorofluoromethane	1.0 U	U	ug/L	1.0	SW846 8260D	1	05/29/2024 03:21	PDK	B
Vinyl Acetate	5.0 U	U	ug/L	5.0	SW846 8260D	1	05/29/2024 03:21	PDK	B
Vinyl Chloride	1.0 U	U	ug/L	1.0	SW846 8260D	1	05/29/2024 03:21	PDK	B

SURROGATES

Compound	CAS No	Recovery	Limits(%)	Analysis Date/Time	Qualifiers
1,2-Dichloroethane-d4	17060-07-0	111%	62 – 133	05/29/2024 03:21	
4-Bromofluorobenzene	460-00-4	95%	79 – 114	05/29/2024 03:21	
Dibromofluoromethane	1868-53-7	98.3%	78 – 116	05/29/2024 03:21	
Toluene-d8	2037-26-5	95.1%	76 – 127	05/29/2024 03:21	

Results

Client Sample ID	MW-21D	Collected	05/19/2024 14:05
Lab Sample ID	3360617004	Lab Receipt	05/20/2024 19:20

SEMIVOLATILE SIM

Compound	Result	Flag	Units	RDL	Method	Dilution	Analysis Date/Time	By	Cntr
1,4-Dioxane	4.3	S1	ug/L	1.0	SW846 8270E SIM	1	05/23/2024 07:43	S7M	C

SURROGATES

Compound	CAS No	Recovery	Limits(%)	Analysis Date/Time	Qualifiers
2-Methylnapthalene-d10	7297-45-2	78.3%	29 – 112	05/23/2024 07:43	
Fluoranthene-d10	93951-69-0	94.6%	45 – 130	05/23/2024 07:43	

VOLATILE ORGANICS

Compound	Result	Flag	Units	RDL	Method	Dilution	Analysis Date/Time	By	Cntr
1,1,1,2-Tetrachloroethane	1.0 U	U,S1	ug/L	1.0	SW846 8260D	1	05/29/2024 19:13	ADB	A
1,1,1-Trichloroethane	1.0 U	U,S1	ug/L	1.0	SW846 8260D	1	05/29/2024 19:13	ADB	A
1,1,2,2-Tetrachloroethane	1.0 U	U,S1	ug/L	1.0	SW846 8260D	1	05/29/2024 19:13	ADB	A
1,1,2-Trichloroethane	1.0 U	U,S1	ug/L	1.0	SW846 8260D	1	05/29/2024 19:13	ADB	A
1,1-Dichloroethane	1.0 U	U,S1	ug/L	1.0	SW846 8260D	1	05/29/2024 19:13	ADB	A
1,1-Dichloroethene	6.3	S1	ug/L	1.0	SW846 8260D	1	05/29/2024 19:13	ADB	A
1,1-Dichloropropene	1.0 U	U,S1	ug/L	1.0	SW846 8260D	1	05/29/2024 19:13	ADB	A
1,2,3-Trichlorobenzene	2.0 U	U,S1	ug/L	2.0	SW846 8260D	1	05/29/2024 19:13	ADB	A
1,2,3-Trichloropropane	2.0 U	U,S1	ug/L	2.0	SW846 8260D	1	05/29/2024 19:13	ADB	A
1,2,4-Trichlorobenzene	2.0 U	U,S1	ug/L	2.0	SW846 8260D	1	05/29/2024 19:13	ADB	A
1,2-Dibromo-3-chloropropane	7.0 U	U,S1	ug/L	7.0	SW846 8260D	1	05/29/2024 19:13	ADB	A
1,2-Dibromoethane	1.0 U	U,S1	ug/L	1.0	SW846 8260D	1	05/29/2024 19:13	ADB	A
1,2-Dichlorobenzene	1.0 U	U,S1	ug/L	1.0	SW846 8260D	1	05/29/2024 19:13	ADB	A
1,2-Dichloroethane	1.0 U	U,S1	ug/L	1.0	SW846 8260D	1	05/29/2024 19:13	ADB	A
1,2-Dichloropropane	1.0 U	U,S1	ug/L	1.0	SW846 8260D	1	05/29/2024 19:13	ADB	A
1,3-Dichlorobenzene	1.0 U	U,S1	ug/L	1.0	SW846 8260D	1	05/29/2024 19:13	ADB	A
1,3-Dichloropropane	1.0 U	U,S1	ug/L	1.0	SW846 8260D	1	05/29/2024 19:13	ADB	A
1,4-Dichlorobenzene	1.0 U	U,S1	ug/L	1.0	SW846 8260D	1	05/29/2024 19:13	ADB	A
2,2-Dichloropropane	1.0 U	U,S1	ug/L	1.0	SW846 8260D	1	05/29/2024 19:13	ADB	A
2-Butanone	10.0 U	U,S1	ug/L	10.0	SW846 8260D	1	05/29/2024 19:13	ADB	A
2-Hexanone	5.0 U	U,S1	ug/L	5.0	SW846 8260D	1	05/29/2024 19:13	ADB	A
4-Methyl-2-Pentanone(MIBK)	5.0 U	U,S1	ug/L	5.0	SW846 8260D	1	05/29/2024 19:13	ADB	A
Acetone	10.0 U	U,S1	ug/L	10.0	SW846 8260D	1	05/29/2024 19:13	ADB	A
Benzene	1.0 U	U,S1	ug/L	1.0	SW846 8260D	1	05/29/2024 19:13	ADB	A
Bromobenzene	1.0 U	U,S1	ug/L	1.0	SW846 8260D	1	05/29/2024 19:13	ADB	A
Bromochloromethane	1.0 U	U,S1	ug/L	1.0	SW846 8260D	1	05/29/2024 19:13	ADB	A
Bromodichloromethane	1.0 U	U,S1	ug/L	1.0	SW846 8260D	1	05/29/2024 19:13	ADB	A
Bromoform	1.0 U	U,S1	ug/L	1.0	SW846 8260D	1	05/29/2024 19:13	ADB	A
Bromomethane	1.0 U	U,S1	ug/L	1.0	SW846 8260D	1	05/29/2024 19:13	ADB	A
Carbon Tetrachloride	1.0 U	U,S1	ug/L	1.0	SW846 8260D	1	05/29/2024 19:13	ADB	A
Chlorobenzene	1.0 U	U,S1	ug/L	1.0	SW846 8260D	1	05/29/2024 19:13	ADB	A
Chlorodibromomethane	1.0 U	U,S1	ug/L	1.0	SW846 8260D	1	05/29/2024 19:13	ADB	A
Chloroethane	1.0 U	U,S1	ug/L	1.0	SW846 8260D	1	05/29/2024 19:13	ADB	A
Chloroform	1.0 U	U,S1	ug/L	1.0	SW846 8260D	1	05/29/2024 19:13	ADB	A
Chloromethane	1.0 U	U,S1	ug/L	1.0	SW846 8260D	1	05/29/2024 19:13	ADB	A

Results

Client Sample ID	MW-21D	Collected	05/19/2024 14:05
Lab Sample ID	3360617004	Lab Receipt	05/20/2024 19:20

VOLATILE ORGANICS (cont.)

Compound	Result	Flag	Units	RDL	Method	Dilution	Analysis Date/Time	By	Cntr
cis-1,2-Dichloroethene	1.0 U	U,S1	ug/L	1.0	SW846 8260D	1	05/29/2024 19:13	ADB	A
cis-1,3-Dichloropropene	1.0 U	U,S1	ug/L	1.0	SW846 8260D	1	05/29/2024 19:13	ADB	A
Dibromomethane	1.0 U	U,S1	ug/L	1.0	SW846 8260D	1	05/29/2024 19:13	ADB	A
Dichlorodifluoromethane	1.0 U	U,S1	ug/L	1.0	SW846 8260D	1	05/29/2024 19:13	ADB	A
Diisopropyl ether	1.0 U	U,S1	ug/L	1.0	SW846 8260D	1	05/29/2024 19:13	ADB	A
Ethylbenzene	1.0 U	U,S1	ug/L	1.0	SW846 8260D	1	05/29/2024 19:13	ADB	A
Hexachlorobutadiene	5.0 U	U,S1	ug/L	5.0	SW846 8260D	1	05/29/2024 19:13	ADB	A
Methyl t-Butyl Ether	1.3	S1	ug/L	1.0	SW846 8260D	1	05/29/2024 19:13	ADB	A
Methylene Chloride	1.0 U	U,S1	ug/L	1.0	SW846 8260D	1	05/29/2024 19:13	ADB	A
mp-Xylene	2.0 U	U,S1	ug/L	2.0	SW846 8260D	1	05/29/2024 19:13	ADB	A
Naphthalene	2.0 U	U,S1	ug/L	2.0	SW846 8260D	1	05/29/2024 19:13	ADB	A
o-Chlorotoluene	1.0 U	U,S1	ug/L	1.0	SW846 8260D	1	05/29/2024 19:13	ADB	A
o-Xylene	1.0 U	U,S1	ug/L	1.0	SW846 8260D	1	05/29/2024 19:13	ADB	A
p-Chlorotoluene	1.0 U	U,S1	ug/L	1.0	SW846 8260D	1	05/29/2024 19:13	ADB	A
p-Isopropyltoluene	1.0 U	U,S1	ug/L	1.0	SW846 8260D	1	05/29/2024 19:13	ADB	A
Styrene	1.0 U	U,S1	ug/L	1.0	SW846 8260D	1	05/29/2024 19:13	ADB	A
Tetrachloroethene	1.0 U	U,S1	ug/L	1.0	SW846 8260D	1	05/29/2024 19:13	ADB	A
Toluene	1.0 U	U,S1	ug/L	1.0	SW846 8260D	1	05/29/2024 19:13	ADB	A
Total Xylenes	3.0 U	U,S1	ug/L	3.0	SW846 8260D	1	05/29/2024 19:13	ADB	A
trans-1,2-Dichloroethene	1.0 U	U,S1	ug/L	1.0	SW846 8260D	1	05/29/2024 19:13	ADB	A
trans-1,3-Dichloropropene	1.0 U	U,S1	ug/L	1.0	SW846 8260D	1	05/29/2024 19:13	ADB	A
Trichloroethene	1.0 U	U,S1	ug/L	1.0	SW846 8260D	1	05/29/2024 19:13	ADB	A
Trichlorofluoromethane	1.0 U	U,S1	ug/L	1.0	SW846 8260D	1	05/29/2024 19:13	ADB	A
Vinyl Acetate	5.0 U	U,S1	ug/L	5.0	SW846 8260D	1	05/29/2024 19:13	ADB	A
Vinyl Chloride	1.0 U	U,S1	ug/L	1.0	SW846 8260D	1	05/29/2024 19:13	ADB	A

SURROGATES

Compound	CAS No	Recovery	Limits(%)	Analysis Date/Time	Qualifiers
1,2-Dichloroethane-d4	17060-07-0	109%	62 – 133	05/29/2024 19:13	
4-Bromofluorobenzene	460-00-4	101%	79 – 114	05/29/2024 19:13	
Dibromofluoromethane	1868-53-7	95.7%	78 – 116	05/29/2024 19:13	
Toluene-d8	2037-26-5	92.6%	76 – 127	05/29/2024 19:13	

Results

Client Sample ID	MW-01D	Collected	05/19/2024 14:35
Lab Sample ID	3360617005	Lab Receipt	05/20/2024 19:20

SEMIVOLATILE SIM

Compound	Result	Flag	Units	RDL	Method	Dilution	Analysis Date/Time	By	Cntr
1,4-Dioxane	3.1		ug/L	1.0	SW846 8270E SIM	1	05/23/2024 08:41	S7M	C

SURROGATES

Compound	CAS No	Recovery	Limits(%)	Analysis Date/Time	Qualifiers
2-Methylnapthalene-d10	7297-45-2	77.4%	29 – 112	05/23/2024 08:41	
Fluoranthene-d10	93951-69-0	86.3%	45 – 130	05/23/2024 08:41	

VOLATILE ORGANICS

Compound	Result	Flag	Units	RDL	Method	Dilution	Analysis Date/Time	By	Cntr
1,1,1,2-Tetrachloroethane	1.0 U	U	ug/L	1.0	SW846 8260D	1	05/29/2024 03:42	PDK	B
1,1,1-Trichloroethane	1.0 U	U	ug/L	1.0	SW846 8260D	1	05/29/2024 03:42	PDK	B
1,1,2,2-Tetrachloroethane	1.0 U	U	ug/L	1.0	SW846 8260D	1	05/29/2024 03:42	PDK	B
1,1,2-Trichloroethane	1.0 U	U	ug/L	1.0	SW846 8260D	1	05/29/2024 03:42	PDK	B
1,1-Dichloroethane	2.4		ug/L	1.0	SW846 8260D	1	05/29/2024 03:42	PDK	B
1,1-Dichloroethene	17.1		ug/L	1.0	SW846 8260D	1	05/29/2024 03:42	PDK	B
1,1-Dichloropropene	1.0 U	U	ug/L	1.0	SW846 8260D	1	05/29/2024 03:42	PDK	B
1,2,3-Trichlorobenzene	2.0 U	U	ug/L	2.0	SW846 8260D	1	05/29/2024 03:42	PDK	B
1,2,3-Trichloropropane	2.0 U	U	ug/L	2.0	SW846 8260D	1	05/29/2024 03:42	PDK	B
1,2,4-Trichlorobenzene	2.0 U	U	ug/L	2.0	SW846 8260D	1	05/29/2024 03:42	PDK	B
1,2-Dibromo-3-chloropropane	7.0 U	U	ug/L	7.0	SW846 8260D	1	05/29/2024 03:42	PDK	B
1,2-Dibromoethane	1.0 U	U	ug/L	1.0	SW846 8260D	1	05/29/2024 03:42	PDK	B
1,2-Dichlorobenzene	1.0 U	U	ug/L	1.0	SW846 8260D	1	05/29/2024 03:42	PDK	B
1,2-Dichloroethane	1.0 U	U	ug/L	1.0	SW846 8260D	1	05/29/2024 03:42	PDK	B
1,2-Dichloropropane	1.0 U	U	ug/L	1.0	SW846 8260D	1	05/29/2024 03:42	PDK	B
1,3-Dichlorobenzene	1.0 U	U	ug/L	1.0	SW846 8260D	1	05/29/2024 03:42	PDK	B
1,3-Dichloropropane	1.0 U	U	ug/L	1.0	SW846 8260D	1	05/29/2024 03:42	PDK	B
1,4-Dichlorobenzene	1.0 U	U	ug/L	1.0	SW846 8260D	1	05/29/2024 03:42	PDK	B
2,2-Dichloropropane	1.0 U	U	ug/L	1.0	SW846 8260D	1	05/29/2024 03:42	PDK	B
2-Butanone	10.0 U	U	ug/L	10.0	SW846 8260D	1	05/29/2024 03:42	PDK	B
2-Hexanone	5.0 U	U,1	ug/L	5.0	SW846 8260D	1	05/29/2024 03:42	PDK	B
4-Methyl-2-Pentanone(MIBK)	5.0 U	U	ug/L	5.0	SW846 8260D	1	05/29/2024 03:42	PDK	B
Acetone	10.0 U	U	ug/L	10.0	SW846 8260D	1	05/29/2024 03:42	PDK	B
Benzene	1.0 U	U	ug/L	1.0	SW846 8260D	1	05/29/2024 03:42	PDK	B
Bromobenzene	1.0 U	U	ug/L	1.0	SW846 8260D	1	05/29/2024 03:42	PDK	B
Bromochloromethane	1.0 U	U	ug/L	1.0	SW846 8260D	1	05/29/2024 03:42	PDK	B
Bromodichloromethane	1.0 U	U	ug/L	1.0	SW846 8260D	1	05/29/2024 03:42	PDK	B
Bromoform	1.0 U	U	ug/L	1.0	SW846 8260D	1	05/29/2024 03:42	PDK	B
Bromomethane	1.0 U	U	ug/L	1.0	SW846 8260D	1	05/29/2024 03:42	PDK	B
Carbon Tetrachloride	1.0 U	U	ug/L	1.0	SW846 8260D	1	05/29/2024 03:42	PDK	B
Chlorobenzene	1.0 U	U	ug/L	1.0	SW846 8260D	1	05/29/2024 03:42	PDK	B
Chlorodibromomethane	1.0 U	U	ug/L	1.0	SW846 8260D	1	05/29/2024 03:42	PDK	B
Chloroethane	1.0 U	U	ug/L	1.0	SW846 8260D	1	05/29/2024 03:42	PDK	B
Chloroform	1.0 U	U	ug/L	1.0	SW846 8260D	1	05/29/2024 03:42	PDK	B
Chloromethane	1.0 U	U	ug/L	1.0	SW846 8260D	1	05/29/2024 03:42	PDK	B

Results

Client Sample ID	MW-01D	Collected	05/19/2024 14:35
Lab Sample ID	3360617005	Lab Receipt	05/20/2024 19:20

VOLATILE ORGANICS (cont.)

Compound	Result	Flag	Units	RDL	Method	Dilution	Analysis Date/Time	By	Cntr
cis-1,2-Dichloroethene	1.0 U	U	ug/L	1.0	SW846 8260D	1	05/29/2024 03:42	PDK	B
cis-1,3-Dichloropropene	1.0 U	U	ug/L	1.0	SW846 8260D	1	05/29/2024 03:42	PDK	B
Dibromomethane	1.0 U	U	ug/L	1.0	SW846 8260D	1	05/29/2024 03:42	PDK	B
Dichlorodifluoromethane	1.0 U	U	ug/L	1.0	SW846 8260D	1	05/29/2024 03:42	PDK	B
Diisopropyl ether	1.0 U	U	ug/L	1.0	SW846 8260D	1	05/29/2024 03:42	PDK	B
Ethylbenzene	1.0 U	U	ug/L	1.0	SW846 8260D	1	05/29/2024 03:42	PDK	B
Hexachlorobutadiene	5.0 U	U	ug/L	5.0	SW846 8260D	1	05/29/2024 03:42	PDK	B
Methyl t-Butyl Ether	1.0 U	U	ug/L	1.0	SW846 8260D	1	05/29/2024 03:42	PDK	B
Methylene Chloride	1.0 U	U	ug/L	1.0	SW846 8260D	1	05/29/2024 03:42	PDK	B
mp-Xylene	2.0 U	U	ug/L	2.0	SW846 8260D	1	05/29/2024 03:42	PDK	B
Naphthalene	2.0 U	U	ug/L	2.0	SW846 8260D	1	05/29/2024 03:42	PDK	B
o-Chlorotoluene	1.0 U	U	ug/L	1.0	SW846 8260D	1	05/29/2024 03:42	PDK	B
o-Xylene	1.0 U	U	ug/L	1.0	SW846 8260D	1	05/29/2024 03:42	PDK	B
p-Chlorotoluene	1.0 U	U	ug/L	1.0	SW846 8260D	1	05/29/2024 03:42	PDK	B
p-Isopropyltoluene	1.0 U	U	ug/L	1.0	SW846 8260D	1	05/29/2024 03:42	PDK	B
Styrene	1.0 U	U	ug/L	1.0	SW846 8260D	1	05/29/2024 03:42	PDK	B
Tetrachloroethene	1.0 U	U	ug/L	1.0	SW846 8260D	1	05/29/2024 03:42	PDK	B
Toluene	1.0 U	U	ug/L	1.0	SW846 8260D	1	05/29/2024 03:42	PDK	B
Total Xylenes	3.0 U	U	ug/L	3.0	SW846 8260D	1	05/29/2024 03:42	PDK	B
trans-1,2-Dichloroethene	1.0 U	U	ug/L	1.0	SW846 8260D	1	05/29/2024 03:42	PDK	B
trans-1,3-Dichloropropene	1.0 U	U	ug/L	1.0	SW846 8260D	1	05/29/2024 03:42	PDK	B
Trichloroethene	1.0 U	U	ug/L	1.0	SW846 8260D	1	05/29/2024 03:42	PDK	B
Trichlorofluoromethane	1.0 U	U	ug/L	1.0	SW846 8260D	1	05/29/2024 03:42	PDK	B
Vinyl Acetate	5.0 U	U	ug/L	5.0	SW846 8260D	1	05/29/2024 03:42	PDK	B
Vinyl Chloride	1.0 U	U	ug/L	1.0	SW846 8260D	1	05/29/2024 03:42	PDK	B

SURROGATES

Compound	CAS No	Recovery	Limits(%)	Analysis Date/Time	Qualifiers
1,2-Dichloroethane-d4	17060-07-0	109%	62 – 133	05/29/2024 03:42	
4-Bromofluorobenzene	460-00-4	104%	79 – 114	05/29/2024 03:42	
Dibromofluoromethane	1868-53-7	96%	78 – 116	05/29/2024 03:42	
Toluene-d8	2037-26-5	96.8%	76 – 127	05/29/2024 03:42	

Results

Client Sample ID	MW-20	Collected	05/19/2024 15:15
Lab Sample ID	3360617007	Lab Receipt	05/20/2024 19:20

SEMIVOLATILE SIM

Compound	Result	Flag	Units	RDL	Method	Dilution	Analysis Date/Time	By	Cntr
1,4-Dioxane	396		ug/L	100	SW846 8270E SIM	100	05/29/2024 04:16	M1O	C

SURROGATES

Compound	CAS No	Recovery	Limits(%)	Analysis Date/Time	Qualifiers
2-Methylnapthalene-d10	7297-45-2	81%	29 – 112	05/23/2024 09:39	2
2-Methylnapthalene-d10	7297-45-2	1760*%	29 – 112	05/29/2024 04:16	3
Fluoranthene-d10	93951-69-0	97.8%	45 – 130	05/23/2024 09:39	

VOLATILE ORGANICS

Compound	Result	Flag	Units	RDL	Method	Dilution	Analysis Date/Time	By	Cntr
1,1,1,2-Tetrachloroethane	5.0 U	U	ug/L	5.0	SW846 8260D	5	05/29/2024 06:45	PDK	B
1,1,1-Trichloroethane	5.0 U	U	ug/L	5.0	SW846 8260D	5	05/29/2024 06:45	PDK	B
1,1,2,2-Tetrachloroethane	5.0 U	U	ug/L	5.0	SW846 8260D	5	05/29/2024 06:45	PDK	B
1,1,2-Trichloroethane	5.0 U	U	ug/L	5.0	SW846 8260D	5	05/29/2024 06:45	PDK	B
1,1-Dichloroethane	386		ug/L	5.0	SW846 8260D	5	05/29/2024 06:45	PDK	B
1,1-Dichloroethene	560		ug/L	5.0	SW846 8260D	5	05/29/2024 06:45	PDK	B
1,1-Dichloropropene	5.0 U	U	ug/L	5.0	SW846 8260D	5	05/29/2024 06:45	PDK	B
1,2,3-Trichlorobenzene	10.0 U	U	ug/L	10.0	SW846 8260D	5	05/29/2024 06:45	PDK	B
1,2,3-Trichloropropane	10.0 U	U	ug/L	10.0	SW846 8260D	5	05/29/2024 06:45	PDK	B
1,2,4-Trichlorobenzene	10.0 U	U	ug/L	10.0	SW846 8260D	5	05/29/2024 06:45	PDK	B
1,2-Dibromo-3-chloropropane	35.0 U	U	ug/L	35.0	SW846 8260D	5	05/29/2024 06:45	PDK	B
1,2-Dibromoethane	5.0 U	U	ug/L	5.0	SW846 8260D	5	05/29/2024 06:45	PDK	B
1,2-Dichlorobenzene	5.0 U	U	ug/L	5.0	SW846 8260D	5	05/29/2024 06:45	PDK	B
1,2-Dichloroethane	12.6		ug/L	5.0	SW846 8260D	5	05/29/2024 06:45	PDK	B
1,2-Dichloropropane	5.0 U	U	ug/L	5.0	SW846 8260D	5	05/29/2024 06:45	PDK	B
1,3-Dichlorobenzene	5.0 U	U	ug/L	5.0	SW846 8260D	5	05/29/2024 06:45	PDK	B
1,3-Dichloropropane	5.0 U	U	ug/L	5.0	SW846 8260D	5	05/29/2024 06:45	PDK	B
1,4-Dichlorobenzene	5.0 U	U	ug/L	5.0	SW846 8260D	5	05/29/2024 06:45	PDK	B
2,2-Dichloropropane	5.0 U	U	ug/L	5.0	SW846 8260D	5	05/29/2024 06:45	PDK	B
2-Butanone	50.0 U	U	ug/L	50.0	SW846 8260D	5	05/29/2024 06:45	PDK	B
2-Hexanone	25.0 U	U,1	ug/L	25.0	SW846 8260D	5	05/29/2024 06:45	PDK	B
4-Methyl-2-Pentanone(MIBK)	25.0 U	U	ug/L	25.0	SW846 8260D	5	05/29/2024 06:45	PDK	B
Acetone	50.0 U	U	ug/L	50.0	SW846 8260D	5	05/29/2024 06:45	PDK	B
Benzene	5.0 U	U	ug/L	5.0	SW846 8260D	5	05/29/2024 06:45	PDK	B
Bromobenzene	5.0 U	U	ug/L	5.0	SW846 8260D	5	05/29/2024 06:45	PDK	B
Bromochloromethane	5.0 U	U	ug/L	5.0	SW846 8260D	5	05/29/2024 06:45	PDK	B
Bromodichloromethane	5.0 U	U	ug/L	5.0	SW846 8260D	5	05/29/2024 06:45	PDK	B
Bromoform	5.0 U	U	ug/L	5.0	SW846 8260D	5	05/29/2024 06:45	PDK	B
Bromomethane	5.0 U	U	ug/L	5.0	SW846 8260D	5	05/29/2024 06:45	PDK	B
Carbon Tetrachloride	5.0 U	U	ug/L	5.0	SW846 8260D	5	05/29/2024 06:45	PDK	B
Chlorobenzene	5.0 U	U	ug/L	5.0	SW846 8260D	5	05/29/2024 06:45	PDK	B
Chlorodibromomethane	5.0 U	U	ug/L	5.0	SW846 8260D	5	05/29/2024 06:45	PDK	B
Chloroethane	5.0 U	U	ug/L	5.0	SW846 8260D	5	05/29/2024 06:45	PDK	B
Chloroform	5.0 U	U	ug/L	5.0	SW846 8260D	5	05/29/2024 06:45	PDK	B

Results

Client Sample ID	MW-20	Collected	05/19/2024 15:15
Lab Sample ID	3360617007	Lab Receipt	05/20/2024 19:20

VOLATILE ORGANICS (cont.)

Compound	Result	Flag	Units	RDL	Method	Dilution	Analysis Date/Time	By	Cntr
Chloromethane	5.0 U	U	ug/L	5.0	SW846 8260D	5	05/29/2024 06:45	PDK	B
cis-1,2-Dichloroethene	5.0 U	U	ug/L	5.0	SW846 8260D	5	05/29/2024 06:45	PDK	B
cis-1,3-Dichloropropene	5.0 U	U	ug/L	5.0	SW846 8260D	5	05/29/2024 06:45	PDK	B
Dibromomethane	5.0 U	U	ug/L	5.0	SW846 8260D	5	05/29/2024 06:45	PDK	B
Dichlorodifluoromethane	5.0 U	U	ug/L	5.0	SW846 8260D	5	05/29/2024 06:45	PDK	B
Diisopropyl ether	5.0 U	U	ug/L	5.0	SW846 8260D	5	05/29/2024 06:45	PDK	B
Ethylbenzene	5.0 U	U	ug/L	5.0	SW846 8260D	5	05/29/2024 06:45	PDK	B
Hexachlorobutadiene	25.0 U	U	ug/L	25.0	SW846 8260D	5	05/29/2024 06:45	PDK	B
Methyl t-Butyl Ether	5.0 U	U	ug/L	5.0	SW846 8260D	5	05/29/2024 06:45	PDK	B
Methylene Chloride	5.0 U	U	ug/L	5.0	SW846 8260D	5	05/29/2024 06:45	PDK	B
mp-Xylene	10.0 U	U	ug/L	10.0	SW846 8260D	5	05/29/2024 06:45	PDK	B
Naphthalene	10.0 U	U	ug/L	10.0	SW846 8260D	5	05/29/2024 06:45	PDK	B
o-Chlorotoluene	5.0 U	U	ug/L	5.0	SW846 8260D	5	05/29/2024 06:45	PDK	B
o-Xylene	5.0 U	U	ug/L	5.0	SW846 8260D	5	05/29/2024 06:45	PDK	B
p-Chlorotoluene	5.0 U	U	ug/L	5.0	SW846 8260D	5	05/29/2024 06:45	PDK	B
p-Isopropyltoluene	5.0 U	U	ug/L	5.0	SW846 8260D	5	05/29/2024 06:45	PDK	B
Styrene	5.0 U	U	ug/L	5.0	SW846 8260D	5	05/29/2024 06:45	PDK	B
Tetrachloroethene	5.0 U	U	ug/L	5.0	SW846 8260D	5	05/29/2024 06:45	PDK	B
Toluene	5.0 U	U	ug/L	5.0	SW846 8260D	5	05/29/2024 06:45	PDK	B
Total Xylenes	15.0 U	U	ug/L	15.0	SW846 8260D	5	05/29/2024 06:45	PDK	B
trans-1,2-Dichloroethene	5.0 U	U	ug/L	5.0	SW846 8260D	5	05/29/2024 06:45	PDK	B
trans-1,3-Dichloropropene	5.0 U	U	ug/L	5.0	SW846 8260D	5	05/29/2024 06:45	PDK	B
Trichloroethene	5.1		ug/L	5.0	SW846 8260D	5	05/29/2024 06:45	PDK	B
Trichlorofluoromethane	5.0 U	U	ug/L	5.0	SW846 8260D	5	05/29/2024 06:45	PDK	B
Vinyl Acetate	25.0 U	U	ug/L	25.0	SW846 8260D	5	05/29/2024 06:45	PDK	B
Vinyl Chloride	5.0 U	U	ug/L	5.0	SW846 8260D	5	05/29/2024 06:45	PDK	B

SURROGATES

Compound	CAS No	Recovery	Limits(%)	Analysis Date/Time	Qualifiers
1,2-Dichloroethane-d4	17060-07-0	108%	62 – 133	05/29/2024 06:45	
4-Bromofluorobenzene	460-00-4	102%	79 – 114	05/29/2024 06:45	
Dibromofluoromethane	1868-53-7	96.8%	78 – 116	05/29/2024 06:45	
Toluene-d8	2037-26-5	93.9%	76 – 127	05/29/2024 06:45	

Results

Client Sample ID	MW-16	Collected	05/19/2024 16:05
Lab Sample ID	3360617008	Lab Receipt	05/20/2024 19:20

SEMIVOLATILE SIM

Compound	Result	Flag	Units	RDL	Method	Dilution	Analysis Date/Time	By	Cntr
1,4-Dioxane	91.4		ug/L	19.2	SW846 8270E SIM	10	05/29/2024 05:11	M1O	C

SURROGATES

Compound	CAS No	Recovery	Limits(%)	Analysis Date/Time	Qualifiers
2-Methylnapthalene-d10	7297-45-2	91.3%	29 – 112	05/23/2024 10:38	
2-Methylnapthalene-d10	7297-45-2	0*%	29 – 112	05/29/2024 05:11	4
Fluoranthene-d10	93951-69-0	99.3%	45 – 130	05/23/2024 10:38	
Fluoranthene-d10	93951-69-0	96.4%	45 – 130	05/29/2024 05:11	

VOLATILE ORGANICS

Compound	Result	Flag	Units	RDL	Method	Dilution	Analysis Date/Time	By	Cntr
1,1,1,2-Tetrachloroethane	20.0 U	U	ug/L	20.0	SW846 8260D	20	05/29/2024 07:06	PDK	B
1,1,1-Trichloroethane	905		ug/L	20.0	SW846 8260D	20	05/29/2024 07:06	PDK	B
1,1,2,2-Tetrachloroethane	20.0 U	U	ug/L	20.0	SW846 8260D	20	05/29/2024 07:06	PDK	B
1,1,2-Trichloroethane	20.0 U	U	ug/L	20.0	SW846 8260D	20	05/29/2024 07:06	PDK	B
1,1-Dichloroethane	1160		ug/L	20.0	SW846 8260D	20	05/29/2024 07:06	PDK	B
1,1-Dichloroethene	1640		ug/L	20.0	SW846 8260D	20	05/29/2024 07:06	PDK	B
1,1-Dichloropropene	20.0 U	U	ug/L	20.0	SW846 8260D	20	05/29/2024 07:06	PDK	B
1,2,3-Trichlorobenzene	40.0 U	U	ug/L	40.0	SW846 8260D	20	05/29/2024 07:06	PDK	B
1,2,3-Trichloropropane	40.0 U	U	ug/L	40.0	SW846 8260D	20	05/29/2024 07:06	PDK	B
1,2,4-Trichlorobenzene	40.0 U	U	ug/L	40.0	SW846 8260D	20	05/29/2024 07:06	PDK	B
1,2-Dibromo-3-chloropropane	140 U	U	ug/L	140	SW846 8260D	20	05/29/2024 07:06	PDK	B
1,2-Dibromoethane	20.0 U	U	ug/L	20.0	SW846 8260D	20	05/29/2024 07:06	PDK	B
1,2-Dichlorobenzene	20.0 U	U	ug/L	20.0	SW846 8260D	20	05/29/2024 07:06	PDK	B
1,2-Dichloroethane	20.0 U	U	ug/L	20.0	SW846 8260D	20	05/29/2024 07:06	PDK	B
1,2-Dichloropropane	20.0 U	U	ug/L	20.0	SW846 8260D	20	05/29/2024 07:06	PDK	B
1,3-Dichlorobenzene	20.0 U	U	ug/L	20.0	SW846 8260D	20	05/29/2024 07:06	PDK	B
1,3-Dichloropropane	20.0 U	U	ug/L	20.0	SW846 8260D	20	05/29/2024 07:06	PDK	B
1,4-Dichlorobenzene	20.0 U	U	ug/L	20.0	SW846 8260D	20	05/29/2024 07:06	PDK	B
2,2-Dichloropropane	20.0 U	U	ug/L	20.0	SW846 8260D	20	05/29/2024 07:06	PDK	B
2-Butanone	200 U	U	ug/L	200	SW846 8260D	20	05/29/2024 07:06	PDK	B
2-Hexanone	100 U	U,1	ug/L	100	SW846 8260D	20	05/29/2024 07:06	PDK	B
4-Methyl-2-Pentanone(MIBK)	100 U	U	ug/L	100	SW846 8260D	20	05/29/2024 07:06	PDK	B
Acetone	200 U	U	ug/L	200	SW846 8260D	20	05/29/2024 07:06	PDK	B
Benzene	20.0 U	U	ug/L	20.0	SW846 8260D	20	05/29/2024 07:06	PDK	B
Bromobenzene	20.0 U	U	ug/L	20.0	SW846 8260D	20	05/29/2024 07:06	PDK	B
Bromochloromethane	20.0 U	U	ug/L	20.0	SW846 8260D	20	05/29/2024 07:06	PDK	B
Bromodichloromethane	20.0 U	U	ug/L	20.0	SW846 8260D	20	05/29/2024 07:06	PDK	B
Bromoform	20.0 U	U	ug/L	20.0	SW846 8260D	20	05/29/2024 07:06	PDK	B
Bromomethane	20.0 U	U	ug/L	20.0	SW846 8260D	20	05/29/2024 07:06	PDK	B
Carbon Tetrachloride	20.0 U	U	ug/L	20.0	SW846 8260D	20	05/29/2024 07:06	PDK	B
Chlorobenzene	20.0 U	U	ug/L	20.0	SW846 8260D	20	05/29/2024 07:06	PDK	B
Chlorodibromomethane	20.0 U	U	ug/L	20.0	SW846 8260D	20	05/29/2024 07:06	PDK	B
Chloroethane	34.5		ug/L	20.0	SW846 8260D	20	05/29/2024 07:06	PDK	B

Results

Client Sample ID	MW-16	Collected	05/19/2024 16:05
Lab Sample ID	3360617008	Lab Receipt	05/20/2024 19:20

VOLATILE ORGANICS (cont.)

Compound	Result	Flag	Units	RDL	Method	Dilution	Analysis Date/Time	By	Cntr
Chloroform	20.0 U	U	ug/L	20.0	SW846 8260D	20	05/29/2024 07:06	PDK	B
Chloromethane	20.0 U	U	ug/L	20.0	SW846 8260D	20	05/29/2024 07:06	PDK	B
cis-1,2-Dichloroethene	20.0 U	U	ug/L	20.0	SW846 8260D	20	05/29/2024 07:06	PDK	B
cis-1,3-Dichloropropene	20.0 U	U	ug/L	20.0	SW846 8260D	20	05/29/2024 07:06	PDK	B
Dibromomethane	20.0 U	U	ug/L	20.0	SW846 8260D	20	05/29/2024 07:06	PDK	B
Dichlorodifluoromethane	20.0 U	U	ug/L	20.0	SW846 8260D	20	05/29/2024 07:06	PDK	B
Diisopropyl ether	20.0 U	U	ug/L	20.0	SW846 8260D	20	05/29/2024 07:06	PDK	B
Ethylbenzene	20.0 U	U	ug/L	20.0	SW846 8260D	20	05/29/2024 07:06	PDK	B
Hexachlorobutadiene	100 U	U	ug/L	100	SW846 8260D	20	05/29/2024 07:06	PDK	B
Methyl t-Butyl Ether	20.0 U	U	ug/L	20.0	SW846 8260D	20	05/29/2024 07:06	PDK	B
Methylene Chloride	20.0 U	U	ug/L	20.0	SW846 8260D	20	05/29/2024 07:06	PDK	B
mp-Xylene	40.0 U	U	ug/L	40.0	SW846 8260D	20	05/29/2024 07:06	PDK	B
Naphthalene	40.0 U	U	ug/L	40.0	SW846 8260D	20	05/29/2024 07:06	PDK	B
o-Chlorotoluene	20.0 U	U	ug/L	20.0	SW846 8260D	20	05/29/2024 07:06	PDK	B
o-Xylene	20.0 U	U	ug/L	20.0	SW846 8260D	20	05/29/2024 07:06	PDK	B
p-Chlorotoluene	20.0 U	U	ug/L	20.0	SW846 8260D	20	05/29/2024 07:06	PDK	B
p-Isopropyltoluene	20.0 U	U	ug/L	20.0	SW846 8260D	20	05/29/2024 07:06	PDK	B
Styrene	20.0 U	U	ug/L	20.0	SW846 8260D	20	05/29/2024 07:06	PDK	B
Tetrachloroethene	20.0 U	U	ug/L	20.0	SW846 8260D	20	05/29/2024 07:06	PDK	B
Toluene	20.0 U	U	ug/L	20.0	SW846 8260D	20	05/29/2024 07:06	PDK	B
Total Xylenes	60.0 U	U	ug/L	60.0	SW846 8260D	20	05/29/2024 07:06	PDK	B
trans-1,2-Dichloroethene	20.0 U	U	ug/L	20.0	SW846 8260D	20	05/29/2024 07:06	PDK	B
trans-1,3-Dichloropropene	20.0 U	U	ug/L	20.0	SW846 8260D	20	05/29/2024 07:06	PDK	B
Trichloroethene	20.0 U	U	ug/L	20.0	SW846 8260D	20	05/29/2024 07:06	PDK	B
Trichlorofluoromethane	20.0 U	U	ug/L	20.0	SW846 8260D	20	05/29/2024 07:06	PDK	B
Vinyl Acetate	100 U	U	ug/L	100	SW846 8260D	20	05/29/2024 07:06	PDK	B
Vinyl Chloride	20.0 U	U	ug/L	20.0	SW846 8260D	20	05/29/2024 07:06	PDK	B

SURROGATES

Compound	CAS No	Recovery	Limits(%)	Analysis Date/Time	Qualifiers
1,2-Dichloroethane-d4	17060-07-0	111%	62 – 133	05/29/2024 07:06	
4-Bromofluorobenzene	460-00-4	95.5%	79 – 114	05/29/2024 07:06	
Dibromofluoromethane	1868-53-7	98.6%	78 – 116	05/29/2024 07:06	
Toluene-d8	2037-26-5	94.6%	76 – 127	05/29/2024 07:06	

Results

Client Sample ID	MW-16D	Collected	05/19/2024 16:20
Lab Sample ID	3360617009	Lab Receipt	05/20/2024 19:20

SEMIVOLATILE SIM

Compound	Result	Flag	Units	RDL	Method	Dilution	Analysis Date/Time	By	Cntr
1,4-Dioxane	18.7		ug/L	5.0	SW846 8270E SIM	5	05/29/2024 05:38	M1O	C

SURROGATES

Compound	CAS No	Recovery	Limits(%)	Analysis Date/Time	Qualifiers
2-Methylnapthalene-d10	7297-45-2	82.9%	29 – 112	05/23/2024 11:07	
2-Methylnapthalene-d10	7297-45-2	79.5%	29 – 112	05/29/2024 05:38	
Fluoranthene-d10	93951-69-0	95.9%	45 – 130	05/23/2024 11:07	
Fluoranthene-d10	93951-69-0	92.8%	45 – 130	05/29/2024 05:38	

VOLATILE ORGANICS

Compound	Result	Flag	Units	RDL	Method	Dilution	Analysis Date/Time	By	Cntr
1,1,1,2-Tetrachloroethane	1.0 U	U	ug/L	1.0	SW846 8260D	1	05/29/2024 04:02	PDK	B
1,1,1-Trichloroethane	4.5		ug/L	1.0	SW846 8260D	1	05/29/2024 04:02	PDK	B
1,1,2,2-Tetrachloroethane	1.0 U	U	ug/L	1.0	SW846 8260D	1	05/29/2024 04:02	PDK	B
1,1,2-Trichloroethane	1.0 U	U	ug/L	1.0	SW846 8260D	1	05/29/2024 04:02	PDK	B
1,1-Dichloroethane	20.5		ug/L	1.0	SW846 8260D	1	05/29/2024 04:02	PDK	B
1,1-Dichloroethene	96.6		ug/L	1.0	SW846 8260D	1	05/29/2024 04:02	PDK	B
1,1-Dichloropropene	1.0 U	U	ug/L	1.0	SW846 8260D	1	05/29/2024 04:02	PDK	B
1,2,3-Trichlorobenzene	2.0 U	U	ug/L	2.0	SW846 8260D	1	05/29/2024 04:02	PDK	B
1,2,3-Trichloropropane	2.0 U	U	ug/L	2.0	SW846 8260D	1	05/29/2024 04:02	PDK	B
1,2,4-Trichlorobenzene	2.0 U	U	ug/L	2.0	SW846 8260D	1	05/29/2024 04:02	PDK	B
1,2-Dibromo-3-chloropropane	7.0 U	U	ug/L	7.0	SW846 8260D	1	05/29/2024 04:02	PDK	B
1,2-Dibromoethane	1.0 U	U	ug/L	1.0	SW846 8260D	1	05/29/2024 04:02	PDK	B
1,2-Dichlorobenzene	1.0 U	U	ug/L	1.0	SW846 8260D	1	05/29/2024 04:02	PDK	B
1,2-Dichloroethane	1.1		ug/L	1.0	SW846 8260D	1	05/29/2024 04:02	PDK	B
1,2-Dichloropropane	1.0 U	U	ug/L	1.0	SW846 8260D	1	05/29/2024 04:02	PDK	B
1,3-Dichlorobenzene	1.0 U	U	ug/L	1.0	SW846 8260D	1	05/29/2024 04:02	PDK	B
1,3-Dichloropropane	1.0 U	U	ug/L	1.0	SW846 8260D	1	05/29/2024 04:02	PDK	B
1,4-Dichlorobenzene	1.0 U	U	ug/L	1.0	SW846 8260D	1	05/29/2024 04:02	PDK	B
2,2-Dichloropropane	1.0 U	U	ug/L	1.0	SW846 8260D	1	05/29/2024 04:02	PDK	B
2-Butanone	10.0 U	U	ug/L	10.0	SW846 8260D	1	05/29/2024 04:02	PDK	B
2-Hexanone	5.0 U	U,1	ug/L	5.0	SW846 8260D	1	05/29/2024 04:02	PDK	B
4-Methyl-2-Pentanone(MIBK)	5.0 U	U	ug/L	5.0	SW846 8260D	1	05/29/2024 04:02	PDK	B
Acetone	10.0 U	U	ug/L	10.0	SW846 8260D	1	05/29/2024 04:02	PDK	B
Benzene	1.0 U	U	ug/L	1.0	SW846 8260D	1	05/29/2024 04:02	PDK	B
Bromobenzene	1.0 U	U	ug/L	1.0	SW846 8260D	1	05/29/2024 04:02	PDK	B
Bromochloromethane	1.0 U	U	ug/L	1.0	SW846 8260D	1	05/29/2024 04:02	PDK	B
Bromodichloromethane	1.0 U	U	ug/L	1.0	SW846 8260D	1	05/29/2024 04:02	PDK	B
Bromoform	1.0 U	U	ug/L	1.0	SW846 8260D	1	05/29/2024 04:02	PDK	B
Bromomethane	1.0 U	U	ug/L	1.0	SW846 8260D	1	05/29/2024 04:02	PDK	B
Carbon Tetrachloride	1.0 U	U	ug/L	1.0	SW846 8260D	1	05/29/2024 04:02	PDK	B
Chlorobenzene	1.0 U	U	ug/L	1.0	SW846 8260D	1	05/29/2024 04:02	PDK	B
Chlorodibromomethane	1.0 U	U	ug/L	1.0	SW846 8260D	1	05/29/2024 04:02	PDK	B
Chloroethane	1.0 U	U	ug/L	1.0	SW846 8260D	1	05/29/2024 04:02	PDK	B

Results

Client Sample ID	MW-16D	Collected	05/19/2024 16:20
Lab Sample ID	3360617009	Lab Receipt	05/20/2024 19:20

VOLATILE ORGANICS (cont.)

Compound	Result	Flag	Units	RDL	Method	Dilution	Analysis Date/Time	By	Cntr
Chloroform	1.0 U	U	ug/L	1.0	SW846 8260D	1	05/29/2024 04:02	PDK	B
Chloromethane	1.0 U	U	ug/L	1.0	SW846 8260D	1	05/29/2024 04:02	PDK	B
cis-1,2-Dichloroethene	1.0 U	U	ug/L	1.0	SW846 8260D	1	05/29/2024 04:02	PDK	B
cis-1,3-Dichloropropene	1.0 U	U	ug/L	1.0	SW846 8260D	1	05/29/2024 04:02	PDK	B
Dibromomethane	1.0 U	U	ug/L	1.0	SW846 8260D	1	05/29/2024 04:02	PDK	B
Dichlorodifluoromethane	1.0 U	U	ug/L	1.0	SW846 8260D	1	05/29/2024 04:02	PDK	B
Diisopropyl ether	1.0 U	U	ug/L	1.0	SW846 8260D	1	05/29/2024 04:02	PDK	B
Ethylbenzene	1.0 U	U	ug/L	1.0	SW846 8260D	1	05/29/2024 04:02	PDK	B
Hexachlorobutadiene	5.0 U	U	ug/L	5.0	SW846 8260D	1	05/29/2024 04:02	PDK	B
Methyl t-Butyl Ether	1.1		ug/L	1.0	SW846 8260D	1	05/29/2024 04:02	PDK	B
Methylene Chloride	1.0 U	U	ug/L	1.0	SW846 8260D	1	05/29/2024 04:02	PDK	B
mp-Xylene	2.0 U	U	ug/L	2.0	SW846 8260D	1	05/29/2024 04:02	PDK	B
Naphthalene	2.0 U	U	ug/L	2.0	SW846 8260D	1	05/29/2024 04:02	PDK	B
o-Chlorotoluene	1.0 U	U	ug/L	1.0	SW846 8260D	1	05/29/2024 04:02	PDK	B
o-Xylene	1.0 U	U	ug/L	1.0	SW846 8260D	1	05/29/2024 04:02	PDK	B
p-Chlorotoluene	1.0 U	U	ug/L	1.0	SW846 8260D	1	05/29/2024 04:02	PDK	B
p-Isopropyltoluene	1.0 U	U	ug/L	1.0	SW846 8260D	1	05/29/2024 04:02	PDK	B
Styrene	1.0 U	U	ug/L	1.0	SW846 8260D	1	05/29/2024 04:02	PDK	B
Tetrachloroethene	1.0 U	U	ug/L	1.0	SW846 8260D	1	05/29/2024 04:02	PDK	B
Toluene	1.0 U	U	ug/L	1.0	SW846 8260D	1	05/29/2024 04:02	PDK	B
Total Xylenes	3.0 U	U	ug/L	3.0	SW846 8260D	1	05/29/2024 04:02	PDK	B
trans-1,2-Dichloroethene	1.0 U	U	ug/L	1.0	SW846 8260D	1	05/29/2024 04:02	PDK	B
trans-1,3-Dichloropropene	1.0 U	U	ug/L	1.0	SW846 8260D	1	05/29/2024 04:02	PDK	B
Trichloroethene	1.0 U	U	ug/L	1.0	SW846 8260D	1	05/29/2024 04:02	PDK	B
Trichlorofluoromethane	1.0 U	U	ug/L	1.0	SW846 8260D	1	05/29/2024 04:02	PDK	B
Vinyl Acetate	5.0 U	U	ug/L	5.0	SW846 8260D	1	05/29/2024 04:02	PDK	B
Vinyl Chloride	1.0 U	U	ug/L	1.0	SW846 8260D	1	05/29/2024 04:02	PDK	B

SURROGATES

Compound	CAS No	Recovery	Limits(%)	Analysis Date/Time	Qualifiers
1,2-Dichloroethane-d4	17060-07-0	107%	62 – 133	05/29/2024 04:02	
4-Bromofluorobenzene	460-00-4	99.5%	79 – 114	05/29/2024 04:02	
Dibromofluoromethane	1868-53-7	95.2%	78 – 116	05/29/2024 04:02	
Toluene-d8	2037-26-5	93.5%	76 – 127	05/29/2024 04:02	

Results

Client Sample ID	Trip Blank-A	Collected	05/19/2024 00:00
Lab Sample ID	3360617010	Lab Receipt	05/20/2024 19:20

VOLATILE ORGANICS

Compound	Result	Flag	Units	RDL	Method	Dilution	Analysis Date/Time	By	Cntr
1,1,1,2-Tetrachloroethane	1.0 U	U	ug/L	1.0	SW846 8260D	1	05/24/2024 12:30	ILY	A
1,1,1-Trichloroethane	1.0 U	U	ug/L	1.0	SW846 8260D	1	05/24/2024 12:30	ILY	A
1,1,2,2-Tetrachloroethane	1.0 U	U	ug/L	1.0	SW846 8260D	1	05/24/2024 12:30	ILY	A
1,1,2-Trichloroethane	1.0 U	U	ug/L	1.0	SW846 8260D	1	05/24/2024 12:30	ILY	A
1,1-Dichloroethane	1.0 U	U	ug/L	1.0	SW846 8260D	1	05/24/2024 12:30	ILY	A
1,1-Dichloroethene	1.0 U	U	ug/L	1.0	SW846 8260D	1	05/24/2024 12:30	ILY	A
1,1-Dichloropropene	1.0 U	U	ug/L	1.0	SW846 8260D	1	05/24/2024 12:30	ILY	A
1,2,3-Trichlorobenzene	2.0 U	U	ug/L	2.0	SW846 8260D	1	05/24/2024 12:30	ILY	A
1,2,3-Trichloropropane	2.0 U	U	ug/L	2.0	SW846 8260D	1	05/24/2024 12:30	ILY	A
1,2,4-Trichlorobenzene	2.0 U	U	ug/L	2.0	SW846 8260D	1	05/24/2024 12:30	ILY	A
1,2-Dibromo-3-chloropropane	7.0 U	U	ug/L	7.0	SW846 8260D	1	05/24/2024 12:30	ILY	A
1,2-Dibromoethane	1.0 U	U	ug/L	1.0	SW846 8260D	1	05/24/2024 12:30	ILY	A
1,2-Dichlorobenzene	1.0 U	U	ug/L	1.0	SW846 8260D	1	05/24/2024 12:30	ILY	A
1,2-Dichloroethane	1.0 U	U	ug/L	1.0	SW846 8260D	1	05/24/2024 12:30	ILY	A
1,2-Dichloropropane	1.0 U	U	ug/L	1.0	SW846 8260D	1	05/24/2024 12:30	ILY	A
1,3-Dichlorobenzene	1.0 U	U	ug/L	1.0	SW846 8260D	1	05/24/2024 12:30	ILY	A
1,3-Dichloropropane	1.0 U	U	ug/L	1.0	SW846 8260D	1	05/24/2024 12:30	ILY	A
1,4-Dichlorobenzene	1.0 U	U	ug/L	1.0	SW846 8260D	1	05/24/2024 12:30	ILY	A
2,2-Dichloropropane	1.0 U	U	ug/L	1.0	SW846 8260D	1	05/24/2024 12:30	ILY	A
2-Butanone	10.0 U	U	ug/L	10.0	SW846 8260D	1	05/24/2024 12:30	ILY	A
2-Hexanone	5.0 U	U	ug/L	5.0	SW846 8260D	1	05/24/2024 12:30	ILY	A
4-Methyl-2-Pentanone(MIBK)	5.0 U	U	ug/L	5.0	SW846 8260D	1	05/24/2024 12:30	ILY	A
Acetone	10.0 U	U	ug/L	10.0	SW846 8260D	1	05/24/2024 12:30	ILY	A
Benzene	1.0 U	U	ug/L	1.0	SW846 8260D	1	05/24/2024 12:30	ILY	A
Bromobenzene	1.0 U	U	ug/L	1.0	SW846 8260D	1	05/24/2024 12:30	ILY	A
Bromochloromethane	1.0 U	U	ug/L	1.0	SW846 8260D	1	05/24/2024 12:30	ILY	A
Bromodichloromethane	1.0 U	U	ug/L	1.0	SW846 8260D	1	05/24/2024 12:30	ILY	A
Bromoform	1.0 U	U	ug/L	1.0	SW846 8260D	1	05/24/2024 12:30	ILY	A
Bromomethane	1.0 U	U	ug/L	1.0	SW846 8260D	1	05/24/2024 12:30	ILY	A
Carbon Tetrachloride	1.0 U	U	ug/L	1.0	SW846 8260D	1	05/24/2024 12:30	ILY	A
Chlorobenzene	1.0 U	U	ug/L	1.0	SW846 8260D	1	05/24/2024 12:30	ILY	A
Chlorodibromomethane	1.0 U	U	ug/L	1.0	SW846 8260D	1	05/24/2024 12:30	ILY	A
Chloroethane	1.0 U	U	ug/L	1.0	SW846 8260D	1	05/24/2024 12:30	ILY	A
Chloroform	1.0 U	U	ug/L	1.0	SW846 8260D	1	05/24/2024 12:30	ILY	A
Chloromethane	1.0 U	U,5	ug/L	1.0	SW846 8260D	1	05/24/2024 12:30	ILY	A
cis-1,2-Dichloroethene	1.0 U	U	ug/L	1.0	SW846 8260D	1	05/24/2024 12:30	ILY	A
cis-1,3-Dichloropropene	1.0 U	U	ug/L	1.0	SW846 8260D	1	05/24/2024 12:30	ILY	A
Dibromomethane	1.0 U	U	ug/L	1.0	SW846 8260D	1	05/24/2024 12:30	ILY	A
Dichlorodifluoromethane	1.0 U	U	ug/L	1.0	SW846 8260D	1	05/24/2024 12:30	ILY	A
Diisopropyl ether	1.0 U	U	ug/L	1.0	SW846 8260D	1	05/24/2024 12:30	ILY	A
Ethylbenzene	1.0 U	U	ug/L	1.0	SW846 8260D	1	05/24/2024 12:30	ILY	A
Hexachlorobutadiene	5.0 U	U	ug/L	5.0	SW846 8260D	1	05/24/2024 12:30	ILY	A
Methyl t-Butyl Ether	1.0 U	U	ug/L	1.0	SW846 8260D	1	05/24/2024 12:30	ILY	A
Methylene Chloride	1.0 U	U	ug/L	1.0	SW846 8260D	1	05/24/2024 12:30	ILY	A
mp-Xylene	2.0 U	U	ug/L	2.0	SW846 8260D	1	05/24/2024 12:30	ILY	A
Naphthalene	2.0 U	U	ug/L	2.0	SW846 8260D	1	05/24/2024 12:30	ILY	A
o-Chlorotoluene	1.0 U	U	ug/L	1.0	SW846 8260D	1	05/24/2024 12:30	ILY	A

Results

Client Sample ID	Trip Blank-A	Collected	05/19/2024 00:00
Lab Sample ID	3360617010	Lab Receipt	05/20/2024 19:20

VOLATILE ORGANICS (cont.)

Compound	Result	Flag	Units	RDL	Method	Dilution	Analysis Date/Time	By	Cntr
o-Xylene	1.0 U	U	ug/L	1.0	SW846 8260D	1	05/24/2024 12:30	ILY	A
p-Chlorotoluene	1.0 U	U	ug/L	1.0	SW846 8260D	1	05/24/2024 12:30	ILY	A
p-Isopropyltoluene	1.0 U	U	ug/L	1.0	SW846 8260D	1	05/24/2024 12:30	ILY	A
Styrene	1.0 U	U	ug/L	1.0	SW846 8260D	1	05/24/2024 12:30	ILY	A
Tetrachloroethene	1.0 U	U	ug/L	1.0	SW846 8260D	1	05/24/2024 12:30	ILY	A
Toluene	1.0 U	U	ug/L	1.0	SW846 8260D	1	05/24/2024 12:30	ILY	A
Total Xylenes	3.0 U	U	ug/L	3.0	SW846 8260D	1	05/24/2024 12:30	ILY	A
trans-1,2-Dichloroethene	1.0 U	U	ug/L	1.0	SW846 8260D	1	05/24/2024 12:30	ILY	A
trans-1,3-Dichloropropene	1.0 U	U	ug/L	1.0	SW846 8260D	1	05/24/2024 12:30	ILY	A
Trichloroethene	1.0 U	U	ug/L	1.0	SW846 8260D	1	05/24/2024 12:30	ILY	A
Trichlorofluoromethane	1.0 U	U	ug/L	1.0	SW846 8260D	1	05/24/2024 12:30	ILY	A
Vinyl Acetate	5.0 U	U	ug/L	5.0	SW846 8260D	1	05/24/2024 12:30	ILY	A
Vinyl Chloride	1.0 U	U	ug/L	1.0	SW846 8260D	1	05/24/2024 12:30	ILY	A

SURROGATES

Compound	CAS No	Recovery	Limits(%)	Analysis Date/Time	Qualifiers
1,2-Dichloroethane-d4	17060-07-0	115%	62 – 133	05/24/2024 12:30	
4-Bromofluorobenzene	460-00-4	95.8%	79 – 114	05/24/2024 12:30	
Dibromofluoromethane	1868-53-7	107%	78 – 116	05/24/2024 12:30	
Toluene-d8	2037-26-5	98.3%	76 – 127	05/24/2024 12:30	

Results

Client Sample ID	MW-43	Collected	05/19/2024 10:30
Lab Sample ID	3360617011	Lab Receipt	05/20/2024 19:20

SEMIVOLATILE SIM

Compound	Result	Flag	Units	RDL	Method	Dilution	Analysis Date/Time	By	Cntr
1,4-Dioxane	6.3		ug/L	1.0	SW846 8270E SIM	1	05/23/2024 11:37	S7M	C

SURROGATES

Compound	CAS No	Recovery	Limits(%)	Analysis Date/Time	Qualifiers
2-Methylnapthalene-d10	7297-45-2	78.4%	29 – 112	05/23/2024 11:37	
Fluoranthene-d10	93951-69-0	88.2%	45 – 130	05/23/2024 11:37	

VOLATILE ORGANICS

Compound	Result	Flag	Units	RDL	Method	Dilution	Analysis Date/Time	By	Cntr
1,1,1,2-Tetrachloroethane	1.0 U	U	ug/L	1.0	SW846 8260D	1	05/29/2024 04:22	PDK	B
1,1,1-Trichloroethane	1.0 U	U	ug/L	1.0	SW846 8260D	1	05/29/2024 04:22	PDK	B
1,1,2,2-Tetrachloroethane	1.0 U	U	ug/L	1.0	SW846 8260D	1	05/29/2024 04:22	PDK	B
1,1,2-Trichloroethane	1.0 U	U	ug/L	1.0	SW846 8260D	1	05/29/2024 04:22	PDK	B
1,1-Dichloroethane	1.5		ug/L	1.0	SW846 8260D	1	05/29/2024 04:22	PDK	B
1,1-Dichloroethene	17.3		ug/L	1.0	SW846 8260D	1	05/29/2024 04:22	PDK	B
1,1-Dichloropropene	1.0 U	U	ug/L	1.0	SW846 8260D	1	05/29/2024 04:22	PDK	B
1,2,3-Trichlorobenzene	2.0 U	U	ug/L	2.0	SW846 8260D	1	05/29/2024 04:22	PDK	B
1,2,3-Trichloropropane	2.0 U	U	ug/L	2.0	SW846 8260D	1	05/29/2024 04:22	PDK	B
1,2,4-Trichlorobenzene	2.0 U	U	ug/L	2.0	SW846 8260D	1	05/29/2024 04:22	PDK	B
1,2-Dibromo-3-chloropropane	7.0 U	U	ug/L	7.0	SW846 8260D	1	05/29/2024 04:22	PDK	B
1,2-Dibromoethane	1.0 U	U	ug/L	1.0	SW846 8260D	1	05/29/2024 04:22	PDK	B
1,2-Dichlorobenzene	1.0 U	U	ug/L	1.0	SW846 8260D	1	05/29/2024 04:22	PDK	B
1,2-Dichloroethane	1.0 U	U	ug/L	1.0	SW846 8260D	1	05/29/2024 04:22	PDK	B
1,2-Dichloropropane	1.0 U	U	ug/L	1.0	SW846 8260D	1	05/29/2024 04:22	PDK	B
1,3-Dichlorobenzene	1.0 U	U	ug/L	1.0	SW846 8260D	1	05/29/2024 04:22	PDK	B
1,3-Dichloropropane	1.0 U	U	ug/L	1.0	SW846 8260D	1	05/29/2024 04:22	PDK	B
1,4-Dichlorobenzene	1.0 U	U	ug/L	1.0	SW846 8260D	1	05/29/2024 04:22	PDK	B
2,2-Dichloropropane	1.0 U	U	ug/L	1.0	SW846 8260D	1	05/29/2024 04:22	PDK	B
2-Butanone	10.0 U	U	ug/L	10.0	SW846 8260D	1	05/29/2024 04:22	PDK	B
2-Hexanone	5.0 U	U,1	ug/L	5.0	SW846 8260D	1	05/29/2024 04:22	PDK	B
4-Methyl-2-Pentanone(MIBK)	5.0 U	U	ug/L	5.0	SW846 8260D	1	05/29/2024 04:22	PDK	B
Acetone	10.0 U	U	ug/L	10.0	SW846 8260D	1	05/29/2024 04:22	PDK	B
Benzene	1.0 U	U	ug/L	1.0	SW846 8260D	1	05/29/2024 04:22	PDK	B
Bromobenzene	1.0 U	U	ug/L	1.0	SW846 8260D	1	05/29/2024 04:22	PDK	B
Bromochloromethane	1.0 U	U	ug/L	1.0	SW846 8260D	1	05/29/2024 04:22	PDK	B
Bromodichloromethane	1.0 U	U	ug/L	1.0	SW846 8260D	1	05/29/2024 04:22	PDK	B
Bromoform	1.0 U	U	ug/L	1.0	SW846 8260D	1	05/29/2024 04:22	PDK	B
Bromomethane	1.0 U	U	ug/L	1.0	SW846 8260D	1	05/29/2024 04:22	PDK	B
Carbon Tetrachloride	1.0 U	U	ug/L	1.0	SW846 8260D	1	05/29/2024 04:22	PDK	B
Chlorobenzene	1.0 U	U	ug/L	1.0	SW846 8260D	1	05/29/2024 04:22	PDK	B
Chlorodibromomethane	1.0 U	U	ug/L	1.0	SW846 8260D	1	05/29/2024 04:22	PDK	B
Chloroethane	1.0 U	U	ug/L	1.0	SW846 8260D	1	05/29/2024 04:22	PDK	B
Chloroform	1.0 U	U	ug/L	1.0	SW846 8260D	1	05/29/2024 04:22	PDK	B
Chloromethane	1.0 U	U	ug/L	1.0	SW846 8260D	1	05/29/2024 04:22	PDK	B

Results

Client Sample ID	MW-43	Collected	05/19/2024 10:30
Lab Sample ID	3360617011	Lab Receipt	05/20/2024 19:20

VOLATILE ORGANICS (cont.)

Compound	Result	Flag	Units	RDL	Method	Dilution	Analysis Date/Time	By	Cntr
cis-1,2-Dichloroethene	1.0 U	U	ug/L	1.0	SW846 8260D	1	05/29/2024 04:22	PDK	B
cis-1,3-Dichloropropene	1.0 U	U	ug/L	1.0	SW846 8260D	1	05/29/2024 04:22	PDK	B
Dibromomethane	1.0 U	U	ug/L	1.0	SW846 8260D	1	05/29/2024 04:22	PDK	B
Dichlorodifluoromethane	1.0 U	U	ug/L	1.0	SW846 8260D	1	05/29/2024 04:22	PDK	B
Diisopropyl ether	1.0 U	U	ug/L	1.0	SW846 8260D	1	05/29/2024 04:22	PDK	B
Ethylbenzene	1.0 U	U	ug/L	1.0	SW846 8260D	1	05/29/2024 04:22	PDK	B
Hexachlorobutadiene	5.0 U	U	ug/L	5.0	SW846 8260D	1	05/29/2024 04:22	PDK	B
Methyl t-Butyl Ether	2.0		ug/L	1.0	SW846 8260D	1	05/29/2024 04:22	PDK	B
Methylene Chloride	1.0 U	U	ug/L	1.0	SW846 8260D	1	05/29/2024 04:22	PDK	B
mp-Xylene	2.0 U	U	ug/L	2.0	SW846 8260D	1	05/29/2024 04:22	PDK	B
Naphthalene	2.0 U	U	ug/L	2.0	SW846 8260D	1	05/29/2024 04:22	PDK	B
o-Chlorotoluene	1.0 U	U	ug/L	1.0	SW846 8260D	1	05/29/2024 04:22	PDK	B
o-Xylene	1.0 U	U	ug/L	1.0	SW846 8260D	1	05/29/2024 04:22	PDK	B
p-Chlorotoluene	1.0 U	U	ug/L	1.0	SW846 8260D	1	05/29/2024 04:22	PDK	B
p-Isopropyltoluene	1.0 U	U	ug/L	1.0	SW846 8260D	1	05/29/2024 04:22	PDK	B
Styrene	1.0 U	U	ug/L	1.0	SW846 8260D	1	05/29/2024 04:22	PDK	B
Tetrachloroethene	1.0 U	U	ug/L	1.0	SW846 8260D	1	05/29/2024 04:22	PDK	B
Toluene	1.0 U	U	ug/L	1.0	SW846 8260D	1	05/29/2024 04:22	PDK	B
Total Xylenes	3.0 U	U	ug/L	3.0	SW846 8260D	1	05/29/2024 04:22	PDK	B
trans-1,2-Dichloroethene	1.0 U	U	ug/L	1.0	SW846 8260D	1	05/29/2024 04:22	PDK	B
trans-1,3-Dichloropropene	1.0 U	U	ug/L	1.0	SW846 8260D	1	05/29/2024 04:22	PDK	B
Trichloroethene	1.0 U	U	ug/L	1.0	SW846 8260D	1	05/29/2024 04:22	PDK	B
Trichlorofluoromethane	1.0 U	U	ug/L	1.0	SW846 8260D	1	05/29/2024 04:22	PDK	B
Vinyl Acetate	5.0 U	U	ug/L	5.0	SW846 8260D	1	05/29/2024 04:22	PDK	B
Vinyl Chloride	1.0 U	U	ug/L	1.0	SW846 8260D	1	05/29/2024 04:22	PDK	B

SURROGATES

Compound	CAS No	Recovery	Limits(%)	Analysis Date/Time	Qualifiers
1,2-Dichloroethane-d4	17060-07-0	109%	62 – 133	05/29/2024 04:22	
4-Bromofluorobenzene	460-00-4	92.8%	79 – 114	05/29/2024 04:22	
Dibromofluoromethane	1868-53-7	95.7%	78 – 116	05/29/2024 04:22	
Toluene-d8	2037-26-5	92.5%	76 – 127	05/29/2024 04:22	

Results

Client Sample ID	MW-42	Collected	05/19/2024 11:05
Lab Sample ID	3360617012	Lab Receipt	05/20/2024 19:20

SEMIVOLATILE SIM

Compound	Result	Flag	Units	RDL	Method	Dilution	Analysis Date/Time	By	Cntr
1,4-Dioxane	3.7		ug/L	1.0	SW846 8270E SIM	1	05/23/2024 12:07	S7M	C

SURROGATES

Compound	CAS No	Recovery	Limits(%)	Analysis Date/Time	Qualifiers
2-Methylnapthalene-d10	7297-45-2	66.1%	29 – 112	05/23/2024 12:07	
Fluoranthene-d10	93951-69-0	79.8%	45 – 130	05/23/2024 12:07	

VOLATILE ORGANICS

Compound	Result	Flag	Units	RDL	Method	Dilution	Analysis Date/Time	By	Cntr
1,1,1,2-Tetrachloroethane	1.0 U	U	ug/L	1.0	SW846 8260D	1	05/29/2024 04:43	PDK	B
1,1,1-Trichloroethane	1.0 U	U	ug/L	1.0	SW846 8260D	1	05/29/2024 04:43	PDK	B
1,1,2,2-Tetrachloroethane	1.0 U	U	ug/L	1.0	SW846 8260D	1	05/29/2024 04:43	PDK	B
1,1,2-Trichloroethane	1.0 U	U	ug/L	1.0	SW846 8260D	1	05/29/2024 04:43	PDK	B
1,1-Dichloroethane	1.0 U	U	ug/L	1.0	SW846 8260D	1	05/29/2024 04:43	PDK	B
1,1-Dichloroethene	1.0 U	U	ug/L	1.0	SW846 8260D	1	05/29/2024 04:43	PDK	B
1,1-Dichloropropene	1.0 U	U	ug/L	1.0	SW846 8260D	1	05/29/2024 04:43	PDK	B
1,2,3-Trichlorobenzene	2.0 U	U	ug/L	2.0	SW846 8260D	1	05/29/2024 04:43	PDK	B
1,2,3-Trichloropropane	2.0 U	U	ug/L	2.0	SW846 8260D	1	05/29/2024 04:43	PDK	B
1,2,4-Trichlorobenzene	2.0 U	U	ug/L	2.0	SW846 8260D	1	05/29/2024 04:43	PDK	B
1,2-Dibromo-3-chloropropane	7.0 U	U	ug/L	7.0	SW846 8260D	1	05/29/2024 04:43	PDK	B
1,2-Dibromoethane	1.0 U	U	ug/L	1.0	SW846 8260D	1	05/29/2024 04:43	PDK	B
1,2-Dichlorobenzene	1.0 U	U	ug/L	1.0	SW846 8260D	1	05/29/2024 04:43	PDK	B
1,2-Dichloroethane	1.0 U	U	ug/L	1.0	SW846 8260D	1	05/29/2024 04:43	PDK	B
1,2-Dichloropropane	1.0 U	U	ug/L	1.0	SW846 8260D	1	05/29/2024 04:43	PDK	B
1,3-Dichlorobenzene	1.0 U	U	ug/L	1.0	SW846 8260D	1	05/29/2024 04:43	PDK	B
1,3-Dichloropropane	1.0 U	U	ug/L	1.0	SW846 8260D	1	05/29/2024 04:43	PDK	B
1,4-Dichlorobenzene	1.0 U	U	ug/L	1.0	SW846 8260D	1	05/29/2024 04:43	PDK	B
2,2-Dichloropropane	1.0 U	U	ug/L	1.0	SW846 8260D	1	05/29/2024 04:43	PDK	B
2-Butanone	10.0 U	U	ug/L	10.0	SW846 8260D	1	05/29/2024 04:43	PDK	B
2-Hexanone	5.0 U	U,1	ug/L	5.0	SW846 8260D	1	05/29/2024 04:43	PDK	B
4-Methyl-2-Pentanone(MIBK)	5.0 U	U	ug/L	5.0	SW846 8260D	1	05/29/2024 04:43	PDK	B
Acetone	10.0 U	U	ug/L	10.0	SW846 8260D	1	05/29/2024 04:43	PDK	B
Benzene	1.0 U	U	ug/L	1.0	SW846 8260D	1	05/29/2024 04:43	PDK	B
Bromobenzene	1.0 U	U	ug/L	1.0	SW846 8260D	1	05/29/2024 04:43	PDK	B
Bromochloromethane	1.0 U	U	ug/L	1.0	SW846 8260D	1	05/29/2024 04:43	PDK	B
Bromodichloromethane	1.0 U	U	ug/L	1.0	SW846 8260D	1	05/29/2024 04:43	PDK	B
Bromoform	1.0 U	U	ug/L	1.0	SW846 8260D	1	05/29/2024 04:43	PDK	B
Bromomethane	1.0 U	U	ug/L	1.0	SW846 8260D	1	05/29/2024 04:43	PDK	B
Carbon Tetrachloride	1.0 U	U	ug/L	1.0	SW846 8260D	1	05/29/2024 04:43	PDK	B
Chlorobenzene	1.0 U	U	ug/L	1.0	SW846 8260D	1	05/29/2024 04:43	PDK	B
Chlorodibromomethane	1.0 U	U	ug/L	1.0	SW846 8260D	1	05/29/2024 04:43	PDK	B
Chloroethane	1.0 U	U	ug/L	1.0	SW846 8260D	1	05/29/2024 04:43	PDK	B
Chloroform	1.0 U	U	ug/L	1.0	SW846 8260D	1	05/29/2024 04:43	PDK	B
Chloromethane	1.0 U	U	ug/L	1.0	SW846 8260D	1	05/29/2024 04:43	PDK	B

Results

Client Sample ID	MW-42	Collected	05/19/2024 11:05
Lab Sample ID	3360617012	Lab Receipt	05/20/2024 19:20

VOLATILE ORGANICS (cont.)

Compound	Result	Flag	Units	RDL	Method	Dilution	Analysis Date/Time	By	Cntr
cis-1,2-Dichloroethene	1.0 U	U	ug/L	1.0	SW846 8260D	1	05/29/2024 04:43	PDK	B
cis-1,3-Dichloropropene	1.0 U	U	ug/L	1.0	SW846 8260D	1	05/29/2024 04:43	PDK	B
Dibromomethane	1.0 U	U	ug/L	1.0	SW846 8260D	1	05/29/2024 04:43	PDK	B
Dichlorodifluoromethane	1.0 U	U	ug/L	1.0	SW846 8260D	1	05/29/2024 04:43	PDK	B
Diisopropyl ether	1.0 U	U	ug/L	1.0	SW846 8260D	1	05/29/2024 04:43	PDK	B
Ethylbenzene	1.0 U	U	ug/L	1.0	SW846 8260D	1	05/29/2024 04:43	PDK	B
Hexachlorobutadiene	5.0 U	U	ug/L	5.0	SW846 8260D	1	05/29/2024 04:43	PDK	B
Methyl t-Butyl Ether	1.0 U	U	ug/L	1.0	SW846 8260D	1	05/29/2024 04:43	PDK	B
Methylene Chloride	1.0 U	U	ug/L	1.0	SW846 8260D	1	05/29/2024 04:43	PDK	B
mp-Xylene	2.0 U	U	ug/L	2.0	SW846 8260D	1	05/29/2024 04:43	PDK	B
Naphthalene	2.0 U	U	ug/L	2.0	SW846 8260D	1	05/29/2024 04:43	PDK	B
o-Chlorotoluene	1.0 U	U	ug/L	1.0	SW846 8260D	1	05/29/2024 04:43	PDK	B
o-Xylene	1.0 U	U	ug/L	1.0	SW846 8260D	1	05/29/2024 04:43	PDK	B
p-Chlorotoluene	1.0 U	U	ug/L	1.0	SW846 8260D	1	05/29/2024 04:43	PDK	B
p-Isopropyltoluene	1.0 U	U	ug/L	1.0	SW846 8260D	1	05/29/2024 04:43	PDK	B
Styrene	1.0 U	U	ug/L	1.0	SW846 8260D	1	05/29/2024 04:43	PDK	B
Tetrachloroethene	1.0 U	U	ug/L	1.0	SW846 8260D	1	05/29/2024 04:43	PDK	B
Toluene	1.0 U	U	ug/L	1.0	SW846 8260D	1	05/29/2024 04:43	PDK	B
Total Xylenes	3.0 U	U	ug/L	3.0	SW846 8260D	1	05/29/2024 04:43	PDK	B
trans-1,2-Dichloroethene	1.0 U	U	ug/L	1.0	SW846 8260D	1	05/29/2024 04:43	PDK	B
trans-1,3-Dichloropropene	1.0 U	U	ug/L	1.0	SW846 8260D	1	05/29/2024 04:43	PDK	B
Trichloroethene	1.0 U	U	ug/L	1.0	SW846 8260D	1	05/29/2024 04:43	PDK	B
Trichlorofluoromethane	1.0 U	U	ug/L	1.0	SW846 8260D	1	05/29/2024 04:43	PDK	B
Vinyl Acetate	5.0 U	U	ug/L	5.0	SW846 8260D	1	05/29/2024 04:43	PDK	B
Vinyl Chloride	1.0 U	U	ug/L	1.0	SW846 8260D	1	05/29/2024 04:43	PDK	B

SURROGATES

Compound	CAS No	Recovery	Limits(%)	Analysis Date/Time	Qualifiers
1,2-Dichloroethane-d4	17060-07-0	108%	62 – 133	05/29/2024 04:43	
4-Bromofluorobenzene	460-00-4	99.4%	79 – 114	05/29/2024 04:43	
Dibromofluoromethane	1868-53-7	95.4%	78 – 116	05/29/2024 04:43	
Toluene-d8	2037-26-5	94.4%	76 – 127	05/29/2024 04:43	

Results

Client Sample ID	MW-38R	Collected	05/19/2024 11:15
Lab Sample ID	3360617013	Lab Receipt	05/20/2024 19:20

SEMIVOLATILE SIM

Compound	Result	Flag	Units	RDL	Method	Dilution	Analysis Date/Time	By	Cntr
1,4-Dioxane	10		ug/L	1.0	SW846 8270E SIM	1	05/23/2024 12:36	S7M	C

SURROGATES

Compound	CAS No	Recovery	Limits(%)	Analysis Date/Time	Qualifiers
2-Methylnapthalene-d10	7297-45-2	61.2%	29 – 112	05/23/2024 12:36	
Fluoranthene-d10	93951-69-0	83.2%	45 – 130	05/23/2024 12:36	

VOLATILE ORGANICS

Compound	Result	Flag	Units	RDL	Method	Dilution	Analysis Date/Time	By	Cntr
1,1,1,2-Tetrachloroethane	1.0 U	U	ug/L	1.0	SW846 8260D	1	05/29/2024 05:03	PDK	B
1,1,1-Trichloroethane	1.0 U	U	ug/L	1.0	SW846 8260D	1	05/29/2024 05:03	PDK	B
1,1,2,2-Tetrachloroethane	1.0 U	U	ug/L	1.0	SW846 8260D	1	05/29/2024 05:03	PDK	B
1,1,2-Trichloroethane	1.0 U	U	ug/L	1.0	SW846 8260D	1	05/29/2024 05:03	PDK	B
1,1-Dichloroethane	8.1		ug/L	1.0	SW846 8260D	1	05/29/2024 05:03	PDK	B
1,1-Dichloroethene	1.0 U	U	ug/L	1.0	SW846 8260D	1	05/29/2024 05:03	PDK	B
1,1-Dichloropropene	1.0 U	U	ug/L	1.0	SW846 8260D	1	05/29/2024 05:03	PDK	B
1,2,3-Trichlorobenzene	2.0 U	U	ug/L	2.0	SW846 8260D	1	05/29/2024 05:03	PDK	B
1,2,3-Trichloropropane	2.0 U	U	ug/L	2.0	SW846 8260D	1	05/29/2024 05:03	PDK	B
1,2,4-Trichlorobenzene	2.0 U	U	ug/L	2.0	SW846 8260D	1	05/29/2024 05:03	PDK	B
1,2-Dibromo-3-chloropropane	7.0 U	U	ug/L	7.0	SW846 8260D	1	05/29/2024 05:03	PDK	B
1,2-Dibromoethane	1.0 U	U	ug/L	1.0	SW846 8260D	1	05/29/2024 05:03	PDK	B
1,2-Dichlorobenzene	1.0 U	U	ug/L	1.0	SW846 8260D	1	05/29/2024 05:03	PDK	B
1,2-Dichloroethane	1.0 U	U	ug/L	1.0	SW846 8260D	1	05/29/2024 05:03	PDK	B
1,2-Dichloropropane	1.0 U	U	ug/L	1.0	SW846 8260D	1	05/29/2024 05:03	PDK	B
1,3-Dichlorobenzene	1.0 U	U	ug/L	1.0	SW846 8260D	1	05/29/2024 05:03	PDK	B
1,3-Dichloropropane	1.0 U	U	ug/L	1.0	SW846 8260D	1	05/29/2024 05:03	PDK	B
1,4-Dichlorobenzene	1.0 U	U	ug/L	1.0	SW846 8260D	1	05/29/2024 05:03	PDK	B
2,2-Dichloropropane	1.0 U	U	ug/L	1.0	SW846 8260D	1	05/29/2024 05:03	PDK	B
2-Butanone	10.0 U	U	ug/L	10.0	SW846 8260D	1	05/29/2024 05:03	PDK	B
2-Hexanone	5.0 U	U,1	ug/L	5.0	SW846 8260D	1	05/29/2024 05:03	PDK	B
4-Methyl-2-Pentanone(MIBK)	5.0 U	U	ug/L	5.0	SW846 8260D	1	05/29/2024 05:03	PDK	B
Acetone	10.0 U	U	ug/L	10.0	SW846 8260D	1	05/29/2024 05:03	PDK	B
Benzene	1.0 U	U	ug/L	1.0	SW846 8260D	1	05/29/2024 05:03	PDK	B
Bromobenzene	1.0 U	U	ug/L	1.0	SW846 8260D	1	05/29/2024 05:03	PDK	B
Bromochloromethane	1.0 U	U	ug/L	1.0	SW846 8260D	1	05/29/2024 05:03	PDK	B
Bromodichloromethane	1.0 U	U	ug/L	1.0	SW846 8260D	1	05/29/2024 05:03	PDK	B
Bromoform	1.0 U	U	ug/L	1.0	SW846 8260D	1	05/29/2024 05:03	PDK	B
Bromomethane	1.0 U	U	ug/L	1.0	SW846 8260D	1	05/29/2024 05:03	PDK	B
Carbon Tetrachloride	1.0 U	U	ug/L	1.0	SW846 8260D	1	05/29/2024 05:03	PDK	B
Chlorobenzene	1.0 U	U	ug/L	1.0	SW846 8260D	1	05/29/2024 05:03	PDK	B
Chlorodibromomethane	1.0 U	U	ug/L	1.0	SW846 8260D	1	05/29/2024 05:03	PDK	B
Chloroethane	1.0 U	U	ug/L	1.0	SW846 8260D	1	05/29/2024 05:03	PDK	B
Chloroform	1.0 U	U	ug/L	1.0	SW846 8260D	1	05/29/2024 05:03	PDK	B
Chloromethane	1.0 U	U	ug/L	1.0	SW846 8260D	1	05/29/2024 05:03	PDK	B

Results

Client Sample ID	MW-38R	Collected	05/19/2024 11:15
Lab Sample ID	3360617013	Lab Receipt	05/20/2024 19:20

VOLATILE ORGANICS (cont.)

Compound	Result	Flag	Units	RDL	Method	Dilution	Analysis Date/Time	By	Cntr
cis-1,2-Dichloroethene	1.0 U	U	ug/L	1.0	SW846 8260D	1	05/29/2024 05:03	PDK	B
cis-1,3-Dichloropropene	1.0 U	U	ug/L	1.0	SW846 8260D	1	05/29/2024 05:03	PDK	B
Dibromomethane	1.0 U	U	ug/L	1.0	SW846 8260D	1	05/29/2024 05:03	PDK	B
Dichlorodifluoromethane	1.0 U	U	ug/L	1.0	SW846 8260D	1	05/29/2024 05:03	PDK	B
Diisopropyl ether	1.0 U	U	ug/L	1.0	SW846 8260D	1	05/29/2024 05:03	PDK	B
Ethylbenzene	1.0 U	U	ug/L	1.0	SW846 8260D	1	05/29/2024 05:03	PDK	B
Hexachlorobutadiene	5.0 U	U	ug/L	5.0	SW846 8260D	1	05/29/2024 05:03	PDK	B
Methyl t-Butyl Ether	1.0 U	U	ug/L	1.0	SW846 8260D	1	05/29/2024 05:03	PDK	B
Methylene Chloride	1.0 U	U	ug/L	1.0	SW846 8260D	1	05/29/2024 05:03	PDK	B
mp-Xylene	2.0 U	U	ug/L	2.0	SW846 8260D	1	05/29/2024 05:03	PDK	B
Naphthalene	2.0 U	U	ug/L	2.0	SW846 8260D	1	05/29/2024 05:03	PDK	B
o-Chlorotoluene	1.0 U	U	ug/L	1.0	SW846 8260D	1	05/29/2024 05:03	PDK	B
o-Xylene	1.0 U	U	ug/L	1.0	SW846 8260D	1	05/29/2024 05:03	PDK	B
p-Chlorotoluene	1.0 U	U	ug/L	1.0	SW846 8260D	1	05/29/2024 05:03	PDK	B
p-Isopropyltoluene	1.0 U	U	ug/L	1.0	SW846 8260D	1	05/29/2024 05:03	PDK	B
Styrene	1.0 U	U	ug/L	1.0	SW846 8260D	1	05/29/2024 05:03	PDK	B
Tetrachloroethene	1.0 U	U	ug/L	1.0	SW846 8260D	1	05/29/2024 05:03	PDK	B
Toluene	1.0 U	U	ug/L	1.0	SW846 8260D	1	05/29/2024 05:03	PDK	B
Total Xylenes	3.0 U	U	ug/L	3.0	SW846 8260D	1	05/29/2024 05:03	PDK	B
trans-1,2-Dichloroethene	1.0 U	U	ug/L	1.0	SW846 8260D	1	05/29/2024 05:03	PDK	B
trans-1,3-Dichloropropene	1.0 U	U	ug/L	1.0	SW846 8260D	1	05/29/2024 05:03	PDK	B
Trichloroethene	1.0 U	U	ug/L	1.0	SW846 8260D	1	05/29/2024 05:03	PDK	B
Trichlorofluoromethane	1.0 U	U	ug/L	1.0	SW846 8260D	1	05/29/2024 05:03	PDK	B
Vinyl Acetate	5.0 U	U	ug/L	5.0	SW846 8260D	1	05/29/2024 05:03	PDK	B
Vinyl Chloride	1.0 U	U	ug/L	1.0	SW846 8260D	1	05/29/2024 05:03	PDK	B

SURROGATES

Compound	CAS No	Recovery	Limits(%)	Analysis Date/Time	Qualifiers
1,2-Dichloroethane-d4	17060-07-0	109%	62 – 133	05/29/2024 05:03	
4-Bromofluorobenzene	460-00-4	93.8%	79 – 114	05/29/2024 05:03	
Dibromofluoromethane	1868-53-7	95.8%	78 – 116	05/29/2024 05:03	
Toluene-d8	2037-26-5	92.6%	76 – 127	05/29/2024 05:03	

Results

Client Sample ID	MW-09	Collected	05/19/2024 15:35
Lab Sample ID	3360617014	Lab Receipt	05/20/2024 19:20

SEMIVOLATILE SIM

Compound	Result	Flag	Units	RDL	Method	Dilution	Analysis Date/Time	By	Cntr
1,4-Dioxane	3.8		ug/L	1.0	SW846 8270E SIM	1	05/23/2024 13:08	S7M	C

SURROGATES

Compound	CAS No	Recovery	Limits(%)	Analysis Date/Time	Qualifiers
2-Methylnapthalene-d10	7297-45-2	74.8%	29 – 112	05/23/2024 13:08	
Fluoranthene-d10	93951-69-0	78.8%	45 – 130	05/23/2024 13:08	

VOLATILE ORGANICS

Compound	Result	Flag	Units	RDL	Method	Dilution	Analysis Date/Time	By	Cntr
1,1,1,2-Tetrachloroethane	1.0 U	U	ug/L	1.0	SW846 8260D	1	05/29/2024 05:24	PDK	B
1,1,1-Trichloroethane	1.0 U	U	ug/L	1.0	SW846 8260D	1	05/29/2024 05:24	PDK	B
1,1,2,2-Tetrachloroethane	1.0 U	U	ug/L	1.0	SW846 8260D	1	05/29/2024 05:24	PDK	B
1,1,2-Trichloroethane	1.0 U	U	ug/L	1.0	SW846 8260D	1	05/29/2024 05:24	PDK	B
1,1-Dichloroethane	2.9		ug/L	1.0	SW846 8260D	1	05/29/2024 05:24	PDK	B
1,1-Dichloroethene	60.7		ug/L	1.0	SW846 8260D	1	05/29/2024 05:24	PDK	B
1,1-Dichloropropene	1.0 U	U	ug/L	1.0	SW846 8260D	1	05/29/2024 05:24	PDK	B
1,2,3-Trichlorobenzene	2.0 U	U	ug/L	2.0	SW846 8260D	1	05/29/2024 05:24	PDK	B
1,2,3-Trichloropropane	2.0 U	U	ug/L	2.0	SW846 8260D	1	05/29/2024 05:24	PDK	B
1,2,4-Trichlorobenzene	2.0 U	U	ug/L	2.0	SW846 8260D	1	05/29/2024 05:24	PDK	B
1,2-Dibromo-3-chloropropane	7.0 U	U	ug/L	7.0	SW846 8260D	1	05/29/2024 05:24	PDK	B
1,2-Dibromoethane	1.0 U	U	ug/L	1.0	SW846 8260D	1	05/29/2024 05:24	PDK	B
1,2-Dichlorobenzene	1.0 U	U	ug/L	1.0	SW846 8260D	1	05/29/2024 05:24	PDK	B
1,2-Dichloroethane	1.0 U	U	ug/L	1.0	SW846 8260D	1	05/29/2024 05:24	PDK	B
1,2-Dichloropropane	1.0 U	U	ug/L	1.0	SW846 8260D	1	05/29/2024 05:24	PDK	B
1,3-Dichlorobenzene	1.0 U	U	ug/L	1.0	SW846 8260D	1	05/29/2024 05:24	PDK	B
1,3-Dichloropropane	1.0 U	U	ug/L	1.0	SW846 8260D	1	05/29/2024 05:24	PDK	B
1,4-Dichlorobenzene	1.0 U	U	ug/L	1.0	SW846 8260D	1	05/29/2024 05:24	PDK	B
2,2-Dichloropropane	1.0 U	U	ug/L	1.0	SW846 8260D	1	05/29/2024 05:24	PDK	B
2-Butanone	10.0 U	U	ug/L	10.0	SW846 8260D	1	05/29/2024 05:24	PDK	B
2-Hexanone	5.0 U	U,1	ug/L	5.0	SW846 8260D	1	05/29/2024 05:24	PDK	B
4-Methyl-2-Pentanone(MIBK)	5.0 U	U	ug/L	5.0	SW846 8260D	1	05/29/2024 05:24	PDK	B
Acetone	10.0 U	U	ug/L	10.0	SW846 8260D	1	05/29/2024 05:24	PDK	B
Benzene	1.0 U	U	ug/L	1.0	SW846 8260D	1	05/29/2024 05:24	PDK	B
Bromobenzene	1.0 U	U	ug/L	1.0	SW846 8260D	1	05/29/2024 05:24	PDK	B
Bromochloromethane	1.0 U	U	ug/L	1.0	SW846 8260D	1	05/29/2024 05:24	PDK	B
Bromodichloromethane	1.0 U	U	ug/L	1.0	SW846 8260D	1	05/29/2024 05:24	PDK	B
Bromoform	1.0 U	U	ug/L	1.0	SW846 8260D	1	05/29/2024 05:24	PDK	B
Bromomethane	1.0 U	U	ug/L	1.0	SW846 8260D	1	05/29/2024 05:24	PDK	B
Carbon Tetrachloride	1.0 U	U	ug/L	1.0	SW846 8260D	1	05/29/2024 05:24	PDK	B
Chlorobenzene	1.0 U	U	ug/L	1.0	SW846 8260D	1	05/29/2024 05:24	PDK	B
Chlorodibromomethane	1.0 U	U	ug/L	1.0	SW846 8260D	1	05/29/2024 05:24	PDK	B
Chloroethane	1.0 U	U	ug/L	1.0	SW846 8260D	1	05/29/2024 05:24	PDK	B
Chloroform	1.0 U	U	ug/L	1.0	SW846 8260D	1	05/29/2024 05:24	PDK	B
Chloromethane	1.0 U	U	ug/L	1.0	SW846 8260D	1	05/29/2024 05:24	PDK	B

Results

Client Sample ID	MW-09	Collected	05/19/2024 15:35
Lab Sample ID	3360617014	Lab Receipt	05/20/2024 19:20

VOLATILE ORGANICS (cont.)

Compound	Result	Flag	Units	RDL	Method	Dilution	Analysis Date/Time	By	Cntr
cis-1,2-Dichloroethene	1.0 U	U	ug/L	1.0	SW846 8260D	1	05/29/2024 05:24	PDK	B
cis-1,3-Dichloropropene	1.0 U	U	ug/L	1.0	SW846 8260D	1	05/29/2024 05:24	PDK	B
Dibromomethane	1.0 U	U	ug/L	1.0	SW846 8260D	1	05/29/2024 05:24	PDK	B
Dichlorodifluoromethane	1.0 U	U	ug/L	1.0	SW846 8260D	1	05/29/2024 05:24	PDK	B
Diisopropyl ether	1.0 U	U	ug/L	1.0	SW846 8260D	1	05/29/2024 05:24	PDK	B
Ethylbenzene	1.0 U	U	ug/L	1.0	SW846 8260D	1	05/29/2024 05:24	PDK	B
Hexachlorobutadiene	5.0 U	U	ug/L	5.0	SW846 8260D	1	05/29/2024 05:24	PDK	B
Methyl t-Butyl Ether	1.0 U	U	ug/L	1.0	SW846 8260D	1	05/29/2024 05:24	PDK	B
Methylene Chloride	1.0 U	U	ug/L	1.0	SW846 8260D	1	05/29/2024 05:24	PDK	B
mp-Xylene	2.0 U	U	ug/L	2.0	SW846 8260D	1	05/29/2024 05:24	PDK	B
Naphthalene	2.0 U	U	ug/L	2.0	SW846 8260D	1	05/29/2024 05:24	PDK	B
o-Chlorotoluene	1.0 U	U	ug/L	1.0	SW846 8260D	1	05/29/2024 05:24	PDK	B
o-Xylene	1.0 U	U	ug/L	1.0	SW846 8260D	1	05/29/2024 05:24	PDK	B
p-Chlorotoluene	1.0 U	U	ug/L	1.0	SW846 8260D	1	05/29/2024 05:24	PDK	B
p-Isopropyltoluene	1.0 U	U	ug/L	1.0	SW846 8260D	1	05/29/2024 05:24	PDK	B
Styrene	1.0 U	U	ug/L	1.0	SW846 8260D	1	05/29/2024 05:24	PDK	B
Tetrachloroethene	1.0 U	U	ug/L	1.0	SW846 8260D	1	05/29/2024 05:24	PDK	B
Toluene	1.0 U	U	ug/L	1.0	SW846 8260D	1	05/29/2024 05:24	PDK	B
Total Xylenes	3.0 U	U	ug/L	3.0	SW846 8260D	1	05/29/2024 05:24	PDK	B
trans-1,2-Dichloroethene	1.0 U	U	ug/L	1.0	SW846 8260D	1	05/29/2024 05:24	PDK	B
trans-1,3-Dichloropropene	1.0 U	U	ug/L	1.0	SW846 8260D	1	05/29/2024 05:24	PDK	B
Trichloroethene	1.0 U	U	ug/L	1.0	SW846 8260D	1	05/29/2024 05:24	PDK	B
Trichlorofluoromethane	1.0 U	U	ug/L	1.0	SW846 8260D	1	05/29/2024 05:24	PDK	B
Vinyl Acetate	5.0 U	U	ug/L	5.0	SW846 8260D	1	05/29/2024 05:24	PDK	B
Vinyl Chloride	1.0 U	U	ug/L	1.0	SW846 8260D	1	05/29/2024 05:24	PDK	B

SURROGATES

Compound	CAS No	Recovery	Limits(%)	Analysis Date/Time	Qualifiers
1,2-Dichloroethane-d4	17060-07-0	110%	62 – 133	05/29/2024 05:24	
4-Bromofluorobenzene	460-00-4	94%	79 – 114	05/29/2024 05:24	
Dibromofluoromethane	1868-53-7	96.8%	78 – 116	05/29/2024 05:24	
Toluene-d8	2037-26-5	93.3%	76 – 127	05/29/2024 05:24	

Results

Client Sample ID	MW-23D	Collected	05/19/2024 15:55
Lab Sample ID	3360617015	Lab Receipt	05/20/2024 19:20

SEMIVOLATILE SIM

Compound	Result	Flag	Units	RDL	Method	Dilution	Analysis Date/Time	By	Cntr
1,4-Dioxane	24.2		ug/L	5.0	SW846 8270E SIM	5	05/29/2024 06:05	M1O	C

SURROGATES

Compound	CAS No	Recovery	Limits(%)	Analysis Date/Time	Qualifiers
2-Methylnapthalene-d10	7297-45-2	69.2%	29 – 112	05/23/2024 13:39	
2-Methylnapthalene-d10	7297-45-2	69%	29 – 112	05/29/2024 06:05	
Fluoranthene-d10	93951-69-0	81.2%	45 – 130	05/23/2024 13:39	
Fluoranthene-d10	93951-69-0	81.7%	45 – 130	05/29/2024 06:05	

VOLATILE ORGANICS

Compound	Result	Flag	Units	RDL	Method	Dilution	Analysis Date/Time	By	Cntr
1,1,1,2-Tetrachloroethane	1.0 U	U	ug/L	1.0	SW846 8260D	1	05/29/2024 05:44	PDK	B
1,1,1-Trichloroethane	6.9		ug/L	1.0	SW846 8260D	1	05/29/2024 05:44	PDK	B
1,1,2,2-Tetrachloroethane	1.0 U	U	ug/L	1.0	SW846 8260D	1	05/29/2024 05:44	PDK	B
1,1,2-Trichloroethane	1.0 U	U	ug/L	1.0	SW846 8260D	1	05/29/2024 05:44	PDK	B
1,1-Dichloroethane	32.7		ug/L	1.0	SW846 8260D	1	05/29/2024 05:44	PDK	B
1,1-Dichloroethene	134		ug/L	1.0	SW846 8260D	1	05/29/2024 05:44	PDK	B
1,1-Dichloropropene	1.0 U	U	ug/L	1.0	SW846 8260D	1	05/29/2024 05:44	PDK	B
1,2,3-Trichlorobenzene	2.0 U	U	ug/L	2.0	SW846 8260D	1	05/29/2024 05:44	PDK	B
1,2,3-Trichloropropane	2.0 U	U	ug/L	2.0	SW846 8260D	1	05/29/2024 05:44	PDK	B
1,2,4-Trichlorobenzene	2.0 U	U	ug/L	2.0	SW846 8260D	1	05/29/2024 05:44	PDK	B
1,2-Dibromo-3-chloropropane	7.0 U	U	ug/L	7.0	SW846 8260D	1	05/29/2024 05:44	PDK	B
1,2-Dibromoethane	1.0 U	U	ug/L	1.0	SW846 8260D	1	05/29/2024 05:44	PDK	B
1,2-Dichlorobenzene	1.0 U	U	ug/L	1.0	SW846 8260D	1	05/29/2024 05:44	PDK	B
1,2-Dichloroethane	1.4		ug/L	1.0	SW846 8260D	1	05/29/2024 05:44	PDK	B
1,2-Dichloropropane	1.0 U	U	ug/L	1.0	SW846 8260D	1	05/29/2024 05:44	PDK	B
1,3-Dichlorobenzene	1.0 U	U	ug/L	1.0	SW846 8260D	1	05/29/2024 05:44	PDK	B
1,3-Dichloropropane	1.0 U	U	ug/L	1.0	SW846 8260D	1	05/29/2024 05:44	PDK	B
1,4-Dichlorobenzene	1.0 U	U	ug/L	1.0	SW846 8260D	1	05/29/2024 05:44	PDK	B
2,2-Dichloropropane	1.0 U	U	ug/L	1.0	SW846 8260D	1	05/29/2024 05:44	PDK	B
2-Butanone	10.0 U	U	ug/L	10.0	SW846 8260D	1	05/29/2024 05:44	PDK	B
2-Hexanone	5.0 U	U,1	ug/L	5.0	SW846 8260D	1	05/29/2024 05:44	PDK	B
4-Methyl-2-Pentanone(MIBK)	5.0 U	U	ug/L	5.0	SW846 8260D	1	05/29/2024 05:44	PDK	B
Acetone	10.0 U	U	ug/L	10.0	SW846 8260D	1	05/29/2024 05:44	PDK	B
Benzene	1.0 U	U	ug/L	1.0	SW846 8260D	1	05/29/2024 05:44	PDK	B
Bromobenzene	1.0 U	U	ug/L	1.0	SW846 8260D	1	05/29/2024 05:44	PDK	B
Bromochloromethane	1.0 U	U	ug/L	1.0	SW846 8260D	1	05/29/2024 05:44	PDK	B
Bromodichloromethane	1.0 U	U	ug/L	1.0	SW846 8260D	1	05/29/2024 05:44	PDK	B
Bromoform	1.0 U	U	ug/L	1.0	SW846 8260D	1	05/29/2024 05:44	PDK	B
Bromomethane	1.0 U	U	ug/L	1.0	SW846 8260D	1	05/29/2024 05:44	PDK	B
Carbon Tetrachloride	1.0 U	U	ug/L	1.0	SW846 8260D	1	05/29/2024 05:44	PDK	B
Chlorobenzene	1.0 U	U	ug/L	1.0	SW846 8260D	1	05/29/2024 05:44	PDK	B
Chlorodibromomethane	1.0 U	U	ug/L	1.0	SW846 8260D	1	05/29/2024 05:44	PDK	B
Chloroethane	1.0 U	U	ug/L	1.0	SW846 8260D	1	05/29/2024 05:44	PDK	B

Results

Client Sample ID	MW-23D	Collected	05/19/2024 15:55
Lab Sample ID	3360617015	Lab Receipt	05/20/2024 19:20

VOLATILE ORGANICS (cont.)

Compound	Result	Flag	Units	RDL	Method	Dilution	Analysis Date/Time	By	Cntr
Chloroform	1.0 U	U	ug/L	1.0	SW846 8260D	1	05/29/2024 05:44	PDK	B
Chloromethane	1.0 U	U	ug/L	1.0	SW846 8260D	1	05/29/2024 05:44	PDK	B
cis-1,2-Dichloroethene	1.0 U	U	ug/L	1.0	SW846 8260D	1	05/29/2024 05:44	PDK	B
cis-1,3-Dichloropropene	1.0 U	U	ug/L	1.0	SW846 8260D	1	05/29/2024 05:44	PDK	B
Dibromomethane	1.0 U	U	ug/L	1.0	SW846 8260D	1	05/29/2024 05:44	PDK	B
Dichlorodifluoromethane	1.0 U	U	ug/L	1.0	SW846 8260D	1	05/29/2024 05:44	PDK	B
Diisopropyl ether	1.0 U	U	ug/L	1.0	SW846 8260D	1	05/29/2024 05:44	PDK	B
Ethylbenzene	1.0 U	U	ug/L	1.0	SW846 8260D	1	05/29/2024 05:44	PDK	B
Hexachlorobutadiene	5.0 U	U	ug/L	5.0	SW846 8260D	1	05/29/2024 05:44	PDK	B
Methyl t-Butyl Ether	1.0 U	U	ug/L	1.0	SW846 8260D	1	05/29/2024 05:44	PDK	B
Methylene Chloride	1.0 U	U	ug/L	1.0	SW846 8260D	1	05/29/2024 05:44	PDK	B
mp-Xylene	2.0 U	U	ug/L	2.0	SW846 8260D	1	05/29/2024 05:44	PDK	B
Naphthalene	2.0 U	U	ug/L	2.0	SW846 8260D	1	05/29/2024 05:44	PDK	B
o-Chlorotoluene	1.0 U	U	ug/L	1.0	SW846 8260D	1	05/29/2024 05:44	PDK	B
o-Xylene	1.0 U	U	ug/L	1.0	SW846 8260D	1	05/29/2024 05:44	PDK	B
p-Chlorotoluene	1.0 U	U	ug/L	1.0	SW846 8260D	1	05/29/2024 05:44	PDK	B
p-Isopropyltoluene	1.0 U	U	ug/L	1.0	SW846 8260D	1	05/29/2024 05:44	PDK	B
Styrene	1.0 U	U	ug/L	1.0	SW846 8260D	1	05/29/2024 05:44	PDK	B
Tetrachloroethene	1.0 U	U	ug/L	1.0	SW846 8260D	1	05/29/2024 05:44	PDK	B
Toluene	1.0 U	U	ug/L	1.0	SW846 8260D	1	05/29/2024 05:44	PDK	B
Total Xylenes	3.0 U	U	ug/L	3.0	SW846 8260D	1	05/29/2024 05:44	PDK	B
trans-1,2-Dichloroethene	1.0 U	U	ug/L	1.0	SW846 8260D	1	05/29/2024 05:44	PDK	B
trans-1,3-Dichloropropene	1.0 U	U	ug/L	1.0	SW846 8260D	1	05/29/2024 05:44	PDK	B
Trichloroethene	1.0 U	U	ug/L	1.0	SW846 8260D	1	05/29/2024 05:44	PDK	B
Trichlorofluoromethane	1.0 U	U	ug/L	1.0	SW846 8260D	1	05/29/2024 05:44	PDK	B
Vinyl Acetate	5.0 U	U	ug/L	5.0	SW846 8260D	1	05/29/2024 05:44	PDK	B
Vinyl Chloride	1.0 U	U	ug/L	1.0	SW846 8260D	1	05/29/2024 05:44	PDK	B

SURROGATES

Compound	CAS No	Recovery	Limits(%)	Analysis Date/Time	Qualifiers
1,2-Dichloroethane-d4	17060-07-0	108%	62 – 133	05/29/2024 05:44	
4-Bromofluorobenzene	460-00-4	101%	79 – 114	05/29/2024 05:44	
Dibromofluoromethane	1868-53-7	95.3%	78 – 116	05/29/2024 05:44	
Toluene-d8	2037-26-5	93.8%	76 – 127	05/29/2024 05:44	

Results

Client Sample ID	MW-100	Collected	05/19/2024 12:15
Lab Sample ID	3360617016	Lab Receipt	05/20/2024 19:20

SEMIVOLATILE SIM

Compound	Result	Flag	Units	RDL	Method	Dilution	Analysis Date/Time	By	Cntr
1,4-Dioxane	19.1		ug/L	4.2	SW846 8270E SIM	4	05/29/2024 06:32	M1O	C

SURROGATES

Compound	CAS No	Recovery	Limits(%)	Analysis Date/Time	Qualifiers
2-Methylnapthalene-d10	7297-45-2	77.9%	29 – 112	05/23/2024 14:09	
2-Methylnapthalene-d10	7297-45-2	75.2%	29 – 112	05/29/2024 06:32	
Fluoranthene-d10	93951-69-0	84.6%	45 – 130	05/23/2024 14:09	
Fluoranthene-d10	93951-69-0	85.6%	45 – 130	05/29/2024 06:32	

VOLATILE ORGANICS

Compound	Result	Flag	Units	RDL	Method	Dilution	Analysis Date/Time	By	Cntr
1,1,1,2-Tetrachloroethane	1.0 U	U	ug/L	1.0	SW846 8260D	1	05/29/2024 06:04	PDK	B
1,1,1-Trichloroethane	4.4		ug/L	1.0	SW846 8260D	1	05/29/2024 06:04	PDK	B
1,1,2,2-Tetrachloroethane	1.0 U	U	ug/L	1.0	SW846 8260D	1	05/29/2024 06:04	PDK	B
1,1,2-Trichloroethane	1.0 U	U	ug/L	1.0	SW846 8260D	1	05/29/2024 06:04	PDK	B
1,1-Dichloroethane	20.7		ug/L	1.0	SW846 8260D	1	05/29/2024 06:04	PDK	B
1,1-Dichloroethene	96.6		ug/L	1.0	SW846 8260D	1	05/29/2024 06:04	PDK	B
1,1-Dichloropropene	1.0 U	U	ug/L	1.0	SW846 8260D	1	05/29/2024 06:04	PDK	B
1,2,3-Trichlorobenzene	2.0 U	U	ug/L	2.0	SW846 8260D	1	05/29/2024 06:04	PDK	B
1,2,3-Trichloropropane	2.0 U	U	ug/L	2.0	SW846 8260D	1	05/29/2024 06:04	PDK	B
1,2,4-Trichlorobenzene	2.0 U	U	ug/L	2.0	SW846 8260D	1	05/29/2024 06:04	PDK	B
1,2-Dibromo-3-chloropropane	7.0 U	U	ug/L	7.0	SW846 8260D	1	05/29/2024 06:04	PDK	B
1,2-Dibromoethane	1.0 U	U	ug/L	1.0	SW846 8260D	1	05/29/2024 06:04	PDK	B
1,2-Dichlorobenzene	1.0 U	U	ug/L	1.0	SW846 8260D	1	05/29/2024 06:04	PDK	B
1,2-Dichloroethane	1.1		ug/L	1.0	SW846 8260D	1	05/29/2024 06:04	PDK	B
1,2-Dichloropropane	1.0 U	U	ug/L	1.0	SW846 8260D	1	05/29/2024 06:04	PDK	B
1,3-Dichlorobenzene	1.0 U	U	ug/L	1.0	SW846 8260D	1	05/29/2024 06:04	PDK	B
1,3-Dichloropropane	1.0 U	U	ug/L	1.0	SW846 8260D	1	05/29/2024 06:04	PDK	B
1,4-Dichlorobenzene	1.0 U	U	ug/L	1.0	SW846 8260D	1	05/29/2024 06:04	PDK	B
2,2-Dichloropropane	1.0 U	U	ug/L	1.0	SW846 8260D	1	05/29/2024 06:04	PDK	B
2-Butanone	10.0 U	U	ug/L	10.0	SW846 8260D	1	05/29/2024 06:04	PDK	B
2-Hexanone	5.0 U	U,1	ug/L	5.0	SW846 8260D	1	05/29/2024 06:04	PDK	B
4-Methyl-2-Pentanone(MIBK)	5.0 U	U	ug/L	5.0	SW846 8260D	1	05/29/2024 06:04	PDK	B
Acetone	10.0 U	U	ug/L	10.0	SW846 8260D	1	05/29/2024 06:04	PDK	B
Benzene	1.0 U	U	ug/L	1.0	SW846 8260D	1	05/29/2024 06:04	PDK	B
Bromobenzene	1.0 U	U	ug/L	1.0	SW846 8260D	1	05/29/2024 06:04	PDK	B
Bromochloromethane	1.0 U	U	ug/L	1.0	SW846 8260D	1	05/29/2024 06:04	PDK	B
Bromodichloromethane	1.0 U	U	ug/L	1.0	SW846 8260D	1	05/29/2024 06:04	PDK	B
Bromoform	1.0 U	U	ug/L	1.0	SW846 8260D	1	05/29/2024 06:04	PDK	B
Bromomethane	1.0 U	U	ug/L	1.0	SW846 8260D	1	05/29/2024 06:04	PDK	B
Carbon Tetrachloride	1.0 U	U	ug/L	1.0	SW846 8260D	1	05/29/2024 06:04	PDK	B
Chlorobenzene	1.0 U	U	ug/L	1.0	SW846 8260D	1	05/29/2024 06:04	PDK	B
Chlorodibromomethane	1.0 U	U	ug/L	1.0	SW846 8260D	1	05/29/2024 06:04	PDK	B
Chloroethane	1.0 U	U	ug/L	1.0	SW846 8260D	1	05/29/2024 06:04	PDK	B

Results

Client Sample ID	MW-100	Collected	05/19/2024 12:15
Lab Sample ID	3360617016	Lab Receipt	05/20/2024 19:20

VOLATILE ORGANICS (cont.)

Compound	Result	Flag	Units	RDL	Method	Dilution	Analysis Date/Time	By	Cntr
Chloroform	1.0 U	U	ug/L	1.0	SW846 8260D	1	05/29/2024 06:04	PDK	B
Chloromethane	1.0 U	U	ug/L	1.0	SW846 8260D	1	05/29/2024 06:04	PDK	B
cis-1,2-Dichloroethene	1.0 U	U	ug/L	1.0	SW846 8260D	1	05/29/2024 06:04	PDK	B
cis-1,3-Dichloropropene	1.0 U	U	ug/L	1.0	SW846 8260D	1	05/29/2024 06:04	PDK	B
Dibromomethane	1.0 U	U	ug/L	1.0	SW846 8260D	1	05/29/2024 06:04	PDK	B
Dichlorodifluoromethane	1.0 U	U	ug/L	1.0	SW846 8260D	1	05/29/2024 06:04	PDK	B
Diisopropyl ether	1.0 U	U	ug/L	1.0	SW846 8260D	1	05/29/2024 06:04	PDK	B
Ethylbenzene	1.0 U	U	ug/L	1.0	SW846 8260D	1	05/29/2024 06:04	PDK	B
Hexachlorobutadiene	5.0 U	U	ug/L	5.0	SW846 8260D	1	05/29/2024 06:04	PDK	B
Methyl t-Butyl Ether	1.1		ug/L	1.0	SW846 8260D	1	05/29/2024 06:04	PDK	B
Methylene Chloride	1.0 U	U	ug/L	1.0	SW846 8260D	1	05/29/2024 06:04	PDK	B
mp-Xylene	2.0 U	U	ug/L	2.0	SW846 8260D	1	05/29/2024 06:04	PDK	B
Naphthalene	2.0 U	U	ug/L	2.0	SW846 8260D	1	05/29/2024 06:04	PDK	B
o-Chlorotoluene	1.0 U	U	ug/L	1.0	SW846 8260D	1	05/29/2024 06:04	PDK	B
o-Xylene	1.0 U	U	ug/L	1.0	SW846 8260D	1	05/29/2024 06:04	PDK	B
p-Chlorotoluene	1.0 U	U	ug/L	1.0	SW846 8260D	1	05/29/2024 06:04	PDK	B
p-Isopropyltoluene	1.0 U	U	ug/L	1.0	SW846 8260D	1	05/29/2024 06:04	PDK	B
Styrene	1.0 U	U	ug/L	1.0	SW846 8260D	1	05/29/2024 06:04	PDK	B
Tetrachloroethene	1.0 U	U	ug/L	1.0	SW846 8260D	1	05/29/2024 06:04	PDK	B
Toluene	1.0 U	U	ug/L	1.0	SW846 8260D	1	05/29/2024 06:04	PDK	B
Total Xylenes	3.0 U	U	ug/L	3.0	SW846 8260D	1	05/29/2024 06:04	PDK	B
trans-1,2-Dichloroethene	1.0 U	U	ug/L	1.0	SW846 8260D	1	05/29/2024 06:04	PDK	B
trans-1,3-Dichloropropene	1.0 U	U	ug/L	1.0	SW846 8260D	1	05/29/2024 06:04	PDK	B
Trichloroethene	1.0 U	U	ug/L	1.0	SW846 8260D	1	05/29/2024 06:04	PDK	B
Trichlorofluoromethane	1.0 U	U	ug/L	1.0	SW846 8260D	1	05/29/2024 06:04	PDK	B
Vinyl Acetate	5.0 U	U	ug/L	5.0	SW846 8260D	1	05/29/2024 06:04	PDK	B
Vinyl Chloride	1.0 U	U	ug/L	1.0	SW846 8260D	1	05/29/2024 06:04	PDK	B

SURROGATES

Compound	CAS No	Recovery	Limits(%)	Analysis Date/Time	Qualifiers
1,2-Dichloroethane-d4	17060-07-0	107%	62 – 133	05/29/2024 06:04	
4-Bromofluorobenzene	460-00-4	97.7%	79 – 114	05/29/2024 06:04	
Dibromofluoromethane	1868-53-7	95%	78 – 116	05/29/2024 06:04	
Toluene-d8	2037-26-5	91.9%	76 – 127	05/29/2024 06:04	

Results

Client Sample ID	Trip Blank-B	Collected	05/19/2024 00:00
Lab Sample ID	3360617017	Lab Receipt	05/20/2024 19:20

VOLATILE ORGANICS

Compound	Result	Flag	Units	RDL	Method	Dilution	Analysis Date/Time	By	Cntr
1,1,1,2-Tetrachloroethane	1.0 U	U	ug/L	1.0	SW846 8260D	1	05/29/2024 06:25	PDK	B
1,1,1-Trichloroethane	1.0 U	U	ug/L	1.0	SW846 8260D	1	05/29/2024 06:25	PDK	B
1,1,2,2-Tetrachloroethane	1.0 U	U	ug/L	1.0	SW846 8260D	1	05/29/2024 06:25	PDK	B
1,1,2-Trichloroethane	1.0 U	U	ug/L	1.0	SW846 8260D	1	05/29/2024 06:25	PDK	B
1,1-Dichloroethane	1.0 U	U	ug/L	1.0	SW846 8260D	1	05/29/2024 06:25	PDK	B
1,1-Dichloroethene	1.0 U	U	ug/L	1.0	SW846 8260D	1	05/29/2024 06:25	PDK	B
1,1-Dichloropropene	1.0 U	U	ug/L	1.0	SW846 8260D	1	05/29/2024 06:25	PDK	B
1,2,3-Trichlorobenzene	2.0 U	U	ug/L	2.0	SW846 8260D	1	05/29/2024 06:25	PDK	B
1,2,3-Trichloropropane	2.0 U	U	ug/L	2.0	SW846 8260D	1	05/29/2024 06:25	PDK	B
1,2,4-Trichlorobenzene	2.0 U	U	ug/L	2.0	SW846 8260D	1	05/29/2024 06:25	PDK	B
1,2-Dibromo-3-chloropropane	7.0 U	U	ug/L	7.0	SW846 8260D	1	05/29/2024 06:25	PDK	B
1,2-Dibromoethane	1.0 U	U	ug/L	1.0	SW846 8260D	1	05/29/2024 06:25	PDK	B
1,2-Dichlorobenzene	1.0 U	U	ug/L	1.0	SW846 8260D	1	05/29/2024 06:25	PDK	B
1,2-Dichloroethane	1.0 U	U	ug/L	1.0	SW846 8260D	1	05/29/2024 06:25	PDK	B
1,2-Dichloropropane	1.0 U	U	ug/L	1.0	SW846 8260D	1	05/29/2024 06:25	PDK	B
1,3-Dichlorobenzene	1.0 U	U	ug/L	1.0	SW846 8260D	1	05/29/2024 06:25	PDK	B
1,3-Dichloropropane	1.0 U	U	ug/L	1.0	SW846 8260D	1	05/29/2024 06:25	PDK	B
1,4-Dichlorobenzene	1.0 U	U	ug/L	1.0	SW846 8260D	1	05/29/2024 06:25	PDK	B
2,2-Dichloropropane	1.0 U	U	ug/L	1.0	SW846 8260D	1	05/29/2024 06:25	PDK	B
2-Butanone	10.0 U	U	ug/L	10.0	SW846 8260D	1	05/29/2024 06:25	PDK	B
2-Hexanone	5.0 U	U,1	ug/L	5.0	SW846 8260D	1	05/29/2024 06:25	PDK	B
4-Methyl-2-Pentanone(MIBK)	5.0 U	U	ug/L	5.0	SW846 8260D	1	05/29/2024 06:25	PDK	B
Acetone	10.0 U	U	ug/L	10.0	SW846 8260D	1	05/29/2024 06:25	PDK	B
Benzene	1.0 U	U	ug/L	1.0	SW846 8260D	1	05/29/2024 06:25	PDK	B
Bromobenzene	1.0 U	U	ug/L	1.0	SW846 8260D	1	05/29/2024 06:25	PDK	B
Bromochloromethane	1.0 U	U	ug/L	1.0	SW846 8260D	1	05/29/2024 06:25	PDK	B
Bromodichloromethane	1.0 U	U	ug/L	1.0	SW846 8260D	1	05/29/2024 06:25	PDK	B
Bromoform	1.0 U	U	ug/L	1.0	SW846 8260D	1	05/29/2024 06:25	PDK	B
Bromomethane	1.0 U	U	ug/L	1.0	SW846 8260D	1	05/29/2024 06:25	PDK	B
Carbon Tetrachloride	1.0 U	U	ug/L	1.0	SW846 8260D	1	05/29/2024 06:25	PDK	B
Chlorobenzene	1.0 U	U	ug/L	1.0	SW846 8260D	1	05/29/2024 06:25	PDK	B
Chlorodibromomethane	1.0 U	U	ug/L	1.0	SW846 8260D	1	05/29/2024 06:25	PDK	B
Chloroethane	1.0 U	U	ug/L	1.0	SW846 8260D	1	05/29/2024 06:25	PDK	B
Chloroform	1.0 U	U	ug/L	1.0	SW846 8260D	1	05/29/2024 06:25	PDK	B
Chloromethane	1.0 U	U	ug/L	1.0	SW846 8260D	1	05/29/2024 06:25	PDK	B
cis-1,2-Dichloroethene	1.0 U	U	ug/L	1.0	SW846 8260D	1	05/29/2024 06:25	PDK	B
cis-1,3-Dichloropropene	1.0 U	U	ug/L	1.0	SW846 8260D	1	05/29/2024 06:25	PDK	B
Dibromomethane	1.0 U	U	ug/L	1.0	SW846 8260D	1	05/29/2024 06:25	PDK	B
Dichlorodifluoromethane	1.0 U	U	ug/L	1.0	SW846 8260D	1	05/29/2024 06:25	PDK	B
Diisopropyl ether	1.0 U	U	ug/L	1.0	SW846 8260D	1	05/29/2024 06:25	PDK	B
Ethylbenzene	1.0 U	U	ug/L	1.0	SW846 8260D	1	05/29/2024 06:25	PDK	B
Hexachlorobutadiene	5.0 U	U	ug/L	5.0	SW846 8260D	1	05/29/2024 06:25	PDK	B
Methyl t-Butyl Ether	1.0 U	U	ug/L	1.0	SW846 8260D	1	05/29/2024 06:25	PDK	B
Methylene Chloride	1.0 U	U	ug/L	1.0	SW846 8260D	1	05/29/2024 06:25	PDK	B
mp-Xylene	2.0 U	U	ug/L	2.0	SW846 8260D	1	05/29/2024 06:25	PDK	B
Naphthalene	2.0 U	U	ug/L	2.0	SW846 8260D	1	05/29/2024 06:25	PDK	B
o-Chlorotoluene	1.0 U	U	ug/L	1.0	SW846 8260D	1	05/29/2024 06:25	PDK	B

Results

Client Sample ID	Trip Blank-B	Collected	05/19/2024 00:00
Lab Sample ID	3360617017	Lab Receipt	05/20/2024 19:20

VOLATILE ORGANICS (cont.)

Compound	Result	Flag	Units	RDL	Method	Dilution	Analysis Date/Time	By	Cntr
o-Xylene	1.0 U	U	ug/L	1.0	SW846 8260D	1	05/29/2024 06:25	PDK	B
p-Chlorotoluene	1.0 U	U	ug/L	1.0	SW846 8260D	1	05/29/2024 06:25	PDK	B
p-Isopropyltoluene	1.0 U	U	ug/L	1.0	SW846 8260D	1	05/29/2024 06:25	PDK	B
Styrene	1.0 U	U	ug/L	1.0	SW846 8260D	1	05/29/2024 06:25	PDK	B
Tetrachloroethene	1.0 U	U	ug/L	1.0	SW846 8260D	1	05/29/2024 06:25	PDK	B
Toluene	1.0 U	U	ug/L	1.0	SW846 8260D	1	05/29/2024 06:25	PDK	B
Total Xylenes	3.0 U	U	ug/L	3.0	SW846 8260D	1	05/29/2024 06:25	PDK	B
trans-1,2-Dichloroethene	1.0 U	U	ug/L	1.0	SW846 8260D	1	05/29/2024 06:25	PDK	B
trans-1,3-Dichloropropene	1.0 U	U	ug/L	1.0	SW846 8260D	1	05/29/2024 06:25	PDK	B
Trichloroethene	1.0 U	U	ug/L	1.0	SW846 8260D	1	05/29/2024 06:25	PDK	B
Trichlorofluoromethane	1.0 U	U	ug/L	1.0	SW846 8260D	1	05/29/2024 06:25	PDK	B
Vinyl Acetate	5.0 U	U	ug/L	5.0	SW846 8260D	1	05/29/2024 06:25	PDK	B
Vinyl Chloride	1.0 U	U	ug/L	1.0	SW846 8260D	1	05/29/2024 06:25	PDK	B

SURROGATES

Compound	CAS No	Recovery	Limits(%)	Analysis Date/Time	Qualifiers
1,2-Dichloroethane-d4	17060-07-0	111%	62 – 133	05/29/2024 06:25	
4-Bromofluorobenzene	460-00-4	93.5%	79 – 114	05/29/2024 06:25	
Dibromofluoromethane	1868-53-7	97.9%	78 – 116	05/29/2024 06:25	
Toluene-d8	2037-26-5	92.3%	76 – 127	05/29/2024 06:25	

Sample - Method Cross Reference Table

Lab ID	Sample ID	Analysis Method	Preparation Method	Leachate Method
3360617001	MW-22D	SW846 8270E SIM	SW846 3510C	
		SW846 8260D	N/A	
3360617002	MW-04R	SW846 8270E SIM	SW846 3510C	
		SW846 8260D	N/A	
3360617003	MW-44	SW846 8270E SIM	SW846 3510C	
		SW846 8260D	N/A	
3360617004	MW-21D	SW846 8270E SIM	SW846 3510C	
		SW846 8260D	N/A	
3360617005	MW-01D	SW846 8270E SIM	SW846 3510C	
		SW846 8260D	N/A	
3360617007	MW-20	SW846 8270E SIM	SW846 3510C	
		SW846 8260D	N/A	
3360617008	MW-16	SW846 8270E SIM	SW846 3510C	
		SW846 8260D	N/A	
3360617009	MW-16D	SW846 8270E SIM	SW846 3510C	
		SW846 8260D	N/A	
3360617010	Trip Blank-A	SW846 8260D	N/A	
3360617011	MW-43	SW846 8270E SIM	SW846 3510C	
		SW846 8260D	N/A	
3360617012	MW-42	SW846 8270E SIM	SW846 3510C	
		SW846 8260D	N/A	
3360617013	MW-38R	SW846 8270E SIM	SW846 3510C	
		SW846 8260D	N/A	
3360617014	MW-09	SW846 8270E SIM	SW846 3510C	
		SW846 8260D	N/A	
3360617015	MW-23D	SW846 8270E SIM	SW846 3510C	
		SW846 8260D	N/A	
3360617016	MW-100	SW846 8270E SIM	SW846 3510C	
		SW846 8260D	N/A	
3360617017	Trip Blank-B	SW846 8260D	N/A	

QUALITY CONTROL SAMPLES

SEMIVOLATILE SIM

QC Batch

QC Batch	1207715	Prep Method	SW846 3510C
Date	05/22/2024 11:25	Analysis Method	SW846 8270E SIM
Tech.	MJA		

Associated Samples

3360617001	3360617002	3360617003	3360617004
3360617005	3360617007	3360617008	3360617009
3360617011	3360617012	3360617013	3360617014
3360617015	3360617016		

Method Blank 3828955 (MB) Created on 05/22/2024 06:55 For QC Batch 1207715

RESULTS

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

SURROGATES

Compound	CAS No		Result (ug/L)	Expected (ug/L)	Rec. (%)	Limits (%)	Qualifiers
2-Methylnapthalene-d10	7297-45-2	BLK	0.74	1	73.9	29 - 112	
Fluoranthene-d10	93951-69-0	BLK	0.88	1	88.1	45 - 130	

Lab Control Standard 3828956 (LCS) Created on 05/22/2024 06:55 For QC Batch 1207715

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	0.37		1	37.3	22 - 75		U

SURROGATES

Compound	CAS No		Result (ug/L)	Expected (ug/L)	Rec. (%)	Limits (%)	Qualifiers
2-Methylnapthalene-d10	7297-45-2	LCS	0.86	1	86	29 - 112	
Fluoranthene-d10	93951-69-0	LCS	0.97	1	97	45 - 130	

Matrix Spike 3828957 (MS) 3360617004 For QC Batch 1207715

****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	4.60	4.30	1	NC	22 - 75		

SURROGATES

Compound	CAS No		Result (ug/L)	Expected (ug/L)	Rec. (%)	Limits (%)	Qualifiers
2-Methylnapthalene-d10	7297-45-2	MS	0.79	1	77.5	29 - 112	

QUALITY CONTROL SAMPLES

SEMIVOLATILE SIM (cont.)

SURROGATES

Compound	CAS No		Result (ug/L)	Expected (ug/L)	Rec. (%)	Limits (%)	Qualifiers
Fluoranthene-d10	93951-69-0	MS	0.94	1	92.5	45 - 130	

Duplicate 3828958 (DUP) 3360617007 For QC Batch 1207715

****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	404.3070	396.4130	RPD 1.97 (Max-30)	

SURROGATES

Compound	CAS No		Result (ug/L)	Expected (ug/L)	Rec. (%)	Limits (%)	Qualifiers
2-Methylnapthalene-d10	7297-45-2	DUP	0.82	1	78.7	29 - 112	
2-Methylnapthalene-d10	7297-45-2	DUP	5.80	1	562*	29 - 112	
Fluoranthene-d10	93951-69-0	DUP	1	1	99	45 - 130	

QUALITY CONTROL SAMPLES

VOLATILE ORGANICS

QC Batch

QC Batch	1209122	Prep Method	N/A
Date	N/A	Analysis Method	SW846 8260D
Tech.			

Associated Samples

3360617010

Method Blank 3830467 (MB) Created on 05/24/2024 13:31 For QC Batch 1209122

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
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

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	32.30	30	108	62 - 133	
4-Bromofluorobenzene	460-00-4	BLK	29.70	30	99.1	79 - 114	
Dibromofluoromethane	1868-53-7	BLK	31.20	30	104	78 - 116	
Toluene-d8	2037-26-5	BLK	29.30	30	97.6	76 - 127	

Lab Control Standard 3830468 (LCS) Created on 05/24/2024 13:31 For QC Batch 1209122

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	22.20		20	111	78 - 121		
1,1,1-Trichloroethane	71-55-6	LCS	22.10		20	111	66 - 130		
1,1,2,2-Tetrachloroethane	79-34-5	LCS	19		20	95.2	74 - 135		
1,1,2-Trichloroethane	79-00-5	LCS	19.10		20	95.7	82 - 126		
1,1-Dichloroethane	75-34-3	LCS	19.50		20	97.4	78 - 124		
1,1-Dichloroethene	75-35-4	LCS	20.40		20	102	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	100	61 - 126		
1,2,3-Trichloropropane	96-18-4	LCS	19.20		20	96.1	75 - 132		
1,2,4-Trichlorobenzene	120-82-1	LCS	20.80		20	104	67 - 123		
1,2-Dibromo-3-chloropropane	96-12-8	LCS	18		20	89.9	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		20	100	80 - 124		
1,2-Dichlorobenzene	95-50-1	LCS	19.70		20	98.7	82 - 118		
1,2-Dichloroethane	107-06-2	LCS	21.10		20	105	70 - 133		
1,2-Dichloropropane	78-87-5	LCS	18.80		20	94	81 - 127		
1,3-Dichlorobenzene	541-73-1	LCS	19.80		20	98.8	81 - 118		
1,3-Dichloropropane	142-28-9	LCS	19.30		20	96.6	82 - 126		
1,4-Dichlorobenzene	106-46-7	LCS	20.40		20	102	81 - 116		
2,2-Dichloropropane	594-20-7	LCS	22.20		20	111	64 - 129		
2-Butanone	78-93-3	LCS	95.80		100	95.8	50 - 152		
2-Hexanone	591-78-6	LCS	96		100	96	65 - 154		
4-Methyl-2-Pentanone(MIBK)	108-10-1	LCS	94.60		100	94.6	71 - 146		
Acetone	67-64-1	LCS	96.70		100	96.7	40 - 151		
Benzene	71-43-2	LCS	20.50		20	103	80 - 124		
Bromobenzene	108-86-1	LCS	20.20		20	101	81 - 119		
Bromochloromethane	74-97-5	LCS	21.40		20	107	73 - 117		
Bromodichloromethane	75-27-4	LCS	21.50		20	108	79 - 126		
Bromoform	75-25-2	LCS	18.90		20	94.3	70 - 123		
Bromomethane	74-83-9	LCS	22.20		20	111	45 - 148		
Carbon Tetrachloride	56-23-5	LCS	22.40		20	112	62 - 132		
Chlorobenzene	108-90-7	LCS	20.40		20	102	85 - 117		
Chlorodibromomethane	124-48-1	LCS	21.40		20	107	77 - 122		
Chloroethane	75-00-3	LCS	22.30		20	111	51 - 142		
Chloroform	67-66-3	LCS	20.90		20	105	78 - 122		
Chloromethane	74-87-3	LCS	15.30		20	76.7	38 - 156		
cis-1,2-Dichloroethene	156-59-2	LCS	20		20	100	78 - 125		
cis-1,3-Dichloropropene	10061-01-5	LCS	19.70		20	98.4	81 - 121		
Dibromomethane	74-95-3	LCS	20.10		20	100	81 - 125		
Dichlorodifluoromethane	75-71-8	LCS	23.70		20	118	17 - 166		
Diisopropyl ether	108-20-3	LCS	18.40		20	92.1	74 - 131		
Ethylbenzene	100-41-4	LCS	20.60		20	103	80 - 124		
Hexachlorobutadiene	87-68-3	LCS	22.50		20	112	55 - 128		
Methyl t-Butyl Ether	1634-04-4	LCS	20.80		20	104	69 - 115		
Methylene Chloride	75-09-2	LCS	19.70		20	98.3	76 - 121		
mp-Xylene	108383/106423	LCS	41.70		40	104	79 - 125		
Naphthalene	91-20-3	LCS	19.70		20	98.4	56 - 134		
o-Chlorotoluene	95-49-8	LCS	19.20		20	95.8	78 - 126		
o-Xylene	95-47-6	LCS	19.90		20	99.7	79 - 124		
p-Chlorotoluene	106-43-4	LCS	19.30		20	96.6	78 - 125		
p-Isopropyltoluene	99-87-6	LCS	19.40		20	97.1	72 - 123		
Styrene	100-42-5	LCS	19.80		20	99.2	79 - 123		
Tetrachloroethene	127-18-4	LCS	21.20		20	106	72 - 124		
Toluene	108-88-3	LCS	19.80		20	98.8	80 - 125		
Total Xylenes	1330-20-7	LCS	61.60		60	103	79 - 125		
trans-1,2-Dichloroethene	156-60-5	LCS	19.60		20	98.1	71 - 122		
trans-1,3-Dichloropropene	10061-02-6	LCS	20.80		20	104	78 - 126		
Trichloroethene	79-01-6	LCS	20.50		20	102	77 - 124		
Trichlorofluoromethane	75-69-4	LCS	24.20		20	121	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	20.30		20	101	58 - 136		
Vinyl Chloride	75-01-4	LCS	21.70		20	109	27 - 138		

SURROGATES

Compound	CAS No		Result (ug/L)	Expected (ug/L)	Rec. (%)	Limits (%)	Qualifiers
1,2-Dichloroethane-d4	17060-07-0	LCS	33.10	30	110	62 - 133	
4-Bromofluorobenzene	460-00-4	LCS	31.20	30	104	79 - 114	
Dibromofluoromethane	1868-53-7	LCS	31.40	30	105	78 - 116	
Toluene-d8	2037-26-5	LCS	30	30	100	76 - 127	

QC Batch

QC Batch	1210108	Prep Method	N/A
Date	N/A	Analysis Method	SW846 8260D
Tech.			

Associated Samples

3360617001	3360617002	3360617003	3360617005
3360617007	3360617008	3360617009	3360617011
3360617012	3360617013	3360617014	3360617015
3360617016	3360617017		

Method Blank 3831387 (MB) Created on 05/29/2024 00:12 For QC Batch 1210108

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

QUALITY CONTROL SAMPLES

VOLATILE ORGANICS (cont.)

RESULTS

Compound	CAS No		Result	Units	RDL	Qualifiers
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
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	32.70	30	109	62 - 133	
4-Bromofluorobenzene	460-00-4	BLK	28.70	30	95.7	79 - 114	
Dibromofluoromethane	1868-53-7	BLK	29.40	30	98	78 - 116	
Toluene-d8	2037-26-5	BLK	28.30	30	94.3	76 - 127	

QUALITY CONTROL SAMPLES

VOLATILE ORGANICS (cont.)

Lab Control Standard 3831388 (LCS) Created on 05/29/2024 00:12 For QC Batch 1210108

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	20.10		20	101	78 - 121		
1,1,1-Trichloroethane	71-55-6	LCS	21.50		20	108	66 - 130		
1,1,2,2-Tetrachloroethane	79-34-5	LCS	20.90		20	105	74 - 135		
1,1,2-Trichloroethane	79-00-5	LCS	19.80		20	99	82 - 126		
1,1-Dichloroethane	75-34-3	LCS	21.50		20	107	78 - 124		
1,1-Dichloroethene	75-35-4	LCS	23.20		20	116	63 - 128		
1,1-Dichloropropene	563-58-6	LCS	21.70		20	109	76 - 126		
1,2,3-Trichlorobenzene	87-61-6	LCS	18.30		20	91.4	61 - 126		
1,2,3-Trichloropropane	96-18-4	LCS	20.30		20	102	75 - 132		
1,2,4-Trichlorobenzene	120-82-1	LCS	19.30		20	96.4	67 - 123		
1,2-Dibromo-3-chloropropane	96-12-8	LCS	15.90		20	79.7	59 - 133		
1,2-Dibromoethane	106-93-4	LCS	19.20		20	96	80 - 124		
1,2-Dichlorobenzene	95-50-1	LCS	19.80		20	99.2	82 - 118		
1,2-Dichloroethane	107-06-2	LCS	20.80		20	104	70 - 133		
1,2-Dichloropropane	78-87-5	LCS	21.70		20	108	81 - 127		
1,3-Dichlorobenzene	541-73-1	LCS	19.10		20	95.4	81 - 118		
1,3-Dichloropropane	142-28-9	LCS	19.60		20	98	82 - 126		
1,4-Dichlorobenzene	106-46-7	LCS	19.60		20	97.8	81 - 116		
2,2-Dichloropropane	594-20-7	LCS	23.70		20	118	64 - 129		
2-Butanone	78-93-3	LCS	103		100	103	50 - 152		
2-Hexanone	591-78-6	LCS	115		100	115	65 - 154		
4-Methyl-2-Pentanone(MIBK)	108-10-1	LCS	113		100	113	71 - 146		
Acetone	67-64-1	LCS	107		100	107	40 - 151		
Benzene	71-43-2	LCS	21.20		20	106	80 - 124		
Bromobenzene	108-86-1	LCS	19.10		20	95.7	81 - 119		
Bromochloromethane	74-97-5	LCS	20.60		20	103	73 - 117		
Bromodichloromethane	75-27-4	LCS	21.70		20	108	79 - 126		
Bromoform	75-25-2	LCS	18.10		20	90.3	70 - 123		
Bromomethane	74-83-9	LCS	24.40		20	122	45 - 148		
Carbon Tetrachloride	56-23-5	LCS	21.90		20	109	62 - 132		
Chlorobenzene	108-90-7	LCS	18.80		20	93.8	85 - 117		
Chlorodibromomethane	124-48-1	LCS	16.90		20	84.4	77 - 122		
Chloroethane	75-00-3	LCS	21.20		20	106	51 - 142		
Chloroform	67-66-3	LCS	22.10		20	110	78 - 122		
Chloromethane	74-87-3	LCS	20.20		20	101	38 - 156		
cis-1,2-Dichloroethene	156-59-2	LCS	21.60		20	108	78 - 125		
cis-1,3-Dichloropropene	10061-01-5	LCS	20.70		20	103	81 - 121		
Dibromomethane	74-95-3	LCS	20.40		20	102	81 - 125		
Dichlorodifluoromethane	75-71-8	LCS	19.30		20	96.7	17 - 166		
Diisopropyl ether	108-20-3	LCS	22.90		20	115	74 - 131		
Ethylbenzene	100-41-4	LCS	19.80		20	98.8	80 - 124		
Hexachlorobutadiene	87-68-3	LCS	19.90		20	99.5	55 - 128		
Methyl t-Butyl Ether	1634-04-4	LCS	21.70		20	108	69 - 115		
Methylene Chloride	75-09-2	LCS	21		20	105	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	39.10		40	97.7	79 - 125		
Naphthalene	91-20-3	LCS	20.60		20	103	56 - 134		
o-Chlorotoluene	95-49-8	LCS	20.60		20	103	78 - 126		
o-Xylene	95-47-6	LCS	18.90		20	94.6	79 - 124		
p-Chlorotoluene	106-43-4	LCS	20.90		20	104	78 - 125		
p-Isopropyltoluene	99-87-6	LCS	19.20		20	96	72 - 123		
Styrene	100-42-5	LCS	21.70		20	109	79 - 123		
Tetrachloroethene	127-18-4	LCS	19.60		20	98.1	72 - 124		
Toluene	108-88-3	LCS	19.20		20	95.8	80 - 125		
Total Xylenes	1330-20-7	LCS	58		60	96.6	79 - 125		
trans-1,2-Dichloroethene	156-60-5	LCS	22.20		20	111	71 - 122		
trans-1,3-Dichloropropene	10061-02-6	LCS	20.90		20	105	78 - 126		
Trichloroethene	79-01-6	LCS	21.30		20	106	77 - 124		
Trichlorofluoromethane	75-69-4	LCS	22.50		20	113	38 - 123		
Vinyl Acetate	108-05-4	LCS	19.20		20	96	58 - 136		
Vinyl Chloride	75-01-4	LCS	19.90		20	99.5	27 - 138		

SURROGATES

Compound	CAS No		Result (ug/L)	Expected (ug/L)	Rec. (%)	Limits (%)	Qualifiers
1,2-Dichloroethane-d4	17060-07-0	LCS	29.70	30	99.1	62 - 133	
4-Bromofluorobenzene	460-00-4	LCS	27.80	30	92.7	79 - 114	
Dibromofluoromethane	1868-53-7	LCS	29.50	30	98.4	78 - 116	
Toluene-d8	2037-26-5	LCS	28.20	30	94.1	76 - 127	

QC Batch

QC Batch	1210272	Prep Method	N/A
Date	N/A	Analysis Method	SW846 8260D
Tech.			

Associated Samples

3360617004

Matrix Spike 3831901 (MS) 3360622012 (non-Project Sample) For QC Batch 1210272

****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 3831902 (MSD) 3360622012 (non-Project Sample) For QC Batch 1210272

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	20.40	0	20	102	78 - 121		
1,1,1,2-Tetrachloroethane	630-20-6	MSD	19.50	0	20	97.6	78 - 121	RPD 4.17 (Max-16)	
1,1,1-Trichloroethane	71-55-6	MS	23.70	0	20	118	66 - 130		
1,1,1-Trichloroethane	71-55-6	MSD	22.50	0	20	113	66 - 130	RPD 4.95 (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	22.50	0	20	113	74 - 135		
1,1,2,2-Tetrachloroethane	79-34-5	MSD	22.60	0	20	113	74 - 135	RPD 0.09 (Max-16)	
1,1,2-Trichloroethane	79-00-5	MS	20.90	0	20	104	82 - 126		
1,1,2-Trichloroethane	79-00-5	MSD	19.60	0	20	98.2	82 - 126	RPD 6.15 (Max-15)	
1,1-Dichloroethane	75-34-3	MS	24.80	0.41	20	122	78 - 124		
1,1-Dichloroethane	75-34-3	MSD	23.40	0.41	20	115	78 - 124	RPD 5.88 (Max-15)	
1,1-Dichloroethene	75-35-4	MS	40.20	13.20	20	135*	63 - 128		
1,1-Dichloroethene	75-35-4	MSD	38.10	13.20	20	125	63 - 128	RPD 5.52 (Max-21)	
1,1-Dichloropropene	563-58-6	MS	23.50	0	20	117	76 - 126		
1,1-Dichloropropene	563-58-6	MSD	22.10	0	20	111	76 - 126	RPD 5.98 (Max-16)	
1,2,3-Trichlorobenzene	87-61-6	MS	18.50	0	20	92.7	61 - 126		
1,2,3-Trichlorobenzene	87-61-6	MSD	18.40	0	20	92	61 - 126	RPD 0.78 (Max-36)	
1,2,3-Trichloropropane	96-18-4	MS	20.80	0	20	104	75 - 132		
1,2,3-Trichloropropane	96-18-4	MSD	22	0	20	110	75 - 132	RPD 5.80 (Max-19)	
1,2,4-Trichlorobenzene	120-82-1	MS	17.80	0	20	89.1	67 - 123		
1,2,4-Trichlorobenzene	120-82-1	MSD	17.20	0	20	86.1	67 - 123	RPD 3.40 (Max-22)	
1,2-Dibromo-3-chloropropane	96-12-8	MS	17.40	0	20	86.9	59 - 133		
1,2-Dibromo-3-chloropropane	96-12-8	MSD	17.90	0	20	89.7	59 - 133	RPD 3.24 (Max-26)	
1,2-Dibromoethane	106-93-4	MS	20	0	20	100	80 - 124		
1,2-Dibromoethane	106-93-4	MSD	19	0	20	95.2	80 - 124	RPD 5.14 (Max-19)	
1,2-Dichlorobenzene	95-50-1	MS	19.90	0	20	99.5	82 - 118		
1,2-Dichlorobenzene	95-50-1	MSD	19.30	0	20	96.4	82 - 118	RPD 3.14 (Max-15)	
1,2-Dichloroethane	107-06-2	MS	23.20	0	20	116	70 - 133		
1,2-Dichloroethane	107-06-2	MSD	22.10	0	20	111	70 - 133	RPD 4.84 (Max-19)	
1,2-Dichloropropane	78-87-5	MS	23.70	0	20	119	81 - 127		
1,2-Dichloropropane	78-87-5	MSD	22.40	0	20	112	81 - 127	RPD 5.44 (Max-15)	
1,3-Dichlorobenzene	541-73-1	MS	19.50	0	20	97.3	81 - 118		
1,3-Dichlorobenzene	541-73-1	MSD	19.10	0	20	95.6	81 - 118	RPD 1.74 (Max-16)	
1,3-Dichloropropane	142-28-9	MS	20.90	0	20	104	82 - 126		
1,3-Dichloropropane	142-28-9	MSD	19.70	0	20	98.5	82 - 126	RPD 5.91 (Max-15)	
1,4-Dichlorobenzene	106-46-7	MS	19.50	0	20	97.5	81 - 116		
1,4-Dichlorobenzene	106-46-7	MSD	19.40	0	20	96.9	81 - 116	RPD 0.71 (Max-15)	
2,2-Dichloropropane	594-20-7	MS	23.40	0	20	117	64 - 129		
2,2-Dichloropropane	594-20-7	MSD	21.80	0	20	109	64 - 129	RPD 7.05 (Max-18)	
2-Butanone	78-93-3	MS	116	0	100	116	50 - 152		
2-Butanone	78-93-3	MSD	116	0	100	116	50 - 152	RPD 0.09 (Max-16)	
2-Hexanone	591-78-6	MS	115	0	100	115	65 - 154		
2-Hexanone	591-78-6	MSD	112	0	100	112	65 - 154	RPD 2.42 (Max-17)	
4-Methyl-2-Pentanone(MIBK)	108-10-1	MS	118	0	100	118	71 - 146		
4-Methyl-2-Pentanone(MIBK)	108-10-1	MSD	114	0	100	114	71 - 146	RPD 3.19 (Max-16)	
Acetone	67-64-1	MS	101	0	100	101	40 - 151		
Acetone	67-64-1	MSD	103	0	100	103	40 - 151	RPD 2.37 (Max-40)	
Benzene	71-43-2	MS	23.20	0	20	116	80 - 124		
Benzene	71-43-2	MSD	22	0	20	110	80 - 124	RPD 5.37 (Max-26)	
Bromobenzene	108-86-1	MS	20.60	0	20	103	81 - 119		
Bromobenzene	108-86-1	MSD	20.70	0	20	103	81 - 119	RPD 0.34 (Max-17)	
Bromochloromethane	74-97-5	MS	22.80	0	20	114	73 - 117		
Bromochloromethane	74-97-5	MSD	21.80	0	20	109	73 - 117	RPD 4.51 (Max-19)	
Bromodichloromethane	75-27-4	MS	23.10	0	20	116	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	22.10	0	20	110	79 - 126	RPD 4.80 (Max-16)	
Bromoform	75-25-2	MS	17.50	0	20	87.3	70 - 123		
Bromoform	75-25-2	MSD	18	0	20	90.2	70 - 123	RPD 3.25 (Max-16)	
Bromomethane	74-83-9	MS	24.20	0	20	121	45 - 148		
Bromomethane	74-83-9	MSD	23.70	0	20	118	45 - 148	RPD 2.36 (Max-26)	
Carbon Tetrachloride	56-23-5	MS	28.20	0	20	141*	62 - 132		
Carbon Tetrachloride	56-23-5	MSD	26.90	0	20	134*	62 - 132	RPD 4.74 (Max-17)	
Chlorobenzene	108-90-7	MS	19.50	0	20	97.6	85 - 117		
Chlorobenzene	108-90-7	MSD	18.30	0	20	91.3	85 - 117	RPD 6.75 (Max-15)	
Chlorodibromomethane	124-48-1	MS	17.20	0	20	86.2	77 - 122		
Chlorodibromomethane	124-48-1	MSD	16.70	0	20	83.3	77 - 122	RPD 3.51 (Max-15)	
Chloroethane	75-00-3	MS	23.10	0	20	116	51 - 142		
Chloroethane	75-00-3	MSD	21.80	0	20	109	51 - 142	RPD 5.98 (Max-24)	
Chloroform	67-66-3	MS	23.60	0	20	118	78 - 122		
Chloroform	67-66-3	MSD	22.30	0	20	112	78 - 122	RPD 5.69 (Max-16)	
Chloromethane	74-87-3	MS	21.70	0	20	108	38 - 156		
Chloromethane	74-87-3	MSD	20.30	0	20	101	38 - 156	RPD 6.72 (Max-27)	
cis-1,2-Dichloroethene	156-59-2	MS	24	0	20	120	78 - 125		
cis-1,2-Dichloroethene	156-59-2	MSD	22.50	0	20	112	78 - 125	RPD 6.50 (Max-21)	
cis-1,3-Dichloropropene	10061-01-5	MS	21.20	0	20	106	81 - 121		
cis-1,3-Dichloropropene	10061-01-5	MSD	20	0	20	99.8	81 - 121	RPD 6.20 (Max-16)	
Dibromomethane	74-95-3	MS	21.80	0	20	109	81 - 125		
Dibromomethane	74-95-3	MSD	21.30	0	20	106	81 - 125	RPD 2.51 (Max-16)	
Dichlorodifluoromethane	75-71-8	MS	20.10	0	20	101	17 - 166		
Dichlorodifluoromethane	75-71-8	MSD	18.90	0	20	94.6	17 - 166	RPD 6.20 (Max-24)	
Diisopropyl ether	108-20-3	MS	25.50	0	20	127	74 - 131		
Diisopropyl ether	108-20-3	MSD	24.50	0	20	122	74 - 131	RPD 4.12 (Max-15)	
Ethylbenzene	100-41-4	MS	20.80	0	20	104	80 - 124		
Ethylbenzene	100-41-4	MSD	18.90	0	20	94.7	80 - 124	RPD 9.48 (Max-19)	
Hexachlorobutadiene	87-68-3	MS	16.80	0	20	84.1	55 - 128		
Hexachlorobutadiene	87-68-3	MSD	17.30	0	20	86.7	55 - 128	RPD 3.14 (Max-35)	
Methyl t-Butyl Ether	1634-04-4	MS	23.50	0	20	117*	69 - 115		
Methyl t-Butyl Ether	1634-04-4	MSD	22.80	0	20	114	69 - 115	RPD 3.11 (Max-20)	
Methylene Chloride	75-09-2	MS	22.90	0	20	115	76 - 121		
Methylene Chloride	75-09-2	MSD	21.60	0	20	108	76 - 121	RPD 5.79 (Max-17)	
mp-Xylene	108383/106423	MS	39.80	0	40	99.4	79 - 125		
mp-Xylene	108383/106423	MSD	37	0	40	92.6	79 - 125	RPD 7.12 (Max-21)	
Naphthalene	91-20-3	MS	19.80	0	20	99	56 - 134		
Naphthalene	91-20-3	MSD	20	0	20	100	56 - 134	RPD 1 (Max-40)	
o-Chlorotoluene	95-49-8	MS	21.70	0	20	108	78 - 126		
o-Chlorotoluene	95-49-8	MSD	21.10	0	20	105	78 - 126	RPD 2.85 (Max-17)	
o-Xylene	95-47-6	MS	19.60	0	20	98	79 - 124		
o-Xylene	95-47-6	MSD	18.40	0	20	91.8	79 - 124	RPD 6.56 (Max-19)	
p-Chlorotoluene	106-43-4	MS	21.40	0	20	107	78 - 125		
p-Chlorotoluene	106-43-4	MSD	20.90	0	20	105	78 - 125	RPD 2.27 (Max-16)	
p-Isopropyltoluene	99-87-6	MS	19	0	20	95	72 - 123		
p-Isopropyltoluene	99-87-6	MSD	18.60	0	20	93.2	72 - 123	RPD 1.85 (Max-17)	
Styrene	100-42-5	MS	22.30	0	20	111	79 - 123		
Styrene	100-42-5	MSD	21.40	0	20	107	79 - 123	RPD 4.06 (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	18.70	0	20	93.3	72 - 124		
Tetrachloroethene	127-18-4	MSD	17.60	0	20	88.1	72 - 124	RPD 5.78 (Max-38)	
Toluene	108-88-3	MS	20.80	0	20	104	80 - 125		
Toluene	108-88-3	MSD	19.10	0	20	95.7	80 - 125	RPD 8.28 (Max-20)	
Total Xylenes	1330-20-7	MS	59.40	0	60	99	79 - 125		
Total Xylenes	1330-20-7	MSD	55.40	0	60	92.3	79 - 125	RPD 6.94 (Max-35)	
trans-1,2-Dichloroethene	156-60-5	MS	24	0	20	120	71 - 122		
trans-1,2-Dichloroethene	156-60-5	MSD	23.30	0	20	116	71 - 122	RPD 3.08 (Max-22)	
trans-1,3-Dichloropropene	10061-02-6	MS	21.80	0	20	109	78 - 126		
trans-1,3-Dichloropropene	10061-02-6	MSD	20.80	0	20	104	78 - 126	RPD 5.03 (Max-18)	
Trichloroethene	79-01-6	MS	22.80	0	20	114	77 - 124		
Trichloroethene	79-01-6	MSD	21.30	0	20	106	77 - 124	RPD 6.92 (Max-18)	
Trichlorofluoromethane	75-69-4	MS	24.50	0	20	122	38 - 123		
Trichlorofluoromethane	75-69-4	MSD	23.10	0	20	116	38 - 123	RPD 5.79 (Max-23)	
Vinyl Acetate	108-05-4	MS	17.50	0	20	87.5	58 - 136		
Vinyl Acetate	108-05-4	MSD	17.60	0	20	88.1	58 - 136	RPD 0.69 (Max-17)	
Vinyl Chloride	75-01-4	MS	23.20	0	20	116	27 - 138		
Vinyl Chloride	75-01-4	MSD	21	0	20	105	27 - 138	RPD 9.81 (Max-40)	

SURROGATES

Compound	CAS No		Result (ug/L)	Expected (ug/L)	Rec. (%)	Limits (%)	Qualifiers
1,2-Dichloroethane-d4	17060-07-0	MS	34.10	30	114	62 - 133	
1,2-Dichloroethane-d4	17060-07-0	MSD	32.70	30	109	62 - 133	
4-Bromofluorobenzene	460-00-4	MS	26.90	30	89.6	79 - 114	
4-Bromofluorobenzene	460-00-4	MSD	30.60	30	102	79 - 114	
Dibromofluoromethane	1868-53-7	MS	30.50	30	102	78 - 116	
Dibromofluoromethane	1868-53-7	MSD	30.20	30	101	78 - 116	
Toluene-d8	2037-26-5	MS	27.30	30	91.2	76 - 127	
Toluene-d8	2037-26-5	MSD	27.70	30	92.2	76 - 127	

Lab Control Standard 3831816 (LCS) Created on 05/29/2024 12:49 For QC Batch 1210272

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	19.70		20	98.6	78 - 121		
1,1,1-Trichloroethane	71-55-6	LCS	21.80		20	109	66 - 130		
1,1,2,2-Tetrachloroethane	79-34-5	LCS	21.70		20	108	74 - 135		
1,1,2-Trichloroethane	79-00-5	LCS	19.60		20	97.9	82 - 126		
1,1-Dichloroethane	75-34-3	LCS	22		20	110	78 - 124		
1,1-Dichloroethene	75-35-4	LCS	24.80		20	124	63 - 128		
1,1-Dichloropropene	563-58-6	LCS	21.60		20	108	76 - 126		
1,2,3-Trichlorobenzene	87-61-6	LCS	18		20	89.8	61 - 126		
1,2,3-Trichloropropane	96-18-4	LCS	20.70		20	104	75 - 132		
1,2,4-Trichlorobenzene	120-82-1	LCS	18		20	90.2	67 - 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
1,2-Dibromo-3-chloropropane	96-12-8	LCS	16		20	80.1	59 - 133		
1,2-Dibromoethane	106-93-4	LCS	19.40		20	96.8	80 - 124		
1,2-Dichlorobenzene	95-50-1	LCS	19.10		20	95.7	82 - 118		
1,2-Dichloroethane	107-06-2	LCS	21.60		20	108	70 - 133		
1,2-Dichloropropane	78-87-5	LCS	21.70		20	109	81 - 127		
1,3-Dichlorobenzene	541-73-1	LCS	18.90		20	94.6	81 - 118		
1,3-Dichloropropane	142-28-9	LCS	19.40		20	97	82 - 126		
1,4-Dichlorobenzene	106-46-7	LCS	19.10		20	95.3	81 - 116		
2,2-Dichloropropane	594-20-7	LCS	22		20	110	64 - 129		
2-Butanone	78-93-3	LCS	103		100	103	50 - 152		
2-Hexanone	591-78-6	LCS	109		100	109	65 - 154		
4-Methyl-2-Pentanone(MIBK)	108-10-1	LCS	108		100	108	71 - 146		
Acetone	67-64-1	LCS	109		100	109	40 - 151		
Benzene	71-43-2	LCS	21.20		20	106	80 - 124		
Bromobenzene	108-86-1	LCS	19.70		20	98.5	81 - 119		
Bromochloromethane	74-97-5	LCS	20.90		20	105	73 - 117		
Bromodichloromethane	75-27-4	LCS	22.10		20	110	79 - 126		
Bromoform	75-25-2	LCS	17.40		20	87	70 - 123		
Bromomethane	74-83-9	LCS	21.90		20	110	45 - 148		
Carbon Tetrachloride	56-23-5	LCS	22.60		20	113	62 - 132		
Chlorobenzene	108-90-7	LCS	18.60		20	92.9	85 - 117		
Chlorodibromomethane	124-48-1	LCS	16.70		20	83.4	77 - 122		
Chloroethane	75-00-3	LCS	20.10		20	101	51 - 142		
Chloroform	67-66-3	LCS	21.90		20	109	78 - 122		
Chloromethane	74-87-3	LCS	19.70		20	98.3	38 - 156		
cis-1,2-Dichloroethene	156-59-2	LCS	21.90		20	110	78 - 125		
cis-1,3-Dichloropropene	10061-01-5	LCS	20		20	99.8	81 - 121		
Dibromomethane	74-95-3	LCS	21.20		20	106	81 - 125		
Dichlorodifluoromethane	75-71-8	LCS	17.50		20	87.4	17 - 166		
Diisopropyl ether	108-20-3	LCS	23.30		20	117	74 - 131		
Ethylbenzene	100-41-4	LCS	19		20	95.1	80 - 124		
Hexachlorobutadiene	87-68-3	LCS	18.70		20	93.6	55 - 128		
Methyl t-Butyl Ether	1634-04-4	LCS	22.30		20	112	69 - 115		
Methylene Chloride	75-09-2	LCS	20.90		20	105	76 - 121		
mp-Xylene	108383/106423	LCS	37.40		40	93.4	79 - 125		
Naphthalene	91-20-3	LCS	19		20	94.8	56 - 134		
o-Chlorotoluene	95-49-8	LCS	20.80		20	104	78 - 126		
o-Xylene	95-47-6	LCS	18.30		20	91.4	79 - 124		
p-Chlorotoluene	106-43-4	LCS	20.90		20	104	78 - 125		
p-Isopropyltoluene	99-87-6	LCS	18.70		20	93.7	72 - 123		
Styrene	100-42-5	LCS	20.60		20	103	79 - 123		
Tetrachloroethene	127-18-4	LCS	19.30		20	96.6	72 - 124		
Toluene	108-88-3	LCS	18.80		20	94	80 - 125		
Total Xylenes	1330-20-7	LCS	55.60		60	92.7	79 - 125		
trans-1,2-Dichloroethene	156-60-5	LCS	22.10		20	111	71 - 122		
trans-1,3-Dichloropropene	10061-02-6	LCS	20.30		20	102	78 - 126		
Trichloroethene	79-01-6	LCS	21.20		20	106	77 - 124		

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
Trichlorofluoromethane	75-69-4	LCS	21.10		20	106	38 - 123		
Vinyl Acetate	108-05-4	LCS	19.40		20	96.8	58 - 136		
Vinyl Chloride	75-01-4	LCS	19.90		20	99.4	27 - 138		

SURROGATES

Compound	CAS No		Result (ug/L)	Expected (ug/L)	Rec. (%)	Limits (%)	Qualifiers
1,2-Dichloroethane-d4	17060-07-0	LCS	33.50	30	112	62 - 133	
4-Bromofluorobenzene	460-00-4	LCS	28.20	30	94	79 - 114	
Dibromofluoromethane	1868-53-7	LCS	30.70	30	102	78 - 116	
Toluene-d8	2037-26-5	LCS	27.50	30	91.6	76 - 127	

Method Blank 3831817 (MB) Created on 05/29/2024 12:49 For QC Batch 1210272

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
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

QUALITY CONTROL SAMPLES

VOLATILE ORGANICS (cont.)

RESULTS

Compound	CAS No		Result	Units	RDL	Qualifiers
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	31.40	30	105	62 - 133	
4-Bromofluorobenzene	460-00-4	BLK	27.40	30	91.4	79 - 114	
Dibromofluoromethane	1868-53-7	BLK	28	30	93.3	78 - 116	
Toluene-d8	2037-26-5	BLK	27.90	30	93.1	76 - 127	

QUALITY CONTROL DATA CROSS REFERENCE TABLE

Lab ID	Sample ID	Preparation Method	Prep Batch	Prep Date/Time	By	Analysis Method	Anly Batch
3360617001	MW-22D	SW846 3510C N/A	1207715 N/A	05/22/2024 11:25 N/A	MJA	SW846 8270E SIM SW846 8260D	1208566 1210108
3360617002	MW-04R	SW846 3510C N/A	1207715 N/A	05/22/2024 11:25 N/A	MJA	SW846 8270E SIM SW846 8260D	1208566 1210108
3360617003	MW-44	SW846 3510C N/A	1207715 N/A	05/22/2024 11:25 N/A	MJA	SW846 8270E SIM SW846 8260D	1208566 1210108
3360617004	MW-21D	SW846 3510C N/A	1207715 N/A	05/22/2024 11:25 N/A	MJA	SW846 8270E SIM SW846 8260D	1208566 1210272
3360617005	MW-01D	SW846 3510C N/A	1207715 N/A	05/22/2024 11:25 N/A	MJA	SW846 8270E SIM SW846 8260D	1208566 1210108
3360617007	MW-20	SW846 3510C N/A	1207715 N/A	05/22/2024 11:25 N/A	MJA	SW846 8270E SIM SW846 8260D	1208566 1210108
3360617008	MW-16	SW846 3510C N/A	1207715 N/A	05/22/2024 11:25 N/A	MJA	SW846 8270E SIM SW846 8260D	1208566 1210108
3360617009	MW-16D	SW846 3510C N/A	1207715 N/A	05/22/2024 11:25 N/A	MJA	SW846 8270E SIM SW846 8260D	1208566 1210108
3360617010	Trip Blank-A	N/A	N/A	N/A		SW846 8260D	1209122
3360617011	MW-43	SW846 3510C N/A	1207715 N/A	05/22/2024 11:25 N/A	MJA	SW846 8270E SIM SW846 8260D	1208566 1210108
3360617012	MW-42	SW846 3510C N/A	1207715 N/A	05/22/2024 11:25 N/A	MJA	SW846 8270E SIM SW846 8260D	1208566 1210108
3360617013	MW-38R	SW846 3510C N/A	1207715 N/A	05/22/2024 11:25 N/A	MJA	SW846 8270E SIM SW846 8260D	1208566 1210108
3360617014	MW-09	SW846 3510C N/A	1207715 N/A	05/22/2024 11:25 N/A	MJA	SW846 8270E SIM SW846 8260D	1208566 1210108
3360617015	MW-23D	SW846 3510C N/A	1207715 N/A	05/22/2024 11:25 N/A	MJA	SW846 8270E SIM SW846 8260D	1208566 1210108
3360617016	MW-100	SW846 3510C N/A	1207715 N/A	05/22/2024 11:25 N/A	MJA	SW846 8270E SIM SW846 8260D	1208566 1210108
3360617017	Trip Blank-B	N/A	N/A	N/A		SW846 8260D	1210108

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.

3360617
Logged By: SLS
PM: SJB

3360617 of

Client Name: WSP USA

Address:
13530 Dulles Technology Dr
Suite 300
Herndon VA 20171

Contact: Eric Johnson

Phone#:

Project Name/#: Kop-Flex Onsite 31405608.010

Bill To: P102839US001

Purchase Order #: ~~P102840US001~~

TAT: [X] Normal-Standard TAT is 10-12 business days. [ ] Rush-Subject to ALS approval and surcharges.

Date Required: Approved?

Email? [ ]

	Container Type	CG	AG								
	Container Size	40	250								
	Preservative	HCl	N/A								

Orthophosphate Filtered? Yes No Hexavalent Chromium Filtered? Yes

ANALYSIS / METHOD REQUESTED

	Sample Description/Location (as it will appear on the lab report)	Date Collected mm/dd/yy	Time hh:mm	SDWA Sample Type (see key)	*G or C	**Matrix (See bottom of COC)	VOCs: EPA 8260	8270 1,4 Dioxane								
	Enter Number of Containers Per Sample or Field Results Below.															
1	MW-22D	5/19/24	1455		G	GW	2X	2X								
2	MW-04R	5/19/24	1510		G	GW	2X	2X								
3	MW-44	5/19/24	1355		G	GW	2X	2X								
4	MW-21D	5/19/24	1405		G	GW	2X	2X								
5	MW-01D	5/19/24	1435		G	GW	2X	2X								
6	MW-39	5/19/24	1345		G	GW	2X	2X								
7	MW-20	5/19/24	1515		G	GW	2X	2X								
8	MW-16	5/19/24	1605		G	GW	2X	2X								
9	MW-16D	5/19/24	1620		G	GW	2X	2X								
10	Trip Blank-A	5/19/24					2X	VOA 5/20/24								

Circle Sample Collector: ALS Tech Client
Name: ID:

Comments:

Date:	Time		Relinquished By / Company Name		Received By / Company Name
5/20/24	1555	1	Elliott / WSP	2	D. Blouch ALS
5-20-24	1726/1920	3	D. Blouch ALS	4	
	5/20/24	5		6	
		7		8	
		9		10	

(Completed by Receiving Lab)

Therm ID: WO Temp (°C)

Temp By: | WO Temp (°C) 1° | Therm ID 511

Receipt Info Completed By:
Cooler Custody Seal Intact
Sample Custody Seal Intact
Received on Ice
Cooler & Samples Intact
Correct Containers Provided
Sample Label/COC Agree
Adequate Sample Volumes
CR6 Samples Filtered
OP Samples Filtered
VOA Trip Blank
NJ≤ 4 Days?
Rad Screen (uCi)
Courier/Tracking #:

DPB

SDWA Compliance
PWSID
WV Containers 0-6°C

Containers 0-6°C Y N NA

Deviations? NO YES
If YES, list below

Client contact:
Date/Tech

Rad Screen (uCi)

New Source? Y N

New Source Contact:

PWS Contact: PWS Phone #:

SDWA Sample Type Key: D=Distribution E=Entry Point
R=Raw P=Plant C=Check S=Special A=Annual Startup

Sample/COC Remarks

Contains Short Hold Testing YES NO

Internal Use: If less than 48 hours - notify lab upon receipt

Data Deliverables: [ ] Standard Lvl 1 [ ] Standard Lvl 2 [ ] Standard Lvl 3 [ ] Standard Lvl 4 [ ] CLP-like [ ] DOD [ ] NJ RED [ ] NJ Full [ ] HSCA [ ] Landfill [ ] NJ GW

EDDs: [ ] Excel Summary [ ] Equis [ ] Custom

Sample Disposal: Lab [ ] Special [ ]

EDDS: Format Type

State Samples Collected In: [ ] NY [ ] NJ [ ] PA [ ] WV [ ] FL [ ] other

* 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=Wipe; WW=Wastewater

ALS SHIPPING ADDRESS: 301 Fulling Mill Road, Suite A, Middletown, PA 17057

Rev 07.06.2023

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.

COC #: 2 of 2 3360617 of
ALS Quote #:

Client Name: WSP USA

Address: 13530 Dulles Technology Dr Suite 300 Herndon VA

Contact: Eric Johnson

Phone#:

Project Name/#: Kop Flex Onsite 31405608.010

Bill To: P102839US001

Purchase Order #: R1038410US

TAT: [X] Normal-Standard TAT is 10-12 business days. [ ] Rush-Subject to ALS approval and surcharges.

Date Required: Approved?

Email? [ ] I

	Container Type	CG	AG								
	Container Size	40	250								
	Preservative	HCl	N/A								

Orthophosphate Filtered? Yes No Hexavalent Chromium Filtered? Yes No

ANALYSIS / METHOD REQUESTED

	Sample Description/Location (as it will appear on the lab report)	Date Collected mm/dd/yy	Time hh:mm	SDWA Sample Type (see key)	*G or C	**Matrix (See bottom of COC)	VOCs EPA 8260	8270 1,4 Dioxane								
	Enter Number of Containers Per Sample or Field Results Below.															
1	MW-43	5/19/24	1030		G	GW	2X	2X								
2	MW-42	5/19/24	1105		G	GW	2X	2X								
3	MW-38R	5/19/24	1115		G	GW	2X	2X								
4	MW-09	5/19/24	1535		G	GW	2X	2X								
5	MW-23D	5/19/24	1555		G	GW	2X	2X								
6	MW-100	5/19/24	1215		G	GW	2X	2X								
7	Trip Blank-B	5/19/24					2X									
8							5/20/24									
9																
10																

Circle Sample Collector: ALS Tech / Client
Name: ID:

Comments:

Date:	Time		Relinquished By / Company Name		Received By / Company Name
5/20/24	1555	1	[signature] / WSP	2	[signature] ALS
5-20-24	[signature] 1930	3	D. Blanchard ALS	4	
	[signature] 5/20/24	5		6	
		7		8	
		9		10	

Receipt Information (completed by Receiving Lab)
Temp Taken By: Therm ID: WO Temp (°C)
Receipt Info completed by: WV Containers 0-6°C Y N NA
Cooler Custody Seals Intact Y N NA
Sample Custody Seal Intact Y N NA
Received on Ice Y N NA
Coolers & Samples Intact Y N
Correct Containers Provided Y N
Sample Label/COC Agree Y N
Adequate Sample Volumes Y N
VOA only: Trip Blank Y N NA
NJ ≤ 4 days? Y N
Courier/Tracking #

Deviations? NO YES
If YES, list below
Client contact:
Date/Tech

Sample(s) for Radiation testing? Y N Rad Screen (uCi)
Reportable SDWA Sample(s)? Y N New Source? Y N
SDWA State of Origin? New Source Contact:
PWSID #
PWS Contact: PWS Phone #:

SDWA Sample Type Key: D=Distribution E=Entry Point R=Raw P=Plant C=Check S=Special A=Annual Startup

Sample/COC Remarks

Contains Short Hold Testing YES NO
Internal Use: If less than 48 hours - notify lab upon receipt

Data Deliverables: [ ] Standard Lvl 1 [ ] CLP-like [ ] HSCA; [ ] Standard Lvl 2 [ ] DOD [ ] Landfill; [ ] Standard Lvl 3 [ ] NJ RED [ ] NJ GW; [ ] Standard Lvl 4 [ ] NJ Full [ ] ____

EDDs: [ ] Excel Summary [ ] Equis [ ] Custom

Sample Disposal: Lab [ ] Special [ ]

EDDS: Format Type

State Samples Collected In: [ ] NY [ ] NJ [ ] PA [ ] WV [ ] FL [ ] other

* 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=Wipe; WW=Wastewater

ALS SHIPPING ADDRESS: 301 Fulling Mill Road, Suite A, Middletown, PA 17057

Rev 07.06.2023

ENCLOSURE B - CERTIFIED LABORATORY ANALYTICAL REPORT FOR MONITORING WELL MW-39 SAMPLE (JUNE 2024)

Main Site: 301 Fulling Mill Road | Middletown, PA 17057 | Phone: 717-944-5541 | Fax: 717-944-1430 | www.alsglobal.com
Associated Site: 20 Riverside Drive | Spring City, PA 19475 | Phone: 610-948-4903 | Fax: 717-944-1430 |

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, NJ PA101

Analytical Results Report For **WSP USA Inc.**

Project	KOP-Flex Onsite 31405608.010
Workorder	3364482
Report ID	331416 on 6/25/2024

Certificate of Analysis

Enclosed are the analytical results for samples received by the laboratory on Jun 14, 2024.

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.

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

Recipient(s):
Elliott Martynkiewicz - WSP USA Inc.
Eric Johnson - WSP USA INC

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

Susan Scherer

Susan Scherer *(ALS Digital Signature)*
Project Coordinator

Sample Summary

Lab ID	Sample ID	Matrix	Date Collected	Date Received	Collector	Collection Company
3364482001	MW-39	Ground Water	06/12/2024 14:50	06/14/2024 08:45		WSP USA Inc.

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, including but not limited to the following EPA Method reference revisions:
  EPA 300.1 Rev. 1.0-1997
  EPA 300.0 Rev. 2.1-1993
  EPA 353.2 Rev. 2.0-1993
  EPA 410.4 Rev. 1.0-1993
  EPA 420.4 Rev. 1.0-1993
  EPA 365.1 Rev. 2.0-1993
  EPA 200.7 Rev. 4.4-1994
  EPA 200.8 Rev. 5.4-1994
  EPA 245.1 Rev. 3.0-1994
- 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 preformed 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 Notations

Sample Notations

Lab ID	Sample ID

Result Notations

Notation Ref.	
1	Bromomethane recovery from the 8260D calibration verification standard was 122%. Control limits are 80 to 120%.

Detected Results Summary

Not applicable for this WO.

Results

Client Sample ID	MW-39	Collected	06/12/2024 14:50
Lab Sample ID	3364482001	Lab Receipt	06/14/2024 08:45

SEMIVOLATILE SIM

Compound	Result	Flag	Units	RDL	Method	Dilution	Analysis Date/Time	By	Cntr
1,4-Dioxane	1.0 U	U	ug/L	1.0	SW846 8270E SIM	1	06/23/2024 02:38	M1O	C

SURROGATES

Compound	CAS No	Recovery	Limits(%)	Analysis Date/Time	Qualifiers
2-Methylnapthalene-d10	7297-45-2	84.3%	29 – 112	06/23/2024 02:38	
Fluoranthene-d10	93951-69-0	93.8%	45 – 130	06/23/2024 02:38	

VOLATILE ORGANICS

Compound	Result	Flag	Units	RDL	Method	Dilution	Analysis Date/Time	By	Cntr
1,1,1,2-Tetrachloroethane	1.0 U	U	ug/L	1.0	SW846 8260D	1	06/22/2024 14:50	TMP	A
1,1,1-Trichloroethane	1.0 U	U	ug/L	1.0	SW846 8260D	1	06/22/2024 14:50	TMP	A
1,1,2,2-Tetrachloroethane	1.0 U	U	ug/L	1.0	SW846 8260D	1	06/22/2024 14:50	TMP	A
1,1,2-Trichloroethane	1.0 U	U	ug/L	1.0	SW846 8260D	1	06/22/2024 14:50	TMP	A
1,1-Dichloroethane	1.0 U	U	ug/L	1.0	SW846 8260D	1	06/22/2024 14:50	TMP	A
1,1-Dichloroethene	1.0 U	U	ug/L	1.0	SW846 8260D	1	06/22/2024 14:50	TMP	A
1,1-Dichloropropene	1.0 U	U	ug/L	1.0	SW846 8260D	1	06/22/2024 14:50	TMP	A
1,2,3-Trichlorobenzene	2.0 U	U	ug/L	2.0	SW846 8260D	1	06/22/2024 14:50	TMP	A
1,2,3-Trichloropropane	2.0 U	U	ug/L	2.0	SW846 8260D	1	06/22/2024 14:50	TMP	A
1,2,4-Trichlorobenzene	2.0 U	U	ug/L	2.0	SW846 8260D	1	06/22/2024 14:50	TMP	A
1,2-Dibromo-3-chloropropane	7.0 U	U	ug/L	7.0	SW846 8260D	1	06/22/2024 14:50	TMP	A
1,2-Dibromoethane	1.0 U	U	ug/L	1.0	SW846 8260D	1	06/22/2024 14:50	TMP	A
1,2-Dichlorobenzene	1.0 U	U	ug/L	1.0	SW846 8260D	1	06/22/2024 14:50	TMP	A
1,2-Dichloroethane	1.0 U	U	ug/L	1.0	SW846 8260D	1	06/22/2024 14:50	TMP	A
1,2-Dichloropropane	1.0 U	U	ug/L	1.0	SW846 8260D	1	06/22/2024 14:50	TMP	A
1,3-Dichlorobenzene	1.0 U	U	ug/L	1.0	SW846 8260D	1	06/22/2024 14:50	TMP	A
1,3-Dichloropropane	1.0 U	U	ug/L	1.0	SW846 8260D	1	06/22/2024 14:50	TMP	A
1,4-Dichlorobenzene	1.0 U	U	ug/L	1.0	SW846 8260D	1	06/22/2024 14:50	TMP	A
2,2-Dichloropropane	1.0 U	U	ug/L	1.0	SW846 8260D	1	06/22/2024 14:50	TMP	A
2-Butanone	10.0 U	U	ug/L	10.0	SW846 8260D	1	06/22/2024 14:50	TMP	A
2-Hexanone	5.0 U	U	ug/L	5.0	SW846 8260D	1	06/22/2024 14:50	TMP	A
4-Methyl-2-Pentanone(MIBK)	5.0 U	U	ug/L	5.0	SW846 8260D	1	06/22/2024 14:50	TMP	A
Acetone	10.0 U	U	ug/L	10.0	SW846 8260D	1	06/22/2024 14:50	TMP	A
Benzene	1.0 U	U	ug/L	1.0	SW846 8260D	1	06/22/2024 14:50	TMP	A
Bromobenzene	1.0 U	U	ug/L	1.0	SW846 8260D	1	06/22/2024 14:50	TMP	A
Bromochloromethane	1.0 U	U	ug/L	1.0	SW846 8260D	1	06/22/2024 14:50	TMP	A
Bromodichloromethane	1.0 U	U	ug/L	1.0	SW846 8260D	1	06/22/2024 14:50	TMP	A
Bromoform	1.0 U	U	ug/L	1.0	SW846 8260D	1	06/22/2024 14:50	TMP	A
Bromomethane	1.0 U	U,1	ug/L	1.0	SW846 8260D	1	06/22/2024 14:50	TMP	A
Carbon Tetrachloride	1.0 U	U	ug/L	1.0	SW846 8260D	1	06/22/2024 14:50	TMP	A
Chlorobenzene	1.0 U	U	ug/L	1.0	SW846 8260D	1	06/22/2024 14:50	TMP	A
Chlorodibromomethane	1.0 U	U	ug/L	1.0	SW846 8260D	1	06/22/2024 14:50	TMP	A
Chloroethane	1.0 U	U	ug/L	1.0	SW846 8260D	1	06/22/2024 14:50	TMP	A
Chloroform	1.0 U	U	ug/L	1.0	SW846 8260D	1	06/22/2024 14:50	TMP	A
Chloromethane	1.0 U	U	ug/L	1.0	SW846 8260D	1	06/22/2024 14:50	TMP	A

Results

Client Sample ID	MW-39	Collected	06/12/2024 14:50
Lab Sample ID	3364482001	Lab Receipt	06/14/2024 08:45

VOLATILE ORGANICS (cont.)

Compound	Result	Flag	Units	RDL	Method	Dilution	Analysis Date/Time	By	Cntr
cis-1,2-Dichloroethene	1.0 U	U	ug/L	1.0	SW846 8260D	1	06/22/2024 14:50	TMP	A
cis-1,3-Dichloropropene	1.0 U	U	ug/L	1.0	SW846 8260D	1	06/22/2024 14:50	TMP	A
Dibromomethane	1.0 U	U	ug/L	1.0	SW846 8260D	1	06/22/2024 14:50	TMP	A
Dichlorodifluoromethane	1.0 U	U	ug/L	1.0	SW846 8260D	1	06/22/2024 14:50	TMP	A
Diisopropyl ether	1.0 U	U	ug/L	1.0	SW846 8260D	1	06/22/2024 14:50	TMP	A
Ethylbenzene	1.0 U	U	ug/L	1.0	SW846 8260D	1	06/22/2024 14:50	TMP	A
Hexachlorobutadiene	5.0 U	U	ug/L	5.0	SW846 8260D	1	06/22/2024 14:50	TMP	A
Methyl t-Butyl Ether	1.0 U	U	ug/L	1.0	SW846 8260D	1	06/22/2024 14:50	TMP	A
Methylene Chloride	1.0 U	U	ug/L	1.0	SW846 8260D	1	06/22/2024 14:50	TMP	A
mp-Xylene	2.0 U	U	ug/L	2.0	SW846 8260D	1	06/22/2024 14:50	TMP	A
Naphthalene	2.0 U	U	ug/L	2.0	SW846 8260D	1	06/22/2024 14:50	TMP	A
o-Chlorotoluene	1.0 U	U	ug/L	1.0	SW846 8260D	1	06/22/2024 14:50	TMP	A
o-Xylene	1.0 U	U	ug/L	1.0	SW846 8260D	1	06/22/2024 14:50	TMP	A
p-Chlorotoluene	1.0 U	U	ug/L	1.0	SW846 8260D	1	06/22/2024 14:50	TMP	A
p-Isopropyltoluene	1.0 U	U	ug/L	1.0	SW846 8260D	1	06/22/2024 14:50	TMP	A
Styrene	1.0 U	U	ug/L	1.0	SW846 8260D	1	06/22/2024 14:50	TMP	A
Tetrachloroethene	1.0 U	U	ug/L	1.0	SW846 8260D	1	06/22/2024 14:50	TMP	A
Toluene	1.0 U	U	ug/L	1.0	SW846 8260D	1	06/22/2024 14:50	TMP	A
Total Xylenes	3.0 U	U	ug/L	3.0	SW846 8260D	1	06/22/2024 14:50	TMP	A
trans-1,2-Dichloroethene	1.0 U	U	ug/L	1.0	SW846 8260D	1	06/22/2024 14:50	TMP	A
trans-1,3-Dichloropropene	1.0 U	U	ug/L	1.0	SW846 8260D	1	06/22/2024 14:50	TMP	A
Trichloroethene	1.0 U	U	ug/L	1.0	SW846 8260D	1	06/22/2024 14:50	TMP	A
Trichlorofluoromethane	1.0 U	U	ug/L	1.0	SW846 8260D	1	06/22/2024 14:50	TMP	A
Vinyl Acetate	5.0 U	U	ug/L	5.0	SW846 8260D	1	06/22/2024 14:50	TMP	A
Vinyl Chloride	1.0 U	U	ug/L	1.0	SW846 8260D	1	06/22/2024 14:50	TMP	A

SURROGATES

Compound	CAS No	Recovery	Limits(%)	Analysis Date/Time	Qualifiers
1,2-Dichloroethane-d4	17060-07-0	105%	62 – 133	06/22/2024 14:50	
4-Bromofluorobenzene	460-00-4	94.6%	79 – 114	06/22/2024 14:50	
Dibromofluoromethane	1868-53-7	97.8%	78 – 116	06/22/2024 14:50	
Toluene-d8	2037-26-5	96.5%	76 – 127	06/22/2024 14:50	

Sample - Method Cross Reference Table

Lab ID	Sample ID	Analysis Method	Preparation Method	Leachate Method
3364482001	MW-39	SW846 8270E SIM	SW846 3510C	
		SW846 8260D	N/A	

QUALITY CONTROL SAMPLES

SEMIVOLATILE SIM

QC Batch

QC Batch	1224338	Prep Method	SW846 3510C
Date	06/19/2024 16:10	Analysis Method	SW846 8270E SIM
Tech.	BMP		

Associated Samples

3364482001

Matrix Spike 3841681 (MS) 3364481002 (non-Project Sample) For QC Batch 1224338

****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	33.90	30.20	1	NC	22 - 75		

SURROGATES

Compound	CAS No		Result (ug/L)	Expected (ug/L)	Rec. (%)	Limits (%)	Qualifiers
2-Methylnapthalene-d10	7297-45-2	MS	0.83	1	82.6	29 - 112	
Fluoranthene-d10	93951-69-0	MS	0.91	1	91.1	45 - 130	

Method Blank 3841679 (MB) Created on 06/19/2024 14:34 For QC Batch 1224338

RESULTS

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

SURROGATES

Compound	CAS No		Result (ug/L)	Expected (ug/L)	Rec. (%)	Limits (%)	Qualifiers
2-Methylnapthalene-d10	7297-45-2	BLK	0.72	1	72.2	29 - 112	
Fluoranthene-d10	93951-69-0	BLK	0.90	1	89.9	45 - 130	

Lab Control Standard 3841680 (LCS) Created on 06/19/2024 14:34 For QC Batch 1224338

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	0.57		1	57.5	22 - 75		U

SURROGATES

Compound	CAS No		Result (ug/L)	Expected (ug/L)	Rec. (%)	Limits (%)	Qualifiers
2-Methylnapthalene-d10	7297-45-2	LCS	0.75	1	74.6	29 - 112	

QUALITY CONTROL SAMPLES

SEMIVOLATILE SIM (cont.)

SURROGATES

Compound	CAS No		Result (ug/L)	Expected (ug/L)	Rec. (%)	Limits (%)	Qualifiers
Fluoranthene-d10	93951-69-0	LCS	0.95	1	95.1	45 - 130	

QUALITY CONTROL SAMPLES

VOLATILE ORGANICS

QC Batch

QC Batch	1228213	Prep Method	N/A
Date	N/A	Analysis Method	SW846 8260D
Tech.			

Associated Samples

3364482001

Matrix Spike 3843099 (MS) 3364169005 (non-Project Sample) For QC Batch 1228213

****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 3843100 (MSD) 3364169005 (non-Project Sample) For QC Batch 1228213

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	19.80	0	20	98.8	78 - 121		
1,1,1,2-Tetrachloroethane	630-20-6	MSD	18.30	0	20	91.6	78 - 121	RPD 7.55 (Max-16)	
1,1,1-Trichloroethane	71-55-6	MS	20.80	0	20	104	66 - 130		
1,1,1-Trichloroethane	71-55-6	MSD	18.40	0	20	91.9	66 - 130	RPD 12.60 (Max-20)	
1,1,2,2-Tetrachloroethane	79-34-5	MS	23.70	0	20	118	74 - 135		
1,1,2,2-Tetrachloroethane	79-34-5	MSD	21.10	0	20	105	74 - 135	RPD 11.60 (Max-16)	
1,1,2-Trichloroethane	79-00-5	MS	20.90	0	20	105	82 - 126		
1,1,2-Trichloroethane	79-00-5	MSD	19.60	0	20	98.1	82 - 126	RPD 6.54 (Max-15)	
1,1-Dichloroethane	75-34-3	MS	21.20	0	20	106	78 - 124		
1,1-Dichloroethane	75-34-3	MSD	18.60	0	20	93.1	78 - 124	RPD 12.70 (Max-15)	
1,1-Dichloroethene	75-35-4	MS	20.80	0	20	104	63 - 128		
1,1-Dichloroethene	75-35-4	MSD	18.60	0	20	93.2	63 - 128	RPD 10.90 (Max-21)	
1,1-Dichloropropene	563-58-6	MS	21	0	20	105	76 - 126		
1,1-Dichloropropene	563-58-6	MSD	18.90	0	20	94.3	76 - 126	RPD 10.90 (Max-16)	
1,2,3-Trichlorobenzene	87-61-6	MS	21	0	20	105	61 - 126		
1,2,3-Trichlorobenzene	87-61-6	MSD	18.10	0	20	90.7	61 - 126	RPD 14.70 (Max-36)	
1,2,3-Trichloropropane	96-18-4	MS	22.90	0	20	115	75 - 132		
1,2,3-Trichloropropane	96-18-4	MSD	20.60	0	20	103	75 - 132	RPD 10.60 (Max-19)	
1,2,4-Trichlorobenzene	120-82-1	MS	21.20	0	20	106	67 - 123		
1,2,4-Trichlorobenzene	120-82-1	MSD	19	0	20	95.1	67 - 123	RPD 10.90 (Max-22)	
1,2-Dibromo-3-chloropropane	96-12-8	MS	18.80	0	20	94	59 - 133		
1,2-Dibromo-3-chloropropane	96-12-8	MSD	18.20	0	20	91.2	59 - 133	RPD 3.06 (Max-26)	
1,2-Dibromoethane	106-93-4	MS	19.30	0	20	96.5	80 - 124		
1,2-Dibromoethane	106-93-4	MSD	18.10	0	20	90.3	80 - 124	RPD 6.65 (Max-19)	
1,2-Dichlorobenzene	95-50-1	MS	21.80	0	20	109	82 - 118		
1,2-Dichlorobenzene	95-50-1	MSD	19.80	0	20	99	82 - 118	RPD 9.80 (Max-15)	
1,2-Dichloroethane	107-06-2	MS	20.90	0	20	104	70 - 133		
1,2-Dichloroethane	107-06-2	MSD	18.60	0	20	93.1	70 - 133	RPD 11.40 (Max-19)	
1,2-Dichloropropane	78-87-5	MS	22.20	0	20	111	81 - 127		
1,2-Dichloropropane	78-87-5	MSD	19.90	0	20	99.5	81 - 127	RPD 10.80 (Max-15)	
1,3-Dichlorobenzene	541-73-1	MS	22	0	20	110	81 - 118		
1,3-Dichlorobenzene	541-73-1	MSD	19.60	0	20	98.1	81 - 118	RPD 11.20 (Max-16)	
1,3-Dichloropropane	142-28-9	MS	20.30	0	20	102	82 - 126		
1,3-Dichloropropane	142-28-9	MSD	19.30	0	20	96.5	82 - 126	RPD 5.11 (Max-15)	
1,4-Dichlorobenzene	106-46-7	MS	21.60	0	20	108	81 - 116		

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
1,4-Dichlorobenzene	106-46-7	MSD	19.60	0	20	98.1	81 - 116	RPD 9.68 (Max-15)	
2,2-Dichloropropane	594-20-7	MS	18.40	0	20	92.2	64 - 129		
2,2-Dichloropropane	594-20-7	MSD	16.80	0	20	84	64 - 129	RPD 9.32 (Max-18)	
2-Butanone	78-93-3	MS	111	0	100	111	50 - 152		
2-Butanone	78-93-3	MSD	99.10	0	100	99.1	50 - 152	RPD 11.10 (Max-16)	
2-Hexanone	591-78-6	MS	114	0	100	114	65 - 154		
2-Hexanone	591-78-6	MSD	107	0	100	107	65 - 154	RPD 6.21 (Max-17)	
4-Methyl-2-Pentanone(MIBK)	108-10-1	MS	113	0	100	113	71 - 146		
4-Methyl-2-Pentanone(MIBK)	108-10-1	MSD	107	0	100	107	71 - 146	RPD 5.92 (Max-16)	
Acetone	67-64-1	MS	91.10	0	100	91.1	40 - 151		
Acetone	67-64-1	MSD	82.70	0	100	82.7	40 - 151	RPD 9.66 (Max-40)	
Benzene	71-43-2	MS	21	0	20	105	80 - 124		
Benzene	71-43-2	MSD	18.70	0	20	93.4	80 - 124	RPD 11.40 (Max-26)	
Bromobenzene	108-86-1	MS	21.80	0	20	109	81 - 119		
Bromobenzene	108-86-1	MSD	19.70	0	20	98.4	81 - 119	RPD 10.30 (Max-17)	
Bromochloromethane	74-97-5	MS	21.10	0	20	105	73 - 117		
Bromochloromethane	74-97-5	MSD	19	0	20	95.2	73 - 117	RPD 10.20 (Max-19)	
Bromodichloromethane	75-27-4	MS	19.50	0	20	97.6	79 - 126		
Bromodichloromethane	75-27-4	MSD	17.70	0	20	88.7	79 - 126	RPD 9.53 (Max-16)	
Bromoform	75-25-2	MS	17.40	0	20	86.9	70 - 123		
Bromoform	75-25-2	MSD	16	0	20	80.2	70 - 123	RPD 8.01 (Max-16)	
Bromomethane	74-83-9	MS	22.30	0.53	20	109	45 - 148		
Bromomethane	74-83-9	MSD	20.80	0.53	20	102	45 - 148	RPD 6.80 (Max-26)	
Carbon Tetrachloride	56-23-5	MS	21.50	0	20	107	62 - 132		
Carbon Tetrachloride	56-23-5	MSD	18.90	0	20	94.3	62 - 132	RPD 13.10 (Max-17)	
Chlorobenzene	108-90-7	MS	19.80	0	20	98.9	85 - 117		
Chlorobenzene	108-90-7	MSD	18.40	0	20	92.2	85 - 117	RPD 6.95 (Max-15)	
Chlorodibromomethane	124-48-1	MS	17	0	20	85	77 - 122		
Chlorodibromomethane	124-48-1	MSD	16	0	20	80	77 - 122	RPD 6.03 (Max-15)	
Chloroethane	75-00-3	MS	19.40	0	20	97	51 - 142		
Chloroethane	75-00-3	MSD	17	0	20	85.1	51 - 142	RPD 13 (Max-24)	
Chloroform	67-66-3	MS	20.80	0	20	104	78 - 122		
Chloroform	67-66-3	MSD	18.20	0	20	90.9	78 - 122	RPD 13.30 (Max-16)	
Chloromethane	74-87-3	MS	20.30	0	20	102	38 - 156		
Chloromethane	74-87-3	MSD	18.50	0	20	92.3	38 - 156	RPD 9.59 (Max-27)	
cis-1,2-Dichloroethene	156-59-2	MS	22.80	1.30	20	107	78 - 125		
cis-1,2-Dichloroethene	156-59-2	MSD	20.30	1.30	20	95	78 - 125	RPD 11.40 (Max-21)	
cis-1,3-Dichloropropene	10061-01-5	MS	18.40	0	20	92.2	81 - 121		
cis-1,3-Dichloropropene	10061-01-5	MSD	17.50	0	20	87.5	81 - 121	RPD 5.22 (Max-16)	
Dibromomethane	74-95-3	MS	20.40	0	20	102	81 - 125		
Dibromomethane	74-95-3	MSD	18.60	0	20	93	81 - 125	RPD 9.03 (Max-16)	
Dichlorodifluoromethane	75-71-8	MS	18.60	0	20	93.1	17 - 166		
Dichlorodifluoromethane	75-71-8	MSD	16.40	0	20	82.1	17 - 166	RPD 12.60 (Max-24)	
Diisopropyl ether	108-20-3	MS	22.30	0	20	112	74 - 131		
Diisopropyl ether	108-20-3	MSD	20.10	0	20	101	74 - 131	RPD 10.50 (Max-15)	
Ethylbenzene	100-41-4	MS	20.70	0	20	103	80 - 124		
Ethylbenzene	100-41-4	MSD	18.60	0	20	93.1	80 - 124	RPD 10.40 (Max-19)	
Hexachlorobutadiene	87-68-3	MS	20.20	0	20	101	55 - 128		
Hexachlorobutadiene	87-68-3	MSD	18.90	0	20	94.4	55 - 128	RPD 6.74 (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
Methyl t-Butyl Ether	1634-04-4	MS	26.50	5.70	20	104	69 - 115		
Methyl t-Butyl Ether	1634-04-4	MSD	24.10	5.70	20	92.2	69 - 115	RPD 9.62 (Max-20)	
Methylene Chloride	75-09-2	MS	19.30	0	20	96.4	76 - 121		
Methylene Chloride	75-09-2	MSD	17.60	0	20	87.9	76 - 121	RPD 9.31 (Max-17)	
mp-Xylene	108383/106423	MS	39.90	0	40	99.8	79 - 125		
mp-Xylene	108383/106423	MSD	37.20	0	40	93.1	79 - 125	RPD 6.99 (Max-21)	
Naphthalene	91-20-3	MS	20.90	0	20	105	56 - 134		
Naphthalene	91-20-3	MSD	19.40	0	20	97.2	56 - 134	RPD 7.42 (Max-40)	
o-Chlorotoluene	95-49-8	MS	22.90	0	20	114	78 - 126		
o-Chlorotoluene	95-49-8	MSD	20.20	0	20	101	78 - 126	RPD 12.30 (Max-17)	
o-Xylene	95-47-6	MS	19.50	0	20	97.7	79 - 124		
o-Xylene	95-47-6	MSD	18.10	0	20	90.3	79 - 124	RPD 7.92 (Max-19)	
p-Chlorotoluene	106-43-4	MS	22.80	0	20	114	78 - 125		
p-Chlorotoluene	106-43-4	MSD	20.30	0	20	102	78 - 125	RPD 11.60 (Max-16)	
p-Isopropyltoluene	99-87-6	MS	22.80	0	20	114	72 - 123		
p-Isopropyltoluene	99-87-6	MSD	20.30	0	20	101	72 - 123	RPD 11.80 (Max-17)	
Styrene	100-42-5	MS	22.70	0	20	114	79 - 123		
Styrene	100-42-5	MSD	20.20	0	20	101	79 - 123	RPD 11.70 (Max-16)	
Tetrachloroethene	127-18-4	MS	17	0	20	85	72 - 124		
Tetrachloroethene	127-18-4	MSD	15.60	0	20	78.2	72 - 124	RPD 8.25 (Max-38)	
Toluene	108-88-3	MS	19.30	0	20	96.7	80 - 125		
Toluene	108-88-3	MSD	18.30	0	20	91.4	80 - 125	RPD 5.61 (Max-20)	
Total Xylenes	1330-20-7	MS	59.50	0	60	99.1	79 - 125		
Total Xylenes	1330-20-7	MSD	55.30	0	60	92.1	79 - 125	RPD 7.29 (Max-35)	
trans-1,2-Dichloroethene	156-60-5	MS	21	0	20	105	71 - 122		
trans-1,2-Dichloroethene	156-60-5	MSD	18.50	0	20	92.6	71 - 122	RPD 12.70 (Max-22)	
trans-1,3-Dichloropropene	10061-02-6	MS	17.90	0	20	89.3	78 - 126		
trans-1,3-Dichloropropene	10061-02-6	MSD	17	0	20	85	78 - 126	RPD 4.95 (Max-18)	
Trichloroethene	79-01-6	MS	20.10	0	20	101	77 - 124		
Trichloroethene	79-01-6	MSD	17.90	0	20	89.7	77 - 124	RPD 11.50 (Max-18)	
Trichlorofluoromethane	75-69-4	MS	19.50	0	20	97.5	38 - 123		
Trichlorofluoromethane	75-69-4	MSD	17.20	0	20	86.2	38 - 123	RPD 12.30 (Max-23)	
Vinyl Acetate	108-05-4	MS	14.10	0	20	70.5	58 - 136		
Vinyl Acetate	108-05-4	MSD	13.50	0	20	67.3	58 - 136	RPD 4.60 (Max-17)	
Vinyl Chloride	75-01-4	MS	18.60	0	20	93.2	27 - 138		
Vinyl Chloride	75-01-4	MSD	17	0	20	84.8	27 - 138	RPD 9.42 (Max-40)	

SURROGATES

Compound	CAS No		Result (ug/L)	Expected (ug/L)	Rec. (%)	Limits (%)	Qualifiers
1,2-Dichloroethane-d4	17060-07-0	MS	32.60	30	109	62 - 133	
1,2-Dichloroethane-d4	17060-07-0	MSD	31.80	30	106	62 - 133	
4-Bromofluorobenzene	460-00-4	MS	30.10	30	100	79 - 114	
4-Bromofluorobenzene	460-00-4	MSD	27.40	30	91.3	79 - 114	
Dibromofluoromethane	1868-53-7	MS	31.10	30	104	78 - 116	
Dibromofluoromethane	1868-53-7	MSD	29	30	96.6	78 - 116	
Toluene-d8	2037-26-5	MS	28.40	30	94.6	76 - 127	
Toluene-d8	2037-26-5	MSD	27.90	30	93.2	76 - 127	

QUALITY CONTROL SAMPLES

VOLATILE ORGANICS (cont.)

Method Blank 3843097 (MB) Created on 06/22/2024 11:21 For QC Batch 1228213

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
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

QUALITY CONTROL SAMPLES

VOLATILE ORGANICS (cont.)

RESULTS

Compound	CAS No		Result	Units	RDL	Qualifiers
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	31.60	30	105	62 - 133	
4-Bromofluorobenzene	460-00-4	BLK	29.20	30	97.2	79 - 114	
Dibromofluoromethane	1868-53-7	BLK	29	30	96.8	78 - 116	
Toluene-d8	2037-26-5	BLK	29.90	30	99.8	76 - 127	

Lab Control Standard 3843098 (LCS) Created on 06/22/2024 11:21 For QC Batch 1228213

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	20.60		20	103	78 - 121		
1,1,1-Trichloroethane	71-55-6	LCS	19.60		20	97.9	66 - 130		
1,1,2,2-Tetrachloroethane	79-34-5	LCS	23.30		20	116	74 - 135		
1,1,2-Trichloroethane	79-00-5	LCS	21.60		20	108	82 - 126		
1,1-Dichloroethane	75-34-3	LCS	20.10		20	100	78 - 124		
1,1-Dichloroethene	75-35-4	LCS	19.70		20	98.6	63 - 128		
1,1-Dichloropropene	563-58-6	LCS	20.50		20	102	76 - 126		
1,2,3-Trichlorobenzene	87-61-6	LCS	21.80		20	109	61 - 126		
1,2,3-Trichloropropane	96-18-4	LCS	22.50		20	113	75 - 132		
1,2,4-Trichlorobenzene	120-82-1	LCS	22.70		20	114	67 - 123		
1,2-Dibromo-3-chloropropane	96-12-8	LCS	19.30		20	96.4	59 - 133		
1,2-Dibromoethane	106-93-4	LCS	20.30		20	101	80 - 124		
1,2-Dichlorobenzene	95-50-1	LCS	22.60		20	113	82 - 118		
1,2-Dichloroethane	107-06-2	LCS	19.70		20	98.4	70 - 133		
1,2-Dichloropropane	78-87-5	LCS	21.40		20	107	81 - 127		
1,3-Dichlorobenzene	541-73-1	LCS	22.50		20	113	81 - 118		
1,3-Dichloropropane	142-28-9	LCS	20.70		20	104	82 - 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
1,4-Dichlorobenzene	106-46-7	LCS	22.30		20	112	81 - 116		
2,2-Dichloropropane	594-20-7	LCS	20.60		20	103	64 - 129		
2-Butanone	78-93-3	LCS	104		100	104	50 - 152		
2-Hexanone	591-78-6	LCS	115		100	115	65 - 154		
4-Methyl-2-Pentanone(MIBK)	108-10-1	LCS	112		100	112	71 - 146		
Acetone	67-64-1	LCS	104		100	104	40 - 151		
Benzene	71-43-2	LCS	19.90		20	99.3	80 - 124		
Bromobenzene	108-86-1	LCS	22.10		20	111	81 - 119		
Bromochloromethane	74-97-5	LCS	21.30		20	106	73 - 117		
Bromodichloromethane	75-27-4	LCS	19.20		20	96	79 - 126		
Bromoform	75-25-2	LCS	18.10		20	90.4	70 - 123		
Bromomethane	74-83-9	LCS	22.70		20	113	45 - 148		
Carbon Tetrachloride	56-23-5	LCS	17.70		20	88.4	62 - 132		
Chlorobenzene	108-90-7	LCS	20.20		20	101	85 - 117		
Chlorodibromomethane	124-48-1	LCS	18.20		20	91.1	77 - 122		
Chloroethane	75-00-3	LCS	18.60		20	92.9	51 - 142		
Chloroform	67-66-3	LCS	19.80		20	99	78 - 122		
Chloromethane	74-87-3	LCS	19.40		20	96.9	38 - 156		
cis-1,2-Dichloroethene	156-59-2	LCS	20.70		20	103	78 - 125		
cis-1,3-Dichloropropene	10061-01-5	LCS	20.20		20	101	81 - 121		
Dibromomethane	74-95-3	LCS	20.20		20	101	81 - 125		
Dichlorodifluoromethane	75-71-8	LCS	16.50		20	82.6	17 - 166		
Diisopropyl ether	108-20-3	LCS	22.10		20	111	74 - 131		
Ethylbenzene	100-41-4	LCS	20.20		20	101	80 - 124		
Hexachlorobutadiene	87-68-3	LCS	22.90		20	114	55 - 128		
Methyl t-Butyl Ether	1634-04-4	LCS	20.90		20	105	69 - 115		
Methylene Chloride	75-09-2	LCS	18.90		20	94.4	76 - 121		
mp-Xylene	108383/106423	LCS	40.60		40	101	79 - 125		
Naphthalene	91-20-3	LCS	22.10		20	111	56 - 134		
o-Chlorotoluene	95-49-8	LCS	22.40		20	112	78 - 126		
o-Xylene	95-47-6	LCS	19.90		20	99.3	79 - 124		
p-Chlorotoluene	106-43-4	LCS	22.60		20	113	78 - 125		
p-Isopropyltoluene	99-87-6	LCS	23.20		20	116	72 - 123		
Styrene	100-42-5	LCS	22.50		20	112	79 - 123		
Tetrachloroethene	127-18-4	LCS	17.90		20	89.7	72 - 124		
Toluene	108-88-3	LCS	20		20	99.8	80 - 125		
Total Xylenes	1330-20-7	LCS	60.40		60	101	79 - 125		
trans-1,2-Dichloroethene	156-60-5	LCS	20.10		20	101	71 - 122		
trans-1,3-Dichloropropene	10061-02-6	LCS	19.80		20	99.1	78 - 126		
Trichloroethene	79-01-6	LCS	19.50		20	97.7	77 - 124		
Trichlorofluoromethane	75-69-4	LCS	18.40		20	92.2	38 - 123		
Vinyl Acetate	108-05-4	LCS	16.90		20	84.7	58 - 136		
Vinyl Chloride	75-01-4	LCS	17.40		20	87.2	27 - 138		

QUALITY CONTROL SAMPLES

VOLATILE ORGANICS (cont.)

SURROGATES

Compound	CAS No		Result (ug/L)	Expected (ug/L)	Rec. (%)	Limits (%)	Qualifiers
1,2-Dichloroethane-d4	17060-07-0	LCS	31.70	30	106	62 - 133	
4-Bromofluorobenzene	460-00-4	LCS	31.80	30	106	79 - 114	
Dibromofluoromethane	1868-53-7	LCS	31.30	30	104	78 - 116	
Toluene-d8	2037-26-5	LCS	29.70	30	99	76 - 127	

QUALITY CONTROL DATA CROSS REFERENCE TABLE

Lab ID	Sample ID	Preparation Method	Prep Batch	Prep Date/Time	By	Analysis Method	Anly Batch
3364482001	MW-39	SW846 3510C	1224338	06/19/2024 16:10	BMP	SW846 8270E SIM	1228308
		N/A	N/A	N/A		SW846 8260D	1228213

CHAIN-OF-CUSTODY RECORD

3364482

Page 1 of 1

Logged By: SLS
PM: SJB

WSP USA Office Address: 13530 Dulles Technology Dr Suite 300 Herndon VA 20171

Project Name: Kop-Flex Onsite
WSP USA Contact Name: Eric Johnson
Project Location: Hanover MD
WSP USA Contact E-mail: eric.johnson@wsp.com
Project Number & Task: P102839 US001
WSP USA Contact Phone: (603) 318-3936
Sampler(s) Name(s): Elliott Martynkiewicz
Sampler(s) Signature(s): Elliott M

Job No. 010038

Laboratory Name & Location: ALS Middletown PA
Laboratory Project Manager: Susan Scherer

Requested Turn-Around-Time: [X] Standard [ ] 24 HR [ ] 48 HR [ ] 72 HR [ ] ____ HR

Sample Identification	Matrix	Collection Start* Date	Collection Start* Time	Collection Stop* Date	Collection Stop* Time	Number of Containers	VOCs EPA 8260	8270 1,4-Dioxane	Sample Comments
MW-39	GW			6/12/24	1450	4	2	2	
~~MW~~									

Temp By: MJE
WO Temp (°C): 3°
Therm ID: 524

Receipt Info Completed By: MJE

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	
Correct Containers Provided	Y N	
Sample Label/COC Agree	Y N	
Adequate Sample Volumes	Y N	
CR6 Samples Filtered	Y N	
OP Samples Filtered	Y N	NA
VOA Trip Blank	Y N	NA
NJ≤ 4 Days?	Y N	NA
Rad Screen (uCi)	Y N	

Courier/Tracking #: 776850293047

SDWA Compliance PWSID: Y N
WV Containers 0-6°C: Y N NA

*No G/C., G/HCL, A/UNP. MJE 6/18/24

Relinquished By (Signature)	Date	Time	Received By (Signature)	Date	Time	Shipment Method	Tracking Number(s)
Elliott M	6/13/24	1206	Fedex				
Fedex	6/14/24	845		6/14/24	845	Number of Packages	Custody Seal Number(s)

Use military time/date for composite and/or air samples; use only start time/date for all other samples.

Matrix: AQ = Aqueous, S = Soil/Sediment, A = Air, W = Wipe, B = Bulk, O = Other (detail in comments)

ENCLOSURE C - CERTIFIED LABORATORY ANALYTICAL REPORT FOR ONSITE RECOVERY WELL SAMPLES (MAY 2024)

Main Site: 301 Fulling Mill Road | Middletown, PA 17057 | Phone: 717-944-5541 | Fax: 717-944-1430 | www.alsglobal.com
Associated Site: 20 Riverside Drive | Spring City, PA 19475 | Phone: 610-948-4903 | Fax: 717-944-1430 |

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, NJ PA101

Analytical Results Report For **WSP USA Inc.**

Project	KOP-Flex Onsite 31405608.010
Workorder	3360620
Report ID	326223 on 6/4/2024

Certificate of Analysis

Enclosed are the analytical results for samples received by the laboratory on May 20, 2024.

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.

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

Recipient(s):
Elliott Martynkiewicz - WSP USA Inc.
Eric Johnson - WSP USA INC

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

Susan Scherer

Susan Scherer *(ALS Digital Signature)*
Project Coordinator

Sample Summary

Lab ID	Sample ID	Matrix	Date Collected	Date Received	Collector	Collection Company
3360620001	RW-1S	Ground Water	05/19/2024 11:25	05/20/2024 19:20	CBC	Collected By Client
3360620002	RW-2S	Ground Water	05/19/2024 11:45	05/20/2024 19:20	CBC	Collected By Client
3360620003	RW-1D	Ground Water	05/19/2024 14:15	05/20/2024 19:20	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, including but not limited to the following EPA Method reference revisions:
  EPA 300.1 Rev. 1.0-1997
  EPA 300.0 Rev. 2.1-1993
  EPA 353.2 Rev. 2.0-1993
  EPA 410.4 Rev. 1.0-1993
  EPA 420.4 Rev. 1.0-1993
  EPA 365.1 Rev. 2.0-1993
  EPA 200.7 Rev. 4.4-1994
  EPA 200.8 Rev. 5.4-1994
  EPA 245.1 Rev. 3.0-1994
- 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 preformed 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 Notations

Sample Notations

Lab ID	Sample ID

Result Notations

Notation Ref.	
1	Bromomethane was recovered above the 20 percent 8260D criteria in the continuing calibration verification associated with this sample. The % drift was reported at 29.86%. Acceptable limits are +/-20%.
2	Chlorodibromomethane was recovered above the 20 percent 8260D criteria in the continuing calibration verification associated with this sample. The % difference was reported at 20.63%. Acceptable limits are +/-20%.
3	The surrogate 2-Methylnapthalene-d10 for method SW846 8270E SIM was outside of control limits. The % Recovery was reported as 178 and the control limits were 29 to 112. This result was reported at a dilution of 20.
4	1,1,12-Tetrachloroethane was recovered above the 20 percent 8260D criteria in the continuing calibration verification associated with this sample. The % difference was reported at 20.22%. Acceptable limits are +/-20%.

Detected Results Summary

Client Sample ID	RW-1S	Collected	05/19/2024 11:25
Lab Sample ID	3360620001	Lab Receipt	05/20/2024 19:20

Compound	Result	Units	RDL	Method	Flag
SEMIVOLATILE SIM					
1,4-Dioxane	128	ug/L	20.3	SW846 8270E SIM	#
VOLATILE ORGANICS					
1,1,1-Trichloroethane	50.6	ug/L	5.0	SW846 8260D	#
1,1-Dichloroethane	170	ug/L	5.0	SW846 8260D	#
1,1-Dichloroethene	574	ug/L	5.0	SW846 8260D	#
Chloroethane	19.6	ug/L	5.0	SW846 8260D	#

Detected Results Summary

Client Sample ID	RW-2S	Collected	05/19/2024 11:45
Lab Sample ID	3360620002	Lab Receipt	05/20/2024 19:20

Compound	Result	Units	RDL	Method	Flag
SEMIVOLATILE SIM					
1,4-Dioxane	27.9	ug/L	10.0	SW846 8270E SIM	#
VOLATILE ORGANICS					
1,1,1-Trichloroethane	405	ug/L	5.0	SW846 8260D	#
1,1-Dichloroethane	67.8	ug/L	5.0	SW846 8260D	#
1,1-Dichloroethene	406	ug/L	5.0	SW846 8260D	#
Methylene Chloride	5.2	ug/L	5.0	SW846 8260D	#

Detected Results Summary

Client Sample ID	RW-1D	Collected	05/19/2024 14:15
Lab Sample ID	3360620003	Lab Receipt	05/20/2024 19:20

Compound	Result	Units	RDL	Method	Flag
SEMIVOLATILE SIM					
1,4-Dioxane	127	ug/L	20.2	SW846 8270E SIM	#
VOLATILE ORGANICS					
1,1,1-Trichloroethane	17.1	ug/L	5.0	SW846 8260D	#
1,1-Dichloroethane	81.2	ug/L	5.0	SW846 8260D	#
1,1-Dichloroethene	329	ug/L	5.0	SW846 8260D	#
Chloroethane	9.3	ug/L	5.0	SW846 8260D	#

Results

Client Sample ID	RW-1S	Collected	05/19/2024 11:25
Lab Sample ID	3360620001	Lab Receipt	05/20/2024 19:20

SEMIVOLATILE SIM

Compound	Result	Flag	Units	RDL	Method	Dilution	Analysis Date/Time	By	Cntr
1,4-Dioxane	128		ug/L	20.3	SW846 8270E SIM	20	05/29/2024 06:59	M1O	C

SURROGATES

Compound	CAS No	Recovery	Limits(%)	Analysis Date/Time	Qualifiers
2-Methylnapthalene-d10	7297-45-2	74.8%	29 – 112	05/23/2024 14:39	
2-Methylnapthalene-d10	7297-45-2	178*%	29 – 112	05/29/2024 06:59	3
Fluoranthene-d10	93951-69-0	78%	45 – 130	05/23/2024 14:39	
Fluoranthene-d10	93951-69-0	82.3%	45 – 130	05/29/2024 06:59	

VOLATILE ORGANICS

Compound	Result	Flag	Units	RDL	Method	Dilution	Analysis Date/Time	By	Cntr
1,1,1,2-Tetrachloroethane	5.0 U	U,4	ug/L	5.0	SW846 8260D	5	05/28/2024 15:48	ILY	A
1,1,1-Trichloroethane	50.6		ug/L	5.0	SW846 8260D	5	05/28/2024 15:48	ILY	A
1,1,2,2-Tetrachloroethane	5.0 U	U	ug/L	5.0	SW846 8260D	5	05/28/2024 15:48	ILY	A
1,1,2-Trichloroethane	5.0 U	U	ug/L	5.0	SW846 8260D	5	05/28/2024 15:48	ILY	A
1,1-Dichloroethane	170		ug/L	5.0	SW846 8260D	5	05/28/2024 15:48	ILY	A
1,1-Dichloroethene	574		ug/L	5.0	SW846 8260D	5	05/28/2024 15:48	ILY	A
1,1-Dichloropropene	5.0 U	U	ug/L	5.0	SW846 8260D	5	05/28/2024 15:48	ILY	A
1,2,3-Trichlorobenzene	10.0 U	U	ug/L	10.0	SW846 8260D	5	05/28/2024 15:48	ILY	A
1,2,3-Trichloropropane	10.0 U	U	ug/L	10.0	SW846 8260D	5	05/28/2024 15:48	ILY	A
1,2,4-Trichlorobenzene	10.0 U	U	ug/L	10.0	SW846 8260D	5	05/28/2024 15:48	ILY	A
1,2-Dibromo-3-chloropropane	35.0 U	U	ug/L	35.0	SW846 8260D	5	05/28/2024 15:48	ILY	A
1,2-Dibromoethane	5.0 U	U	ug/L	5.0	SW846 8260D	5	05/28/2024 15:48	ILY	A
1,2-Dichlorobenzene	5.0 U	U	ug/L	5.0	SW846 8260D	5	05/28/2024 15:48	ILY	A
1,2-Dichloroethane	5.0 U	U	ug/L	5.0	SW846 8260D	5	05/28/2024 15:48	ILY	A
1,2-Dichloropropane	5.0 U	U	ug/L	5.0	SW846 8260D	5	05/28/2024 15:48	ILY	A
1,3-Dichlorobenzene	5.0 U	U	ug/L	5.0	SW846 8260D	5	05/28/2024 15:48	ILY	A
1,3-Dichloropropane	5.0 U	U	ug/L	5.0	SW846 8260D	5	05/28/2024 15:48	ILY	A
1,4-Dichlorobenzene	5.0 U	U	ug/L	5.0	SW846 8260D	5	05/28/2024 15:48	ILY	A
2,2-Dichloropropane	5.0 U	U	ug/L	5.0	SW846 8260D	5	05/28/2024 15:48	ILY	A
2-Butanone	50.0 U	U	ug/L	50.0	SW846 8260D	5	05/28/2024 15:48	ILY	A
2-Hexanone	25.0 U	U	ug/L	25.0	SW846 8260D	5	05/28/2024 15:48	ILY	A
4-Methyl-2-Pentanone(MIBK)	25.0 U	U	ug/L	25.0	SW846 8260D	5	05/28/2024 15:48	ILY	A
Acetone	50.0 U	U	ug/L	50.0	SW846 8260D	5	05/28/2024 15:48	ILY	A
Benzene	5.0 U	U	ug/L	5.0	SW846 8260D	5	05/28/2024 15:48	ILY	A
Bromobenzene	5.0 U	U	ug/L	5.0	SW846 8260D	5	05/28/2024 15:48	ILY	A
Bromochloromethane	5.0 U	U	ug/L	5.0	SW846 8260D	5	05/28/2024 15:48	ILY	A
Bromodichloromethane	5.0 U	U	ug/L	5.0	SW846 8260D	5	05/28/2024 15:48	ILY	A
Bromoform	5.0 U	U	ug/L	5.0	SW846 8260D	5	05/28/2024 15:48	ILY	A
Bromomethane	5.0 U	U,1	ug/L	5.0	SW846 8260D	5	05/28/2024 15:48	ILY	A
Carbon Tetrachloride	5.0 U	U	ug/L	5.0	SW846 8260D	5	05/28/2024 15:48	ILY	A
Chlorobenzene	5.0 U	U	ug/L	5.0	SW846 8260D	5	05/28/2024 15:48	ILY	A
Chlorodibromomethane	5.0 U	U,2	ug/L	5.0	SW846 8260D	5	05/28/2024 15:48	ILY	A
Chloroethane	19.6		ug/L	5.0	SW846 8260D	5	05/28/2024 15:48	ILY	A

Results

Client Sample ID	RW-1S	Collected	05/19/2024 11:25
Lab Sample ID	3360620001	Lab Receipt	05/20/2024 19:20

VOLATILE ORGANICS (cont.)

Compound	Result	Flag	Units	RDL	Method	Dilution	Analysis Date/Time	By	Cntr
Chloroform	5.0 U	U	ug/L	5.0	SW846 8260D	5	05/28/2024 15:48	ILY	A
Chloromethane	5.0 U	U	ug/L	5.0	SW846 8260D	5	05/28/2024 15:48	ILY	A
cis-1,2-Dichloroethene	5.0 U	U	ug/L	5.0	SW846 8260D	5	05/28/2024 15:48	ILY	A
cis-1,3-Dichloropropene	5.0 U	U	ug/L	5.0	SW846 8260D	5	05/28/2024 15:48	ILY	A
Dibromomethane	5.0 U	U	ug/L	5.0	SW846 8260D	5	05/28/2024 15:48	ILY	A
Dichlorodifluoromethane	5.0 U	U	ug/L	5.0	SW846 8260D	5	05/28/2024 15:48	ILY	A
Diisopropyl ether	5.0 U	U	ug/L	5.0	SW846 8260D	5	05/28/2024 15:48	ILY	A
Ethylbenzene	5.0 U	U	ug/L	5.0	SW846 8260D	5	05/28/2024 15:48	ILY	A
Hexachlorobutadiene	25.0 U	U	ug/L	25.0	SW846 8260D	5	05/28/2024 15:48	ILY	A
Methyl t-Butyl Ether	5.0 U	U	ug/L	5.0	SW846 8260D	5	05/28/2024 15:48	ILY	A
Methylene Chloride	5.0 U	U	ug/L	5.0	SW846 8260D	5	05/28/2024 15:48	ILY	A
mp-Xylene	10.0 U	U	ug/L	10.0	SW846 8260D	5	05/28/2024 15:48	ILY	A
Naphthalene	10.0 U	U	ug/L	10.0	SW846 8260D	5	05/28/2024 15:48	ILY	A
o-Chlorotoluene	5.0 U	U	ug/L	5.0	SW846 8260D	5	05/28/2024 15:48	ILY	A
o-Xylene	5.0 U	U	ug/L	5.0	SW846 8260D	5	05/28/2024 15:48	ILY	A
p-Chlorotoluene	5.0 U	U	ug/L	5.0	SW846 8260D	5	05/28/2024 15:48	ILY	A
p-Isopropyltoluene	5.0 U	U	ug/L	5.0	SW846 8260D	5	05/28/2024 15:48	ILY	A
Styrene	5.0 U	U	ug/L	5.0	SW846 8260D	5	05/28/2024 15:48	ILY	A
Tetrachloroethene	5.0 U	U	ug/L	5.0	SW846 8260D	5	05/28/2024 15:48	ILY	A
Toluene	5.0 U	U	ug/L	5.0	SW846 8260D	5	05/28/2024 15:48	ILY	A
Total Xylenes	15.0 U	U	ug/L	15.0	SW846 8260D	5	05/28/2024 15:48	ILY	A
trans-1,2-Dichloroethene	5.0 U	U	ug/L	5.0	SW846 8260D	5	05/28/2024 15:48	ILY	A
trans-1,3-Dichloropropene	5.0 U	U	ug/L	5.0	SW846 8260D	5	05/28/2024 15:48	ILY	A
Trichloroethene	5.0 U	U	ug/L	5.0	SW846 8260D	5	05/28/2024 15:48	ILY	A
Trichlorofluoromethane	5.0 U	U	ug/L	5.0	SW846 8260D	5	05/28/2024 15:48	ILY	A
Vinyl Acetate	25.0 U	U	ug/L	25.0	SW846 8260D	5	05/28/2024 15:48	ILY	A
Vinyl Chloride	5.0 U	U	ug/L	5.0	SW846 8260D	5	05/28/2024 15:48	ILY	A

SURROGATES

Compound	CAS No	Recovery	Limits(%)	Analysis Date/Time	Qualifiers
1,2-Dichloroethane-d4	17060-07-0	107%	62 – 133	05/28/2024 15:48	
4-Bromofluorobenzene	460-00-4	104%	79 – 114	05/28/2024 15:48	
Dibromofluoromethane	1868-53-7	103%	78 – 116	05/28/2024 15:48	
Toluene-d8	2037-26-5	102%	76 – 127	05/28/2024 15:48	

Results

Client Sample ID	RW-2S	Collected	05/19/2024 11:45
Lab Sample ID	3360620002	Lab Receipt	05/20/2024 19:20

SEMIVOLATILE SIM

Compound	Result	Flag	Units	RDL	Method	Dilution	Analysis Date/Time	By	Cntr
1,4-Dioxane	27.9		ug/L	10.0	SW846 8270E SIM	10	05/29/2024 07:27	M1O	C

SURROGATES

Compound	CAS No	Recovery	Limits(%)	Analysis Date/Time	Qualifiers
2-Methylnapthalene-d10	7297-45-2	76.4%	29 – 112	05/23/2024 15:08	
2-Methylnapthalene-d10	7297-45-2	74.3%	29 – 112	05/29/2024 07:27	
Fluoranthene-d10	93951-69-0	88.1%	45 – 130	05/23/2024 15:08	
Fluoranthene-d10	93951-69-0	84.5%	45 – 130	05/29/2024 07:27	

VOLATILE ORGANICS

Compound	Result	Flag	Units	RDL	Method	Dilution	Analysis Date/Time	By	Cntr
1,1,1,2-Tetrachloroethane	5.0 U	U,4	ug/L	5.0	SW846 8260D	5	05/28/2024 16:08	ILY	A
1,1,1-Trichloroethane	405		ug/L	5.0	SW846 8260D	5	05/28/2024 16:08	ILY	A
1,1,2,2-Tetrachloroethane	5.0 U	U	ug/L	5.0	SW846 8260D	5	05/28/2024 16:08	ILY	A
1,1,2-Trichloroethane	5.0 U	U	ug/L	5.0	SW846 8260D	5	05/28/2024 16:08	ILY	A
1,1-Dichloroethane	67.8		ug/L	5.0	SW846 8260D	5	05/28/2024 16:08	ILY	A
1,1-Dichloroethene	406		ug/L	5.0	SW846 8260D	5	05/28/2024 16:08	ILY	A
1,1-Dichloropropene	5.0 U	U	ug/L	5.0	SW846 8260D	5	05/28/2024 16:08	ILY	A
1,2,3-Trichlorobenzene	10.0 U	U	ug/L	10.0	SW846 8260D	5	05/28/2024 16:08	ILY	A
1,2,3-Trichloropropane	10.0 U	U	ug/L	10.0	SW846 8260D	5	05/28/2024 16:08	ILY	A
1,2,4-Trichlorobenzene	10.0 U	U	ug/L	10.0	SW846 8260D	5	05/28/2024 16:08	ILY	A
1,2-Dibromo-3-chloropropane	35.0 U	U	ug/L	35.0	SW846 8260D	5	05/28/2024 16:08	ILY	A
1,2-Dibromoethane	5.0 U	U	ug/L	5.0	SW846 8260D	5	05/28/2024 16:08	ILY	A
1,2-Dichlorobenzene	5.0 U	U	ug/L	5.0	SW846 8260D	5	05/28/2024 16:08	ILY	A
1,2-Dichloroethane	5.0 U	U	ug/L	5.0	SW846 8260D	5	05/28/2024 16:08	ILY	A
1,2-Dichloropropane	5.0 U	U	ug/L	5.0	SW846 8260D	5	05/28/2024 16:08	ILY	A
1,3-Dichlorobenzene	5.0 U	U	ug/L	5.0	SW846 8260D	5	05/28/2024 16:08	ILY	A
1,3-Dichloropropane	5.0 U	U	ug/L	5.0	SW846 8260D	5	05/28/2024 16:08	ILY	A
1,4-Dichlorobenzene	5.0 U	U	ug/L	5.0	SW846 8260D	5	05/28/2024 16:08	ILY	A
2,2-Dichloropropane	5.0 U	U	ug/L	5.0	SW846 8260D	5	05/28/2024 16:08	ILY	A
2-Butanone	50.0 U	U	ug/L	50.0	SW846 8260D	5	05/28/2024 16:08	ILY	A
2-Hexanone	25.0 U	U	ug/L	25.0	SW846 8260D	5	05/28/2024 16:08	ILY	A
4-Methyl-2-Pentanone(MIBK)	25.0 U	U	ug/L	25.0	SW846 8260D	5	05/28/2024 16:08	ILY	A
Acetone	50.0 U	U	ug/L	50.0	SW846 8260D	5	05/28/2024 16:08	ILY	A
Benzene	5.0 U	U	ug/L	5.0	SW846 8260D	5	05/28/2024 16:08	ILY	A
Bromobenzene	5.0 U	U	ug/L	5.0	SW846 8260D	5	05/28/2024 16:08	ILY	A
Bromochloromethane	5.0 U	U	ug/L	5.0	SW846 8260D	5	05/28/2024 16:08	ILY	A
Bromodichloromethane	5.0 U	U	ug/L	5.0	SW846 8260D	5	05/28/2024 16:08	ILY	A
Bromoform	5.0 U	U	ug/L	5.0	SW846 8260D	5	05/28/2024 16:08	ILY	A
Bromomethane	5.0 U	U,1	ug/L	5.0	SW846 8260D	5	05/28/2024 16:08	ILY	A
Carbon Tetrachloride	5.0 U	U	ug/L	5.0	SW846 8260D	5	05/28/2024 16:08	ILY	A
Chlorobenzene	5.0 U	U	ug/L	5.0	SW846 8260D	5	05/28/2024 16:08	ILY	A
Chlorodibromomethane	5.0 U	U,2	ug/L	5.0	SW846 8260D	5	05/28/2024 16:08	ILY	A
Chloroethane	5.0 U	U	ug/L	5.0	SW846 8260D	5	05/28/2024 16:08	ILY	A

Results

Client Sample ID	RW-2S	Collected	05/19/2024 11:45
Lab Sample ID	3360620002	Lab Receipt	05/20/2024 19:20

VOLATILE ORGANICS (cont.)

Compound	Result	Flag	Units	RDL	Method	Dilution	Analysis Date/Time	By	Cntr
Chloroform	5.0 U	U	ug/L	5.0	SW846 8260D	5	05/28/2024 16:08	ILY	A
Chloromethane	5.0 U	U	ug/L	5.0	SW846 8260D	5	05/28/2024 16:08	ILY	A
cis-1,2-Dichloroethene	5.0 U	U	ug/L	5.0	SW846 8260D	5	05/28/2024 16:08	ILY	A
cis-1,3-Dichloropropene	5.0 U	U	ug/L	5.0	SW846 8260D	5	05/28/2024 16:08	ILY	A
Dibromomethane	5.0 U	U	ug/L	5.0	SW846 8260D	5	05/28/2024 16:08	ILY	A
Dichlorodifluoromethane	5.0 U	U	ug/L	5.0	SW846 8260D	5	05/28/2024 16:08	ILY	A
Diisopropyl ether	5.0 U	U	ug/L	5.0	SW846 8260D	5	05/28/2024 16:08	ILY	A
Ethylbenzene	5.0 U	U	ug/L	5.0	SW846 8260D	5	05/28/2024 16:08	ILY	A
Hexachlorobutadiene	25.0 U	U	ug/L	25.0	SW846 8260D	5	05/28/2024 16:08	ILY	A
Methyl t-Butyl Ether	5.0 U	U	ug/L	5.0	SW846 8260D	5	05/28/2024 16:08	ILY	A
Methylene Chloride	5.2		ug/L	5.0	SW846 8260D	5	05/28/2024 16:08	ILY	A
mp-Xylene	10.0 U	U	ug/L	10.0	SW846 8260D	5	05/28/2024 16:08	ILY	A
Naphthalene	10.0 U	U	ug/L	10.0	SW846 8260D	5	05/28/2024 16:08	ILY	A
o-Chlorotoluene	5.0 U	U	ug/L	5.0	SW846 8260D	5	05/28/2024 16:08	ILY	A
o-Xylene	5.0 U	U	ug/L	5.0	SW846 8260D	5	05/28/2024 16:08	ILY	A
p-Chlorotoluene	5.0 U	U	ug/L	5.0	SW846 8260D	5	05/28/2024 16:08	ILY	A
p-Isopropyltoluene	5.0 U	U	ug/L	5.0	SW846 8260D	5	05/28/2024 16:08	ILY	A
Styrene	5.0 U	U	ug/L	5.0	SW846 8260D	5	05/28/2024 16:08	ILY	A
Tetrachloroethene	5.0 U	U	ug/L	5.0	SW846 8260D	5	05/28/2024 16:08	ILY	A
Toluene	5.0 U	U	ug/L	5.0	SW846 8260D	5	05/28/2024 16:08	ILY	A
Total Xylenes	15.0 U	U	ug/L	15.0	SW846 8260D	5	05/28/2024 16:08	ILY	A
trans-1,2-Dichloroethene	5.0 U	U	ug/L	5.0	SW846 8260D	5	05/28/2024 16:08	ILY	A
trans-1,3-Dichloropropene	5.0 U	U	ug/L	5.0	SW846 8260D	5	05/28/2024 16:08	ILY	A
Trichloroethene	5.0 U	U	ug/L	5.0	SW846 8260D	5	05/28/2024 16:08	ILY	A
Trichlorofluoromethane	5.0 U	U	ug/L	5.0	SW846 8260D	5	05/28/2024 16:08	ILY	A
Vinyl Acetate	25.0 U	U	ug/L	25.0	SW846 8260D	5	05/28/2024 16:08	ILY	A
Vinyl Chloride	5.0 U	U	ug/L	5.0	SW846 8260D	5	05/28/2024 16:08	ILY	A

SURROGATES

Compound	CAS No	Recovery	Limits(%)	Analysis Date/Time	Qualifiers
1,2-Dichloroethane-d4	17060-07-0	104%	62 – 133	05/28/2024 16:08	
4-Bromofluorobenzene	460-00-4	102%	79 – 114	05/28/2024 16:08	
Dibromofluoromethane	1868-53-7	104%	78 – 116	05/28/2024 16:08	
Toluene-d8	2037-26-5	98.8%	76 – 127	05/28/2024 16:08	

Results

Client Sample ID	RW-1D	Collected	05/19/2024 14:15
Lab Sample ID	3360620003	Lab Receipt	05/20/2024 19:20

SEMIVOLATILE SIM

Compound	Result	Flag	Units	RDL	Method	Dilution	Analysis Date/Time	By	Cntr
1,4-Dioxane	127		ug/L	20.2	SW846 8270E SIM	20	06/03/2024 12:11	S7M	C

SURROGATES

Compound	CAS No	Recovery	Limits(%)	Analysis Date/Time	Qualifiers
2-Methylnapthalene-d10	7297-45-2	57%	29 – 112	05/29/2024 07:54	
2-Methylnapthalene-d10	7297-45-2	0*%	29 – 112	06/03/2024 12:11	
Fluoranthene-d10	93951-69-0	67.6%	45 – 130	05/29/2024 07:54	
Fluoranthene-d10	93951-69-0	80.8%	45 – 130	06/03/2024 12:11	

VOLATILE ORGANICS

Compound	Result	Flag	Units	RDL	Method	Dilution	Analysis Date/Time	By	Cntr
1,1,1,2-Tetrachloroethane	5.0 U	U,4	ug/L	5.0	SW846 8260D	5	05/28/2024 16:28	ILY	A
1,1,1-Trichloroethane	17.1		ug/L	5.0	SW846 8260D	5	05/28/2024 16:28	ILY	A
1,1,2,2-Tetrachloroethane	5.0 U	U	ug/L	5.0	SW846 8260D	5	05/28/2024 16:28	ILY	A
1,1,2-Trichloroethane	5.0 U	U	ug/L	5.0	SW846 8260D	5	05/28/2024 16:28	ILY	A
1,1-Dichloroethane	81.2		ug/L	5.0	SW846 8260D	5	05/28/2024 16:28	ILY	A
1,1-Dichloroethene	329		ug/L	5.0	SW846 8260D	5	05/28/2024 16:28	ILY	A
1,1-Dichloropropene	5.0 U	U	ug/L	5.0	SW846 8260D	5	05/28/2024 16:28	ILY	A
1,2,3-Trichlorobenzene	10.0 U	U	ug/L	10.0	SW846 8260D	5	05/28/2024 16:28	ILY	A
1,2,3-Trichloropropane	10.0 U	U	ug/L	10.0	SW846 8260D	5	05/28/2024 16:28	ILY	A
1,2,4-Trichlorobenzene	10.0 U	U	ug/L	10.0	SW846 8260D	5	05/28/2024 16:28	ILY	A
1,2-Dibromo-3-chloropropane	35.0 U	U	ug/L	35.0	SW846 8260D	5	05/28/2024 16:28	ILY	A
1,2-Dibromoethane	5.0 U	U	ug/L	5.0	SW846 8260D	5	05/28/2024 16:28	ILY	A
1,2-Dichlorobenzene	5.0 U	U	ug/L	5.0	SW846 8260D	5	05/28/2024 16:28	ILY	A
1,2-Dichloroethane	5.0 U	U	ug/L	5.0	SW846 8260D	5	05/28/2024 16:28	ILY	A
1,2-Dichloropropane	5.0 U	U	ug/L	5.0	SW846 8260D	5	05/28/2024 16:28	ILY	A
1,3-Dichlorobenzene	5.0 U	U	ug/L	5.0	SW846 8260D	5	05/28/2024 16:28	ILY	A
1,3-Dichloropropane	5.0 U	U	ug/L	5.0	SW846 8260D	5	05/28/2024 16:28	ILY	A
1,4-Dichlorobenzene	5.0 U	U	ug/L	5.0	SW846 8260D	5	05/28/2024 16:28	ILY	A
2,2-Dichloropropane	5.0 U	U	ug/L	5.0	SW846 8260D	5	05/28/2024 16:28	ILY	A
2-Butanone	50.0 U	U	ug/L	50.0	SW846 8260D	5	05/28/2024 16:28	ILY	A
2-Hexanone	25.0 U	U	ug/L	25.0	SW846 8260D	5	05/28/2024 16:28	ILY	A
4-Methyl-2-Pentanone(MIBK)	25.0 U	U	ug/L	25.0	SW846 8260D	5	05/28/2024 16:28	ILY	A
Acetone	50.0 U	U	ug/L	50.0	SW846 8260D	5	05/28/2024 16:28	ILY	A
Benzene	5.0 U	U	ug/L	5.0	SW846 8260D	5	05/28/2024 16:28	ILY	A
Bromobenzene	5.0 U	U	ug/L	5.0	SW846 8260D	5	05/28/2024 16:28	ILY	A
Bromochloromethane	5.0 U	U	ug/L	5.0	SW846 8260D	5	05/28/2024 16:28	ILY	A
Bromodichloromethane	5.0 U	U	ug/L	5.0	SW846 8260D	5	05/28/2024 16:28	ILY	A
Bromoform	5.0 U	U	ug/L	5.0	SW846 8260D	5	05/28/2024 16:28	ILY	A
Bromomethane	5.0 U	U,1	ug/L	5.0	SW846 8260D	5	05/28/2024 16:28	ILY	A
Carbon Tetrachloride	5.0 U	U	ug/L	5.0	SW846 8260D	5	05/28/2024 16:28	ILY	A
Chlorobenzene	5.0 U	U	ug/L	5.0	SW846 8260D	5	05/28/2024 16:28	ILY	A
Chlorodibromomethane	5.0 U	U,2	ug/L	5.0	SW846 8260D	5	05/28/2024 16:28	ILY	A
Chloroethane	9.3		ug/L	5.0	SW846 8260D	5	05/28/2024 16:28	ILY	A

Results

Client Sample ID	RW-1D	Collected	05/19/2024 14:15
Lab Sample ID	3360620003	Lab Receipt	05/20/2024 19:20

VOLATILE ORGANICS (cont.)

Compound	Result	Flag	Units	RDL	Method	Dilution	Analysis Date/Time	By	Cntr
Chloroform	5.0 U	U	ug/L	5.0	SW846 8260D	5	05/28/2024 16:28	ILY	A
Chloromethane	5.0 U	U	ug/L	5.0	SW846 8260D	5	05/28/2024 16:28	ILY	A
cis-1,2-Dichloroethene	5.0 U	U	ug/L	5.0	SW846 8260D	5	05/28/2024 16:28	ILY	A
cis-1,3-Dichloropropene	5.0 U	U	ug/L	5.0	SW846 8260D	5	05/28/2024 16:28	ILY	A
Dibromomethane	5.0 U	U	ug/L	5.0	SW846 8260D	5	05/28/2024 16:28	ILY	A
Dichlorodifluoromethane	5.0 U	U	ug/L	5.0	SW846 8260D	5	05/28/2024 16:28	ILY	A
Diisopropyl ether	5.0 U	U	ug/L	5.0	SW846 8260D	5	05/28/2024 16:28	ILY	A
Ethylbenzene	5.0 U	U	ug/L	5.0	SW846 8260D	5	05/28/2024 16:28	ILY	A
Hexachlorobutadiene	25.0 U	U	ug/L	25.0	SW846 8260D	5	05/28/2024 16:28	ILY	A
Methyl t-Butyl Ether	5.0 U	U	ug/L	5.0	SW846 8260D	5	05/28/2024 16:28	ILY	A
Methylene Chloride	5.0 U	U	ug/L	5.0	SW846 8260D	5	05/28/2024 16:28	ILY	A
mp-Xylene	10.0 U	U	ug/L	10.0	SW846 8260D	5	05/28/2024 16:28	ILY	A
Naphthalene	10.0 U	U	ug/L	10.0	SW846 8260D	5	05/28/2024 16:28	ILY	A
o-Chlorotoluene	5.0 U	U	ug/L	5.0	SW846 8260D	5	05/28/2024 16:28	ILY	A
o-Xylene	5.0 U	U	ug/L	5.0	SW846 8260D	5	05/28/2024 16:28	ILY	A
p-Chlorotoluene	5.0 U	U	ug/L	5.0	SW846 8260D	5	05/28/2024 16:28	ILY	A
p-Isopropyltoluene	5.0 U	U	ug/L	5.0	SW846 8260D	5	05/28/2024 16:28	ILY	A
Styrene	5.0 U	U	ug/L	5.0	SW846 8260D	5	05/28/2024 16:28	ILY	A
Tetrachloroethene	5.0 U	U	ug/L	5.0	SW846 8260D	5	05/28/2024 16:28	ILY	A
Toluene	5.0 U	U	ug/L	5.0	SW846 8260D	5	05/28/2024 16:28	ILY	A
Total Xylenes	15.0 U	U	ug/L	15.0	SW846 8260D	5	05/28/2024 16:28	ILY	A
trans-1,2-Dichloroethene	5.0 U	U	ug/L	5.0	SW846 8260D	5	05/28/2024 16:28	ILY	A
trans-1,3-Dichloropropene	5.0 U	U	ug/L	5.0	SW846 8260D	5	05/28/2024 16:28	ILY	A
Trichloroethene	5.0 U	U	ug/L	5.0	SW846 8260D	5	05/28/2024 16:28	ILY	A
Trichlorofluoromethane	5.0 U	U	ug/L	5.0	SW846 8260D	5	05/28/2024 16:28	ILY	A
Vinyl Acetate	25.0 U	U	ug/L	25.0	SW846 8260D	5	05/28/2024 16:28	ILY	A
Vinyl Chloride	5.0 U	U	ug/L	5.0	SW846 8260D	5	05/28/2024 16:28	ILY	A

SURROGATES

Compound	CAS No	Recovery	Limits(%)	Analysis Date/Time	Qualifiers
1,2-Dichloroethane-d4	17060-07-0	105%	62 – 133	05/28/2024 16:28	
4-Bromofluorobenzene	460-00-4	92.3%	79 – 114	05/28/2024 16:28	
Dibromofluoromethane	1868-53-7	103%	78 – 116	05/28/2024 16:28	
Toluene-d8	2037-26-5	97.6%	76 – 127	05/28/2024 16:28	

Sample - Method Cross Reference Table

Lab ID	Sample ID	Analysis Method	Preparation Method	Leachate Method
3360620001	RW-1S	SW846 8270E SIM	SW846 3510C	
		SW846 8260D	N/A	
3360620002	RW-2S	SW846 8270E SIM	SW846 3510C	
		SW846 8260D	N/A	
3360620003	RW-1D	SW846 8270E SIM	SW846 3510C	
		SW846 8260D	N/A	

QUALITY CONTROL SAMPLES

SEMIVOLATILE SIM

QC Batch

QC Batch	1207715	Prep Method	SW846 3510C
Date	05/22/2024 11:25	Analysis Method	SW846 8270E SIM
Tech.	MJA		

Associated Samples

3360620001 3360620002 3360620003

Matrix Spike

3828957 (MS) 3360617004 (non-Project Sample) For QC Batch 1207715

****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	4.60	4.30	1	NC	22 - 75		

SURROGATES

Compound	CAS No		Result (ug/L)	Expected (ug/L)	Rec. (%)	Limits (%)	Qualifiers
2-Methylnapthalene-d10	7297-45-2	MS	0.79	1	77.5	29 - 112	
Fluoranthene-d10	93951-69-0	MS	0.94	1	92.5	45 - 130	

Duplicate

3828958 (DUP) 3360617007 (non-Project Sample) For QC Batch 1207715

****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	404.3070	396.4130	RPD 1.97 (Max-30)	

SURROGATES

Compound	CAS No		Result (ug/L)	Expected (ug/L)	Rec. (%)	Limits (%)	Qualifiers
2-Methylnapthalene-d10	7297-45-2	DUP	5.80	1	562*	29 - 112	
2-Methylnapthalene-d10	7297-45-2	DUP	0.82	1	78.7	29 - 112	
Fluoranthene-d10	93951-69-0	DUP	1	1	99	45 - 130	

Method Blank

3828955 (MB) Created on 05/22/2024 06:55 For QC Batch 1207715

RESULTS

Compound	CAS No		Result	Units	RDL	Qualifiers
1,4-Dioxane	123-91-1	BLK	1.0 U	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-Methylnapthalene-d10	7297-45-2	BLK	0.74	1	73.9	29 - 112	
Fluoranthene-d10	93951-69-0	BLK	0.88	1	88.1	45 - 130	

Lab Control Standard 3828956 (LCS) Created on 05/22/2024 06:55 For QC Batch 1207715

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	0.37		1	37.3	22 - 75		U

SURROGATES

Compound	CAS No		Result (ug/L)	Expected (ug/L)	Rec. (%)	Limits (%)	Qualifiers
2-Methylnapthalene-d10	7297-45-2	LCS	0.86	1	86	29 - 112	
Fluoranthene-d10	93951-69-0	LCS	0.97	1	97	45 - 130	

QUALITY CONTROL SAMPLES

VOLATILE ORGANICS

QC Batch

QC Batch	1209901	Prep Method	N/A
Date	N/A	Analysis Method	SW846 8260D
Tech.			

Associated Samples

3360620001 3360620002 3360620003

Matrix Spike 3831044 (MS) 3360622014 (non-Project Sample) For QC Batch 1209901

****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 3831045 (MSD) 3360622014 (non-Project Sample) For QC Batch 1209901

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	22.90	0	20	114	78 - 121		
1,1,1,2-Tetrachloroethane	630-20-6	MSD	22.50	0	20	112	78 - 121	RPD 1.69 (Max-16)	
1,1,1-Trichloroethane	71-55-6	MS	25	2.50	20	112	66 - 130		
1,1,1-Trichloroethane	71-55-6	MSD	24	2.50	20	107	66 - 130	RPD 4.06 (Max-20)	
1,1,2,2-Tetrachloroethane	79-34-5	MS	17.80	0	20	89.1	74 - 135		
1,1,2,2-Tetrachloroethane	79-34-5	MSD	17	0	20	85.2	74 - 135	RPD 4.46 (Max-16)	
1,1,2-Trichloroethane	79-00-5	MS	19	0	20	94.8	82 - 126		
1,1,2-Trichloroethane	79-00-5	MSD	19.20	0	20	96.1	82 - 126	RPD 1.37 (Max-15)	
1,1-Dichloroethane	75-34-3	MS	23.70	5	20	93.5	78 - 124		
1,1-Dichloroethane	75-34-3	MSD	22.80	5	20	89.3	78 - 124	RPD 3.65 (Max-15)	
1,1-Dichloroethene	75-35-4	MS	38.30	19.50	20	93.7	63 - 128		
1,1-Dichloroethene	75-35-4	MSD	35.80	19.50	20	81.4	63 - 128	RPD 6.65 (Max-21)	
1,1-Dichloropropene	563-58-6	MS	20.90	0	20	104	76 - 126		
1,1-Dichloropropene	563-58-6	MSD	20.10	0	20	101	76 - 126	RPD 3.68 (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	18.30	0	20	91.3	61 - 126	RPD 2.10 (Max-36)	
1,2,3-Trichloropropane	96-18-4	MS	18.90	0	20	94.4	75 - 132		
1,2,3-Trichloropropane	96-18-4	MSD	18.10	0	20	90.5	75 - 132	RPD 4.31 (Max-19)	
1,2,4-Trichlorobenzene	120-82-1	MS	19.30	0	20	96.7	67 - 123		
1,2,4-Trichlorobenzene	120-82-1	MSD	18.50	0	20	92.6	67 - 123	RPD 4.41 (Max-22)	
1,2-Dibromo-3-chloropropane	96-12-8	MS	16.40	0	20	82.2	59 - 133		
1,2-Dibromo-3-chloropropane	96-12-8	MSD	16.40	0	20	82	59 - 133	RPD 0.31 (Max-26)	
1,2-Dibromoethane	106-93-4	MS	20.30	0	20	101	80 - 124		
1,2-Dibromoethane	106-93-4	MSD	20.30	0	20	102	80 - 124	RPD 0.31 (Max-19)	
1,2-Dichlorobenzene	95-50-1	MS	19.20	0	20	96.2	82 - 118		
1,2-Dichlorobenzene	95-50-1	MSD	18.30	0	20	91.5	82 - 118	RPD 5.01 (Max-15)	
1,2-Dichloroethane	107-06-2	MS	20.70	0	20	104	70 - 133		
1,2-Dichloroethane	107-06-2	MSD	20.70	0	20	103	70 - 133	RPD 0.38 (Max-19)	
1,2-Dichloropropane	78-87-5	MS	18.10	0	20	90.5	81 - 127		
1,2-Dichloropropane	78-87-5	MSD	17.70	0	20	88.4	81 - 127	RPD 2.35 (Max-15)	
1,3-Dichlorobenzene	541-73-1	MS	18.90	0	20	94.6	81 - 118		
1,3-Dichlorobenzene	541-73-1	MSD	18.10	0	20	90.5	81 - 118	RPD 4.44 (Max-16)	
1,3-Dichloropropane	142-28-9	MS	19	0	20	95.1	82 - 126		
1,3-Dichloropropane	142-28-9	MSD	19	0	20	95	82 - 126	RPD 0.06 (Max-15)	
1,4-Dichlorobenzene	106-46-7	MS	19.50	0	20	97.6	81 - 116		

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
1,4-Dichlorobenzene	106-46-7	MSD	18.60	0	20	93	81 - 116	RPD 4.85 (Max-15)	
2,2-Dichloropropane	594-20-7	MS	19	0	20	95.2	64 - 129		
2,2-Dichloropropane	594-20-7	MSD	18.10	0	20	90.5	64 - 129	RPD 5.13 (Max-18)	
2-Butanone	78-93-3	MS	89.40	0	100	89.4	50 - 152		
2-Butanone	78-93-3	MSD	86.30	0	100	86.3	50 - 152	RPD 3.55 (Max-16)	
2-Hexanone	591-78-6	MS	88.10	0	100	88.1	65 - 154		
2-Hexanone	591-78-6	MSD	87.20	0	100	87.2	65 - 154	RPD 1.02 (Max-17)	
4-Methyl-2-Pentanone(MIBK)	108-10-1	MS	86.50	0	100	86.5	71 - 146		
4-Methyl-2-Pentanone(MIBK)	108-10-1	MSD	87.60	0	100	87.6	71 - 146	RPD 1.27 (Max-16)	
Acetone	67-64-1	MS	82.60	0	100	82.6	40 - 151		
Acetone	67-64-1	MSD	84	0	100	84	40 - 151	RPD 1.70 (Max-40)	
Benzene	71-43-2	MS	20.20	0	20	101	80 - 124		
Benzene	71-43-2	MSD	19.60	0	20	97.8	80 - 124	RPD 3.15 (Max-26)	
Bromobenzene	108-86-1	MS	19.50	0	20	97.4	81 - 119		
Bromobenzene	108-86-1	MSD	18.50	0	20	92.7	81 - 119	RPD 4.90 (Max-17)	
Bromochloromethane	74-97-5	MS	21.90	0	20	110	73 - 117		
Bromochloromethane	74-97-5	MSD	21.50	0	20	107	73 - 117	RPD 1.88 (Max-19)	
Bromodichloromethane	75-27-4	MS	21.20	0	20	106	79 - 126		
Bromodichloromethane	75-27-4	MSD	21	0	20	105	79 - 126	RPD 1.20 (Max-16)	
Bromoform	75-25-2	MS	18.50	0	20	92.5	70 - 123		
Bromoform	75-25-2	MSD	18	0	20	89.9	70 - 123	RPD 2.89 (Max-16)	
Bromomethane	74-83-9	MS	15.60	0	20	78.1	45 - 148		
Bromomethane	74-83-9	MSD	18	0	20	90.2	45 - 148	RPD 14.40 (Max-26)	
Carbon Tetrachloride	56-23-5	MS	24.40	0	20	122	62 - 132		
Carbon Tetrachloride	56-23-5	MSD	23	0	20	115	62 - 132	RPD 6.22 (Max-17)	
Chlorobenzene	108-90-7	MS	20.70	0	20	103	85 - 117		
Chlorobenzene	108-90-7	MSD	20.10	0	20	100	85 - 117	RPD 2.84 (Max-15)	
Chlorodibromomethane	124-48-1	MS	21.70	0	20	109	77 - 122		
Chlorodibromomethane	124-48-1	MSD	21.60	0	20	108	77 - 122	RPD 0.54 (Max-15)	
Chloroethane	75-00-3	MS	18.50	0	20	92.3	51 - 142		
Chloroethane	75-00-3	MSD	17.70	0	20	88.3	51 - 142	RPD 4.44 (Max-24)	
Chloroform	67-66-3	MS	20.90	0	20	105	78 - 122		
Chloroform	67-66-3	MSD	19.90	0	20	99.7	78 - 122	RPD 4.82 (Max-16)	
Chloromethane	74-87-3	MS	14.30	0	20	71.6	38 - 156		
Chloromethane	74-87-3	MSD	13.50	0	20	67.5	38 - 156	RPD 5.89 (Max-27)	
cis-1,2-Dichloroethene	156-59-2	MS	21	0	20	105	78 - 125		
cis-1,2-Dichloroethene	156-59-2	MSD	19.40	0	20	97.1	78 - 125	RPD 7.87 (Max-21)	
cis-1,3-Dichloropropene	10061-01-5	MS	18.70	0	20	93.6	81 - 121		
cis-1,3-Dichloropropene	10061-01-5	MSD	18.70	0	20	93.6	81 - 121	RPD 0.01 (Max-16)	
Dibromomethane	74-95-3	MS	19.40	0	20	96.9	81 - 125		
Dibromomethane	74-95-3	MSD	19.20	0	20	96	81 - 125	RPD 0.92 (Max-16)	
Dichlorodifluoromethane	75-71-8	MS	21.30	0	20	107	17 - 166		
Dichlorodifluoromethane	75-71-8	MSD	19.70	0	20	98.6	17 - 166	RPD 7.82 (Max-24)	
Diisopropyl ether	108-20-3	MS	17.10	0	20	85.4	74 - 131		
Diisopropyl ether	108-20-3	MSD	16.90	0	20	84.4	74 - 131	RPD 1.18 (Max-15)	
Ethylbenzene	100-41-4	MS	21.20	0	20	106	80 - 124		
Ethylbenzene	100-41-4	MSD	20.50	0	20	103	80 - 124	RPD 3.02 (Max-19)	
Hexachlorobutadiene	87-68-3	MS	20.40	0	20	102	55 - 128		
Hexachlorobutadiene	87-68-3	MSD	20.10	0	20	100	55 - 128	RPD 1.62 (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
Methyl t-Butyl Ether	1634-04-4	MS	21.10	1.20	20	99.5	69 - 115		
Methyl t-Butyl Ether	1634-04-4	MSD	21	1.20	20	99.2	69 - 115	RPD 0.27 (Max-20)	
Methylene Chloride	75-09-2	MS	19.20	0	20	96.1	76 - 121		
Methylene Chloride	75-09-2	MSD	18.80	0	20	93.8	76 - 121	RPD 2.50 (Max-17)	
mp-Xylene	108383/106423	MS	42.70	0	40	107	79 - 125		
mp-Xylene	108383/106423	MSD	42	0	40	105	79 - 125	RPD 1.63 (Max-21)	
Naphthalene	91-20-3	MS	19.50	0	20	97.7	56 - 134		
Naphthalene	91-20-3	MSD	18.20	0	20	91	56 - 134	RPD 7.17 (Max-40)	
o-Chlorotoluene	95-49-8	MS	18.80	0	20	94.1	78 - 126		
o-Chlorotoluene	95-49-8	MSD	17.70	0	20	88.5	78 - 126	RPD 6.15 (Max-17)	
o-Xylene	95-47-6	MS	20.10	0	20	100	79 - 124		
o-Xylene	95-47-6	MSD	19.70	0	20	98.7	79 - 124	RPD 1.61 (Max-19)	
p-Chlorotoluene	106-43-4	MS	18	0	20	90.2	78 - 125		
p-Chlorotoluene	106-43-4	MSD	17	0	20	85.2	78 - 125	RPD 5.62 (Max-16)	
p-Isopropyltoluene	99-87-6	MS	18.90	0	20	94.5	72 - 123		
p-Isopropyltoluene	99-87-6	MSD	17.80	0	20	88.8	72 - 123	RPD 6.24 (Max-17)	
Styrene	100-42-5	MS	19.10	0	20	95.6	79 - 123		
Styrene	100-42-5	MSD	18.30	0	20	91.7	79 - 123	RPD 4.23 (Max-16)	
Tetrachloroethene	127-18-4	MS	20.90	0	20	104	72 - 124		
Tetrachloroethene	127-18-4	MSD	19.80	0	20	99	72 - 124	RPD 5.38 (Max-38)	
Toluene	108-88-3	MS	20.10	0	20	100	80 - 125		
Toluene	108-88-3	MSD	19.60	0	20	98.2	80 - 125	RPD 2.15 (Max-20)	
Total Xylenes	1330-20-7	MS	62.70	0	60	105	79 - 125		
Total Xylenes	1330-20-7	MSD	61.70	0	60	103	79 - 125	RPD 1.62 (Max-35)	
trans-1,2-Dichloroethene	156-60-5	MS	19.40	0	20	96.9	71 - 122		
trans-1,2-Dichloroethene	156-60-5	MSD	18.30	0	20	91.6	71 - 122	RPD 5.56 (Max-22)	
trans-1,3-Dichloropropene	10061-02-6	MS	19.70	0	20	98.5	78 - 126		
trans-1,3-Dichloropropene	10061-02-6	MSD	19.60	0	20	98.1	78 - 126	RPD 0.46 (Max-18)	
Trichloroethene	79-01-6	MS	20.60	0	20	103	77 - 124		
Trichloroethene	79-01-6	MSD	20.10	0	20	100	77 - 124	RPD 2.62 (Max-18)	
Trichlorofluoromethane	75-69-4	MS	23.20	0	20	116	38 - 123		
Trichlorofluoromethane	75-69-4	MSD	21.80	0	20	109	38 - 123	RPD 6.32 (Max-23)	
Vinyl Acetate	108-05-4	MS	17.10	0	20	85.7	58 - 136		
Vinyl Acetate	108-05-4	MSD	17.20	0	20	86.2	58 - 136	RPD 0.50 (Max-17)	
Vinyl Chloride	75-01-4	MS	19	0	20	95.1	27 - 138		
Vinyl Chloride	75-01-4	MSD	17.10	0	20	85.7	27 - 138	RPD 10.30 (Max-40)	

SURROGATES

Compound	CAS No		Result (ug/L)	Expected (ug/L)	Rec. (%)	Limits (%)	Qualifiers
1,2-Dichloroethane-d4	17060-07-0	MS	31.80	30	106	62 - 133	
1,2-Dichloroethane-d4	17060-07-0	MSD	32.60	30	109	62 - 133	
4-Bromofluorobenzene	460-00-4	MS	28.30	30	94.2	79 - 114	
4-Bromofluorobenzene	460-00-4	MSD	29.70	30	99.2	79 - 114	
Dibromofluoromethane	1868-53-7	MS	30.50	30	102	78 - 116	
Dibromofluoromethane	1868-53-7	MSD	31.50	30	105	78 - 116	
Toluene-d8	2037-26-5	MS	28.10	30	93.8	76 - 127	
Toluene-d8	2037-26-5	MSD	30.50	30	102	76 - 127	

QUALITY CONTROL SAMPLES

VOLATILE ORGANICS (cont.)

Method Blank 3831042 (MB) Created on 05/28/2024 10:53 For QC Batch 1209901

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
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

QUALITY CONTROL SAMPLES

VOLATILE ORGANICS (cont.)

RESULTS

Compound	CAS No		Result	Units	RDL	Qualifiers
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	31.30	30	104	62 - 133	
4-Bromofluorobenzene	460-00-4	BLK	29.40	30	98.1	79 - 114	
Dibromofluoromethane	1868-53-7	BLK	31	30	103	78 - 116	
Toluene-d8	2037-26-5	BLK	30.20	30	101	76 - 127	

Lab Control Standard 3831043 (LCS) Created on 05/28/2024 10:53 For QC Batch 1209901

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	22.80		20	114	78 - 121		
1,1,1-Trichloroethane	71-55-6	LCS	20.70		20	104	66 - 130		
1,1,2,2-Tetrachloroethane	79-34-5	LCS	18.90		20	94.6	74 - 135		
1,1,2-Trichloroethane	79-00-5	LCS	19.40		20	96.8	82 - 126		
1,1-Dichloroethane	75-34-3	LCS	18.40		20	91.9	78 - 124		
1,1-Dichloroethene	75-35-4	LCS	18.50		20	92.5	63 - 128		
1,1-Dichloropropene	563-58-6	LCS	19.10		20	95.7	76 - 126		
1,2,3-Trichlorobenzene	87-61-6	LCS	21.10		20	106	61 - 126		
1,2,3-Trichloropropane	96-18-4	LCS	20.20		20	101	75 - 132		
1,2,4-Trichlorobenzene	120-82-1	LCS	21.80		20	109	67 - 123		
1,2-Dibromo-3-chloropropane	96-12-8	LCS	17.60		20	88.1	59 - 133		
1,2-Dibromoethane	106-93-4	LCS	21		20	105	80 - 124		
1,2-Dichlorobenzene	95-50-1	LCS	20.60		20	103	82 - 118		
1,2-Dichloroethane	107-06-2	LCS	20.30		20	102	70 - 133		
1,2-Dichloropropane	78-87-5	LCS	17.60		20	87.8	81 - 127		
1,3-Dichlorobenzene	541-73-1	LCS	20.70		20	104	81 - 118		
1,3-Dichloropropane	142-28-9	LCS	19.50		20	97.4	82 - 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
1,4-Dichlorobenzene	106-46-7	LCS	21.40		20	107	81 - 116		
2,2-Dichloropropane	594-20-7	LCS	21.30		20	106	64 - 129		
2-Butanone	78-93-3	LCS	90.60		100	90.6	50 - 152		
2-Hexanone	591-78-6	LCS	89.40		100	89.4	65 - 154		
4-Methyl-2-Pentanone(MIBK)	108-10-1	LCS	87.90		100	87.9	71 - 146		
Acetone	67-64-1	LCS	92.10		100	92.1	40 - 151		
Benzene	71-43-2	LCS	19.30		20	96.4	80 - 124		
Bromobenzene	108-86-1	LCS	21		20	105	81 - 119		
Bromochloromethane	74-97-5	LCS	21.90		20	109	73 - 117		
Bromodichloromethane	75-27-4	LCS	20.60		20	103	79 - 126		
Bromoform	75-25-2	LCS	20		20	99.8	70 - 123		
Bromomethane	74-83-9	LCS	21.20		20	106	45 - 148		
Carbon Tetrachloride	56-23-5	LCS	21.30		20	106	62 - 132		
Chlorobenzene	108-90-7	LCS	20.60		20	103	85 - 117		
Chlorodibromomethane	124-48-1	LCS	22.10		20	110	77 - 122		
Chloroethane	75-00-3	LCS	14.20		20	71.2	51 - 142		
Chloroform	67-66-3	LCS	20		20	100	78 - 122		
Chloromethane	74-87-3	LCS	9.10		20	45.5	38 - 156		
cis-1,2-Dichloroethene	156-59-2	LCS	18.50		20	92.3	78 - 125		
cis-1,3-Dichloropropene	10061-01-5	LCS	19.70		20	98.7	81 - 121		
Dibromomethane	74-95-3	LCS	19.30		20	96.5	81 - 125		
Dichlorodifluoromethane	75-71-8	LCS	7.50		20	37.4	17 - 166		
Diisopropyl ether	108-20-3	LCS	16.80		20	83.9	74 - 131		
Ethylbenzene	100-41-4	LCS	20.70		20	104	80 - 124		
Hexachlorobutadiene	87-68-3	LCS	23.80		20	119	55 - 128		
Methyl t-Butyl Ether	1634-04-4	LCS	20.20		20	101	69 - 115		
Methylene Chloride	75-09-2	LCS	18.50		20	92.3	76 - 121		
mp-Xylene	108383/106423	LCS	42.10		40	105	79 - 125		
Naphthalene	91-20-3	LCS	19.90		20	99.6	56 - 134		
o-Chlorotoluene	95-49-8	LCS	19.30		20	96.5	78 - 126		
o-Xylene	95-47-6	LCS	20		20	100	79 - 124		
p-Chlorotoluene	106-43-4	LCS	19.30		20	96.6	78 - 125		
p-Isopropyltoluene	99-87-6	LCS	19.90		20	99.6	72 - 123		
Styrene	100-42-5	LCS	20.40		20	102	79 - 123		
Tetrachloroethene	127-18-4	LCS	21		20	105	72 - 124		
Toluene	108-88-3	LCS	19.80		20	99	80 - 125		
Total Xylenes	1330-20-7	LCS	62.10		60	104	79 - 125		
trans-1,2-Dichloroethene	156-60-5	LCS	18.30		20	91.4	71 - 122		
trans-1,3-Dichloropropene	10061-02-6	LCS	20.90		20	105	78 - 126		
Trichloroethene	79-01-6	LCS	19.50		20	97.3	77 - 124		
Trichlorofluoromethane	75-69-4	LCS	19.10		20	95.5	38 - 123		
Vinyl Acetate	108-05-4	LCS	20.10		20	100	58 - 136		
Vinyl Chloride	75-01-4	LCS	12.60		20	62.9	27 - 138		

QUALITY CONTROL SAMPLES

VOLATILE ORGANICS (cont.)

SURROGATES

Compound	CAS No		Result (ug/L)	Expected (ug/L)	Rec. (%)	Limits (%)	Qualifiers
1,2-Dichloroethane-d4	17060-07-0	LCS	32.70	30	109	62 - 133	
4-Bromofluorobenzene	460-00-4	LCS	31.40	30	105	79 - 114	
Dibromofluoromethane	1868-53-7	LCS	31.20	30	104	78 - 116	
Toluene-d8	2037-26-5	LCS	30.10	30	100	76 - 127	

QUALITY CONTROL DATA CROSS REFERENCE TABLE

Lab ID	Sample ID	Preparation Method	Prep Batch	Prep Date/Time	By	Analysis Method	Anly Batch
3360620001	RW-1S	SW846 3510C	1207715	05/22/2024 11:25	MJA	SW846 8270E SIM	1208566
		N/A	N/A	N/A		SW846 8260D	1209901
3360620002	RW-2S	SW846 3510C	1207715	05/22/2024 11:25	MJA	SW846 8270E SIM	1208566
		N/A	N/A	N/A		SW846 8260D	1209901
3360620003	RW-1D	SW846 3510C	1207715	05/22/2024 11:25	MJA	SW846 8270E SIM	1208566
		SW846 3510C	1207715	05/22/2024 11:25	MJA	SW846 8270E SIM	1211483
		N/A	N/A	N/A		SW846 8260D	1209901

ALS
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.

3360620
Logged By: SLS
PM: SJB

COC # ... of

Client Name: WSP USA

Address: 13530 Dulles Technology Dr
Suite 300
Herndon VA 20171

Contact: Eric Johnson

Phone#:

Project Name/#: Kop-Flex Onsite 31405608.010

Bill To: P102839 00 US001

Purchase Order #: ~~P1028390US001~~

TAT: [X] Normal-Standard TAT is 10-12 business days. [ ] Rush-Subject to ALS approval and surcharges.

Date Required: Approved?

Email? [ ]

	Container Type	CG	AG
	Container Size	40mL	250
	Preservative	HCL	None

Orthophosphate Filtered? Yes No Hexavalent Chromium Filtered? Yes No

ANALYSIS / METHOD REQUESTED

Enter Number of Containers Per Sample or Field Results Below.

	Sample Description/Location (as it will appear on the lab report)	Date Collected mm/dd/yy	Time hh:mm	SDWA Sample Type (see key)	*G or C	**Matrix (See bottom of COC)	VOCs: EPA 8260	8270 1,4 Dioxane
1	RW-1S	5/19/24	1125		G	GW	2X	2X
2	RW-2S	5/19/24	1145		G	GW	2X	2X
3	RW-1D	5/19/24	1415		G	GW	2X	2X
4	~~RW-2D~~						DDB 5/20/24	
5								
6								
7								
8								
9								
10								

Circle Sample Collector: ALS Tech / (Client)

Name: ID:

Comments:

Date	Time		Relinquished By / Company Name		Received By / Company Name
5/20/24	1555	1	[signature] / WSP	2	[signature] ALS
5/20/24	0930	3	D Blanton ALS	4	[signature]
5/20/24		5		6	
		7		8	
		9		10	

Temp By: DDB | WO Temp (°C): 1° | Therm ID: 871

Receipt Info Completed By: DPB
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
Correct Containers Provided: Y N
Sample Label/COC Agree: Y N
Adequate Sample Volumes: Y N
CR6 Samples Filtered: Y N NA
OP Samples Filtered: Y N NA
VOA Trip Blank: Y N NA
NJ≤ 4 Days? Y N
Rad Screen (uCi)
Courier/Tracking #:

SDWA Compliance Y N
PWSID
WV Containers 0-6°C Y N NA

Deviations? NO YES
If YES, list below

Client contact:
Date/Tech

Rad Screen (uCi)
New Source? Y N
New Source Contact:

PWS Contact: PWS Phone #:

SDWA Sample Type Key: D=Distribution E=Entry Point R=Raw P=Plant C=Check S=Special A=Annual Startup

Sample/COC Remarks

Contains Short Hold Testing YES NO

Internal Use: If less than 48 hours - notify lab upon receipt

Data Deliverables: [ ] Standard Lvl 1 [ ] Standard Lvl 2 [ ] Standard Lvl 3 [ ] Standard Lvl 4 [ ] CLP-like [ ] DOD [ ] NJ RED [ ] NJ Full [ ] HSCA [ ] Landfill [ ] NJ GW [ ] ____

EDDs: [ ] Excel Summary [ ] Equis [ ] Custom

EDDS: Format Type

Sample Disposal: Lab [ ] Special [ ]

State Samples Collected In: [ ] NY [ ] NJ [ ] PA [ ] WV [ ] FL other

* 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=Wipe; WW=Wastewater

ALS SHIPPING ADDRESS: 301 Fulling Mill Road, Suite A, Middletown, PA 17057

Rev 07.06.2023