EMERSUB 16 LLC

2023 OFFSITE GROUNDWATER MONITORING REPORT

FORMER KOP-FLEX FACILITY SITE, HANOVER, MARYLAND

July 17, 2024



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EMERSUB 16 LLC

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1 INTRODUCTION

On behalf of EMERSUB 16 LLC, WSP USA Inc. (WSP) has prepared this Offsite Groundwater Monitoring Report for activities performed in 2023 to assess the water quality conditions with respect to the groundwater plume emanating from the Former Kop-Flex Facility Site (Site) located at 7555 Harmans Road in Hanover, Maryland (Figure 1). The Site is identified as MD0286 under the Brownfield Master Inventory system used by the Maryland Department of the Environment (MDE) Land Restoration Program. This report pertains to the MDE-approved response action activities that are being conducted to address the groundwater impacts in the offsite area of the Site, which includes non-residential (light industrial) facilities bordering the former Kop-Flex facility to the north (Verizon Communications), and south and east (Williams Scotsman, Inc.) along with residential communities and commercial businesses to the south of Maryland Route 100.

Previous environmental investigations initiated in 1996 identified soil and groundwater impacts associated with historical releases of chlorinated solvents at the Site. The results of investigations conducted in the offsite areas also showed that volatile organic compounds (VOCs) and 1,4-dioxane contained in the solvents had migrated to the south and southeast within the deep zone of the Lower Patapsco aquifer underlying the former facility. Since that time, an offsite groundwater monitoring plan has been developed in conjunction with the implementation of an onsite hydraulic containment system in 2017. The objectives of the ongoing monitoring program are to evaluate the trends in concentrations of site-related constituents of concern (COCs) in the aquifer system downgradient of the former Kop-Flex facility and assess whether additional actions are warranted to prevent exposure to Site-derived constituents by homeowners who use private wells as their drinking water source.

This 2023 Offsite Groundwater Monitoring Report consists of the following sections:

- Section 2 – Site Description and Background
- Section 3 – Environmental Setting and Hydrogeology
- Section 4 – Groundwater Monitoring Plan Sampling Procedures
- Section 5 – 2023 Sampling Results
- Section 6 – Mann-Kendall Trend Analysis
- Section 7 – Summary and Conclusions, including planned 2024 monitoring activities.

2 SITE DESCRIPTION

The Site is located at 7555 Harmans Road in Hanover, Anne Arundel County, Maryland. The Site occupies a total area of approximately 25 acres and contains three buildings - two buildings used as office and warehouse/operations space by the current operator – Catalent Biologics (Catalent)- and a small groundwater treatment facility operated by WSP in the west-central portion of the property (Figure 1). The two large buildings were constructed during re-development of the property in 2016. The property is bordered to the north, east and south by light industrial operations and to the west by undeveloped land along Stony Run (a tributary of the Patapsco River), a small residential development and Harmans Road.

The former facility was constructed on previously undeveloped land in 1969 by Koppers Company, Inc., a predecessor in real estate interest of Kop-Flex, Inc. Emerson Electric Co. (Emerson) acquired Kop-Flex in 1996 and continued manufacturing activities until facility operations ceased in late 2012. In December 2014, Emerson transferred the property to its wholly owned subsidiary EMERSUB 16 LLC, which subsequently sold the property. The property is currently owned and operated by Catalent Harmans Road, LLC (Catalent).

During 2016 and early 2017, the property was redeveloped for commercial use, with the construction of two new buildings separated by a truck loading area (Figure 1). At present, Catalent is making modifications to the interior of the South Building for future business operations.

Much of the broader neighborhood in which the Site is located is primarily characterized by residential developments (single-family homes and townhouses) and undeveloped land (Figure 1). A small number of areas, primarily to the north and east, are subject to commercial and light industrial/industrial park uses. The following table summarizes the nearby land uses.

Direction	Operator Name	Address	Property Use
North	Verizon	7545 Harmans Road	Maintenance Facility
South	William Scotsman, beyond which is Maryland State Route 100	7539 Harmans Road	Mobile Trailer Distributor – Trailer Storage
East	William Scotsman, beyond which are railroad tracks	7539 Harmans Road	Mobile Trailer Distributor – Office/Fabrication Building and Trailer Storage
West	Stony Run with surrounding undeveloped land and Harmans Preserve	-----	Open space and residences (townhomes)

3 ENVIRONMENTAL SETTING

3.1 TOPOGRAPHY AND SURFACE DRAINAGE

Anne Arundel County is located within the Atlantic Coastal Plain Physiographic Province. The Hanover-Severn area is situated approximately 5 miles from the Fall Line, which marks the boundary at the ground surface between the unconsolidated deposits of the Coastal Plain and the igneous and metamorphic crystalline rocks of the Piedmont Physiographic Province. Based on the United States Geological Survey (USGS) topographic 7.5-minute series quadrangle map for Relay, Maryland (revised 1974), the Site lies within an area of rolling to hilly terrain dissected by numerous perennial to intermittent streams. Overall, the highest elevations (greater than 200 feet above mean sea level [MSL]) occur in the Hanover-Severn area south and west of the former Kop-Flex facility with the lowest area (approximately 90 feet above MSL) present to the north along Stony Run.

According to the USGS topographic map, the closest stream is Stony Run, which flows across the northwestern portion of the former Kop-Flex property. Streamflow associated with the Stony Run drainage system progresses northward and eventually discharges into the Patapsco River. Additionally, numerous small, predominately man-made pond areas have been identified and mapped in the vicinity of Stony Run and its tributaries in the Hanover-Severn area. The largest of these is a hydrologically isolated pond located approximately 0.3 mile south of the site in the Harmans Woods community.

3.2 LOCAL GEOLOGIC AND HYDROGEOLGIC SETTING

Evaluation of the borehole lithologic data within the context of the regional stratigraphic framework indicates the unconsolidated deposits in the Hanover-Severn area include units of the Lower Cretaceous Potomac Group. The most detailed lithologic information is provided by the logging of cores obtained from boreholes drilled by WSP for the onsite and offsite monitoring wells. Construction details for the offsite wells are provided in Table 1. Based on the borehole data, the following discussion provides an overview of the geologic conditions in the onsite and offsite areas.

The youngest deposits at the Site are a combination of Quaternary alluvial sediments associated with the depositional processes along Stony Run and its tributaries, and fill materials associated with historical Site development. Based on the boring logs, the maximum thickness of these deposits in this area is approximately 20 feet as shown on the geologic cross section in Figure 2.

Lower Cretaceous litho-stratigraphic units underlie the Quaternary-age deposits down to an elevation of greater than -300 feet mean sea level (MSL). The primary Cretaceous-age litho-stratigraphic units and their corresponding hydro-stratigraphic equivalents beneath the former Kop-Flex facility and offsite area, from youngest (shallowest) to oldest (deepest), include the following (Figure 2):

- Patapsco Formation (Upper Patapsco aquifer, Lower Patapsco confining unit and Lower Patapsco aquifer)
- Arundel Clay (Arundel Clay confining unit)
- Patuxent Formation (Patuxent aquifer)

Specific information on the Lower Patapsco and Patuxent aquifers and Arundel Clay confining unit, along with general information regarding the transport of dissolved contaminants within the aquifer system, is provided in the conceptual hydrogeologic model discussed in the following section.

3.3 CONCEPTUAL HYDROGEOLOGIC MODEL

3.3.1 UPPER PATAPSCO AQUIFER

The Upper Patapsco aquifer is the shallowest hydrogeologic unit within the Hanover-Severn, Maryland area. The Upper Patapsco is not present at the former Kop-Flex Facility Site but effectively starts 0.8 miles to the southeast. Based on the hydrogeologic cross-section, the outcrop area[1] for this aquifer extends from the vicinity of Telegraph Road (Maryland Route 170) south and east toward Clark Station Road and WB&A Road. The aquifer is comprised of mostly fine to medium-grained sands, which are interbedded with clay deposits and is underlain by clayey deposits that serve as the confining unit for the Lower Patapsco aquifer.

Given the shallow depth of the Upper Patapsco aquifer in the area of interest, groundwater is presumed to occur under an unconfined condition where the top of the aquifer coincides with the water table. Detailed information on the aquifer depth is limited due to a lack of data from shallow wells installed in the residential areas east of Telegraph Road. Based on the lithologic log for monitoring well MW-34D located a short distance east of Telegraph Road, the Upper Patapsco aquifer in this area occurs to a depth of approximately 45 feet (Figure 2).

Constituents released at the Former Kop-Flex Facility Site would not be present in the Upper Patapsco aquifer. Rather, to the extent they have migrated downgradient, they would be in the deeper zone of the Lower Patapsco aquifer. Groundwater present in the Upper Patapsco aquifer derives from the infiltration of precipitation over the outcrop area. The upward movement of groundwater from the underlying Lower Patapsco aquifer is not a contributing source of water to this hydrogeologic unit.

3.3.2 LOWER PATAPSCO AQUIFER

The Lower Patapsco aquifer occurs over the entire area of interest, which extends south and east from the Site to the residential communities beyond the portion of Telegraph Road south of Reece Road. The aquifer ranges in thickness from approximately 170 feet at the southern boundary of the Site to approximately 320 feet in the residential areas south of Reece Road (Figure 2). Overall, the aquifer in the area consists of a layered sequence of alternating sandy and clayey sediments with the layers dipping to the south and east.[2] The sand-dominated units are comprised of fine to coarse-grained sands with discontinuous lenses of fine-grained (silt and clay) sediments. These sandy zones are inter-layered with two, regionally extensive units of predominately dense clay deposits of varying thickness.

A shallow sand layer occurs to depths ranging from 40-60 feet below ground surface (bgs) on and around the Site to 70-75 feet bgs in the Harmans Woods community to the south. Another shallow sand unit is present over a similar depth interval in the vicinity of Reece Road and to the south in the Andorick Acres community. In addition to these shallow sand units, a deep sand layer extends over the entire area. The depth to the top of this deep sand unit varies from 80-90 feet bgs on the southern portion of the Site to greater than approximately 200 feet bgs in the Andorick Acres community. The thickness of this unit is approximately 90 feet in the northern portion of the area of interest and 160 feet further south. Fine-grained sediments comprising a regionally extensive clayey layer separates the shallow and deep sand units and serves as a low permeability,

[1] An outcrop area comprises an area of land where the unconsolidated sediments comprising a geologic unit occur at or very close to the ground surface.
[2] In geologic terminology, dip refers to the 'tilting' of a bed or series of layered beds from a horizontal orientation. This tilting, or inclination, of the bed(s) typically results in the depth to a given bed increasing in the direction of dip.

leaky confining unit for the deep sand zone. This confining unit would act as a low permeability barrier limiting the movement of groundwater and dissolved COCs between the shallow and deep sand zones.

At the Site, groundwater in the shallow zone of the Lower Patapsco aquifer occurs under an unconfined condition, although semi-confined conditions may exist in areas where fine-grained clayey deposits are present in the shallow subsurface.[3] Evaluation of the water level data from the shallow onsite and offsite monitoring wells indicates the general direction of groundwater flow, is to the north and west within the shallow sand zone in the area (Figure 3). The direction of shallow groundwater movement generally mimics the overall local surface topography described above, with groundwater providing a source of water (*i.e.*, baseflow) to local streams, and wetland areas and surface water bodies near stream courses.

Groundwater occurs under leaky confined conditions in the deep sand zone of the Lower Patapsco aquifer at the Site.[4] Evaluation of the water level data from monitoring wells screened in this deep sand zone indicates generally south-southeast flow paths for groundwater moving through this portion of the Lower Patapsco aquifer (Figure 3).[5] (Further discussion of the groundwater flow system within the deep portion of the Lower Patapsco aquifer is provided in Section 5.2 of this report.) In addition, for the onsite area and offsite Harmans Woods community immediately south of Route 100, the water level elevations in monitoring wells screened in the shallow zone are higher than elevations in the deep monitoring wells (Figure 3). This difference in the water levels between the shallow and deep monitoring wells indicates the existence of hydrologic conditions that can result in the downward movement of groundwater, and associated dissolved constituents, from the shallow sand zone to the deep sand zone of the Lower Patapsco aquifer. The downward flow of groundwater would be controlled and limited by the low permeability clayey deposits that constitute the confining unit that separates the sand zones. The water level data do not indicate conditions that would result in the upward flow of groundwater and dissolved constituents from the deep sand zone to the overlying shallow zone.

In summary, the Lower Patapsco aquifer at the Site consists of shallow (unconfined to semi-confined) and deep (leaky confined) sand units that serve as conduits for groundwater flow and associated transport of dissolved constituents. Groundwater in the shallow sand zone generally flows from the residential areas south of Maryland Route 100 (*e.g.*, the Harmans Woods community) to the north and west toward the former Kop-Flex facility and Stony Run, while groundwater in the deep sand zone flows in a south-southeastward direction. Hydrologic conditions cause groundwater and dissolved constituents to move vertically downward from the shallow to deep zones of the aquifer in the area. Dissolved VOCs that reached the deep sand zone underlying the former Kop-Flex facility would continue to migrate with water moving to the south-southeast through the sandy deposits in the deep portion of the Lower Patapsco aquifer. The presence of aquitards separating the deep and shallow zones of the Lower Patapsco aquifer also obviate the potential for volatile constituents to migrate upward with the soil vapor to the ground surface in the downgradient, offsite area. Moreover, the presence of a clay aquitard below the deep zone of the Lower Patapsco aquifer prevents constituents from migrating to the Patuxent aquifer, which underlies the Lower Patapsco aquifer.

Thus, COCs released to groundwater at the Former Kop-Flex Site will migrate downward. Some mass remains in the shallow zone of the of the Lower Patapsco aquifer and migrates to the north and west. Dissolved COCs that enter the deeper zone remain confined in that zone and migrate to the south and east.

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[3] A semi-confined aquifer is an aquifer that is partially overlain, or confined, by a layer(s) of low permeability material through which groundwater movement may occur.

[4] A leaky aquifer is an aquifer whose upper and lower boundaries consist of continuous low permeability materials through which groundwater movement may occur.

[5] In this report, when a reference is made to a deep monitoring well, it means that it is either screened in the deep confined portion of the Lower Patapsco aquifer, or in the Patuxent aquifer (described in Section 3.3.4).

3.3.3 ARUNDEL CLAY

The Arundel Clay underlies the Lower Patapsco aquifer and separates it from the Patuxent Aquifer (Figure 2). This unit consists predominately of hard, dense clay that ranges in color from gray to dark gray and red to very dark brown, with rare thin beds of well-graded sand. Organic (plant) matter is present throughout much of the clayey deposits comprising this litho-stratigraphic unit in the offsite area. Given the southeastward dipping, or tilting, of the geologic units in northern Anne Arundel County, the depth to the top of the Arundel Clay increases in a south and east direction from the former Kop-Flex property. Depths to the upper boundary of this unit vary from 160 feet bgs at the southern Site boundary to 210 feet bgs at the MW-36 well location in the Harmans Woods community to approximately 370 feet bgs in the central portion of the Andorick Acres community. Based on the lithologic logs for offsite wells that were advanced through the Arundel Clay and into the underlying Patuxent Aquifer, the thickness for this unit ranges from approximately 40 feet to 120 feet over the Hanover-Severn area. The lithologic data indicates the Arundel Clay attains its maximum thickness in the northern portion of the area of interest – Site and Harmans Woods community – and decreases to less than 70 feet further south in the Andorick Acres neighborhood. The low permeability of the predominately clayey deposits indicates the Arundel Clay serves as a regionally extensive confining unit for the underlying Patuxent aquifer within the Coastal Plain aquifer system. Given the fact this thick aquitard separating the deep zone of the Lower Patapsco aquifer from the underlying Patuxent aquifer has a very low permeability, site-related contaminants that have migrated to the area to the south of the facility property are confined to the deep zone of the Lower Patapsco aquifer.

3.3.4 PATUXENT AQUIFER

The Patuxent aquifer is the deepest aquifer encountered in the Hanover-Severn area and comprises the porous sand deposits of the Patuxent Formation beneath the Arundel Clay. Detailed information on the lithologic characteristics of this hydro-stratigraphic unit is minimal in the area of interest due to the limited advancement of well boreholes into this aquifer.[6] Using the available borehole data, the depth to the top of the aquifer ranges from approximately 350 feet bgs in the Harmans Woods community (MW-36D location) to approximately 410 feet bgs in the Andorick Acres neighborhood. The aquifer depth is supported by the construction details for the residential well at 1409 Bittersweet Drive in the Andorick Acres community, which is completed at a depth of 465 feet bgs or approximately 50 feet below the aquifer's upper boundary. Based on regional hydrogeologic studies, the Patuxent aquifer is believed to approach a thickness of approximately 250 feet in northwestern Anne Arundel County.

Groundwater flow within the Patuxent aquifer occurs under leaky confined conditions, with the Arundel Clay comprising the confining unit. Evaluation of historical water level data collected from observation wells in northern Anne Arundel County indicated a generally eastward flow of groundwater within the Patuxent aquifer in the Hanover-Severn area. This flow direction, which differs from that determined for the deep sand zone of the overlying Lower Patapsco aquifer, is the result of withdrawals at a public water supply wellfield located along Dorsey Road to the east of the Site. Significant groundwater withdrawals from the Dorsey Road wellfield started in the 1960's and have continued through 2023. Based on water supply studies conducted by the Maryland Geological Survey for the Anne Arundel County Department of Public Works, there have been no major changes to the average pumping from the Patuxent aquifer at this well field. Potentiometric levels determined from depth to water measurements at the two offsite monitoring wells – MW-30D-413 and MW-36D – are consistent with

[6] Prior to the 2018 well installation activities, no monitoring wells had been completed in the Patuxent aquifer as part of the offsite groundwater investigation activities. The deeper well at the MW-30D location, as well as MW-36D were installed beneath the Arundel Clay to provide more hydrogeologic and geochemical information for this aquifer in the area of interest.

the eastward flow paths ascertained from the previous investigations. The data from these wells further demonstrates that the Arundel Clay is serving as a competent aquitard, or hydraulic barrier, between the groundwater flow in the Lower Patapsco and Patuxent aquifers. Given the geology and direction of groundwater flow, dissolved constituents (including potentially VOCs) detected in the Patuxent aquifer are most likely derived from source areas to the west of the Severn, Maryland area and not via downward migration from the Lower Patapsco aquifer through the Arundel Clay confining unit or aquitard.

4 GROUNDWATER MONITORING PLAN AND FIELD PROCEDURES

4.1 OVERVIEW OF GROUNDWATER SAMPLING ACTIVITIES

The locations of the offsite monitoring wells are shown in Figure 4. Offsite groundwater monitoring activities were conducted during the second and fourth quarters of 2023, with the exception of two monitoring wells located on the Williams-Scotsman, Inc. property - MW-24D and MW-45 – which were sampled early in the third quarter of 2023. During the second quarter sampling round, it was discovered that the disposable passive sampling devices (HydraSleeve™) had not been deployed in these two wells during the prior (November 2022) sampling event due to a field oversight. Samplers were immediately placed in these monitoring wells and then allowed to equilibrate until the next site visit in July 2023.

The monitoring activities completed during these quarters involved the collection of water level measurements and groundwater quality samples from all offsite monitoring wells screened in the Lower Patapsco and Patuxent aquifers. No groundwater monitoring activities were conducted during the first or third quarters of 2023, aside from the gauging and sampling of MW-24D and MW-45 in mid-July. All activities were performed following WSP's standard operating procedures (SOP's) and the September 2015 *Offsite Groundwater Monitoring Plan* approved by MDE and the U.S. Environmental Protection Agency (EPA). Additional information regarding the semi-annual 2023 monitoring activities is provided below.

4.2 WATER LEVEL MEASUREMENTS

The water level was measured at each offsite monitoring well using an electronic water level indicator to determine the hydraulic head within the portion of the aquifer system screened by the well. In addition, the total well depth was checked at the same time to identify potential siltation problems inside the well casing. All field measurements were recorded in a bound field notebook. Historical water level measurements for the offsite monitoring wells, including data from the 2023 gauging events, are included in Table 2.

4.3 HYDRASLEEVE SAMPLING

The HydraSleeve™ sampler was used to collect groundwater samples from the offsite monitoring wells in 2023. The HydraSleeve™ is a passive/no-purge sampling device capable of collecting representative groundwater samples for analysis of a range of dissolved groundwater constituents, including VOCs and 1,4-dioxane.

Since initiation of the passive sampling method in late 2016, the groundwater samples were collected using standard-size HydraSleeve™ samplers that were 30-inches (2.5 feet) in length. The top of the samplers was deployed such that the water sample would be collected from the middle portion of the well screen (Table 3). In 2022, WSP decided to change the analytical method used to analyze the groundwater samples for 1,4-dioxane from USEPA SW-846 Method 8260D with selected ion monitoring (SIM) to the more accurate USEPA SW-846 Method 8270E with SIM. Given the larger sample volume necessary for the 8270E test method, the standard HydraSleeve™ was not able to retrieve enough water for the laboratory analysis and provide a sample aliquot for measurement of field hydrogeochemical parameters. Consequently, in December 2023, WSP switched to using longer (38-inch or 3.2-foot) HydraSleeve™ samplers, which would provide sufficient volume for all required laboratory and field analyses. In addition, monitoring well MW-25D-130 was fitted with a

SuperSleeve sampling device, which has an even longer length of 5 feet, to provide the necessary volume to collect the matrix spike/matrix spike duplicate (MS/MSD) samples. The top of the new HydraSleeves™ were suspended at the midpoint of the screen in each well such that retrieval would collect water from the overlying interval equal to the sampler length (Table 3). The new deployment depths differ from those for the previous (standard-size) HydraSleeve™ samplers, which were positioned at a depth slightly below the screen midpoint. Given the modified deployment depth and slightly greater sampler length, the newly deployed HydraSleeves™ samplers target a longer sampling interval within the upper portion of the well screen (Table 3).

The HydraSleeves™ were installed in the wells by attaching the samplers to a weighted, nylon suspension tether and setting the sampler at the pre-determined depth within the screened interval. The suspension line was secured at the wellhead to ensure the sampler remained at the designated depth during the stabilization period, which corresponded to the time between sampling events. The groundwater sample was collected by continuously pulling upward on the suspension line until the HydraSleeve™ was full. The HydraSleeve™ was removed from the well, and the water immediately transferred to the appropriate sample containers to minimize any diffusive loss of VOCs through the polyethylene wall of the sampler. After obtaining the requisite sample volume for chemical analysis, a representative amount of the remaining water was placed into the sample cup of a Horiba U-52 multi-parameter field meter for measurement of the following hydrogeochemical parameters:

- Temperature
- pH
- Specific conductivity
- Turbidity

The field parameter measurements for each sample were documented in a field notebook. Field hydrogeochemical parameter measurements were not made in May 2023 because the size of the standard Hydrasleeve™ samplers deployed for that sampling event did not yield sufficient volume. Field geochemical parameters were collected in December 2023 from the larger Hydrasleeves™, except at MW-25D-130 and MW-25D-190, where field duplicate and MS/MSD samples were collected, and insufficient volume remained for the field measurements. Table 4 includes the field parameter measurements for the December 2023 sampling event.

Following sample collection and field parameter measurements, a new HydraSleeve™ sampler was deployed in the well for the next sampling event.

4.4 ANALYTICAL METHODS

All groundwater samples were analyzed by the ALS Global (ALS) environmental laboratory in Middletown, Pennsylvania, for VOCs using U.S. EPA SW-846 Test Method 8260D. In addition, the samples were analyzed for 1,4-dioxane using U.S. EPA Method 8270E with SIM. These test methods were also used for field quality control (QC) samples – i.e., trip blanks and duplicate samples.

5 2023 GROUNDWATER MONITORING RESULTS

5.1 GROUNDWATER QUALITY STANDARDS FOR SITE-RELATED VOCS

The current (October 2018) MDE groundwater quality standards represent the comparative criteria for all known site-related COCs detected in the offsite groundwater, excluding 1,4-dioxane (which is discussed later on in this section). The applicable water quality standards are provided below.

- 1,1,1-Trichloroethane (TCA) – 200 micrograms per liter (µg/l)
- 1,1-Dichloroethene (DCE) – 7 µg/l
- 1,1-Dichloroethane (DCA) – 2.8 µg/l
- *cis*-1,2-DCE – 70 µg/l
- Trichloroethene (TCE) – 5 µg/l

These values correspond to the standards for Type I and II unconfined and confined aquifers and, with the exception of 1,1-DCA, are consistent with the maximum contaminant levels (MCLs) and secondary MCLs developed by the U.S. EPA under the Safe Drinking Water Act. It is worth noting that there is no Federal MCL for 1,1-DCA. Based on the site hydrogeologic and hydrogeochemical data, the Lower Patapsco aquifer and Patuxent aquifer meet the definition of a Type I aquifer provided in the MDE document *Cleanup Standards for Soil and Groundwater, Interim Final Guidance (Update No. 3)*.

At present, no groundwater quality standard has been promulgated by MDE or U.S. EPA for 1,4-dioxane. Using the current default exposure factors developed by U.S. EPA and a target cancer risk of $1x10^{-5}$, MDE has calculated a risk-based groundwater criterion for 1,4-dioxane of 4.6 µg/l with respect to the plume emanating from the Site. WSP has used this risk-based level for 1,4-dioxane to evaluate the extent of impacted groundwater for the offsite area.

The following sections discuss the analytical results for each sampling event, with the primary focus on the site-related COCs listed above. The results for groundwater samples collected in 2023 are summarized in Table 5 and shown on Figure 5. The historical analytical results for all offsite monitoring wells through the 2023 sampling events are summarized in Table 6. Certified analytical reports provided by the laboratory for each sampling event are included in Appendix A.

5.2 RESULTS OF SEMI-ANNUAL SAMPLING EVENTS

5.2.1 MAY 2023

All monitoring wells screened in the deep zone of the Lower Patapsco aquifer and the Patuxent aquifer were sampled during this monitoring round, except for MW-24D, which did not have a sampler deployed at the time of the field activities. Monitoring well, MW-45, which is screened in the shallow zone of the Lower Patapsco aquifer, also was not sampled in May because a sampler was not previously deployed at this location.

A potentiometric surface contour map for the deep zone of the Lower Patapsco aquifer is provided in Figure 6 using the water level data obtained from the onsite and offsite well locations in May 2023. The hydraulic containment system was shut

down from the end of March to mid-August due to malfunctions with the boiler used for onsite regeneration of the treatment resin and the remote monitoring capabilities for the System. Thus, the water level data provided in Figure 6 reflect the hydraulic heads under non-remedial pumping conditions. The potentiometric surface contours show that the south-southeast groundwater flow direction in the deep zone of the Lower Patapsco aquifer differs from the north and west flow direction in the shallow zone of the aquifer. The south-southeast flow paths are consistent with contour maps generated from data collected during previous well gauging events. As discussed in Section 3.2.3, dissolved constituents (*e.g.*, VOCs) will migrate downward from the shallow to deep zones of the Lower Patapsco aquifer and spread with groundwater flowing through the sandy deposits comprising the deep zone to the south-southeast of the former facility property.

Overall, the analytical data indicated the presence of site-related constituents just over 1 mile hydraulically downgradient (south-southeast) of the former Kop-Flex property in the deep zone of the Lower Patapsco aquifer. Site-related COCs were also detected in the sample obtained from deep well MW-46D on the Verizon property, which is located immediately north of the Site. The total COC concentration in the sample from this well (20.4 µg/l) was the lowest concentration observed during this well's sampling history (Table 6). The concentration of 1,1-DCE (19.2 µg/l) exceeded comparative groundwater quality criteria in the MW-46D sample (Table 5 and Figure 5). The concentration of 1,1-DCA (1.2 µg/l) was below the comparative criterion, and 1,4-dioxane was non-detect for the first time during the sampling history of the well. The low concentrations may reflect a trend of decreasing COC concentrations in samples collected from this well. Figure 7 provides concentrations vs time for plots for the primary COCs - 1,1-DCE and 1,4-dioxane – regularly detected in the offsite wells.

Monitoring well MW-24D is located in the offsite area to the immediate south on the adjoining Williams-Scotsman property. Samples collected from this well have the highest concentrations of site-related COCs in the offsite plume; however, this well was not sampled in May 2023 due to the missing sampler discussed in Section 4.1. A sample was collected from this well in July 2023, and is discussed in Section 5.2.2 below.

Further downgradient, a total COC concentration of 60.8 µg/l (70.2 µg/l in the duplicate sample) was detected in the MW-25D-130 sample, which is greater than the concentrations in the sample from the deeper well MW-25D-192 at this location (49.8 µg/l). The concentrations of 1,1-DCE, 1,1-DCA, and 1,4-dioxane in these two wells were all above their respective comparative groundwater quality criteria. The results for MW-25D-192 sample showed a slight decrease in COC concentrations compared to the November 2022 results. Since 2017, there has been a general decreasing trend in total COC concentrations in the samples from this well (Figure 7).

The majority of the sampling data for the deep, confined Lower Patapsco monitoring wells located further downgradient indicated non-detect to low concentrations of site-related COCs, with detected levels consistent with the 2022 sample results (Figure 5 and Table 6). The highest concentrations were detected in the sample from well MW-30D-273, where concentrations of 1,1-DCE (35.1 µg/l) and 1,4-dioxane (8.0 µg/l) exceeded their respective groundwater quality criteria. These levels are similar to the results from November 2022 sampling event (Table 6). The concentrations of 1,1-DCE in the sample collected from MW-28D have shown a minor increase since June of 2022, and this compound exceeded the comparative criterion of 7 µg/l in May at a concentration of 13.3 µg/l. The concentrations of 1,4-dioxane in samples collected from this well have been below the comparative criterion all but four times since the startup of the remediation system. At the MW-33D-295 location, the concentration of 1,4-dioxane decreased from levels consistently above the comparative criterion of 4.6 µg/l through the 4th quarter of 2021 to a concentration of 2.2 µg/l in the May 2023 sample.

The sample results for the remaining offsite wells screened in the deep zone of the Lower Patapsco aquifer (MW-29D, MW-31D, MW-32D, MW-33D-235, MW-34D and MW-35D) were non-detect for site-related COCs.

Consistent with sampling events from previous years, no site-related VOCs or 1,4-dioxane were detected in the samples collected from the monitoring wells MW-36D and MW-30D-413 screened in the Patuxent aquifer. These results indicate that COCs have not migrated downward through the Arundel Clay confining unit that hydraulically separates the deep sand zone of the Lower Patapsco aquifer and Patuxent aquifer.

5.2.2 JULY 2023

As mentioned in Sections 4.1 and 5.2.1 of this report, the wells on the Williams-Scotsman property – MW-45 and MW-24D – were not sampled in May 2023 due to non-deployment of HydraSleeve™ samplers during the previous (November 2022) monitoring event. After deployment of samplers during the May field sampling and subsequent equilibration, groundwater samples were collected from these wells in July 2023.

No COCs were detected in the sample from shallow zone well MW-45 located to the east of the Site. This finding is consistent with historical results and with information discussed above regarding groundwater flow direction and the unlikelihood of COCs migrating offsite to the east in the shallow zone of the Lower Patapsco aquifer.

The July 2023 sample from well MW-24D had a concentration of site-related COCs of 1,192 µg/l (Table 5). This total COC concentration was slightly lower than the November 2022 result, due to decreases in the concentrations of 1,4-dioxane (148 µg/l to 89.9 µg/l) and 1,1-DCE (1,020 µg/l to 954 µg/l). The concentration of TCE, which has historically been non-detect or at trace levels below the comparative criterion (5 µg/l) in samples collected from this location, increased in 2022 and remained slightly above the comparative criterion in the May 2023 sample (7.3 µg/l). The only other offsite wells where this compound has been historically observed are MW-46D, located a short distance upgradient of the site, and MW-25-D-192, located downgradient of MW-24D. The detections of this compound at MW-46D are related to its proximity to the onsite source area, and the detections at MW-25-D-192 only occurred early in the sampling history, prior to system startup in 2017. Conversely, the recent detections of this compound in well MW-24D are believed to be related to migration of VOCs in response to long-term groundwater withdrawals from the onsite recovery wells.

5.2.3 DECEMBER 2023

Groundwater samples and water level measurements were collected from all monitoring wells screened in the deep, confined zone of the Lower Patapsco aquifer and Patuxent aquifer and the one well screened in the shallow zone (MW-45) in December 2023. The System was in operation and extracting groundwater during this monitoring event.

A potentiometric surface contour map for the deep, confined zone of the Lower Patapsco aquifer is shown in Figure 8 using the water level data obtained from onsite and offsite monitoring wells during December 2023. The potentiometric contours show the hydraulic influence of the groundwater withdrawals from the deep recovery wells RW-1D and RW-2D extends southward across the William-Scotsman property to the Maryland State Route 100. Further south of this pumping-induced hydraulic sink, the overall direction of groundwater flow in the deep zone of the Lower Patapsco aquifer is to the south/southeast. The nature of the potentiometric surface is consistent with contour maps generated for previous monitoring events under pumping conditions. The hydraulic head gradients were consistent with and confirm the groundwater flow direction in the deep zone of the Lower Patapsco aquifer differs from the direction of flow in the shallow zone of this aquifer, which is generally to the north and west toward Stony Run. As discussed above, dissolved constituents (*e.g.*, VOCs) will migrate downward from the shallow to deep zones within the Lower Patapsco aquifer and, with groundwater flowing through the sandy deposits comprising the deep zone, spread to the south-southeast from the former facility property.

No COCs were detected in the sample from shallow zone well MW-45, confirming that COCs have not migrated eastward from the Site in the shallow zone of the Lower Patapsco aquifer.

The analytical data for wells screened in the deep zone of the Lower Patapsco Aquifer was consistent with previous data in showing the presence of site-related constituents just over 1 mile hydraulically downgradient (south-southeast) of the Site. In addition, site-related COCs were detected in the sample from the deep zone of the Lower Patapsco aquifer screened by well MW-46D on the adjoining Verizon property immediately to the north of the Site. The total COC concentration in the MW-46D sample (89.1 µg/l) was greater than the historically low level observed in the May 2023 sample (20.4 µg/l; Table 5). The concentrations of 1,1- DCE and 1,1- DCA increased and the results for 1,4-dioxane went from non-detect in the May 2023

sample to 27.3 µg/l. Even with this increase, the December sample concentrations were low compared to historical levels (total COCs of 249.3 µg/l in May 2019) and are indicative of a long-term reduction in COC concentrations at this location (Table 6). These reductions are believed to reflect the upgradient expansion of the inflow, or capture, area for the deep onsite groundwater recovery wells.

In the offsite area immediately south of the Site, the sample from monitoring well MW-24D on the Williams-Scotsman property had the highest concentration of site-related COCs (1,332 µg/l). This total COC concentration was higher than that detected in the May 2023 sample (Table 5). The slight increase in concentrations between May and December is consistent with temporal fluctuations observed in this well after the start of remedial pumping. Concentrations of 1,2-dichloroethane and TCE, which have been historically present above the groundwater quality criteria, were not detected in the December 2023 sample due to elevated laboratory reporting limits associated with the sample analysis.

Further downgradient, a total site-related COC concentration of 152.6 µg/l (135.2 µg/l in the duplicate sample) was detected in the MW-25D-130 sample. This concentration is more than double the level present in the May 2023 event (60.8 µg/l [70.2 µg/l in duplicate]). In a reversal of a long-term decreasing trend, the total concentrations of site-related COCs in the samples from the MW-25D-130 have generally increased in 2022 and 2023 (Figure 7). These increases may be the result of contaminant migration from low permeability layers and/or stagnant flow zones caused by the hydraulic influence from the onsite pumping wells. Lower concentrations of site-related COCs were detected in the sample from the deeper well MW-25D-192 at this location (58.2 µg/l). As with the shallow well in this pair, the trend of declining COC concentrations in this well dating back to 2017 appears to have leveled off in 2022 and 2023. In both wells in the MW-25D pair, concentrations of 1,1-DCE, 1,1-DCA, and 1,4-dioxane remain above their respective comparative groundwater quality criteria.

The majority of the sampling data for the deep, confined Lower Patapsco aquifer monitoring wells located further downgradient indicated non-detect to low concentrations of site related COCs (Figure 5 and Table 5). The highest concentrations were detected in the sample from the well screened from 263-273 ft bgs at the MW-30D location. The groundwater sample from this well (MW-30D-273) had concentrations of 1,1-DCE (51.0 µg/l) and 1,4-dioxane (9.6 µg/l) above their respective groundwater quality criteria. The concentration of 1,1-DCE is the highest value observed in this well to date, and the May to December 2023 increase from 35.1 to 51.0 µg/l is the largest single change to occur between sampling events for the well. WSP believes that this increase may reflect the change in the Hydrasleeve™ sample interval from 267-269.5 feet bgs during previous rounds to 264.8-268 feet bgs for the December 2023 event (Table 3). This explanation would imply a certain degree of stratification is present in the 1,1-DCE distributions within the well. Alternatively, the increase in the 1,1-DCE concentration may be the result of advective transport of VOC mass downgradient. In contrast, the concentrations of 1,4-dioxane have increased only slightly in the samples collected from this well in 2023. Lower concentrations were detected in the sample collected from well MW-28D on the western perimeter of the plume where 1,1-DCE (13.3 µg/l) and 1,4-dioxane (3.8 µg/l) were slightly higher than the concentrations in the May samples.

The remainder of the downgradient wells screened in the deep portion of the Lower Patapsco aquifer had trace to low concentrations of 1,1-DCE, and 1,4-dioxane below the comparative criteria, except for MW-33D-295. At this well location, 1,1-DCE (8.9 µg/l) exceeded the evaluation criterion of 7 µg/l for the first time in the well's sampling history. Concentrations of this compound have gradually increased throughout 2022 and 2023. As with the COC concentrations at MW-30D-273, the slight increase in 1,1-DCE may be indicative of temporal variations in VOC mass flux within this aquifer zone.

No site-related VOCs or 1,4-dioxane were detected in samples from wells MW-36D and MW-30D-413 screened in the Patuxent aquifer (Figure 5). These results indicate that COCs have not migrated downward through the Arundel Clay confining unit overlying the Patuxent aquifer.

6 MANN-KENDALL TREND ANALYSIS

6.1 OVERVIEW OF ANALYSIS METHOD

An updated Mann-Kendall analysis was conducted to identify statistically significant trends in COC concentrations in groundwater samples collected between December 2016 and December 2023 from applicable offsite monitoring wells[7]. The Mann-Kendall analysis is a non-parametric (rank-based) procedure that tests for simple monotonic (i.e., single direction – increasing or decreasing) trends. The Mann-Kendall test is insensitive to gross outliers and does not make assumptions regarding data distributions.

The Mann-Kendall trend analysis for applicable wells was based on the GSI Mann-Kendall Toolkit for Consistent Trend Analysis, which is a spreadsheet system for analyzing time-series groundwater monitoring data to quantitatively determine if the measured concentrations of a chemical are increasing, decreasing, or stable over time. The analysis relies on three statistical metrics (GSI Environmental Inc. 2012):

- "S" Statistic, which indicates whether the concentration trend versus time is generally decreasing (i.e., negative "S" value) or increasing (positive "S" value)
- Confidence Factor (CF), which modifies the "S" Statistic calculation to indicate the degree of confidence in the trend result. In addition, if the CF is low (i.e., less than 95%) due to either considerable variability in concentrations versus time or little change in concentrations versus time, the CF is used to apply a preliminary "No Trend" classification, pending the Coefficient of Variation.
- Coefficient of Variation (COV), which is used to distinguish between a "No Trend" result (significant scatter in concentration trend versus time) and a "Stable" result (limited variability in concentration versus time) for datasets with no significant increasing or decreasing trend (e.g., less than 95% CF).

By using these three metrics, the concentration trend at each sample location can be matched to one of six categories: increasing, decreasing, stable, or no trend (Table 7).

Table 7 - Statistical Metrics Used in the Mann-Kendall Trend Analysis

S Statistic	Confidence in Trend	Trend
$S > 0$	CF > 95%	Increasing
$S > 0$	CF < 95%	No Trend
$S \leq 0$	CF < 95% and COV ≥ 1	No Trend
$S \leq 0$	CF < 95% and COV < 1	Stable
$S < 0$	CF > 95%	Decreasing

If the CF for the S statistic was >90% but <95%, the trend was still designated as either no trend or stable. However, this classification was qualified as "possibly increasing" in cases where the S statistic was greater than zero or "possibly decreasing" if the S statistic was less than zero.

[7] The applicable wells are those seven wells where 1,1-DCA, 1,1-DCE, 1,4-dioxane, and/or 1,1,1-TCA were detected in at least 50% of the samples collected from the well.

6.2 TREND ANALYSIS ASSUMPTIONS

The 1,1-DCA, 1,1-DCE, 1,4-dioxane, and 1,1,1-TCA concentrations detected in applicable monitoring wells that were used in the Mann-Kendall analysis are provided in Attachment 1. The following assumptions were made for the trend analysis:

- The results of groundwater samples collected between December 2016 through December 2023 were assumed for each well's dataset.
- The results of groundwater samples that were collected semi-annually were used in the trend analysis to have a consistent sampling frequency per year. If applicable, the results of additional samples collected outside designated semi-annual sampling periods were excluded from a well's dataset.
- For samples with non-detect results, a common value was assumed for a given compound that was less than or equal to the detections in the dataset (U.S. Environmental Protection Agency [EPA] 2009). The value assumed for non-detect results was the method detection limit for the sample with the lowest detected concentration of a given compound.
- If a duplicate sample was collected for a sampling event, the higher of the two sample concentrations was used in the dataset.
- Beginning in June 2022, groundwater samples were analyzed for 1,4-dioxane using EPA Method 8270 SIM; the previous analytical method was modified EPA Method 8260 SIM. All 1,4-dioxane results were considered in each dataset despite the change in analytical method.
- According to GSI Environmental Inc. (2012), "For wells in which all or a large majority of the results are non-detect for a chemical, the true concentration trend for this chemical is considered stable at a concentration below the detection limit. In this case, the Mann-Kendall analysis will not be very informative of the true concentration trend, as the method will simply indicate the trend of the non-detect values vs. time." Therefore, for this analysis, a Mann-Kendall statistic was not calculated if more than 50% of the samples had non-detect concentrations of a specific compound in a well (The Interstate Technology & Regulatory Council 2013).

6.3 TREND ANALYSIS RESULTS

The results of the Mann-Kendall trend analysis for each well are provided in Appendix B and summarized in Table 8. A discussion of the trends as they related to COC distribution is provided in Section 7.2 below.

7 SUMMARY AND CONCLUSIONS

7.1 COC DISTRIBUTION

The analytical results indicate comingled plumes of VOCs (primarily 1,1-DCE) and 1,4-dioxane extending from the Site to the south within the deep, confined zone of the Lower Patapsco aquifer, which corresponds to the direction of groundwater flow. The groundwater flow direction in the shallow zone of the Lower Patapsco aquifer is to the north and west, which is opposite that of the deep zone (Figure 3). Consequently, the analytical results from existing shallow monitoring wells and former offsite monitoring wells MW-25 and MW-28 indicate that the occurrence of VOCs and 1,4-dioxane derived from historical releases at the former Kop-Flex facility do not extend to the south of the Site in the shallow zone of the Lower Patapsco aquifer (Table 6).

The iso-concentration maps shown in Figures 9 and 10, depict the inferred horizontal distribution of 1,1-DCE and 1,4-dioxane within the deep zone of the Lower Patapsco aquifer based on the December 2023 sampling data. The maps also include data for the deep zone monitoring wells in the onsite area to provide a better understanding of the overall extent of the affected groundwater within this portion of the aquifer. Additionally, the contouring data includes historical results from four residential wells, 1245-OCM, 1227-OCM, 7932-AND, and 1054-MINN, to help delimit the eastern and southern boundaries of the plumes. The plume maps were generated by interpolating a logarithmic transform of the concentrations using the Kriging method. Non-detects were entered into the gridding algorithm at the laboratory reporting limit. The lowest concentration contour in each map was set to the Cleanup Criterion for each compound.

Based on the data from well MW-46D, the northern (upgradient) boundaries of the plume areas extend upgradient onto the neighboring Verizon property (Figures 9 and 10). The downgradient offsite wells containing the highest site-related COC concentrations – MW-24D on the William Scotsman property and MW-25D well pair in the northeast corner of the Harmans Woods residential community – are located less than ¼ mile south of the Site. The other deep zone monitoring wells that had 1,1-DCE and/or 1,4-dioxane concentrations above the applicable groundwater comparative criteria were MW-28D, on the cul de sac at the end of Fairbanks Drive, MW-30D-273, near the intersection of Twin Oaks Road and Old Camp Meade Road, and MW-33D-295, on Thysty Friend Place (Figure 5; Table 5).

The inferred extents of COC exceedances within the Lower Patapsco aquifer deep zone extend greater than 1 mile south-southeast from the southern property line of the Site to MW-33D-295 located in the southern portion of the Andorick Acres community (Figures 9 and 10). Given the COC distributions shown in the iso-concentration maps, the impacted groundwater in the deep zone of the Lower Patapsco aquifer south of MD Route 100 consists of diffuse plumes characterized by relatively low (<100 µg/L) contaminant concentrations. The downgradient plume boundary is based on the non-detectable concentrations of COCs in the samples from wells MW-31D, MW-34D, and MW-35D. The inclusion of historical residential well results to the dataset used to generate the iso-concentration contours provides better interpolation of the downgradient extents of the comingled plumes. The inferred width of the plume is a little less than ¼-mile at its widest point as measured perpendicular to the groundwater flow direction. Data that helps delimit the width of the plume is provided by non-detectable concentrations of COCs in well MW-29D to the east, and MW-32D to the west.

As mentioned above, evaluation of the sampling data indicates the permeable sand deposits comprising the deep confined zone of the Lower Patapsco aquifer represent the primary pathway for the offsite migration of COCs from the former Kop-Flex facility. Figure 11 provides a cross-sectional view of the plume as it spreads through the shallow and deep zones of the Lower Patapsco aquifer onsite and then migrates offsite within the deep zone of the aquifer. Site-related COCs have not been identified, nor are they expected to be present, in the offsite portion of the shallow zone of the Lower Patapsco aquifer to the south of the Site. Hydraulic conditions favoring the downward movement of groundwater within the Lower Patapsco aquifer

combined with the presence of very low permeability units separating the shallow and deeper zones preclude the presence of site-related volatile constituents in the soil vapor phase and intrusion of these contaminants into structures at the surface.

Evaluation of the historical water level data from the offsite monitoring wells consistently indicate a downward vertical flow component from the Lower Patapsco aquifer to the underlying Patuxent aquifer. However, data from monitoring wells MW-30D-413 and MW-36D screened in the Patuxent aquifer have continued to indicate no detections of site-related COCs. These sample results demonstrate that dissolved constituents comprising the plumes in the deep zone of the Lower Patapsco aquifer have not migrated through the dense, thick clayey deposits of the Arundel Clay confining unit.[8] The downward migration of dissolved VOCs that may be present in the groundwater is significantly retarded by the geochemical properties of the clayey sediments comprising the confining unit.

7.2 COC TRENDS

The statistical trend analysis and concentration versus time plots indicate the presence of long-term trends in the sampling results for wells located south of the Site and within the plume area (Table 8; Figure 7). The following provides a discussion of the temporal changes in COC concentrations.

At upgradient well MW-46D, the Mann-Kendall results, indicate that concentrations of both 1,4-dioxane and 1,1-DCE are statistically "decreasing" (Table 8). This trend appears to be more pronounced since 2020-2021, and the recent declines could be due to decreasing residual mass in the deep zone (Figure 7).

At well MW-24D, which is the closest monitoring point to the onsite deep recovery wells, the Mann-Kendall analysis indicates that 1,4-dioxane concentrations are "stable" and 1,1-DCE concentrations indicate "no trend" at the 95% confidence level. Recent results also indicate little if any trends.

Several in-plume wells farther downgradient exhibit long-term reductions in COC concentrations. At MW-25D-130, the Mann-Kendall analysis found statistically "decreasing" trends for 1,4-dioxane and 1,1-DCE. Gradually declining COC concentrations have occurred since 2016 (Figure 7; Table 5). These declines indicate that the downgradient migration of COCs near MW-24D may have been effectively curtailed by groundwater withdrawals. This explanation is supported by the observed increase in 1,1-DCE concentrations during June and November 2022 and in December 2023 sampling events when the System resumed operation following extended shut-down periods. Similarly, the deeper well in the MW-25D pair (MW-25D-192) shows statistically "decreasing" trends in COC concentrations since 2016, and more recently brief increases in 1,1-DCE concentration while the system was down during the spring and summer of 2022 and 2023.

Farther downgradient within the plume at well MW-30D-273, only concentrations of 1,4-dioxane show a statistical decrease, and 1,1-DCE and other COCs are statistically "stable". The stable concentrations of 1,1-DCE are probably the result of processes such as dilution and dispersion, which attenuate the influence of VOCs moving downgradient from the plume's core. More recently, the concentrations of 1,1-DCE and 1,4-dioxane both increased in 2023 at this location, with the December result of 51 µg/l for 1,1-DCE being the highest observed during the sampling history of the well (Figure 7). At well MW-33D-295 near the southeasternmost (downgradient) extent of the COC plumes, the Mann-Kendall analysis indicates that 1,1-DCE concentrations show "no trend" and that 1,4-dioxane concentrations are "decreasing". However, the lack of a statistical trend in 1,1-DCE concentrations does not capture the recent increases observed since November 2021. Additional sampling data is necessary to ascertain whether the recent (2021-2023) concentration increases in MW-30D-273 and MW-33D-295 are transient or represent an expansion of the plume's core and downgradient extent.

[8] This conclusion is also supported by analytical results for water samples collected from residential wells screened in the Patuxent aquifer, which have also had no detections of site-related COCs.

At the MW-28D location along the western plume boundary, there is no statistically significant long-term change in COC levels, with both 1,1-DCE and 1,4-dioxane concentrations showing "no trend". The lack of a significant long-term trend in COC concentrations at the plume margins suggests that the physical and chemical processes affecting the levels of dissolved contaminants have been at or near a steady-state condition. However, recent (2022 and 2023) sampling results indicate an increase in 1,1-DCE concentrations, which is reflected in the possible (90% confidence level) increasing trend from the Mann-Kendall analysis. As with the results from the wells discussed above, these changes could be transient, and determining whether the increases represent a change in the plume extent will require additional sampling and statistical analysis.

7.3 PLANNED 2024 OFFSITE GROUNDWATER MONITORING ACTIVITIES

WSP believes the existing monitoring well network is sufficient to monitor the distribution of site-related COCs in the offsite areas affected by releases at the former Kop-Flex facility property. The collection of water level readings and groundwater quality samples from the 16 deep monitoring wells in the offsite area will continue at a semi-annual frequency during the 2024 calendar year in accordance with the procedures described in Section 5 of this report. The groundwater monitoring activities in 2024 will be conducted during the second and fourth quarters. Based on MDE's review of the updated (April 2024) sampler evaluation report, WSP will continue to use the HydraSleeve for collecting the groundwater samples during the long-term monitoring activities. No sampling is currently planned for any private/residential wells in the offsite area.

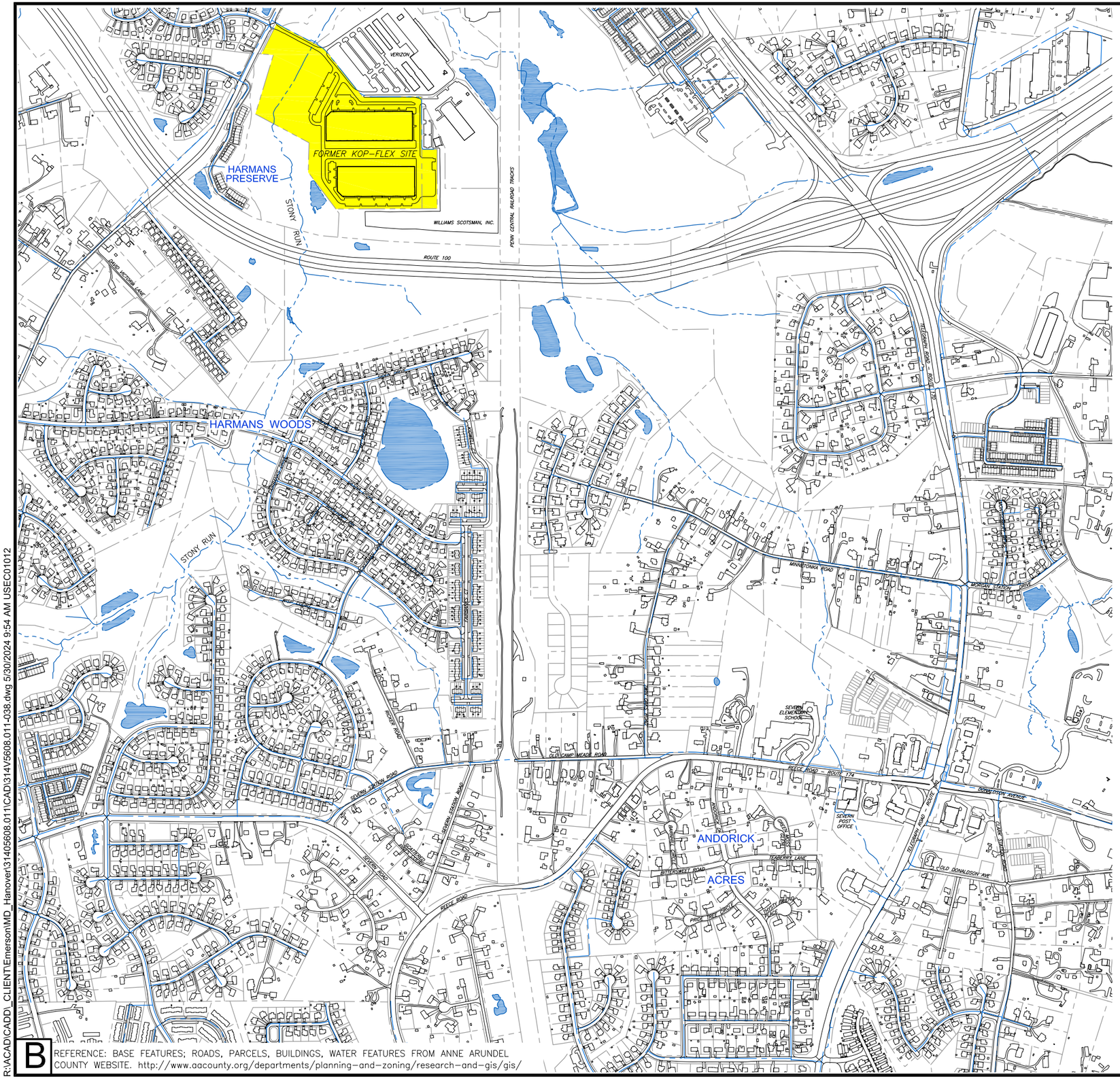
8 ACRONYMS

ALS	ALS Global
bgs	Below Ground Surface
COC	Constituent of Concern
DCA	Dichloroethane
DCE	Dichloroethene
EPA	United States Environmental Protection Agency
MCL	Maximum Contaminant Levels
MDE	Maryland Department of the Environment
MS/MSD	Matrix Spike/Matrix Spike Duplicate
MSL	Mean Sea Level
MW	Monitoring Well
QC	Quality Control
SIM	selected ion monitoring
SOP	Standard Operating Procedure
TCA	Trichloroethane
TCE	Trichloroethene
µg/l	Micrograms per Liter
USEPA	United States Environmental Protection Agency
USGS	United States Geological Survey
VOCs	Volatile Organic Compounds

9 REFERENCES

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FIGURES



B REFERENCE: BASE FEATURES; ROADS, PARCELS, BUILDINGS, WATER FEATURES FROM ANNE ARUNDEL COUNTY WEBSITE. http://www.aacounty.org/departments/planning-and-zoning/research-and-gis/gis/

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

LEGEND
- PROPERTY LINE
- WATER MAIN
- WATER MAIN EXTENSION
- STREAM
- WATER BODY

N

0 800 1600
SCALE IN FEET

NOTICE: THIS DRAWING HAS BEEN PREPARED UNDER THE DIRECTION OF A PROFESSIONAL. DO NOT ALTER THIS DOCUMENT IN ANY WAY WITHOUT THE WRITTEN CONSENT OF WSP USA INC.

Drawn By: EGC
Checked: 5/30/2024
Approved: RG
DWG Name: 314V5608.011-038

FORMER KOP-FLEX FACILITY
HANOVER, MARYLAND
PREPARED FOR
EMERSON
ST. LOUIS, MISSOURI

FIGURE 1

LOCATION OF THE FORMER KOP-FLEX SITE
IN HANOVER-SEVERN AREA

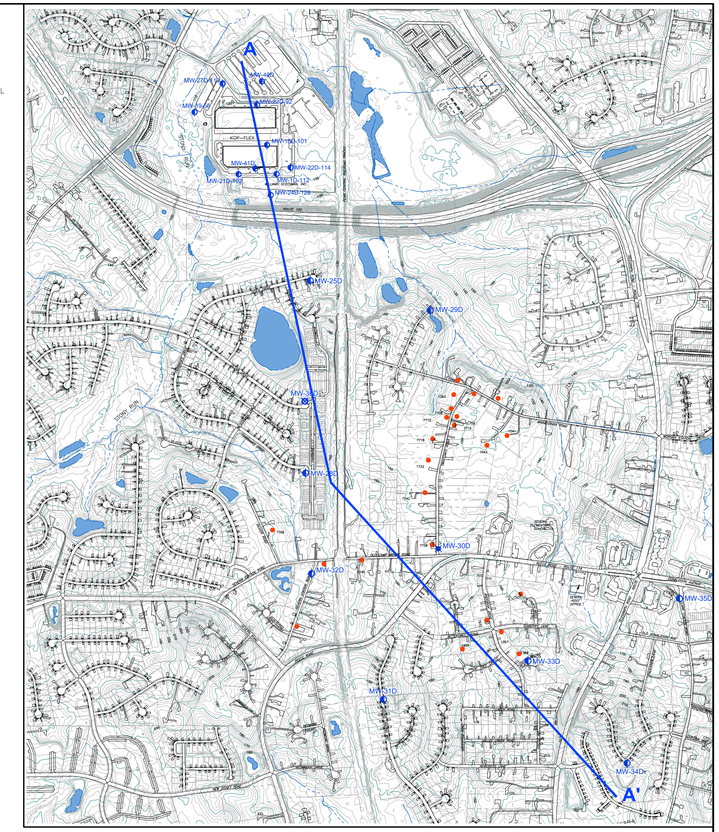
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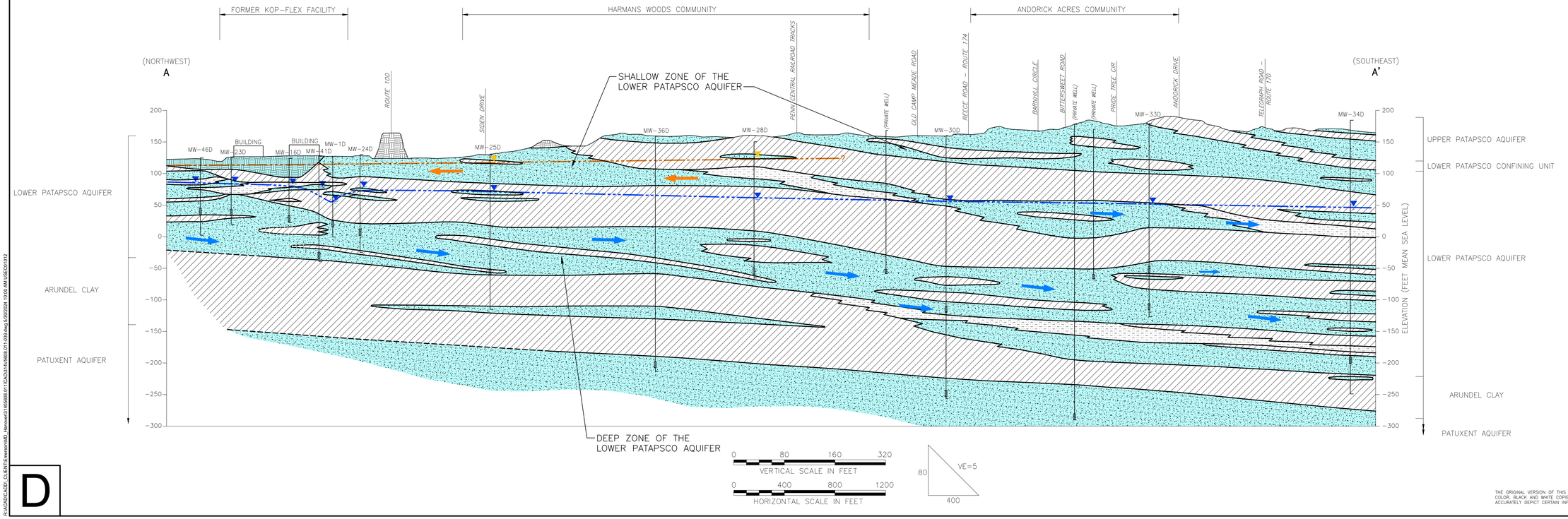
LEGEND
- PROPERTY LINE
- STREAM
- WATER BODY
- CONFINED LOWER PATAPSCO AQUIFER MONITORING WELL
- CONFINED LOWER PATAPSCO AQUIFER AND PATUXENT AQUIFER MONITORING WELL
- PATUXENT AQUIFER MONITORING WELL
- FORMER OR EXISTING RESIDENTIAL WELL

CROSS-SECTION LEGEND
- SAND
- INTERLAYERED SAND AND CLAY
- CLAY
- FILL MATERIAL
- PIEZOMETRIC HEAD IN SHALLOW PORTION OF LOWER PATAPSCO AQUIFER (WATER LEVEL DATA RECORDED IN 4TH QUARTER 2018)
- POTENTIOMETRIC HEAD IN DEEP/CONFINED PORTION OF LOWER PATAPSCO AQUIFER
- BOREHOLE
- SCREEN
- DECOMMISSIONED WELL
- END OF BOREHOLE
- CLAIMANT WELL
- BOREHOLE
- SCREEN
- END OF BOREHOLE
- GROUNDWATER FLOW DIRECTION – DEEP/CONFINED PORTON OF LOWER PATAPSCO AQUIFER
- POTENTIOMETRIC SURFACE – DEEP/CONFINED PORTON OF LOWER PATAPSCO AQUIFER
- GROUNDWATER FLOW DIRECTION – SHALLOW/UNCONFINED PORTON OF LOWER PATAPSCO AQUIFER
- GROUNDWATER SURFACE – SHALLOW/UNCONFINED PORTON OF LOWER PATAPSCO AQUIFER

NOTE:
EXISTING GRADE IS BASED ON SURFACE ELEVATION AT THE SECTION LINE NOT THE ELEVATION OF THE TOP OF THE MONITORING WELL OR BOREHOLE.



CROSS SECTION LOCATION MAP
SCALE: 1"=800'



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HYDROGEOLOGIC CROSS-SECTION AND CONCEPTUAL MODEL OF GROUNDWATER FLOW SYSTEM
FORMER KOP-FLEX FACILITY SITE
HANOVER, MARYLAND

PREPARED FOR
EMERSUB 16 LLC
ST. LOUIS, MISSOURI

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FIGURE 2

Drawing Number
314V5608.011-039

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LEGEND

- PROPERTY LINE
- GROUND SURFACE CONTOUR
- WATER MAIN
- WATER MAIN EXTENSION
- STREAM
- WATER BODY
- ONSITE SHALLOW MONITORING WELL
- OFFSITE SHALLOW MONITORING WELL
- 118.8 GROUNDWATER ELEVATION
- GROUNDWATER FLOW DIRECTION
- GROUNDWATER SURFACE CONTOUR, NOVEMBER 2018 (DASHED WHERE INFERRED)

NOTES:

1. FIGURE DEPICTS THE GROUNDWATER SURFACE IN SHALLOW (UNCONFINED) ZONE OF THE LOWER PATAPSCO AQUIFER.
2. GROUNDWATER ELEVATION DATA IN THIS FIGURE WERE COLLECTED IN NOVEMBER 2018.
3. WELLS MW-25 AND MW-28 WERE ABANDONED IN AUGUST 2019.

0 600 1200

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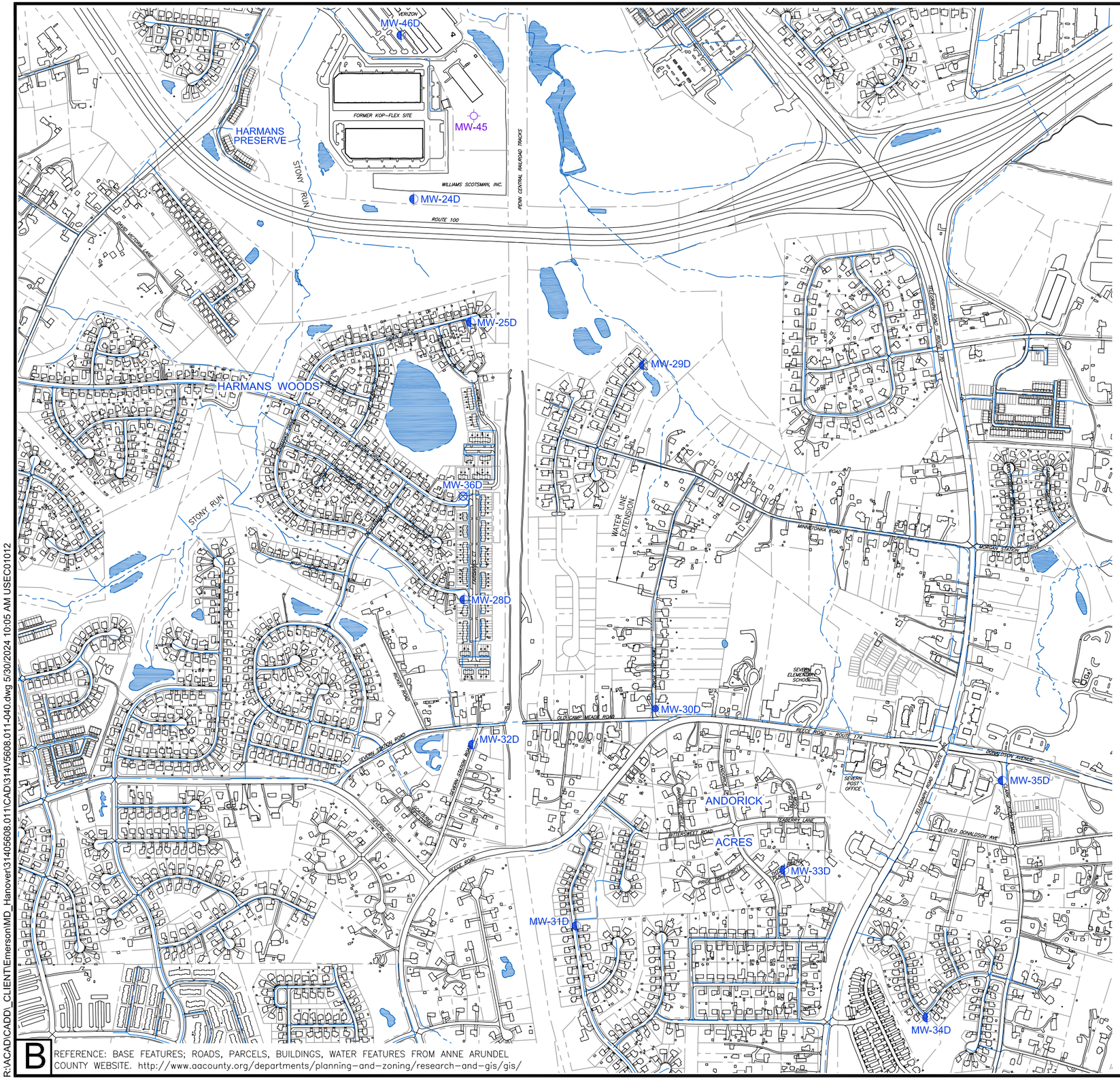
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FIGURE 3

GROUNDWATER SURFACE FOR THE SHALLOW, ZONE OF LOWER PATAPSCO AQUIFER IN THE ONSITE AND OFFSITE AREA

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LEGEND

- PROPERTY LINE
- WATER MAIN
- WATER MAIN EXTENSION
- STREAM
- WATER BODY
- SHALLOW MONITORING WELL
- CONFINED LOWER PATAPSCO AQUIFER MONITORING WELLS
- CONFINED LOWER PATAPSCO AQUIFER AND PATUXENT AQUIFER MONITORING WELLS
- PATUXENT AQUIFER MONITORING WELLS

B REFERENCE: BASE FEATURES; ROADS, PARCELS, BUILDINGS, WATER FEATURES FROM ANNE ARUNDEL COUNTY WEBSITE. http://www.aacounty.org/departments/planning-and-zoning/research-and-gis/gis/

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FIGURE 4

OFFSITE MONITORING WELL LOCATIONS
IN LOWER PATAPSCO AQUIFER AND
PATUXENT AQUIFER

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LEGEND

- PROPERTY LINE
- WATER MAIN
- STREAM
- WATER BODY
- CONFINED LOWER PATAPSCO AQUIFER MONITORING WELL
- PATUXENT AQUIFER MONITORING WELLS
- CONFINED LOWER PATAPSCO AQUIFER AND PATUXENT AQUIFER MONITORING WELLS
- RECOVERY WELL

MW-28D
200-210'
5/22/2023 12/4/2023
1,1-DCA ND ND
1,2-DCA ND ND
1,1-DCE 8.3 13.3
1,4-Dioxane 1.8 3.8
1,1,1-TCA ND ND

- WELL IDENTIFICATION
- SCREENED INTERVAL (FT-BGS)
- DATE
- SAMPLE RESULTS IN ppb (RED INDICATES RESULTS ABOVE MDE CLEANUP STANDARDS)
- CONSTITUENTS

DCA DICHLOROETHANE
DCE DICHLOROETHENE
TCA TRICHLOROETHANE
ND NOT DETECTED
DATA FOR WELL SCREENED IN PATUXENT AQUIFER

NOTE:
SHALLOW WELLS MW-25 AND MW-28 WERE ABANDONED IN AUGUST 2019.

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

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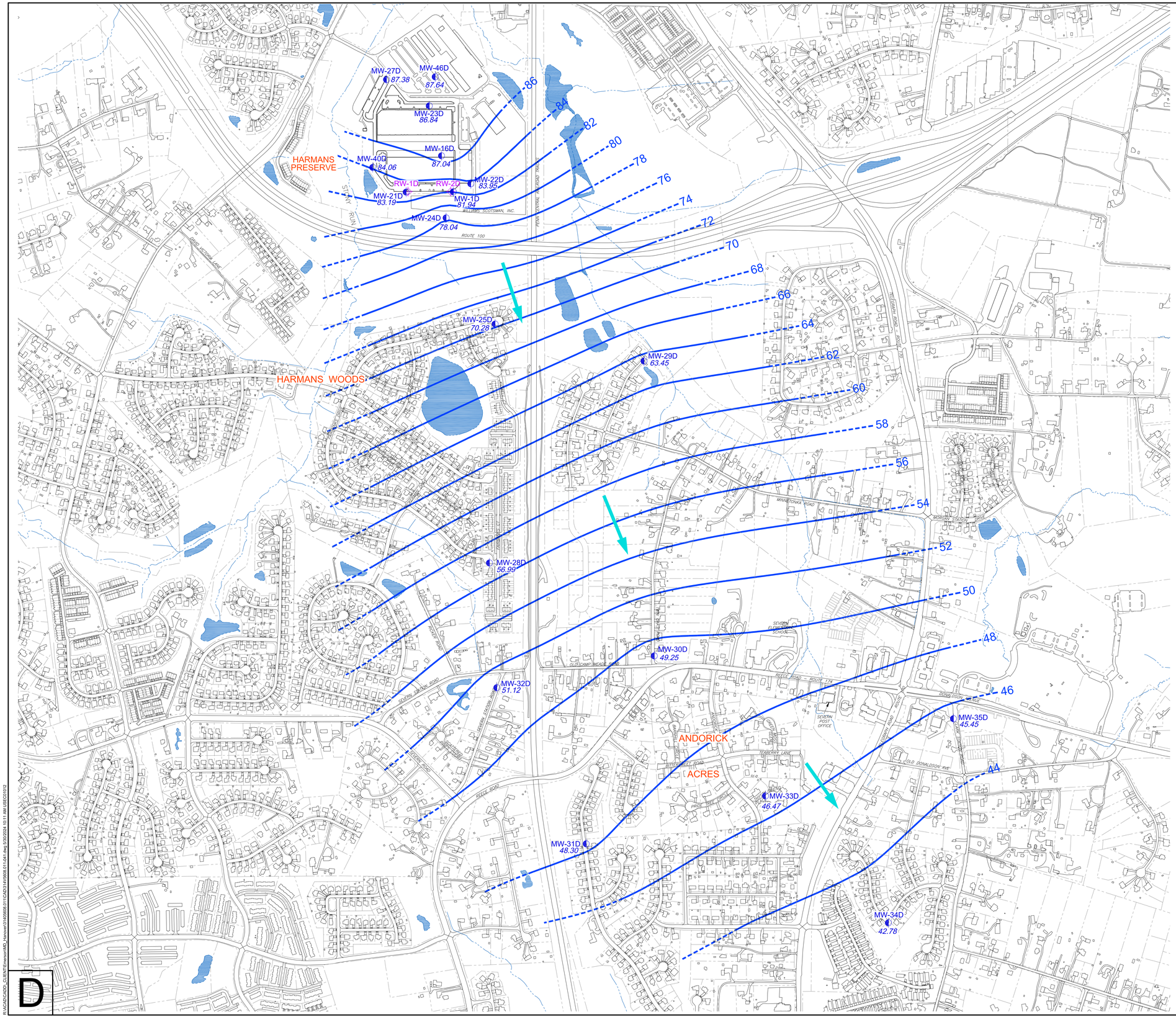
FIGURE 5

GROUNDWATER MONITORING RESULTS, LOWER PATAPSCO AQUIFER AND PATUXENT AQUIFER OFFSITE MONITORING WELLS – 2023

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LEGEND

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

NOTE:

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

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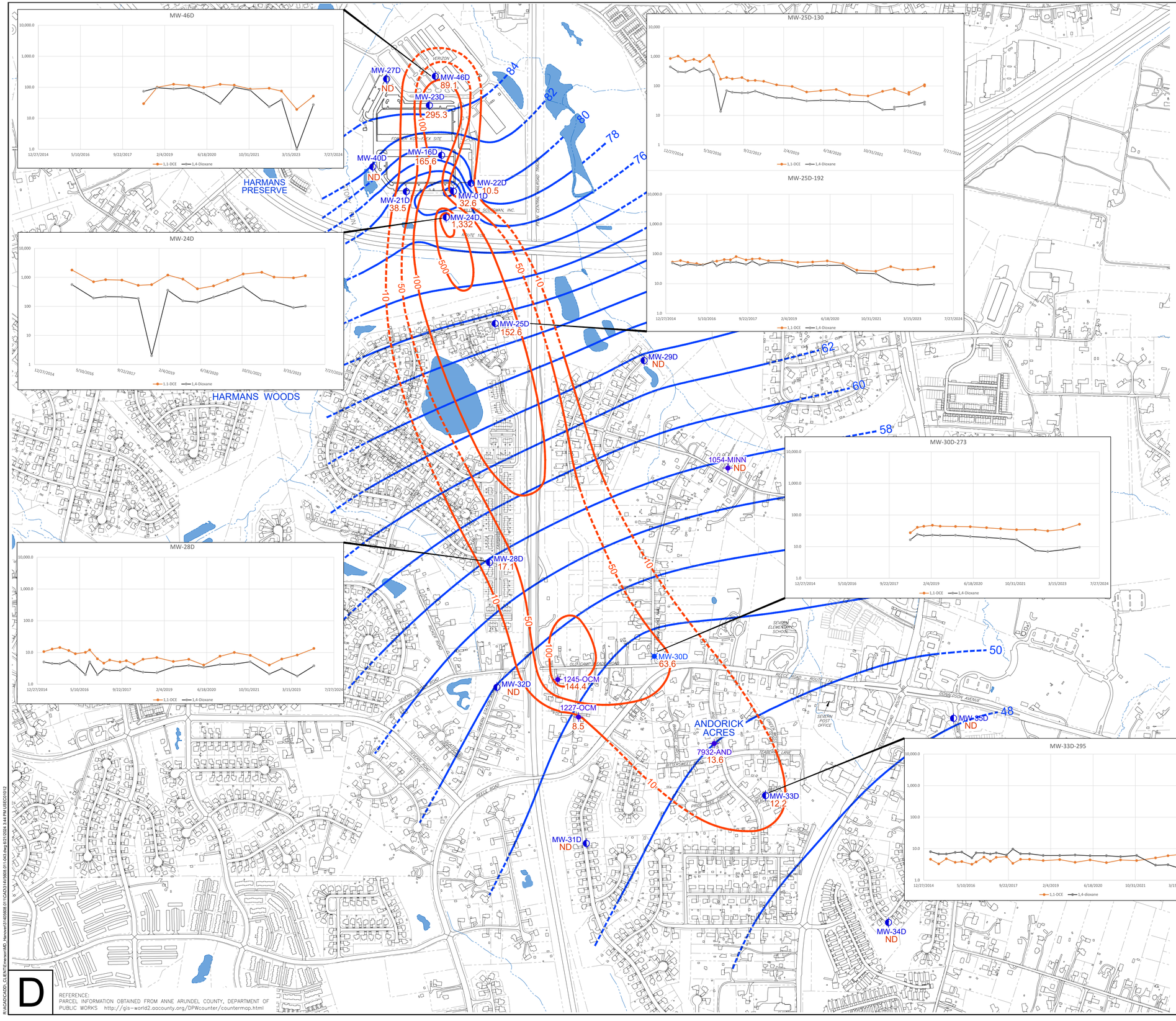
POTENTIOMETRIC SURFACE CONTOUR MAP DEEP CONFINED ZONE OF THE LOWER PATAPSCO AQUIFER
MAY 2023
FORMER KOP-FLEX FACILITY SITE
HANOVER, MARYLAND

PREPARED FOR
EMERSUB 16 LLC
ST. LOUIS, MISSOURI

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FIGURE 6

Drawing Number
314V5608.011-041



LEGEND

- PROPERTY LINE
- WATER MAIN
- STREAM
- WATER BODY
- DEEP CONFINED ZONE LOWER PATAPSCO AQUIFER MONITORING WELLS
- DEEP CONFINED ZONE LOWER PATAPSCO AQUIFER AND PATUXENT AQUIFER MONITORING WELLS
- RESIDENTIAL SUPPLY WELL
- POTENTIOMETRIC SURFACE CONTOUR (DASHED WHERE INFERRED)
- 81.4 TOTAL COC CONCENTRATION (ppb)
- ND NOT DETECTED
- TOTAL COCs= [1,1,1-TCA]+[1,1-DCE]+[1,1-DCA]+[1,2-DCA]+[1,4-DIOXANE]
- 1,1,1-TCA 1,1,1-TRICHLOROETHANE
- 1,1-DCE 1,1-DICHLOROETHENE
- 1,1-DCA 1,1-DICHLOROETHANE
- 1,2-DCA 1,2-DICHLOROETHANE
- [ ] CONCENTRATION (ppb)
- INFERRED TOTAL COC ISO-CONCENTRATION CONTOUR (ppb)
- INFERRED TOTAL COC ISO-CONCENTRATION CONTOUR (ppb) CHARACTERIZED BY HIGHER UNCERTAINTY GIVEN LOCATIONS OF SAMPLING POINTS

NOTE:

THE ISOCONCENTRATION CONTOUR DATA AND GROUNDWATER CONTOUR ELEVATION DATA ARE GENERATED FROM THE RESULTS OF GROUNDWATER SAMPLES COLLECTED IN DECEMBER 2023.

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TOTAL COC DISTRIBUTION IN THE DEEP ZONE OF THE LOWER PATAPSCO AQUIFER WITH CONCENTRATION vs. TIME PLOTS FOR IN-PLUME MONITORING WELLS

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FIGURE 7

Drawing Number
314V5608.011-043

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MW-27D 85.49
MW-46D 85.89
MW-23D 84.92
MW-40D 82.04
MW-16D
NM
MW-41D
MW-22D 80.75
RW-1D
RW-2D
MW-21D 74.54
MW-1D 70.74
MW-24D 75.27
MW-25D 69.38
MW-29D 63.56
MW-28D 57.84
MW-30D 51.00
MW-32D 53.93
MW-35D 48.09
MW-33D 49.44
MW-31D 50.96
MW-34D 46.18

HARMANS PRESERVE
HARMANS WOODS
ANDORICK
ACRES

VERIZON
FORMER KOP-FLEX SITE
WILLIAMS SCOTSMAN, INC.
ROUTE 100
PENN CENTRAL RAILROAD TRACK
GUILFORD ROAD
TELEGRAPH ROAD ROUTE 1
GUILFORD ROAD ROUTE 1
MONTONIA ROAD
MORGAN STATION ROAD
OLD CAMP MEADE ROAD
REECE ROAD
SEVERN ELEMENTARY SCHOOL
SEVERN POST OFFICE
DONALDSON AVENUE
OLD DONALDSON AVE
TEABERRY LANE
BITTERSWEET ROAD
CROSS TREE DRIVE
CROSSWIND DRIVE
RIVER ROAD
SEVERN RIVER ROAD
GRAND VICTORIA LANE
CHESAPEAKE RIDGE DRIVE
CHESAPEAKE RIDGE CIRCLE
CHESAPEAKE RIDGE COURT
CHESAPEAKE RIDGE LANE
CHESAPEAKE RIDGE PLACE
CHESAPEAKE RIDGE WAY

84
82
80
78
76
74
72
70
68
66
64
62
60
58
56
54
52
50
48

LEGEND
PROPERTY LINE
STREAM
WATER BODY
MONITORING WELL
RECOVERY WELL
72.18 GROUNDWATER SURFACE ELEVATION (FEET MSL)
NM NOT MEASURED
GROUNDWATER SURFACE CONTOUR (DASHED WHERE INFERRED)
INFERRED GROUNDWATER FLOW DIRECTION

NOTE:

FIGURE DEPICTS THE POTENTIOMETRIC SURFACE IN THE DEEP (CONFINED) ZONE OF THE LOWER PATAPSCO AQUIFER UNDER PUMPING CONDITIONS.

D

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POTENTIOMETRIC SURFACE CONTOUR MAP DEEP CONFINED ZONE OF THE LOWER PATAPSCO AQUIFER
DECEMBER 2023
FORMER KOP-FLEX FACILITY SITE
HANOVER, MARYLAND

PREPARED FOR
EMERSUB 16 LLC
ST. LOUIS, MISSOURI

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FIGURE 8

Drawing Number
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LEGEND

- PROPERTY LINE
- WATER MAIN
- STREAM
- WATER BODY
- CONFINED LOWER PATAPSCO AQUIFER MONITORING WELLS
- CONFINED LOWER PATAPSCO AQUIFER AND PATUXENT AQUIFER MONITORING WELLS
- PRIVATE WATER-SUPPLY WELL
- POTENTIOMETRIC SURFACE CONTOUR (DASHED WHERE INFERRED)
- ND NOT DETECTED
- 76 1,1-DCE CONCENTRATION (ppb)
- INFERRED 1,1-DCE ISO-CONCENTRATION CONTOUR (ppb)
- INFERRED 1,1-DCE ISO-CONCENTRATION CONTOUR (ppb) CHARACTERIZED BY HIGHER UNCERTAINTY GIVEN LOCATIONS OF SAMPLING POINTS
- 7 TO <50
- 50 TO <100
- 100 TO <500
- 500 TO <1,000
- ≥1,000

NOTE:
HISTORICAL DATA FROM SEVERAL PRIVATE WATER WELLS SAMPLED BETWEEN 2013 AND 2020 WERE USED TO GENERATE THE ISO-CONCENTRATION CONTOURS.

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Checked: 6/25/2024
Approved: RM
DWG Name: 314V5608.011-033

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FIGURE 9

INFERRED 1,1-DCE DISTRIBUTION IN THE DEEP ZONE OF LOWER PATAPSCO AQUIFER – DECEMBER 2023

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LEGEND

- PROPERTY LINE
- WATER MAIN
- STREAM
- WATER BODY
- CONFINED LOWER PATAPSCO AQUIFER MONITORING WELLS
- CONFINED LOWER PATAPSCO AQUIFER AND PATUXENT AQUIFER MONITORING WELLS
- PRIVATE WATER-SUPPLY WELL
- POTENTIOMETRIC SURFACE CONTOUR (DASHED WHERE INFERRED)
- ND NOT DETECTED
- 76 1,4-DIOXANE CONCENTRATION (ppb)
- INFERRED 1,4-DIOXANE ISO-CONCENTRATION CONTOUR (ppb)
- INFERRED 1,4-DIOXANE ISO-CONCENTRATION CONTOUR (ppb) CHARACTERIZED BY HIGHER UNCERTAINTY GIVEN LOCATIONS OF SAMPLING POINTS
- 4.6 TO <50
- 50 TO <100
- ≥100

NOTE:
HISTORICAL DATA FROM SEVERAL PRIVATE WATER WELLS SAMPLED BETWEEN 2013 AND 2020 WERE USED TO GENERATE THE ISO-CONCENTRATION CONTOURS.

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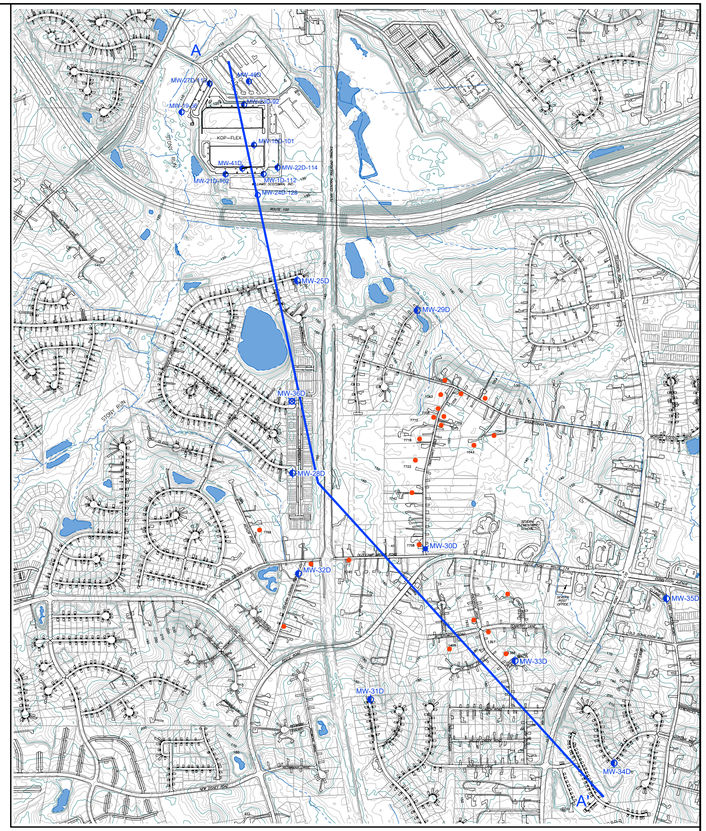
FIGURE 10

INFERRED 1,4-DIOXANE DISTRIBUTION IN THE DEEP ZONE OF LOWER PATAPSCO AQUIFER - DECEMBER 2023

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LEGEND
- PROPERTY LINE
- STREAM
- WATER BODY
- CONFINED LOWER PATAPSCO AQUIFER MONITORING WELL
- CONFINED LOWER PATAPSCO AQUIFER AND PATUXENT AQUIFER MONITORING WELL
- PATUXENT AQUIFER MONITORING WELL
- FORMER OR EXISTING RESIDENTIAL WELL

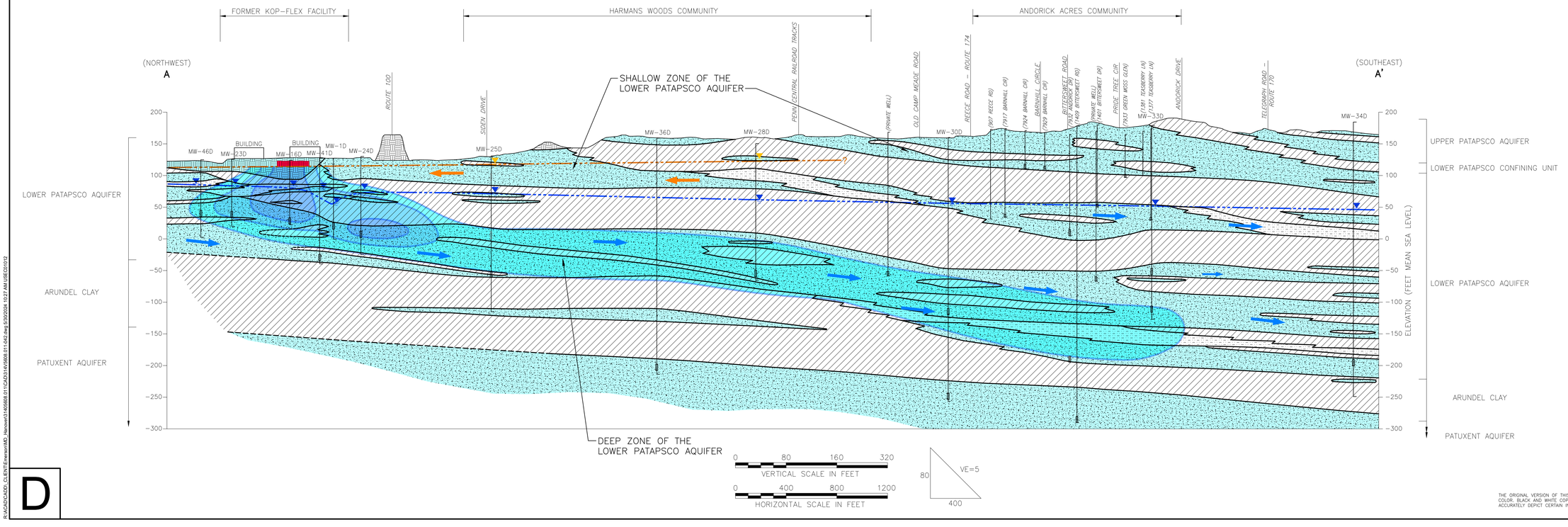


CROSS SECTION LOCATION MAP
SCALE: 1"=800'

CROSS-SECTION LEGEND

- SAND
- INTERLAYERED SAND AND CLAY
- CLAY
- FILL MATERIAL
- PIEZOMETRIC HEAD IN SHALLOW PORTION OF LOWER PATAPSCO AQUIFER (WATER LEVEL DATA RECORDED IN 4TH QUARTER 2018)
- POTENTIOMETRIC HEAD IN DEEP/CONFINED PORTION OF LOWER PATAPSCO AQUIFER
- BOREHOLE
- SCREEN
- DECOMMISSIONED WELL
- END OF BOREHOLE
- GROUNDWATER FLOW DIRECTION – DEEP/CONFINED PORTON OF LOWER PATAPSCO AQUIFER
- POTENTIOMETRIC SURFACE – DEEP/CONFINED PORTON OF LOWER PATAPSCO AQUIFER
- GROUNDWATER FLOW DIRECTION – SHALLOW/UNCONFINED PORTON OF LOWER PATAPSCO AQUIFER
- GROUNDWATER SURFACE – SHALLOW/UNCONFINED PORTON OF LOWER PATAPSCO AQUIFER
- VOC-AFFECTED SOIL
- PRE-2022 1,4-DIOXANE CONCENTRATIONS IN $\mu g/l$:
  - 4.6 TO 50
  - 50 TO 100
  - $\geq$ 100

NOTE:
EXISTING GRADE IS BASED ON SURFACE ELEVATION AT THE SECTION LINE
NOT THE ELEVATION OF THE TOP OF THE MONITORING WELL OR BOREHOLE.



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

D

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REVISIONS

REV	DESCRIPTION	Drwn:	Appr.:
1	Revised:	Chkd:	
2	Revised:	Chkd:	Appr.:
3	Revised:	Chkd:	Appr.:

SEAL

DATE

DRAWN BY EGM 5/30/2024
CHECKED
APPROVED

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HYDROGEOLOGIC CROSS-SECTION AND INFERRED COC DISTRIBGUTION IN THE SHALLOW AND DEEP ZONES OF THE LOWER PATAPSCO AQUIFER
FORMER KOP-FLEX FACILITY SITE
HANOVER, MARYLAND

PREPARED FOR
EMERSUB 16 LLC
ST. LOUIS, MISSOURI

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

FIGURE 11

Drawing Number
314V5608.011-042

TABLES

Table 1

Construction Details for Offsite Monitoring Wells
Former Kop-Flex Facility Site
Hanover, Maryland (a)

Well ID	Installation Date	Casing Type	Screen Type	TOC Elevation (feet AMSL)	Total Depth (feet BTOC)	Screen Length (feet)	Screen Interval Depth (ft-bgs)	Screen Interval Elevation (feet AMSL)
Shallow (Unconfined) Lower Patapsco Aquifer								
MW-25 (Abandoned August 2019)	07/30/14	2.5" Sch.80 PVC	2.5" PVC, 0.020" slot size	130.6	40	10.0	30.0 - 40.0	100.60 - 90.60
MW-28 (Abandoned August 2019)	07/09/14	2.5" Sch.80 PVC	2.5" PVC, 0.020" slot size	150.5	45	10.0	35.0 - 45.0	115.50 - 105.50
MW-45	03/12/17	2.5" Sch.80 PVC	2.5" PVC, 0.020" slot size	126.7	38	10.0	28.0 - 38.0	98.72 - 88.72
Deep (Confined) Lower Patapsco Aquifer								
MW-24D	06/14/12	2.5" Sch.80 PVC	2.5" PVC, 0.020" slot size	129.1	155	10.0	145.0 - 155.0	-15.90 - -25.90
MW-25D-130	06/27/14	2.5" Sch.80 PVC	2.5" PVC, 0.020" slot size	130.5	130	10.0	120.0 - 130.0	10.50 - 0.50
MW-25D-192	06/25/14	2.5" Sch.80 PVC	2.5" PVC, 0.020" slot size	130.5	192	10.0	182.0 - 192.0	-51.50 - -61.50
MW-28D	07/09/14	2.5" Sch.80 PVC	2.5" PVC, 0.020" slot size	150.5	210	10.0	200.0 - 210.0	-49.50 - -59.50
MW-29D	03/09/18	2.5" Sch.80 PVC	2.5" PVC, 0.020" slot size	131.9	151	10.0	141.0 - 151.0	-9.08 - -19.08
MW-30D-273	04/11/18	2.5" Sch.80 PVC	2.5" PVC, 0.020" slot size	153.5	273	10.0	263.0 - 273.0	-109.46 - -119.46
MW-31D	08/04/14	2.5" Sch.80 PVC	2.5" PVC, 0.020" slot size	162.5	280	10.0	270.0 - 280.0	-107.50 - -117.50
MW-32D	03/15/18	2.5" Sch.80 PVC	2.5" PVC, 0.020" slot size	156.1	266	10.0	256.0 - 266.0	-99.86 - -109.86
MW-33D-236	07/21/14	2.5" Sch.80 PVC	2.5" PVC, 0.020" slot size	178.6	236	10.0	226.0 - 236.0	-47.40 - -57.40
MW-33D-295	07/21/14	2.5" Sch.80 PVC	2.5" PVC, 0.020" slot size	178.3	295	10.0	285.0 - 295.0	-106.70 - -116.70
MW-34D	04/19/18	2.5" Sch.80 PVC	2.5" PVC, 0.020" slot size	183.9	425	10.0	415.0 - 425.0	-231.09 - -241.09
MW-35D	08/16/14	2.5" Sch.80 PVC	2.5" PVC, 0.020" slot size	177.8	298	10.0	288.0 - 298.0	-110.20 - -120.20
MW-46D	04/26/18	2.5" Sch.80 PVC	2.5" PVC, 0.020" slot size	124.77	116	10.0	106.0 - 116.0	18.77 - 8.77
Patuxent Aquifer								
MW-30D-413	04/09/18	2.5" Sch.80 PVC	2.5" PVC, 0.020" slot size	153.1	413.00	10.0	403.0 - 413.0	-249.87 - -259.87
MW-36D	03/28/18	2.5" Sch.80 PVC	2.5" PVC, 0.020" slot size	158.7	360.00	10.0	350.0 - 360.0	-191.29 - -201.29

Notes:
a/ AMSL = above mean sea level; BTOC = below top of casing; ft-bgs = feet below ground surface.
PVC = polyvinyl chloride; Sch. = schedule

Table 2

Historical Groundwater Elevations (2015 through 2023)
Offsite Monitoring Wells
Former Kop-Flex Facility Site
Hanover, Maryland

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

Notes:

LPA = Lower Patapsco Aquifer
NM = Not Measured
TOC = Top of Casing
* Well abandoned in August 2019

Table 2

Historical Groundwater Elevations (2015 through 2023)
Offsite Monitoring Wells
Former Kop-Flex Facility Site
Hanover, Maryland

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

Notes:
LPA = Lower Patapsco Aquifer
NM = Not Measured
TOC = Top of Casing
* Well abandoned in August 2019

Table 2

Historical Groundwater Elevations (2015 through 2023)
Offsite Monitoring Wells
Former Kop-Flex Facility Site
Hanover, Maryland

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

Notes:
LPA = Lower Patapsco Aquifer
NM = Not Measured
TOC = Top of Casing
* Well abandoned in August 2019

Table 2

Historical Groundwater Elevations (2015 through 2023)
Offsite Monitoring Wells
Former Kop-Flex Facility Site
Hanover, Maryland

Well ID	Aquifer/Zone	TOC Elevation	5/14/2020		11/23/2020		5/10/2021		11/15/2021		6/27/2022		11/20/2022	
			Depth to Water	*Groundwater Elevation*	*Depth to Water*	*Groundwater Elevation*	*Depth to Water*	*Groundwater Elevation*	*Depth to Water*	*Groundwater Elevation*	*Depth to Water*	*Groundwater Elevation*	*Depth to Water*	*Groundwater Elevation*
MW-25S *	Unconfined LPA	130.6	NM	-	NM	-	NM	-	-	0.00	-	-	-	-
MW-28S *	Unconfined LPA	150.5	NM	-	NM	-	NM	-	-	0.00	-	-	-	-
MW-45	Unconfined LPA	126.7	NM	-	NM	-	12.69	114.03	12.69	114.03	12.91	113.81	13.54	113.18
MW-24D	Confined LPA	129.1	48.80	80.30	53.02	76.08	50.01	79.09	49.40	79.70	51.06	78.0	53.11	76.0
MW-25D-130	Confined LPA	130.5	54.95	75.55	60.50	70.00	56.11	74.39	NM	-	60.22	70.3	60.00	70.5
MW-25D-192	Confined LPA	130.5	54.23	76.27	59.50	71.00	55.32	75.18	NM	-	59.12	71.4	59.10	71.4
MW-28D	Confined LPA	150.5	84.36	66.14	92.87	57.63	86.34	64.16	89.34	61.16	93.51	57.0	90.81	59.7
MW-29D	Confined LPA	131.9	60.61	71.31	67.75	64.17	62.15	69.77	64.82	67.10	68.45	63.5	66.70	65.2
MW-30D-273	Confined LPA	153.5	92.60	60.94	103.09	50.45	94.95	58.59	99.70	53.84	104.25	49.3	100.23	53.3
MW-31D	Confined LPA	162.5	NM	-	113.30	49.20	104.32	58.18	108.09	54.41	114.2	48.3	109.24	53.3
MW-32D	Confined LPA	156.1	94.31	61.83	103.76	52.38	95.58	60.56	99.72	56.42	104.98	51.2	100.23	55.9
MW-33D-235	Confined LPA	178.6	119.10	59.50	NM	-	121.30	57.30	125.35	53.25	132.13	46.5	126.56	52.0
MW-33D-295	Confined LPA	178.3	118.84	59.46	130.21	48.09	121.08	57.22	125.15	53.15	131.85	46.5	126.29	52.0
MW-34D	Confined LPA	183.9	127.01	56.90	139.08	44.83	129.41	54.50	133.82	50.09	141.12	42.8	134.82	49.1
MW-35D	Confined LPA	177.8	119.06	58.74	129.67	48.13	121.20	56.60	126.19	51.61	132.35	45.5	126.60	51.2
MW-46D	Confined LPA	124.8	35.73	89.04	37.72	87.05	35.95	88.82	35.95	88.82	37.13	87.64	38.38	86.4
MW-30D-413	Patuxent	153.1	127.25	25.88	142.22	10.91	134.60	18.53	140.69	12.44	145.4	7.7	141.52	11.6
MW-36D	Patuxent	158.7	131.08	27.63	145.25	13.46	137.95	20.76	143.70	15.01	148.06	10.7	145.05	13.7

Notes:
LPA = Lower Patapsco Aquifer
NM = Not Measured
TOC = Top of Casing
* Well abandoned in August 2019

Table 2

Historical Groundwater Elevations (2015 through 2023)
Offsite Monitoring Wells
Former Kop-Flex Facility Site
Hanover, Maryland

Well ID	Aquifer/Zone	TOC Elevation	5/22/2023		7/14/2023		12/4/2023	
			Depth to Water	*Groundwater Elevation*	*Depth to Water*	*Groundwater Elevation*	*Depth to Water*	*Groundwater Elevation*
MW-25S *	Unconfined LPA	130.6	-	-	-	-	-	-
MW-28S *	Unconfined LPA	150.5	-	-	-	-	-	-
MW-45	Unconfined LPA	126.7	NM	-	13.36	113.36	13.54	113.18
MW-24D	Confined LPA	129.1	49.42	79.68	52.61	76.49	53.83	75.3
MW-25D-130	Confined LPA	130.5	57.68	72.82	NM	-	61.12	69.4
MW-25D-192	Confined LPA	130.5	56.72	73.78	NM	-	60.15	70.4
MW-28D	Confined LPA	150.5	89.06	61.44	NM	-	92.66	57.8
MW-29D	Confined LPA	131.9	65.15	66.77	NM	-	68.34	63.6
MW-30D-273	Confined LPA	153.5	98.76	54.78	NM	-	102.50	51.0
MW-31D	Confined LPA	162.5	107.82	54.68	NM	-	111.54	51.0
MW-32D	Confined LPA	156.1	98.47	57.67	NM	-	102.17	54.0
MW-33D-235	Confined LPA	178.6	125.61	52.99	NM	-	129.16	49.4
MW-33D-295	Confined LPA	178.3	125.39	52.91	NM	-	128.89	49.4
MW-34D	Confined LPA	183.9	134.32	49.59	NM	-	137.72	46.2
MW-35D	Confined LPA	177.8	126.53	51.27	NM	-	129.71	48.1
MW-46D	Confined LPA	124.8	36.26	88.51	NM	-	38.88	85.9
MW-30D-413	Patuxent	153.1	137.89	15.2	NM	-	141.29	11.8
MW-36D	Patuxent	158.7	141.29	17.4	NM	-	144.57	14.1

Notes:
LPA = Lower Patapsco Aquifer
NM = Not Measured
TOC = Top of Casing
* Well abandoned in August 2019

Table 3

Hydrasleeve Deployment Depths - Offsite Monitoring Wells
Former Kop-Flex Facility Site
Hanover, Maryland (a)

		Estimated Historical Deployment Depths			New Deployment Depths		
Well ID	Well Depth (ft bgs)	Top of Screen (ft bgs)	Deployment Depth (ft bgs)	Sample Interval (ft bgs)	Top of Screen (ft bgs)	Deployment Depth (ft bgs)	Sample Interval (ft bgs)
Unconfined LPA							
MW-45	38	28	34.5	32-34.5	28	33	29.8 - 33.0
Confined LPA							
MW-24D	128.5	118.5	124.5	122-124.5	119	123.5	120.3 - 123.5
MW-25D-130	130	120	127.5	125-127.5	120	126.5	123.3-126.5
MW-25D-190	190	180	187.5	185-187.5	180	188.2 (b)	183.2 - 188.2 (b)
MW-28D	210	200	207.5	205-207.5	200	205	201.8 - 205.0
MW-29D	151	141	149	146-148.5	141	146	142.8 - 146.0
MW-30D-273	273	263	269.5	267-269.5	263	268	264.8 - 268.0
MW-31D	280	270	277.5	275-277.5	270	275	271.8 - 275.0
MW-32D	236	226	236	233-235.5	226	231	227.8 - 231.0
MW-33D-235	235	225	232.5	230-232.5	225	230	226.8 - 230.0
MW-33D-295	295	285	292.5	290-292.5	285	290	286.8 - 290.0
MW-34D	385	375	382	379-381.5	375	380	376.8 - 380.0
MW-35D	298	288	295.5	293-295.5	288	293	289.8 - 293.0
MW-46D	90	80	86.5	84-86.5	80	85	81.8 - 85.0
Patuxent Aquifer							
MW-30D-413	413	403	410	407-409.5	403	408	404.8 - 408
MW-36D	360	350	360	357-359.5	350	355	351.8 - 355.0

a/ ft bgs = feet below ground surface; LPA = Lower Patapsco Aquifer
b/ Deployment depth and sample interval is for the 5-foot long SuperSleeve sampler.

Table 4

Field Hydrogeochemical Measurements - December 2023
Offsite Monitoring Well Locations
Former Kop-Flex Facility Site
Hanover, MD (a)

Well ID	Temp (°C)	pH	Sp. Cond (mS/cm)	Turb (NTU)
Unconfined LPA				
MW-45	13.17	4.72	0.461	86.3
Confined LPA				
MW-24D	12.16	5.56	0.15	42.5
MW-25D-130 (b)	NM	NM	NM	NM
MW-25D-190 (b)	NM	NM	NM	NM
MW-28D	10.7	5.45	0.064	34
MW-29D	10.48	5.55	0.124	360
MW-30D-273	9.85	4.41	0.029	71.3
MW-31D	10.14	4.15	0.05	402
MW-32D	10.6	6.01	0.243	145
MW-33D-235	10.38	5.44	0.031	121
MW-33D-295	10.31	4.82	0.032	51.3
MW-34D	10.78	5.99	0.195	800
MW-35D	10.87	4.41	0.937	103
Patuxent Aquifer				
MW-30D-413	9.95	4.17	0.029	295
MW-36D	10.62	4.63	0.024	90.3

a/ Temp = temperature; °C = degrees Celsius; Sp. Cond = specific conductance; mS/cm = milliSiemens/centimeter; Turb = Turbidity; NTU = nephelometric turbidity units; LPA = Lower Patapsco Aquifer; NM = not measured.

b/ MW-25D-130 and MW-25D-190 were not measured because the samplers lacked sufficient volume to collect both the QA/QC samples and the water quality measurements.

Table 5

Offsite Monitoring Well Sample Results - May, July, and December 2023
Former Kop-Flex Facility Site
Hanover, Maryland

Parameters (a)	Groundwater Quality Standards (µg/L) (b)	Well ID:	SHALLOW ZONE LOWER PATAPSCO AQUIFER		DEEP (CONFINED) ZONE LOWER PATAPSCO AQUIFER					
		Sampling Date:	MW-45 7/14/23	MW-45 12/4/23	MW-24D 7/14/23	MW-24D 12/4/23	MW-25D-130 5/22/23	DUP-052223 (d) 5/22/23	MW-25D-130 12/4/23	DUP-120423 (d) 12/4/23
Methyl t-Butyl Ether	**20**		1.0 U	1.0 U	1.0 U	10.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Chloroethane	**2,100**		1.0 U	1.0 U	1.6	10.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Dichlorodifluoromethane			1.0 U	1.0 U	1.0 U	10.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,1-Dichloroethane	**2.8**		1.0 U	1.0 U	**110**	**88.1**	**4.3**	**5.0**	**6.9**	**5.9**
1,2-Dichloroethane	**5**		1.0 U	1.0 U	**7.1**	10.0 U	1.0 U	1.0 U	1.1	1.0 U
1,1-Dichloroethene	**7**		1.0 U	1.0 U	**954**	**1,130**	**52.0**	**60.0**	**110**	**100**
cis-1,2-Dichloroethene	**70**		1.0 U	1.0 U	4.8	10.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,4-Dioxane	**4.6** (c)		1.0 U	1.0 U	**89.9**	**102**	21.4 U	25.9 U	**28.4**	**23.7**
Tetrachloroethene	**5**		1.0 U	1.0 U	1.1	10.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,1,1-Trichloroethane	**200**		1.0 U	1.0 U	14.8	11.9	4.5	5.2	6.2	5.6
1,1,2-Trichloroethane	**5**		1.0 U	1.0 U	1.1	10.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Trichloroethene	**5**		1.0 U	1.0 U	**7.3**	10.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Total CVOCs & 1,4-Dioxane			*ND*	*ND*	*1,192*	*1,332*	*60.8*	*70.2*	*152.6*	*135.2*

Table 5

Offsite Monitoring Well Sample Results - May, July, and December 2023
Former Kop-Flex Facility Site
Hanover, Maryland

Parameters (a)	Groundwater Quality Standards (µg/L) (b)	Well ID:	DEEP (CONFINED) ZONE LOWER PATAPSCO AQUIFER									
		Sampling Date:	MW-25D-190 5/22/23	MW-25D-190 12/4/23	MW-28D 5/22/23	MW-28D 12/4/23	MW-29D 5/22/23	MW-29D 12/4/23	MW-30D-273 5/22/23	MW-30D-273 12/4/23	MW-31D 5/22/23	MW-31D 12/4/23
Methyl t-Butyl Ether	**20**		1.4	1.2	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Chloroethane	**2,100**		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
Dichlorodifluoromethane			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
1,1-Dichloroethane	**2.8**		**7.1**	**8.4**	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.3	1.0 U	1.0 U
1,2-Dichloroethane	**5**		1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,1-Dichloroethene	**7**		**30.1**	**36.5**	**8.3**	**13.3**	1.0 U	1.0 U	**35.1**	**51.0**	1.0 U	1.0 U
cis-1,2-Dichloroethene	**70**		1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,4-Dioxane	**4.6 (c)**		**9.0**	**9.4**	1.8	3.8	1.3 U	1.0 U	**8.0**	**9.6**	1.0 U	1.0 U
Tetrachloroethene	**5**		1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,1,1-Trichloroethane	**200**		3.6	3.9	1.0 U	1.0 U	1.0 U	1.0 U	1.4	1.7	1.0 U	1.0 U
1,1,2-Trichloroethane	**5**		1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Trichloroethene	**5**		1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Total CVOCs & 1,4-Dioxane			*49.8*	*58.2*	*10.1*	*17.1*	*ND*	*ND*	*44.5*	*63.6*	*ND*	*ND*

Table 5

Offsite Monitoring Well Sample Results - May, July, and December 2023
Former Kop-Flex Facility Site
Hanover, Maryland

Parameters (a)	Groundwater Quality Standards (µg/L) (b)	Well ID:	DEEP (CONFINED) ZONE LOWER PATAPSCO AQUIFER							
		Sampling Date:	MW-32D 5/22/23	MW-32D 12/4/23	MW-33D-235 5/22/23	MW-33D-235 12/4/23	MW-33D-295 5/22/23	MW-33D-295 12/4/23	MW-34D 5/22/23	MW-34D 12/4/23
Methyl t-Butyl Ether	**20**		1.0 U	5.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	5.0 U
Chloroethane	**2,100**		1.0 U	5.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	5.0 U
Dichlorodifluoromethane			1.0 U	5.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	5.0 U
1,1-Dichloroethane	**2.8**		1.0 U	5.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	5.0 U
1,2-Dichloroethane	**5**		1.0 U	5.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	5.0 U
1,1-Dichloroethene	**7**		1.0 U	5.0 U	1.0 U	1.0 U	6.8	**8.9**	1.0 U	5.0 U
cis-1,2-Dichloroethene	**70**		1.0 U	5.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	5.0 U
1,4-Dioxane	**4.6 (c)**		1.7 U	1.0 U	1.5 U	1.0 U	2.2	3.3	1.4 U	1.0 U
Tetrachloroethene	**5**		1.0 U	5.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	5.0 U
1,1,1-Trichloroethane	**200**		1.0 U	5.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	5.0 U
1,1,2-Trichloroethane	**5**		1.0 U	5.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	5.0 U
Trichloroethene	**5**		1.0 U	5.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	5.0 U
Total CVOCs & 1,4-Dioxane			*ND*	*ND*	*ND*	*ND*	*9.0*	*12.2*	*ND*	*ND*

Table 5

Offsite Monitoring Well Sample Results - May, July, and December 2023
Former Kop-Flex Facility Site
Hanover, Maryland

Parameters (a)	Groundwater Quality Standards (µg/L) (b)	Well ID:	DEEP (CONFINED) ZONE LOWER PATAPSCO AQUIFER				PATUXENT AQUIFER			
		Sampling Date:	MW-35D 5/22/23	MW-35D 12/4/23	MW-46D 5/21/23	MW-46D 12/3/23	MW-30D-413 5/22/23	MW-30D-413 12/4/23	MW-36D 5/22/23	MW-36D 12/4/23
Methyl t-Butyl Ether	**20**		1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Chloroethane	**2,100**		1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Dichlorodifluoromethane			1.0 U	1.0 U	1.2	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,1-Dichloroethane	**2.8**		1.0 U	1.0 U	1.0 U	**8.7**	1.0 U	1.0 U	1.0 U	1.0 U
1,2-Dichloroethane	**5**		1.0 U	1.0 U	**19.2**	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,1-Dichloroethene	**7**		1.0 U	1.0 U	1.0 U	**51.5**	1.0 U	1.0 U	1.0 U	1.0 U
cis-1,2-Dichloroethene	**70**		1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,4-Dioxane	**4.6**	(c)	1.0 U	1.0 U	1.0 U	**27.3**	1.4 U	1.0 U	1.5 U	1.0 U
Tetrachloroethene	**5**		1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,1,1-Trichloroethane	**200**		1.0 U	1.0 U	1.0 U	1.6	1.0 U	1.0 U	1.0 U	1.0 U
1,1,2-Trichloroethane	**5**		1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Trichloroethene	**5**		1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Total CVOCs & 1,4-Dioxane			*ND*	*ND*	*19.2*	*89.1*	*ND*	*ND*	*ND*	*ND*

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

Bolded values indicate an exceedence of the Groundwater Quality Standards

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

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

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

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

Table 6

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

Well ID	Sample Date	Chloroethane	1,1-Dichloroethane	1,2-Dichloroethane	1,1-Dichloroethene	cis-1,2-Dichloroethene	1,4-Dioxane	Methylene Chloride	1,1,1-Trichloroethane	1,1,2-Trichloroethane	Trichloroethene
Groundwater Quality Standard (µg/L)		NE	2.8 (1)	5	7	70	4.6	5	200	5	5
Shallow Zone Lower Patapsco Wells (b)											
MW-25 (c)	3/19/2015	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	2.0 U	2.0 U	1.0 U	1.0 U	1.0 U
	6/24/2015	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	2.0 U	2.0 U	1.0 U	1.0 U	1.0 U
	9/23/2015	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	2.0 U	2.0 U	1.0 U	1.0 U	1.0 U
	1/6/2016	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	2.0 U	2.0 U	1.0 U	1.0 U	1.0 U
	3/23/2016	1.0 U	1.0 U	1.0 U	1.5	1.0 U	2.0 U	2.0 U	1.0 U	1.0 U	1.0 U
	7/20/2016	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	2.0 U	2.0 U	1.0 U	1.0 U	1.0 U
	9/8/2016	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	2.0 U	2.0 U	1.0 U	1.0 U	1.0 U
	12/8/2016	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	2.0 U	2.0 U	1.0 U	1.0 U	1.0 U
	2/21/2017	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	3.0	2.0 U	1.0 U	1.0 U	1.0 U
	5/2/2017	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	2.0 U	2.0 U	1.0 U	1.0 U	1.0 U
	8/31/2017	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	2.0 U	2.0 U	1.0 U	1.0 U	1.0 U
	11/14/2017	5.0 U	1.0 U	1.0 U	1.0 U	1.0 U	2.0 U	**11.7**	1.0 U	1.0 U	1.0 U
	2/13/2018	5.0 U	1.0 U	1.0 U	1.0 U	1.0 U	2.0 U	2.0 U	1.0 U	1.0 U	1.0 U
	5/30/2018	5.0 U	1.0 U	1.0 U	1.0 U	1.0 U	2.0 U	2.0 U	1.0 U	1.0 U	1.0 U
MW-28 (c)	3/17/2015	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	2.0 U	2.0 U	1.0 U	1.0 U	1.0 U
	6/23/2015	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	2.0 U	2.0 U	1.0 U	1.0 U	1.0 U
	9/22/2015	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	2.0 U	2.0 U	1.0 U	1.0 U	1.0 U
	1/5/2016	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	2.0 U	2.0 U	1.0 U	1.0 U	1.0 U
	3/22/2016	1.0 U	1.0 U	1.0 U	6.2	1.0 U	2.0 U	2.0 U	1.0 U	1.0 U	1.0 U
	7/19/2016	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	2.0 U	2.0 U	1.0 U	1.0 U	1.0 U
	9/7/2016	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	2.0 U	2.0 U	1.0 U	1.0 U	1.0 U
	12/8/2016	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	2.0 U	2.0 U	1.0 U	1.0 U	1.0 U
	2/21/2017	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	2.0 U	2.0 U	1.0 U	1.0 U	1.0 U
	5/2/2017	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	2.0 U	2.0 U	1.0 U	1.0 U	1.0 U
	8/31/2017	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	2.0 U	2.0 U	1.0 U	1.0 U	1.0 U
	11/14/2017	5.0 U	1.0 U	1.0 U	1.0 U	1.0 U	2.0 U	5.0 U	1.0 U	1.0 U	1.0 U
	2/14/2018	5.0 U	1.0 U	1.0 U	1.0 U	1.0 U	2.0 U	5.0 U	1.0 U	1.0 U	1.0 U
	5/30/2018	5.0 U	1.0 U	1.0 U	1.0 U	1.0 U	2.0 U	5.0 U	1.0 U	1.0 U	1.0 U
MW-45	3/24/2017	1.0 U	1.0 U	1.9	1.0 U	2.3	2.0 U	1.0 U	1.0 U	1.0 U	1.0 U
	6/28/2018	1.0 U	1.0 U	2.0 U	1.0 U	2.0 U	2.0 U	1.0 U	1.0 U	1.0 U	1.0 U
	5/22/2019	1.0 U	1.0 U	2.0 U	1.0 U	2.0 U	2.0 U	1.0 U	1.0 U	1.0 U	1.0 U
	12/8/2020	1.0 U	1.0 U	2.0 U	1.0 U	2.0 U	2.0 U	1.0 U	1.0 U	1.0 U	1.0 U
	11/15/2021	1.0 U	1.0 U	2.0 U	1.0 U	2.0 U	2.0 U	1.0 U	1.0 U	1.0 U	1.0 U
	6/27/2022	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
	11/21/2022	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
	7/14/2023	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
	12/4/2023	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

Table 6

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

Well ID	Sample Date	Chloroethane	1,1-Dichloroethane	1,2-Dichloroethane	1,1-Dichloroethene	cis-1,2-Dichloroethene	1,4-Dioxane	Methylene Chloride	1,1,1-Trichloroethane	1,1,2-Trichloroethane	Trichloroethene
Groundwater Quality Standard (µg/L)		NE	2.8 (1)	5	7	70	4.6	5	200	5	5
Deep Zone Lower Patapsco Wells											
MW-24D	3/22/2016	12.5 U	**88.0**	**15.7**	**1,780**	12.5 U	**561**	**39.4**	38.6	12.5 U	12.5 U
	12/8/2016	5.0 U	**36.1**	**5.2**	**701**	5.0 U	**192**	10.0 U	9.0	5.0 U	5.0 U
	5/2/2017	5.0 U	**40.4**	**5.6**	**830**	5.0 U	**216**	10.0 U	10.2	5.0 U	5.0 U
	11/14/2017	5.0 U	**28.1**	3.4	**803**	2.3	**212**	**11.7**	10.5	0.5 J	**5.9**
	5/30/2018	4.0 U	**26.6**	4.0 U	**529**	4.0 U	**187**	8.0 U	5.5	4.0 U	4.0 U
	11/7/2018	5.0 U	**29.8**	5.0 U	**560**	5.0 U	2.0 U	10.0 U	5.0 U	5.0 U	5.0 U
	5/22/2019	10.0 U	**66.2**	10.0 U	**1,190**	10.0 U	**359**	50.0 U	18.0	10.0 U	10.0 U
	11/19/2019	5.0 U	**54.5**	**6.6**	**868**	5.0 U	**155**	25.0 U	10.0	5.0 U	6.0 U
	5/12/2020	2.5 U	**25.0**	3.3	**402**	5.0 U	**139**	25.0 U	3.7	5.0 U	3.2
	11/23/2020	4.0 U	**73.5**	4.0 U	**505**	4.0 U	**208**	20.0 U	4.4	4.0 U	4.0 U
	5/10/2021	6.2	**151**	**6.3**	**788**	7.2	**299**	25.0 U	10.9	5.0 U	5.0 U
	11/15/2021	10.0 U	**142**	10.0 U	**1,300**	10.0 U	**475**	25.0 U	16.1	5.0 U	5.0 U
	6/27/2022	3.6	**142**	**7.4**	**1,490**	6.9	**165**	1.0 U	18.5	1.0	**8.6**
	11/21/2022	2.8	**114**	**7.5**	**1,020**	5.5	**148**	1.0 U	15.3	1.2	**7.7**
	7/14/2023	1.6	**110**	**7.1**	**954**	4.8	**90**	10.0 U	14.8	1.1	**7.3**
	12/4/2023	10.0 U	**88.1**	10.0 U	**1,130**	10.0 U	**102**	10.0 U	11.9	10.0 U	10.0 U
MW-25D-130	3/19/2015	10.0 U	**38.6**	**10.8**	**854**	10.0 U	**446**	200 U	**8,930**	100.0 U	100.0 U
	6/24/2015	1.0 U	**37.1**	**8.9**	**1,030**	4.6	**303**	2.0 U	46.3	1.2	**6.8**
	9/23/2015	10.0 U	**29.7**	10.0 U	**697**	10.0 U	**295**	20.0 U	32.3	10.0 U	**14.2**
	1/7/2016	5.0 U	**33.4**	**9.7**	**800**	5.0 U	**398**	10.0 U	5.0 U	5.0 U	**6.1**
	3/23/2016	5.0 U	**24.5**	**8.0**	**676**	5.0 U	**302**	10.0 U	26.2	5.0 U	**5.0**
	7/19/2016	10.0 U	**39.3**	**10.2**	**1,090**	4.9 J	**367**	14.3 J	37.0	10.0 U	**6.5** J
	9/9/2016	5.0 U	**27.9**	**6.4**	**661**	5.0 U	**241**	**12.0**	25.0	5.0 U	5.0 U
	12/8/2016	1.0 U	**6.7**	1.5	**171**	1.0 U	**13.6**	2.0 U	6.9	1.0 U	1.0 U
	2/21/2017	1.0 U	**7.2**	1.7	**194**	1.0 U	**69.1**	2.0 U	7.0	1.0 U	1.2
	5/2/2017	2.0 U	**6.5**	2.0 U	**174**	2.0 U	**61.0**	4.0 U	5.0	2.0 U	2.0 U
	8/31/2017	2.0 U	**7.4**	1.7	**193**	2.0 U	**57.9**	4.0 U	6.9	2.0 U	2.0 U
	11/14/2017	2.0 U	**5.1**	1.3	**151**	0.6 J	**58.5**	5.0 U	6.4	1.0 U	1.1
	2/13/2018	2.0 U	**6.3**	2.0 U	**154**	2.0 U	**67.1**	5.0 U	6.4	1.0 U	1.0 U
	5/30/2018	2.0 U	**5.0**	1.4	**144**	2.0 U	**53.9**	5.0 U	5.3	1.0 U	1.0 U
	11/8/2018	2.0 U	**4.4**	1.1	**109**	2.0 U	**40.2**	5.0 U	1.0 U	1.0 U	1.0 U
	5/22/2019	1.0 U	**3.7**	1.0 U	**96.2**	1.0 U	**38.4**	5.0 U	4.2	1.0 U	1.0 U
	11/19/2019	1.0 U	2.7	1.0 U	**62.1**	1.0 U	**31.0**	5.0 U	1.0 U	1.0 U	1.0 U
	5/14/2020	1.0 U	**3.3**	1.0 U	**69.1**	1.0 U	**32.6**	5.0 U	1.0 U	1.0 U	1.0 U
	11/23/2020	1.0 U	**3.3**	1.0 U	**76.0**	1.0 U	**32.4**	5.0 U	4.9	1.0 U	1.0 U
	5/10/2021	1.0 U	**3.0**	1.0 U	**50.8**	1.0 U	**30.2**	5.0 U	3.1	1.0 U	1.0 U
	12/27/2021	1.0 U	**3.0**	1.0 U	**45.5**	1.0 U	**29.1**	5.0 U	3.3	1.0 U	1.0 U
	6/27/2022	1.0 U	**4.2**	1.0 U	**65.6**	1.0 U	**15.6**	1.0 U	5.0	1.0 U	1.0 U
	11/21/2022	1.0 U	**5.5**	1.0 U	**80.2**	1.0 U	**16.1**	1.0 U	5.6	1.0 U	1.0 U
	Duplicate 11/21/2022	1.0 U	**5.3**	1.0 U	**76.2**	1.0 U	**19.1**	1.0 U	5.6	1.0 U	1.0 U
	5/22/2023	1.0 U	**4.3**	1.0 U	**52.0**	1.0 U	**21.3**	1.0 U	4.5	1.0 U	1.0 U
	Duplicate 5/22/2023	1.0 U	**5.0**	1.0 U	**60.0**	1.0 U	**21.0**	1.0 U	5.2	1.0 U	1.0 U
	12/4/2023	10.0 U	**6.9**	1.1	**110**	1.0 U	**28.4**	1.0 U	6.2	1.0 U	1.0 U
	Duplicate 12/4/2023	10.0 U	**5.9**	1.0 U	**100**	1.0 U	**23.7**	1.0 U	5.6	1.0 U	1.0 U

Table 6

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

Well ID	Sample Date	Chloroethane	1,1-Dichloroethane	1,2-Dichloroethane	1,1-Dichloroethene	cis-1,2-Dichloroethene	1,4-Dioxane	Methylene Chloride	1,1,1-Trichloroethane	1,1,2-Trichloroethane	Trichloroethene
Groundwater Quality Standard (µg/L)		NE	2.8 (1)	5	7	70	4.6	5	200	5	5
MW-25D-192	3/19/2015	1.0 U	**11.7**	1.0 U	**53.0**	1.0 U	**49.4**	2.0 U	13.7	1.0 U	1.0 U
	6/25/2015	1.0 U	**11.9**	1.0 U	**59.4**	1.0 U	**39.8**	2.0 U	14.2	1.0 U	1.0 U
	9/22/2015	1.0 U	**13.9**	1.0 U	**51.4**	1.0 U	**45.0**	2.0 U	12.9	1.0 U	1.3
	1/7/2016	1.0 U	**11.7**	1.0 U	**47.2**	1.0 U	**41.7**	2.0 U	12.5	1.0 U	1.0 U
	3/23/2016	1.0 U	**10.3**	1.0 U	**43.3**	1.0 U	**42.2**	2.0 U	11.3	1.0 U	1.0 U
	7/20/2016	1.0 U	**11.7**	0.73 J	**54.9**	1.0 U	**54.4**	2.0 U	11.1	1.0 U	1.0 U
	9/8/2016	1.0 U	**12.9**	1.0 U	**56.8**	1.0 U	**39.3**	2.0 U	12.6	1.0 U	1.0 U
	12/8/2016	1.0 U	**16.1**	1.0 U	**64.6**	1.0 U	**51.3**	2.0 U	13.3	1.0 U	1.0 U
	2/21/2017	1.0 U	**14.0**	1.0 U	**63.3**	1.0 U	**52.1**	2.0 U	11.6	1.0 U	1.0 U
	5/2/2017	1.0 U	**16.9**	1.0 U	**81.0**	1.0 U	**53.1**	2.0 U	13.5	1.0 U	1.0 U
	8/31/2017	1.0 U	**15.7**	1.0 U	**62.5**	1.0 U	**44.3**	2.0 U	13.1	1.0 U	1.0 U
	11/14/2017	5.0 U	**13.6**	0.67 J	**67.2**	1.0 U	**56.7**	5.0 U	13.6	1.0 U	1.0 U
	2/13/2018	5.0 U	**13.7**	1.0 U	**69.2**	1.0 U	**42.7**	5.0 U	11.0	1.0 U	1.0 U
	5/30/2018	5.0 U	**10.8**	1.0 U	**58.3**	1.0 U	**50.8**	5.0 U	7.2	1.0 U	1.0 U
	11/8/2018	5.0 U	**13.7**	1.0 U	**61.0**	1.0 U	**49.3**	5.0 U	9.8	1.0 U	1.0 U
	5/22/2019	1.0 U	**11.8**	1.0 U	**51.7**	1.0 U	**36.7**	5.0 U	8.5	1.0 U	1.0 U
	11/19/2019	1.0 U	**12.6**	1.0 U	**53.2**	1.0 U	**41.1**	5.0 U	1.0 U	1.0 U	1.0 U
	5/14/2020	1.0 U	**12.8**	1.0 U	**58.0**	1.0 U	**41.1**	5.0 U	1.0 U	1.0 U	1.0 U
	11/23/2020	1.0 U	**11.3**	1.0 U	**46.9**	1.0 U	**41.5**	5.0 U	5.8	1.0 U	1.0 U
	5/10/2021	1.0 U	**6.5**	1.0 U	**28.3**	1.0 U	**22.6**	5.0 U	3.2	1.0 U	1.0 U
	12/27/2021	1.0 U	**6.2**	1.0 U	**26.0**	1.0 U	**21.6**	5.0 U	3.4	1.0 U	1.0 U
	6/27/2022	1.0 U	**8.8**	1.0 U	**37.3**	1.0 U	**11.6**	1.0 U	4.7	1.0 U	1.0 U
	11/21/2022	1.0 U	**7.3**	1.0 U	**29.1**	1.0 U	**10.2**	1.0 U	3.7	1.0 U	1.0 U
	5/22/2023	1.0 U	**7.1**	1.0 U	**30.1**	1.0 U	**9.0**	1.0 U	3.6	1.0 U	1.0 U
	12/4/2023	1.0 U	**8.4**	1.0 U	**36.5**	1.0 U	**9.4**	1.0 U	3.9	1.0 U	1.0 U
MW-28D	3/17/2015	1.0 U	1.0 U	1.0 U	**10.6**	1.0 U	**5.0**	2.0 U	1.0 U	1.0 U	1.0 U
	6/23/2015	1.0 U	1.0 U	1.0 U	**12.8**	1.0 U	4.5	2.0 U	1.0 U	1.0 U	1.0 U
	9/22/2015	1.0 U	1.0 U	1.0 U	**14.3**	1.0 U	4.4	2.0 U	1.0 U	1.0 U	1.0 U
	1/5/2016	1.0 U	1.0 U	1.0 U	**11.5**	1.0 U	**5.5**	2.0 U	1.0 U	1.0 U	1.0 U
	3/23/2016	1.0 U	1.0 U	1.0 U	**9.1**	1.0 U	4.0	2.0 U	1.0 U	1.0 U	1.0 U
	7/19/2016	1.0 U	1.0 U	0.25 J	**10.1**	1.0 U	2.0 U	2.0 U	1.0 U	1.0 U	1.0 U
	9/7/2016	1.0 U	1.0 U	1.0 U	**12.0**	1.0 U	**5.0**	2.0 U	1.0 U	1.0 U	1.0 U
	12/8/2016	1.0 U	1.0 U	1.0 U	6.3	1.0 U	2.0 U	2.0 U	1.0 U	1.0 U	1.0 U
	2/21/2017	1.0 U	1.0 U	1.0 U	4.6	1.0 U	3.0	2.0 U	1.0 U	1.0 U	1.0 U
	5/2/2017	1.0 U	1.0 U	1.0 U	5.8	1.0 U	2.7	2.0 U	1.0 U	1.0 U	1.0 U
	8/31/2017	1.0 U	1.0 U	1.0 U	5.0	1.0 U	2.7	2.0 U	1.0 U	1.0 U	1.0 U
	11/14/2017	5.0 U	1.0 U	1.0 U	5.5	1.0 U	3.5	5.0 U	1.0 U	1.0 U	1.0 U
	2/14/2018	5.0 U	1.0 U	1.0 U	4.3	1.0 U	2.8	5.0 U	1.0 U	1.0 U	1.0 U
	5/30/2018	5.0 U	1.0 U	1.0 U	6.1	1.0 U	2.4	5.0 U	1.0 U	1.0 U	1.0 U
	11/8/2018	5.0 U	1.0 U	1.0 U	6.9	1.0 U	2.3	5.0 U	1.0 U	1.0 U	1.0 U
	5/22/2019	1.0 U	1.0 U	1.0 U	5.2	1.0 U	3.5	5.0 U	1.0 U	1.0 U	1.0 U
	11/20/2019	1.0 U	1.0 U	1.0 U	6.1	1.0 U	3.9	5.0 U	1.0 U	1.0 U	1.0 U
	5/14/2020	1.0 U	1.0 U	1.0 U	4.0	1.0 U	3.4	5.0 U	1.0 U	1.0 U	1.0 U
	11/23/2020	1.0 U	1.0 U	1.0 U	**7.6**	1.0 U	4.2	5.0 U	1.0 U	1.0 U	1.0 U
	5/10/2021	1.0 U	1.0 U	1.0 U	**10.0**	1.0 U	4.3	5.0 U	1.0 U	1.0 U	1.0 U
	11/15/2021	1.0 U	1.0 U	1.0 U	**8.1**	1.0 U	**5.1**	5.0 U	1.0 U	1.0 U	1.0 U
	6/27/2022	1.0 U	1.0 U	1.0 U	4.0	1.0 U	2.1	1.0 U	1.0 U	1.0 U	1.0 U
	11/21/2022	1.0 U	1.0 U	1.0 U	6.2	1.0 U	3.1	1.0 U	1.0 U	1.0 U	1.0 U
	5/22/2023	1.0 U	1.0 U	1.0 U	**8.3**	1.0 U	1.8	1.0 U	1.0 U	1.0 U	1.0 U
	12/4/2023	1.0 U	1.0 U	1.0 U	**13.3**	1.0 U	3.8	1.0 U	1.0 U	1.0 U	1.0 U

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Hanover, Maryland

Well ID	Sample Date	Chloroethane	1,1-Dichloroethane	1,2-Dichloroethane	1,1-Dichloroethene	cis-1,2-Dichloroethene	1,4-Dioxane	Methylene Chloride	1,1,1-Trichloroethane	1,1,2-Trichloroethane	Trichloroethene
Groundwater Quality Standard (µg/L)		NE	2.8 (1)	5	7	70	4.6	5	200	5	5
MW-29D	5/21/2018	5.0 U	1.0 U	1.0 U	1.0 U	1.0 U	2.0 U	5.0 U	1.0 U	1.0 U	1.0 U
	8/23/2018	5.0 U	1.0 U	1.0 U	1.0 U	1.0 U	2.0 U	5.0 U	1.0 U	1.0 U	1.0 U
	11/8/2018	5.0 U	1.0 U	1.0 U	1.0 U	1.0 U	2.0 U	5.0 U	1.0 U	1.0 U	1.0 U
	2/19/2019	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	2.0 U	5.0 U	1.0 U	1.0 U	1.0 U
	5/22/2019	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	2.0 U	5.0 U	1.0 U	1.0 U	1.0 U
	11/20/2019	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	2.0 U	5.0 U	1.0 U	1.0 U	1.0 U
	5/14/2020	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	2.0 U	5.0 U	1.0 U	1.0 U	1.0 U
	11/23/2020	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	2.0 U	5.0 U	1.0 U	1.0 U	1.0 U
	5/10/2021	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	2.0 U	5.0 U	1.0 U	1.0 U	1.0 U
	11/15/2021	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	2.0 U	5.0 U	1.0 U	1.0 U	1.0 U
	6/27/2022	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	0.5 U	1.0 U	1.0 U	1.0 U	1.0 U
	11/21/2022	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
	5/22/2023	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.3 U	1.0 U	1.0 U	1.0 U	1.0 U
	5/22/2023	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
MW-30D-273	5/31/2018	5.0 U	1.0 U	1.0 U	**27.4**	1.0 U	**16.4**	5.0 U	1.0 U	1.0 U	1.0 U
	8/23/2018	5.0 U	1.0	1.0 U	**40.7**	1.0 U	**24.5**	5.0 U	1.7	1.0 U	1.0 U
	11/8/2018	5.0 U	1.2	1.0 U	**44.0**	1.0 U	**22.2**	5.0 U	2.1	1.0 U	1.0 U
	2/19/2019	1.0 U	1.1	1.0 U	**47.2**	1.0 U	**23.1**	5.0 U	1.0 U	1.0 U	1.0 U
	5/22/2019	1.0 U	1.1	1.0 U	**44.2**	1.0 U	**22.7**	5.0 U	2.0	1.0 U	1.0 U
	11/20/2019	1.0 U	1.1	1.0 U	**43.3**	1.0 U	**22.8**	5.0 U	1.0 U	1.0 U	1.0 U
	5/14/2020	1.0 U	1.0	1.0 U	**42.7**	1.0 U	**20.9**	5.0 U	1.0 U	1.0 U	1.0 U
	11/23/2020	1.0 U	1.0	1.0 U	**39.5**	1.0 U	**19.5**	5.0 U	1.0 U	1.0 U	1.0 U
	5/10/2021	1.0 U	1.0	1.0 U	**36.9**	1.0 U	**18.2**	5.0 U	1.0 U	1.0 U	1.0 U
	11/15/2021	1.0 U	1.0	1.0 U	**34.1**	1.0 U	**16.6**	5.0 U	1.4	1.0 U	1.0 U
	6/27/2022	1.0 U	1.0 U	1.0 U	**34.5**	1.0 U	**7.5**	1.0 U	1.3	1.0 U	1.0 U
	11/21/2022	1.0 U	1.0 U	1.0 U	**31.3**	1.0 U	**7.0**	1.0 U	1.2	1.0 U	1.0 U
	5/22/2023	1.0 U	1.0 U	1.0 U	**35.1**	1.0 U	**8.0**	1.0 U	1.4	1.0 U	1.0 U
	12/4/2023	1.0 U	1.3	1.0 U	**51.0**	1.0 U	**9.6**	1.0 U	1.7	1.0 U	1.0 U
MW-31D	3/17/2015	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	2.0 U	2.0 U	1.0 U	1.0 U	1.0 U
	6/24/2015	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	2.0 U	2.0 U	1.0 U	1.0 U	1.0 U
	9/22/2015	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	2.0 U	2.0 U	1.0 U	1.0 U	1.0 U
	1/6/2016	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	2.0 U	2.0 U	1.0 U	1.0 U	1.0 U
	3/21/2016	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	2.0 U	2.0 U	1.0 U	1.0 U	1.0 U
	7/19/2016	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	2.0 U	2.0 U	1.0 U	1.0 U	1.0 U
	9/6/2016	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	2.0 U	2.0 U	1.0 U	1.0 U	1.0 U
	12/8/2016	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	2.0 U	2.0 U	1.0 U	1.0 U	1.0 U
	2/21/2017	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	2.0 U	2.0 U	1.0 U	1.0 U	1.0 U
	5/2/2017	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	2.0 U	2.0 U	1.0 U	1.0 U	1.0 U
	8/31/2017	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	2.0 U	2.0 U	1.0 U	1.0 U	1.0 U
	11/14/2017	5.0 U	1.0 U	1.0 U	1.0 U	1.0 U	2.0 U	5.0 U	1.0 U	1.0 U	1.0 U
	2/14/2018	5.0 U	1.0 U	1.0 U	1.0 U	1.0 U	2.0 U	5.0 U	1.0 U	1.0 U	1.0 U
	5/31/2018	5.0 U	1.0 U	1.0 U	1.0 U	1.0 U	2.0 U	5.0 U	1.0 U	1.0 U	1.0 U
	11/8/2018	5.0 U	1.0 U	1.0 U	1.0 U	1.0 U	2.0 U	5.0 U	1.0 U	1.0 U	1.0 U
	5/22/2019	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	2.0 U	5.0 U	1.0 U	1.0 U	1.0 U
	11/20/2019	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	2.0 U	5.0 U	1.0 U	1.0 U	1.0 U
	6/2/2020	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	2.0 U	5.0 U	1.0 U	1.0 U	1.0 U
	11/23/2020	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	2.0 U	5.0 U	1.0 U	1.0 U	1.0 U
	5/10/2021	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	2.0 U	5.0 U	1.0 U	1.0 U	1.0 U
	11/15/2021	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	2.0 U	5.0 U	1.0 U	1.0 U	1.0 U
	6/27/2022	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	0.1 U	1.0 U	1.0 U	1.0 U	1.0 U

Table 6

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

Well ID	Sample Date	Chloroethane	1,1-Dichloroethane	1,2-Dichloroethane	1,1-Dichloroethene	cis-1,2-Dichloroethene	1,4-Dioxane	Methylene Chloride	1,1,1-Trichloroethane	1,1,2-Trichloroethane	Trichloroethene
Groundwater Quality Standard (µg/L)		NE	2.8 (1)	5	7	70	4.6	5	200	5	5
MW-31D	11/21/2022	1.0 U	1.0 U	1.3	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
	5/22/2023	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	0.1 U	1.0 U	1.0 U	1.0 U	1.0 U
	12/4/2023	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	0.1 U	1.0 U	1.0 U	1.0 U	1.0 U
MW-32D	5/31/2018	5.0 U	1.0 U	1.0 U	1.0 U	1.0 U	2.0 U	5.0 U	1.0 U	1.0 U	1.0 U
	8/23/2018	5.0 U	1.0 U	1.0 U	1.0 U	1.0 U	2.0 U	5.0 U	1.0 U	1.0 U	1.0 U
	11/8/2018	5.0 U	1.0 U	1.0 U	1.0 U	1.0 U	2.0 U	5.0 U	1.0 U	1.0 U	1.0 U
	2/19/2019	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	2.0 U	5.0 U	1.0 U	1.0 U	1.0 U
	5/22/2019	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	2.0 U	5.0 U	1.0 U	1.0 U	1.0 U
	11/20/2019	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	2.0 U	5.0 U	1.0 U	1.0 U	1.0 U
	5/14/2020	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	2.0 U	5.0 U	1.0 U	1.0 U	1.0 U
	11/23/2020	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	2.0 U	5.0 U	1.0 U	1.0 U	1.0 U
	5/10/2021	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	2.0 U	5.0 U	1.0 U	1.0 U	1.0 U
	11/15/2021	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	2.0 U	5.0 U	1.0 U	1.0 U	1.0 U
	6/27/2022	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	0.2 U	1.0 U	1.0 U	1.0 U	1.0 U
	11/21/2022	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
	5/22/2023	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.7 U	1.0 U	1.0 U	1.0 U	1.0 U
	12/4/2023	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	1.0 U	5.0 U	5.0 U	5.0 U	5.0 U
MW-33D-235	3/18/2015	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	2.0 U	2.0 U	1.0 U	1.0 U	1.0 U
	6/23/2015	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	2.0 U	2.0 U	1.0 U	1.0 U	1.0 U
	9/21/2015	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	2.0 U	2.0 U	1.0 U	1.0 U	1.0 U
	1/4/2016	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	2.0 U	2.0 U	1.0 U	1.0 U	1.0 U
	3/21/2016	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	3.0	2.0 U	1.0 U	1.0 U	1.0 U
	7/18/2016	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	2.0 U	2.0 U	1.0 U	1.0 U	1.0 U
	9/7/2016	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	2.0 U	2.0 U	1.0 U	1.0 U	1.0 U
	12/8/2016	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	2.0 U	2.0 U	1.0 U	1.0 U	1.0 U
	2/21/2017	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	2.0 U	2.0 U	1.0 U	1.0 U	1.0 U
	5/2/2017	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	2.0 U	2.0 U	1.0 U	1.0 U	1.0 U
	8/31/2017	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	2.0 U	2.0 U	1.0 U	1.0 U	1.0 U
	11/14/2017	5.0 U	1.0 U	1.0 U	1.0 U	1.0 U	4.3	**12.0**	1.0 U	1.0 U	1.0 U
	2/13/2018	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	2.0 U	2.0 U	1.0 U	1.0 U	1.0 U
	5/31/2018	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	2.0 U	2.0 U	1.0 U	1.0 U	1.0 U
	11/8/2018	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	2.0 U	2.0 U	1.0 U	1.0 U	1.0 U
	5/22/2019	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	2.0 U	5.0 U	1.0 U	1.0 U	1.0 U
	11/20/2019	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	2.0 U	5.0 U	1.0 U	1.0 U	1.0 U
	5/14/2020	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	2.0 U	5.0 U	1.0 U	1.0 U	1.0 U
	11/23/2020	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	2.0 U	5.0 U	1.0 U	1.0 U	1.0 U
	5/10/2021	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	2.0 U	5.0 U	1.0 U	1.0 U	1.0 U
	11/15/2021	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	2.0 U	5.0 U	1.0 U	1.0 U	1.0 U
	6/27/2022	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	0.1 U	1.0 U	1.0 U	1.0 U	1.0 U
	11/21/2022	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
	5/22/2023	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.5 U	1.0 U	1.0 U	1.0 U	1.0 U
	12/4/2023	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

Table 6

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

Well ID	Sample Date	Chloroethane	1,1-Dichloroethane	1,2-Dichloroethane	1,1-Dichloroethene	cis-1,2-Dichloroethene	1,4-Dioxane	Methylene Chloride	1,1,1-Trichloroethane	1,1,2-Trichloroethane	Trichloroethene
Groundwater Quality Standard (µg/L)		NE	2.8 (1)	5	7	70	4.6	5	200	5	5
MW-33D-295	3/18/2015	1.0 U	1.0 U	1.0 U	4.6	1.0 U	**8.0**	2.0 U	1.0 U	1.0 U	1.0 U
	6/23/2015	1.0 U	1.0 U	1.0 U	3.3	1.0 U	**6.8**	2.0 U	1.0 U	1.0 U	1.0 U
	9/21/2015	1.0 U	1.0 U	1.0 U	4.8	1.0 U	**6.8**	2.0 U	1.0 U	1.0 U	1.0 U
	1/4/2016	1.0 U	1.0 U	1.0 U	3.7	1.0 U	**7.6**	2.0 U	1.0 U	1.0 U	1.0 U
	3/21/2016	1.0 U	1.0 U	1.0 U	3.9	1.0 U	**7.8**	2.0 U	1.0 U	1.0 U	1.0 U
	7/18/2016	1.0 U	1.0 U	0.36 J	3.2	1.0 U	**5.1**	2.0 U	1.0 U	1.0 U	1.0 U
	9/7/2016	1.0 U	1.0 U	1.0 U	3.8	1.0 U	**7.4**	2.0 U	1.0 U	1.0 U	1.0 U
	12/8/2016	1.0 U	1.0 U	1.0 U	5.4	1.0 U	**7.4**	2.0 U	1.0 U	1.0 U	1.0 U
	2/21/2017	1.0 U	1.0 U	1.0 U	4.0	1.0 U	**6.8**	2.0 U	1.0 U	1.0 U	1.0 U
	5/2/2017	1.0 U	1.0 U	1.0 U	5.3	1.0 U	**7.4**	2.0 U	1.0 U	1.0 U	1.0 U
	8/31/2017	1.0 U	1.0 U	1.0 U	5.6	1.0 U	**6.3**	2.0 U	1.0 U	1.0 U	1.0 U
	11/14/2017	5.0 U	1.0 U	1.0 U	3.4	1.0 U	**9.7**	**11.5**	0.49 J	1.0 U	1.0 U
	2/13/2018	5.0 U	1.0 U	1.0 U	4.6	1.0 U	**6.9**	2.0 U	0.49 J	1.0 U	1.0 U
	5/31/2018	5.0 U	1.0 U	1.0 U	4.6	1.0 U	**6.9**	2.0 U	0.49 J	1.0 U	1.0 U
	11/8/2018	5.0 U	1.0 U	1.0 U	4.2	1.0 U	**6.1**	2.0 U	1.0 U	1.0 U	1.0 U
	5/22/2019	1.0 U	1.0 U	1.0 U	4.5	1.0 U	**6.1**	5.0 U	1.0 U	1.0 U	1.0 U
	11/20/2019	1.0 U	1.0 U	1.0 U	3.7	1.0 U	**6.3**	5.0 U	1.0 U	1.0 U	1.0 U
	5/14/2020	1.0 U	1.0 U	1.0 U	4.4	1.0 U	**6.0**	5.0 U	1.0 U	1.0 U	1.0 U
	11/23/2020	1.0 U	1.0 U	1.0 U	3.6	1.0 U	**6.0**	5.0 U	1.0 U	1.0 U	1.0 U
	5/10/2021	1.0 U	1.0 U	1.0 U	4.4	1.0 U	**5.6**	5.0 U	1.0 U	1.0 U	1.0 U
	11/15/2021	1.0 U	1.0 U	1.0 U	4.2	1.0 U	**6.1**	5.0 U	1.0 U	1.0 U	1.0 U
	6/27/2022	1.0 U	1.0 U	1.0 U	5.1	1.0 U	3.0	1.0 U	1.0 U	1.0 U	1.0 U
	11/21/2022	1.0 U	1.0 U	1.0 U	6.0	1.0 U	3.1	1.0 U	1.0 U	1.0 U	1.0 U
	5/22/2023	1.0 U	1.0 U	1.0 U	6.8	1.0 U	2.2	1.0 U	1.0 U	1.0 U	1.0 U
	12/4/2023	1.0 U	1.0 U	1.0 U	**8.9**	1.0 U	3.3	1.0 U	1.0 U	1.0 U	1.0 U
MW-34D	5/31/2018	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	2.0 U	2.0 U	1.0 U	1.0 U	1.0 U
	8/23/2018	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	2.0 U	2.0 U	1.0 U	1.0 U	1.0 U
	11/8/2018	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	2.0 U	2.0 U	1.0 U	1.0 U	1.0 U
	2/19/2019	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	2.0 U	5.0 U	1.0 U	1.0 U	1.0 U
	5/22/2019	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	2.0 U	5.0 U	1.0 U	1.0 U	1.0 U
	11/20/2019	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	2.0 U	5.0 U	1.0 U	1.0 U	1.0 U
	5/14/2020	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	2.0 U	5.0 U	1.0 U	1.0 U	1.0 U
	11/23/2020	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	2.0 U	5.0 U	1.0 U	1.0 U	1.0 U
	5/10/2021	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	2.0 U	5.0 U	1.0 U	1.0 U	1.0 U
	11/15/2021	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	2.0 U	5.0 U	1.0 U	1.0 U	1.0 U
	6/27/2022	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U
	11/21/2022	1.0 U	1.0 U	1.3	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
	5/22/2023	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.4 U	1.0 U	1.0 U	1.0 U	1.0 U
	12/4/2023	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	1.0 U	5.0 U	5.0 U	5.0 U	5.0 U

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Former Kop-Flex Facility Site
Hanover, Maryland

Well ID	Sample Date	Chloroethane	1,1-Dichloroethane	1,2-Dichloroethane	1,1-Dichloroethene	cis-1,2-Dichloroethene	1,4-Dioxane	Methylene Chloride	1,1,1-Trichloroethane	1,1,2-Trichloroethane	Trichloroethene
Groundwater Quality Standard (µg/L)		NE	2.8 (1)	5	7	70	4.6	5	200	5	5
MW-35D	3/18/2015	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	2.0 U	2.0 U	1.0 U	1.0 U	1.0 U
	6/22/2015	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	2.0 U	2.0 U	1.0 U	1.0 U	1.0 U
	9/21/2015	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	2.0 U	2.0 U	1.0 U	1.0 U	1.0 U
	1/6/2016	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	2.0 U	2.0 U	1.0 U	1.0 U	1.0 U
	4/15/2016	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	2.0 U	2.0 U	1.0 U	1.0 U	1.0 U
	7/18/2016	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	2.0 U	2.0 U	1.0 U	1.0 U	1.0 U
	9/6/2016	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	2.0 U	2.0 U	1.0 U	1.0 U	1.0 U
	12/8/2016	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	2.0 U	2.0 U	1.0 U	1.0 U	1.0 U
	2/21/2017	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	2.0 U	2.0 U	1.0 U	1.0 U	1.0 U
	5/2/2017	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	2.0 U	2.0 U	1.0 U	1.0 U	1.0 U
	8/31/2017	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	2.0 U	2.0 U	1.0 U	1.0 U	1.0 U
	11/14/2017	5.0 U	1.0 U	1.0 U	1.0 U	1.0 U	2.0 U	5.0 U	1.0 U	1.0 U	1.0 U
	2/14/2018	5.0 U	1.0 U	1.0 U	1.0 U	1.0 U	2.0 U	2.0 U	1.0 U	1.0 U	1.0 U
	5/31/2018	5.0 U	1.0 U	1.0 U	1.0 U	1.0 U	2.0 U	2.0 U	1.0 U	1.0 U	1.0 U
	11/8/2018	5.0 U	1.0 U	1.0 U	1.0 U	1.0 U	2.0 U	2.0 U	1.0 U	1.0 U	1.0 U
	5/22/2019	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	2.0 U	5.0 U	1.0 U	1.0 U	1.0 U
	11/20/2019	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	2.0 U	5.0 U	1.0 U	1.0 U	1.0 U
	5/14/2020	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	2.0 U	5.0 U	1.0 U	1.0 U	1.0 U
	11/23/2020	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	2.0 U	5.0 U	1.0 U	1.0 U	1.0 U
	5/10/2021	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	2.0 U	5.0 U	1.0 U	1.0 U	1.0 U
	11/15/2021	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	2.0 U	5.0 U	1.0 U	1.0 U	1.0 U
	6/27/2022	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	0.16 U	1.0 U	1.0 U	1.0 U	1.0 U
	11/21/2022	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
	5/22/2023	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
	12/4/2023	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
MW-46D	5/30/2018	1.0 U	13.7	1.0 U	**29.4**	1.0 U	**73.5**	2.0 U	1.2	1.0 U	1.0 U
	11/7/2018	1.0 U	22.1	1.2	**99.6**	1.0 U	**96.7**	2.0 U	7.7	1.0 U	1.0 U
	5/21/2019	1.0 U	**26.1**	1.0	**125**	1.0 U	**88.0**	5.0 U	10.2	1.0 U	1.0 U
	11/19/2019	1.0 U	**23.4**	1.4	**114**	1.0	**96.3**	5.0 U	1.0 U	1.0 U	1.0 U
	5/12/2020	1.0 U	**20.7**	1.4	**98**	1.0	**63.0**	5.0 U	1.0 U	1.0 U	1.0 U
	11/23/2020	1.0 U	**18.4**	1.0 U	**124**	1.0 U	**29.8**	5.0 U	6.4	1.0 U	1.0 U
	5/9/2021	1.0 U	**25.7**	1.5	**116**	1.0 U	**99.3**	5.0 U	7.8	1.0 U	1.0 U
	11/15/2021	1.0 U	**19.9**	1.0 U	**87**	1.0 U	**79.9**	5.0 U	4.8	1.0 U	1.0 U
	6/27/2022	1.0 U	**20.7**	1.0 U	**92**	1.0 U	**23.4**	5.0 U	5.7	1.0 U	1.0 U
	11/21/2022	1.0 U	**15.7**	1.0 U	**74.9**	1.0 U	**40.1**	1.0 U	3.6	1.0 U	1.0 U
	5/21/2023	1.0 U	1.2	1.0 U	**19.2**	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
	12/4/2023	1.0 U	8.7	1.0 U	**51.5**	1.0 U	**27.3**	1.0 U	1.6	1.0 U	1.0 U
Confined Patuxent Wells											
MW-30D-413	5/31/2018	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	2.0 U	2.0 U	1.0 U	1.0 U	1.0 U
	8/23/2018	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	2.0 U	2.0 U	1.0 U	1.0 U	1.0 U
	11/8/2018	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	2.0 U	2.0 U	1.0 U	1.0 U	1.0 U
	2/19/2019	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	2.0 U	2.0 U	1.0 U	1.0 U	1.0 U
	5/22/2019	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	2.0 U	5.0 U	1.0 U	1.0 U	1.0 U
	11/20/2019	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	2.0 U	5.0 U	1.0 U	1.0 U	1.0 U
	5/14/2020	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	2.0 U	5.0 U	1.0 U	1.0 U	1.0 U
	11/23/2020	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	2.0 U	5.0 U	1.0 U	1.0 U	1.0 U
	5/10/2021	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	2.0 U	5.0 U	1.0 U	1.0 U	1.0 U
	11/15/2021	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	2.0 U	5.0 U	1.0 U	1.0 U	1.0 U
	6/27/2022	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	0.10 U	1.0 U	1.0 U	1.0 U	1.0 U

Table 6

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

Well ID	Sample Date	Chloroethane	1,1-Dichloroethane	1,2-Dichloroethane	1,1-Dichloroethene	cis-1,2-Dichloroethene	1,4-Dioxane	Methylene Chloride	1,1,1-Trichloroethane	1,1,2-Trichloroethane	Trichloroethene
Groundwater Quality Standard (µg/L)		NE	2.8 (1)	5	7	70	4.6	5	200	5	5
MW-30D-413 (continued)	11/21/2022	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
	5/22/2023	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.4 U	1.0 U	1.0 U	1.0 U	1.0 U
	12/4/2023	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.4 U	1.0 U	1.0 U	1.0 U	1.0 U
MW-36D	5/30/2018	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	2.0 U	2.0 U	1.0 U	1.0 U	1.0 U
	8/23/2018	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	2.0 U	2.0 U	1.0 U	1.0 U	1.0 U
	11/8/2018	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	2.0 U	2.0 U	1.0 U	1.0 U	1.0 U
	2/19/2019	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	2.0 U	2.0 U	1.0 U	1.0 U	1.0 U
	5/22/2019	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	2.0 U	5.0 U	1.0 U	1.0 U	1.0 U
	11/20/2019	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	2.0 U	5.0 U	1.0 U	1.0 U	1.0 U
	5/14/2020	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	2.0 U	5.0 U	1.0 U	1.0 U	1.0 U
	11/23/2020	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	2.0 U	5.0 U	1.0 U	1.0 U	1.0 U
	5/10/2021	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	2.0 U	5.0 U	1.0 U	1.0 U	1.0 U
	11/15/2021	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	2.0 U	5.0 U	1.0 U	1.0 U	1.0 U
	6/27/2022	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	0.17 U	1.0 U	1.0 U	1.0 U	1.0 U
	11/21/2022	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
	5/22/2023	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
	12/4/2023	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.5 U	1.0 U	1.0 U	1.0 U	1.0 U

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

a/ U = not detected above the method detection limit; J = estimated concentration between the reporting limit and method detection limit.
Bolded values indicate an exceedence of the Groundwater Quality Standards
Dashed line marks change from quarterly to semi-annual sampling frequency at the well.
All sample concentrations in micrograms per liter (µg/l)
NS = well not sampled
b/ Wells screened in this portion of the Lower Patapsco aquifer were removed from the monitoring program after the May 2018 sampling event.
c/ Well decommissioned in August 2019

Table 8

Mann-Kendall Statistical Results
Former Kop-Flex Facility
Hanover, Maryland (a)

Well ID	1,1-DCA	1,1-DCE	1,4-Dioxane	1,1,1-TCA
	Trend	Trend	Trend	Trend
Deep (Confined) Zone Lower Patapsco Aquifer Wells				
MW-24D	Increasing	No Trend (Possibly Increasing)	Stable	No Trend (Possibly Increasing)
MW-25D-130	Stable	Decreasing	Decreasing	No Trend
MW-25D-192	Decreasing	Decreasing	Decreasing	Decreasing
MW-28D	(a)	No Trend (Possibly Increasing)	No Trend	(a)
MW-30D-273	Stable	Stable	Decreasing	No Trend
MW-33D-295	(a)	No Trend	Decreasing	(a)
MW-46D	Decreasing	Decreasing	Decreasing	Stable

a/ 1,1-DCA = 1,1-dichloroethane; 1,1-DCE = 1,1-dichloroethene;
b/ Trend analysis not performed because more than 50% of the samples had non-

APPENDIX

A 2023 LABORATORY ANALYTICAL REPORTS

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State Certifications: FL E871113 , WA C999 , MD 128 , VA 460157 , WV DW 9961-C , WV 343

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

Project Former KOP-Flex Facility Onsit
Workorder 3304366
Report ID 248811 on 6/5/2023

Certificate of Analysis

Enclosed are the analytical results for samples received by the laboratory on May 22, 2023.

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

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

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

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

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

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
3304366001	MW-35D	Ground Water	05/22/2023 08:25	05/22/2023 18:15	CBC	Collected By Client
3304366002	MW-34D	Ground Water	05/22/2023 09:00	05/22/2023 18:15	CBC	Collected By Client
3304366003	MW-33D-295	Ground Water	05/22/2023 09:20	05/22/2023 18:15	CBC	Collected By Client
3304366004	MW-33D-235	Ground Water	05/22/2023 09:35	05/22/2023 18:15	CBC	Collected By Client
3304366005	MW-31D	Ground Water	05/22/2023 09:50	05/22/2023 18:15	CBC	Collected By Client
3304366006	MW-30D-413	Ground Water	05/22/2023 10:10	05/22/2023 18:15	CBC	Collected By Client
3304366007	MW-30D-273	Ground Water	05/22/2023 10:20	05/22/2023 18:15	CBC	Collected By Client
3304366008	MW-29D	Ground Water	05/22/2023 10:45	05/22/2023 18:15	CBC	Collected By Client
3304366009	MW-32D	Ground Water	05/22/2023 11:05	05/22/2023 18:15	CBC	Collected By Client
3304366010	MW-28D	Ground Water	05/22/2023 12:25	05/22/2023 18:15	CBC	Collected By Client
3304366011	MW-36D	Ground Water	05/22/2023 12:40	05/22/2023 18:15	CBC	Collected By Client
3304366012	MW-25D-130	Ground Water	05/22/2023 13:45	05/22/2023 18:15	CBC	Collected By Client
3304366013	DUP-052223	Ground Water	05/22/2023 11:30	05/22/2023 18:15	CBC	Collected By Client
3304366014	MW-25D-190	Ground Water	05/22/2023 14:00	05/22/2023 18:15	CBC	Collected By Client
3304366015	Trip Blank A	Ground Water	05/22/2023 00:00	05/22/2023 18:15	CBC	Collected By Client
3304366016	Trip Blank B	Ground Water	05/22/2023 00:00	05/22/2023 18:15	CBC	Collected By Client

Reference

Notes

- Samples collected by ALS personnel are done so in accordance with the procedures set forth in the ALS Field Sampling Plan (20 - Field Services Sampling Plan).
- Except as qualified, Clean Water Act sample analyses are consistent with methodology requirements in 40 CFR Part 136.
- Except as qualified, Safe Drinking Water Act sample analyses are consistent with methodology requirements in 40 CFR Part 141.
- The Chain of Custody document is included as part of this report.
- All Library Search analytes should be regarded as tentative identifications based on the presumptive evidence of the mass spectra. Concentrations reported are estimated values.
- Parameters identified as "analyze immediately" require analysis within 15 minutes of collection. Any "analyze immediately" parameters not listed under the header "Field Parameters" are 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	The initial calibration verification for method SW846 8260D was outside the control limits for the analyte chloroethane. The % Recovery was reported as 68% and the control limits were 70 to 130%.
2	This compound was recovered below the 20 percent 8260D criteria in the continuing calibration verification associated with this sample.
3	The surrogate Fluoranthene-d10 for method SW846 8270E SIM was outside of control limits. The % Recovery was reported as 38.2 and the control limits were 45 to 130. This result was reported at a dilution of 1.
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 20.
5	The surrogate Fluoranthene-d10 for method SW846 8270E SIM was outside of control limits. The % Recovery was reported as 0 and the control limits were 45 to 130. This result was reported at a dilution of 20.
6	The QC sample type MS for method SW846 8270E SIM was outside the control limits for the analyte 1,4-Dioxane. The % Recovery was reported as 137 and the control limits were 22 to 75.
7	The QC sample type MSD for method SW846 8270E SIM was outside the control limits for the analyte 1,4-Dioxane. The RPD was reported as 56.8 and the upper control limit is 30.
8	The QC sample type MSD for method SW846 8270E SIM was outside the control limits for the analyte 1,4-Dioxane. The % Recovery was reported as -316 and the control limits were 22 to 75.

Detected Results Summary

Client Sample ID	MW-33D-295	Collected	05/22/2023 09:20
Lab Sample ID	3304366003	Lab Receipt	05/22/2023 18:15

Compound	Result	Units	RDL	Method	Flag
SEMIVOLATILE SIM					
1,4-Dioxane	2.2	ug/L	1.4	SW846 8270E SIM	#
VOLATILE ORGANICS					
1,1-Dichloroethene	6.8	ug/L	1.0	SW846 8260D	#

Detected Results Summary

Client Sample ID	MW-30D-273	Collected	05/22/2023 10:20
Lab Sample ID	3304366007	Lab Receipt	05/22/2023 18:15

Compound	Result	Units	RDL	Method	Flag
SEMIVOLATILE SIM					
1,4-Dioxane	8.0	ug/L	1.0	SW846 8270E SIM	#
VOLATILE ORGANICS					
1,1,1-Trichloroethane	1.4	ug/L	1.0	SW846 8260D	#
1,1-Dichloroethene	35.1	ug/L	1.0	SW846 8260D	#

Detected Results Summary

Client Sample ID	MW-28D	Collected	05/22/2023 12:25
Lab Sample ID	3304366010	Lab Receipt	05/22/2023 18:15

Compound	Result	Units	RDL	Method	Flag
SEMIVOLATILE SIM					
1,4-Dioxane	1.8	ug/L	1.0	SW846 8270E SIM	#
VOLATILE ORGANICS					
1,1-Dichloroethene	8.3	ug/L	1.0	SW846 8260D	#

Detected Results Summary

Client Sample ID	MW-25D-130	Collected	05/22/2023 13:45
Lab Sample ID	3304366012	Lab Receipt	05/22/2023 18:15

Compound	Result	Units	RDL	Method	Flag
VOLATILE ORGANICS					
1,1,1-Trichloroethane	4.5	ug/L	1.0	SW846 8260D	#
1,1-Dichloroethane	4.3	ug/L	1.0	SW846 8260D	#
1,1-Dichloroethene	52.0	ug/L	1.0	SW846 8260D	#

Detected Results Summary

Client Sample ID	DUP-052223	Collected	05/22/2023 11:30
Lab Sample ID	3304366013	Lab Receipt	05/22/2023 18:15

Compound	Result	Units	RDL	Method	Flag
VOLATILE ORGANICS					
1,1,1-Trichloroethane	5.2	ug/L	1.0	SW846 8260D	#
1,1-Dichloroethane	5.0	ug/L	1.0	SW846 8260D	#
1,1-Dichloroethene	60.0	ug/L	1.0	SW846 8260D	#

Detected Results Summary

Client Sample ID	MW-25D-190	Collected	05/22/2023 14:00
Lab Sample ID	3304366014	Lab Receipt	05/22/2023 18:15

Compound	Result	Units	RDL	Method	Flag
SEMIVOLATILE SIM					
1,4-Dioxane	9.0	ug/L	1.0	SW846 8270E SIM	#
VOLATILE ORGANICS					
1,1,1-Trichloroethane	3.6	ug/L	1.0	SW846 8260D	#
1,1-Dichloroethane	7.1	ug/L	1.0	SW846 8260D	#
1,1-Dichloroethene	30.1	ug/L	1.0	SW846 8260D	#
Methyl t-Butyl Ether	1.4	ug/L	1.0	SW846 8260D	#

Results

Client Sample ID	MW-35D	Collected	05/22/2023 08:25
Lab Sample ID	3304366001	Lab Receipt	05/22/2023 18:15

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	05/25/2023 07:40	GEC	C

SURROGATES

Compound	CAS No	Recovery	Limits(%)	Analysis Date/Time	Qualifiers
2-Methylnapthalene-d10	7297-45-2	55.9%	29 – 112	05/25/2023 07:40	
Fluoranthene-d10	93951-69-0	73.3%	45 – 130	05/25/2023 07:40	

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	06/01/2023 12:28	TMP	A
1,1,1-Trichloroethane	1.0 U	U	ug/L	1.0	SW846 8260D	1	06/01/2023 12:28	TMP	A
1,1,2,2-Tetrachloroethane	1.0 U	U	ug/L	1.0	SW846 8260D	1	06/01/2023 12:28	TMP	A
1,1,2-Trichloroethane	1.0 U	U	ug/L	1.0	SW846 8260D	1	06/01/2023 12:28	TMP	A
1,1-Dichloroethane	1.0 U	U	ug/L	1.0	SW846 8260D	1	06/01/2023 12:28	TMP	A
1,1-Dichloroethene	1.0 U	U	ug/L	1.0	SW846 8260D	1	06/01/2023 12:28	TMP	A
1,1-Dichloropropene	1.0 U	U	ug/L	1.0	SW846 8260D	1	06/01/2023 12:28	TMP	A
1,2,3-Trichlorobenzene	2.0 U	U	ug/L	2.0	SW846 8260D	1	06/01/2023 12:28	TMP	A
1,2,3-Trichloropropane	2.0 U	U	ug/L	2.0	SW846 8260D	1	06/01/2023 12:28	TMP	A
1,2,4-Trichlorobenzene	2.0 U	U	ug/L	2.0	SW846 8260D	1	06/01/2023 12:28	TMP	A
1,2-Dibromo-3-chloropropane	7.0 U	U	ug/L	7.0	SW846 8260D	1	06/01/2023 12:28	TMP	A
1,2-Dibromoethane	1.0 U	U	ug/L	1.0	SW846 8260D	1	06/01/2023 12:28	TMP	A
1,2-Dichlorobenzene	1.0 U	U	ug/L	1.0	SW846 8260D	1	06/01/2023 12:28	TMP	A
1,2-Dichloroethane	1.0 U	U	ug/L	1.0	SW846 8260D	1	06/01/2023 12:28	TMP	A
1,2-Dichloropropane	1.0 U	U	ug/L	1.0	SW846 8260D	1	06/01/2023 12:28	TMP	A
1,3-Dichlorobenzene	1.0 U	U	ug/L	1.0	SW846 8260D	1	06/01/2023 12:28	TMP	A
1,3-Dichloropropane	1.0 U	U	ug/L	1.0	SW846 8260D	1	06/01/2023 12:28	TMP	A
1,4-Dichlorobenzene	1.0 U	U	ug/L	1.0	SW846 8260D	1	06/01/2023 12:28	TMP	A
2,2-Dichloropropane	1.0 U	U	ug/L	1.0	SW846 8260D	1	06/01/2023 12:28	TMP	A
2-Butanone	10.0 U	U	ug/L	10.0	SW846 8260D	1	06/01/2023 12:28	TMP	A
2-Hexanone	5.0 U	U	ug/L	5.0	SW846 8260D	1	06/01/2023 12:28	TMP	A
4-Methyl-2-Pentanone(MIBK)	5.0 U	U	ug/L	5.0	SW846 8260D	1	06/01/2023 12:28	TMP	A
Acetone	10.0 U	U	ug/L	10.0	SW846 8260D	1	06/01/2023 12:28	TMP	A
Benzene	1.0 U	U	ug/L	1.0	SW846 8260D	1	06/01/2023 12:28	TMP	A
Bromobenzene	1.0 U	U	ug/L	1.0	SW846 8260D	1	06/01/2023 12:28	TMP	A
Bromochloromethane	1.0 U	U	ug/L	1.0	SW846 8260D	1	06/01/2023 12:28	TMP	A
Bromodichloromethane	1.0 U	U	ug/L	1.0	SW846 8260D	1	06/01/2023 12:28	TMP	A
Bromoform	1.0 U	U	ug/L	1.0	SW846 8260D	1	06/01/2023 12:28	TMP	A
Bromomethane	1.0 U	U	ug/L	1.0	SW846 8260D	1	06/01/2023 12:28	TMP	A
Carbon Tetrachloride	1.0 U	U	ug/L	1.0	SW846 8260D	1	06/01/2023 12:28	TMP	A
Chlorobenzene	1.0 U	U	ug/L	1.0	SW846 8260D	1	06/01/2023 12:28	TMP	A
Chlorodibromomethane	1.0 U	U	ug/L	1.0	SW846 8260D	1	06/01/2023 12:28	TMP	A
Chloroethane	1.0 U	U,1	ug/L	1.0	SW846 8260D	1	06/01/2023 12:28	TMP	A
Chloroform	1.0 U	U	ug/L	1.0	SW846 8260D	1	06/01/2023 12:28	TMP	A
Chloromethane	1.0 U	U	ug/L	1.0	SW846 8260D	1	06/01/2023 12:28	TMP	A

Results

Client Sample ID	MW-35D	Collected	05/22/2023 08:25
Lab Sample ID	3304366001	Lab Receipt	05/22/2023 18:15

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	06/01/2023 12:28	TMP	A
cis-1,3-Dichloropropene	1.0 U	U	ug/L	1.0	SW846 8260D	1	06/01/2023 12:28	TMP	A
Dibromomethane	1.0 U	U	ug/L	1.0	SW846 8260D	1	06/01/2023 12:28	TMP	A
Dichlorodifluoromethane	1.0 U	U	ug/L	1.0	SW846 8260D	1	06/01/2023 12:28	TMP	A
Diisopropyl ether	1.0 U	U	ug/L	1.0	SW846 8260D	1	06/01/2023 12:28	TMP	A
Ethylbenzene	1.0 U	U	ug/L	1.0	SW846 8260D	1	06/01/2023 12:28	TMP	A
Hexachlorobutadiene	5.0 U	U	ug/L	5.0	SW846 8260D	1	06/01/2023 12:28	TMP	A
Methyl t-Butyl Ether	1.0 U	U	ug/L	1.0	SW846 8260D	1	06/01/2023 12:28	TMP	A
Methylene Chloride	1.0 U	U	ug/L	1.0	SW846 8260D	1	06/01/2023 12:28	TMP	A
mp-Xylene	2.0 U	U	ug/L	2.0	SW846 8260D	1	06/01/2023 12:28	TMP	A
Naphthalene	2.0 U	U	ug/L	2.0	SW846 8260D	1	06/01/2023 12:28	TMP	A
o-Chlorotoluene	1.0 U	U	ug/L	1.0	SW846 8260D	1	06/01/2023 12:28	TMP	A
o-Xylene	1.0 U	U	ug/L	1.0	SW846 8260D	1	06/01/2023 12:28	TMP	A
p-Chlorotoluene	1.0 U	U	ug/L	1.0	SW846 8260D	1	06/01/2023 12:28	TMP	A
p-Isopropyltoluene	1.0 U	U	ug/L	1.0	SW846 8260D	1	06/01/2023 12:28	TMP	A
Styrene	1.0 U	U	ug/L	1.0	SW846 8260D	1	06/01/2023 12:28	TMP	A
Tetrachloroethene	1.0 U	U	ug/L	1.0	SW846 8260D	1	06/01/2023 12:28	TMP	A
Toluene	1.0 U	U	ug/L	1.0	SW846 8260D	1	06/01/2023 12:28	TMP	A
Total Xylenes	3.0 U	U	ug/L	3.0	SW846 8260D	1	06/01/2023 12:28	TMP	A
trans-1,2-Dichloroethene	1.0 U	U	ug/L	1.0	SW846 8260D	1	06/01/2023 12:28	TMP	A
trans-1,3-Dichloropropene	1.0 U	U	ug/L	1.0	SW846 8260D	1	06/01/2023 12:28	TMP	A
Trichloroethene	1.0 U	U	ug/L	1.0	SW846 8260D	1	06/01/2023 12:28	TMP	A
Trichlorofluoromethane	1.0 U	U,2	ug/L	1.0	SW846 8260D	1	06/01/2023 12:28	TMP	A
Vinyl Acetate	5.0 U	U	ug/L	5.0	SW846 8260D	1	06/01/2023 12:28	TMP	A
Vinyl Chloride	1.0 U	U	ug/L	1.0	SW846 8260D	1	06/01/2023 12:28	TMP	A

SURROGATES

Compound	CAS No	Recovery	Limits(%)	Analysis Date/Time	Qualifiers
1,2-Dichloroethane-d4	17060-07-0	98.7%	62 – 133	06/01/2023 12:28	
4-Bromofluorobenzene	460-00-4	100%	79 – 114	06/01/2023 12:28	
Dibromofluoromethane	1868-53-7	94.2%	78 – 116	06/01/2023 12:28	
Toluene-d8	2037-26-5	99.5%	76 – 127	06/01/2023 12:28	

Results

Client Sample ID	MW-34D	Collected	05/22/2023 09:00
Lab Sample ID	3304366002	Lab Receipt	05/22/2023 18:15

SEMIVOLATILE SIM

Compound	Result	Flag	Units	RDL	Method	Dilution	Analysis Date/Time	By	Cntr
1,4-Dioxane	1.4 U	U	ug/L	1.4	SW846 8270E SIM	1	05/25/2023 08:07	GEC	C

SURROGATES

Compound	CAS No	Recovery	Limits(%)	Analysis Date/Time	Qualifiers
2-Methylnapthalene-d10	7297-45-2	55.1%	29 – 112	05/25/2023 08:07	
Fluoranthene-d10	93951-69-0	59.8%	45 – 130	05/25/2023 08:07	

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	06/01/2023 12:51	TMP	A
1,1,1-Trichloroethane	1.0 U	U	ug/L	1.0	SW846 8260D	1	06/01/2023 12:51	TMP	A
1,1,2,2-Tetrachloroethane	1.0 U	U	ug/L	1.0	SW846 8260D	1	06/01/2023 12:51	TMP	A
1,1,2-Trichloroethane	1.0 U	U	ug/L	1.0	SW846 8260D	1	06/01/2023 12:51	TMP	A
1,1-Dichloroethane	1.0 U	U	ug/L	1.0	SW846 8260D	1	06/01/2023 12:51	TMP	A
1,1-Dichloroethene	1.0 U	U	ug/L	1.0	SW846 8260D	1	06/01/2023 12:51	TMP	A
1,1-Dichloropropene	1.0 U	U	ug/L	1.0	SW846 8260D	1	06/01/2023 12:51	TMP	A
1,2,3-Trichlorobenzene	2.0 U	U	ug/L	2.0	SW846 8260D	1	06/01/2023 12:51	TMP	A
1,2,3-Trichloropropane	2.0 U	U	ug/L	2.0	SW846 8260D	1	06/01/2023 12:51	TMP	A
1,2,4-Trichlorobenzene	2.0 U	U	ug/L	2.0	SW846 8260D	1	06/01/2023 12:51	TMP	A
1,2-Dibromo-3-chloropropane	7.0 U	U	ug/L	7.0	SW846 8260D	1	06/01/2023 12:51	TMP	A
1,2-Dibromoethane	1.0 U	U	ug/L	1.0	SW846 8260D	1	06/01/2023 12:51	TMP	A
1,2-Dichlorobenzene	1.0 U	U	ug/L	1.0	SW846 8260D	1	06/01/2023 12:51	TMP	A
1,2-Dichloroethane	1.0 U	U	ug/L	1.0	SW846 8260D	1	06/01/2023 12:51	TMP	A
1,2-Dichloropropane	1.0 U	U	ug/L	1.0	SW846 8260D	1	06/01/2023 12:51	TMP	A
1,3-Dichlorobenzene	1.0 U	U	ug/L	1.0	SW846 8260D	1	06/01/2023 12:51	TMP	A
1,3-Dichloropropane	1.0 U	U	ug/L	1.0	SW846 8260D	1	06/01/2023 12:51	TMP	A
1,4-Dichlorobenzene	1.0 U	U	ug/L	1.0	SW846 8260D	1	06/01/2023 12:51	TMP	A
2,2-Dichloropropane	1.0 U	U	ug/L	1.0	SW846 8260D	1	06/01/2023 12:51	TMP	A
2-Butanone	10.0 U	U	ug/L	10.0	SW846 8260D	1	06/01/2023 12:51	TMP	A
2-Hexanone	5.0 U	U	ug/L	5.0	SW846 8260D	1	06/01/2023 12:51	TMP	A
4-Methyl-2-Pentanone(MIBK)	5.0 U	U	ug/L	5.0	SW846 8260D	1	06/01/2023 12:51	TMP	A
Acetone	10.0 U	U	ug/L	10.0	SW846 8260D	1	06/01/2023 12:51	TMP	A
Benzene	1.0 U	U	ug/L	1.0	SW846 8260D	1	06/01/2023 12:51	TMP	A
Bromobenzene	1.0 U	U	ug/L	1.0	SW846 8260D	1	06/01/2023 12:51	TMP	A
Bromochloromethane	1.0 U	U	ug/L	1.0	SW846 8260D	1	06/01/2023 12:51	TMP	A
Bromodichloromethane	1.0 U	U	ug/L	1.0	SW846 8260D	1	06/01/2023 12:51	TMP	A
Bromoform	1.0 U	U	ug/L	1.0	SW846 8260D	1	06/01/2023 12:51	TMP	A
Bromomethane	1.0 U	U	ug/L	1.0	SW846 8260D	1	06/01/2023 12:51	TMP	A
Carbon Tetrachloride	1.0 U	U	ug/L	1.0	SW846 8260D	1	06/01/2023 12:51	TMP	A
Chlorobenzene	1.0 U	U	ug/L	1.0	SW846 8260D	1	06/01/2023 12:51	TMP	A
Chlorodibromomethane	1.0 U	U	ug/L	1.0	SW846 8260D	1	06/01/2023 12:51	TMP	A
Chloroethane	1.0 U	U,1	ug/L	1.0	SW846 8260D	1	06/01/2023 12:51	TMP	A
Chloroform	1.0 U	U	ug/L	1.0	SW846 8260D	1	06/01/2023 12:51	TMP	A
Chloromethane	1.0 U	U	ug/L	1.0	SW846 8260D	1	06/01/2023 12:51	TMP	A

Results

Client Sample ID	MW-34D	Collected	05/22/2023 09:00
Lab Sample ID	3304366002	Lab Receipt	05/22/2023 18:15

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	06/01/2023 12:51	TMP	A
cis-1,3-Dichloropropene	1.0 U	U	ug/L	1.0	SW846 8260D	1	06/01/2023 12:51	TMP	A
Dibromomethane	1.0 U	U	ug/L	1.0	SW846 8260D	1	06/01/2023 12:51	TMP	A
Dichlorodifluoromethane	1.0 U	U	ug/L	1.0	SW846 8260D	1	06/01/2023 12:51	TMP	A
Diisopropyl ether	1.0 U	U	ug/L	1.0	SW846 8260D	1	06/01/2023 12:51	TMP	A
Ethylbenzene	1.0 U	U	ug/L	1.0	SW846 8260D	1	06/01/2023 12:51	TMP	A
Hexachlorobutadiene	5.0 U	U	ug/L	5.0	SW846 8260D	1	06/01/2023 12:51	TMP	A
Methyl t-Butyl Ether	1.0 U	U	ug/L	1.0	SW846 8260D	1	06/01/2023 12:51	TMP	A
Methylene Chloride	1.0 U	U	ug/L	1.0	SW846 8260D	1	06/01/2023 12:51	TMP	A
mp-Xylene	2.0 U	U	ug/L	2.0	SW846 8260D	1	06/01/2023 12:51	TMP	A
Naphthalene	2.0 U	U	ug/L	2.0	SW846 8260D	1	06/01/2023 12:51	TMP	A
o-Chlorotoluene	1.0 U	U	ug/L	1.0	SW846 8260D	1	06/01/2023 12:51	TMP	A
o-Xylene	1.0 U	U	ug/L	1.0	SW846 8260D	1	06/01/2023 12:51	TMP	A
p-Chlorotoluene	1.0 U	U	ug/L	1.0	SW846 8260D	1	06/01/2023 12:51	TMP	A
p-Isopropyltoluene	1.0 U	U	ug/L	1.0	SW846 8260D	1	06/01/2023 12:51	TMP	A
Styrene	1.0 U	U	ug/L	1.0	SW846 8260D	1	06/01/2023 12:51	TMP	A
Tetrachloroethene	1.0 U	U	ug/L	1.0	SW846 8260D	1	06/01/2023 12:51	TMP	A
Toluene	1.0 U	U	ug/L	1.0	SW846 8260D	1	06/01/2023 12:51	TMP	A
Total Xylenes	3.0 U	U	ug/L	3.0	SW846 8260D	1	06/01/2023 12:51	TMP	A
trans-1,2-Dichloroethene	1.0 U	U	ug/L	1.0	SW846 8260D	1	06/01/2023 12:51	TMP	A
trans-1,3-Dichloropropene	1.0 U	U	ug/L	1.0	SW846 8260D	1	06/01/2023 12:51	TMP	A
Trichloroethene	1.0 U	U	ug/L	1.0	SW846 8260D	1	06/01/2023 12:51	TMP	A
Trichlorofluoromethane	1.0 U	U,2	ug/L	1.0	SW846 8260D	1	06/01/2023 12:51	TMP	A
Vinyl Acetate	5.0 U	U	ug/L	5.0	SW846 8260D	1	06/01/2023 12:51	TMP	A
Vinyl Chloride	1.0 U	U	ug/L	1.0	SW846 8260D	1	06/01/2023 12:51	TMP	A

SURROGATES

Compound	CAS No	Recovery	Limits(%)	Analysis Date/Time	Qualifiers
1,2-Dichloroethane-d4	17060-07-0	98.6%	62 – 133	06/01/2023 12:51	
4-Bromofluorobenzene	460-00-4	98.4%	79 – 114	06/01/2023 12:51	
Dibromofluoromethane	1868-53-7	95.5%	78 – 116	06/01/2023 12:51	
Toluene-d8	2037-26-5	99.9%	76 – 127	06/01/2023 12:51	

Results

Client Sample ID	MW-33D-295	Collected	05/22/2023 09:20
Lab Sample ID	3304366003	Lab Receipt	05/22/2023 18:15

SEMIVOLATILE SIM

Compound	Result	Flag	Units	RDL	Method	Dilution	Analysis Date/Time	By	Cntr
1,4-Dioxane	2.2		ug/L	1.4	SW846 8270E SIM	1	05/25/2023 08:34	GEC	C

SURROGATES

Compound	CAS No	Recovery	Limits(%)	Analysis Date/Time	Qualifiers
2-Methylnapthalene-d10	7297-45-2	46%	29 – 112	05/25/2023 08:34	
Fluoranthene-d10	93951-69-0	76.1%	45 – 130	05/25/2023 08:34	

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	06/01/2023 13:14	TMP	A
1,1,1-Trichloroethane	1.0 U	U	ug/L	1.0	SW846 8260D	1	06/01/2023 13:14	TMP	A
1,1,2,2-Tetrachloroethane	1.0 U	U	ug/L	1.0	SW846 8260D	1	06/01/2023 13:14	TMP	A
1,1,2-Trichloroethane	1.0 U	U	ug/L	1.0	SW846 8260D	1	06/01/2023 13:14	TMP	A
1,1-Dichloroethane	1.0 U	U	ug/L	1.0	SW846 8260D	1	06/01/2023 13:14	TMP	A
1,1-Dichloroethene	6.8		ug/L	1.0	SW846 8260D	1	06/01/2023 13:14	TMP	A
1,1-Dichloropropene	1.0 U	U	ug/L	1.0	SW846 8260D	1	06/01/2023 13:14	TMP	A
1,2,3-Trichlorobenzene	2.0 U	U	ug/L	2.0	SW846 8260D	1	06/01/2023 13:14	TMP	A
1,2,3-Trichloropropane	2.0 U	U	ug/L	2.0	SW846 8260D	1	06/01/2023 13:14	TMP	A
1,2,4-Trichlorobenzene	2.0 U	U	ug/L	2.0	SW846 8260D	1	06/01/2023 13:14	TMP	A
1,2-Dibromo-3-chloropropane	7.0 U	U	ug/L	7.0	SW846 8260D	1	06/01/2023 13:14	TMP	A
1,2-Dibromoethane	1.0 U	U	ug/L	1.0	SW846 8260D	1	06/01/2023 13:14	TMP	A
1,2-Dichlorobenzene	1.0 U	U	ug/L	1.0	SW846 8260D	1	06/01/2023 13:14	TMP	A
1,2-Dichloroethane	1.0 U	U	ug/L	1.0	SW846 8260D	1	06/01/2023 13:14	TMP	A
1,2-Dichloropropane	1.0 U	U	ug/L	1.0	SW846 8260D	1	06/01/2023 13:14	TMP	A
1,3-Dichlorobenzene	1.0 U	U	ug/L	1.0	SW846 8260D	1	06/01/2023 13:14	TMP	A
1,3-Dichloropropane	1.0 U	U	ug/L	1.0	SW846 8260D	1	06/01/2023 13:14	TMP	A
1,4-Dichlorobenzene	1.0 U	U	ug/L	1.0	SW846 8260D	1	06/01/2023 13:14	TMP	A
2,2-Dichloropropane	1.0 U	U	ug/L	1.0	SW846 8260D	1	06/01/2023 13:14	TMP	A
2-Butanone	10.0 U	U	ug/L	10.0	SW846 8260D	1	06/01/2023 13:14	TMP	A
2-Hexanone	5.0 U	U	ug/L	5.0	SW846 8260D	1	06/01/2023 13:14	TMP	A
4-Methyl-2-Pentanone(MIBK)	5.0 U	U	ug/L	5.0	SW846 8260D	1	06/01/2023 13:14	TMP	A
Acetone	10.0 U	U	ug/L	10.0	SW846 8260D	1	06/01/2023 13:14	TMP	A
Benzene	1.0 U	U	ug/L	1.0	SW846 8260D	1	06/01/2023 13:14	TMP	A
Bromobenzene	1.0 U	U	ug/L	1.0	SW846 8260D	1	06/01/2023 13:14	TMP	A
Bromochloromethane	1.0 U	U	ug/L	1.0	SW846 8260D	1	06/01/2023 13:14	TMP	A
Bromodichloromethane	1.0 U	U	ug/L	1.0	SW846 8260D	1	06/01/2023 13:14	TMP	A
Bromoform	1.0 U	U	ug/L	1.0	SW846 8260D	1	06/01/2023 13:14	TMP	A
Bromomethane	1.0 U	U	ug/L	1.0	SW846 8260D	1	06/01/2023 13:14	TMP	A
Carbon Tetrachloride	1.0 U	U	ug/L	1.0	SW846 8260D	1	06/01/2023 13:14	TMP	A
Chlorobenzene	1.0 U	U	ug/L	1.0	SW846 8260D	1	06/01/2023 13:14	TMP	A
Chlorodibromomethane	1.0 U	U	ug/L	1.0	SW846 8260D	1	06/01/2023 13:14	TMP	A
Chloroethane	1.0 U	U,1	ug/L	1.0	SW846 8260D	1	06/01/2023 13:14	TMP	A
Chloroform	1.0 U	U	ug/L	1.0	SW846 8260D	1	06/01/2023 13:14	TMP	A
Chloromethane	1.0 U	U	ug/L	1.0	SW846 8260D	1	06/01/2023 13:14	TMP	A

Results

Client Sample ID	MW-33D-295	Collected	05/22/2023 09:20
Lab Sample ID	3304366003	Lab Receipt	05/22/2023 18:15

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	06/01/2023 13:14	TMP	A
cis-1,3-Dichloropropene	1.0 U	U	ug/L	1.0	SW846 8260D	1	06/01/2023 13:14	TMP	A
Dibromomethane	1.0 U	U	ug/L	1.0	SW846 8260D	1	06/01/2023 13:14	TMP	A
Dichlorodifluoromethane	1.0 U	U	ug/L	1.0	SW846 8260D	1	06/01/2023 13:14	TMP	A
Diisopropyl ether	1.0 U	U	ug/L	1.0	SW846 8260D	1	06/01/2023 13:14	TMP	A
Ethylbenzene	1.0 U	U	ug/L	1.0	SW846 8260D	1	06/01/2023 13:14	TMP	A
Hexachlorobutadiene	5.0 U	U	ug/L	5.0	SW846 8260D	1	06/01/2023 13:14	TMP	A
Methyl t-Butyl Ether	1.0 U	U	ug/L	1.0	SW846 8260D	1	06/01/2023 13:14	TMP	A
Methylene Chloride	1.0 U	U	ug/L	1.0	SW846 8260D	1	06/01/2023 13:14	TMP	A
mp-Xylene	2.0 U	U	ug/L	2.0	SW846 8260D	1	06/01/2023 13:14	TMP	A
Naphthalene	2.0 U	U	ug/L	2.0	SW846 8260D	1	06/01/2023 13:14	TMP	A
o-Chlorotoluene	1.0 U	U	ug/L	1.0	SW846 8260D	1	06/01/2023 13:14	TMP	A
o-Xylene	1.0 U	U	ug/L	1.0	SW846 8260D	1	06/01/2023 13:14	TMP	A
p-Chlorotoluene	1.0 U	U	ug/L	1.0	SW846 8260D	1	06/01/2023 13:14	TMP	A
p-Isopropyltoluene	1.0 U	U	ug/L	1.0	SW846 8260D	1	06/01/2023 13:14	TMP	A
Styrene	1.0 U	U	ug/L	1.0	SW846 8260D	1	06/01/2023 13:14	TMP	A
Tetrachloroethene	1.0 U	U	ug/L	1.0	SW846 8260D	1	06/01/2023 13:14	TMP	A
Toluene	1.0 U	U	ug/L	1.0	SW846 8260D	1	06/01/2023 13:14	TMP	A
Total Xylenes	3.0 U	U	ug/L	3.0	SW846 8260D	1	06/01/2023 13:14	TMP	A
trans-1,2-Dichloroethene	1.0 U	U	ug/L	1.0	SW846 8260D	1	06/01/2023 13:14	TMP	A
trans-1,3-Dichloropropene	1.0 U	U	ug/L	1.0	SW846 8260D	1	06/01/2023 13:14	TMP	A
Trichloroethene	1.0 U	U	ug/L	1.0	SW846 8260D	1	06/01/2023 13:14	TMP	A
Trichlorofluoromethane	1.0 U	U,2	ug/L	1.0	SW846 8260D	1	06/01/2023 13:14	TMP	A
Vinyl Acetate	5.0 U	U	ug/L	5.0	SW846 8260D	1	06/01/2023 13:14	TMP	A
Vinyl Chloride	1.0 U	U	ug/L	1.0	SW846 8260D	1	06/01/2023 13:14	TMP	A

SURROGATES

Compound	CAS No	Recovery	Limits(%)	Analysis Date/Time	Qualifiers
1,2-Dichloroethane-d4	17060-07-0	102%	62 – 133	06/01/2023 13:14	
4-Bromofluorobenzene	460-00-4	98.7%	79 – 114	06/01/2023 13:14	
Dibromofluoromethane	1868-53-7	95.5%	78 – 116	06/01/2023 13:14	
Toluene-d8	2037-26-5	99.4%	76 – 127	06/01/2023 13:14	

Results

Client Sample ID	MW-33D-235	Collected	05/22/2023 09:35
Lab Sample ID	3304366004	Lab Receipt	05/22/2023 18:15

SEMIVOLATILE SIM

Compound	Result	Flag	Units	RDL	Method	Dilution	Analysis Date/Time	By	Cntr
1,4-Dioxane	1.5 U	U	ug/L	1.5	SW846 8270E SIM	1	05/25/2023 09:02	GEC	C

SURROGATES

Compound	CAS No	Recovery	Limits(%)	Analysis Date/Time	Qualifiers
2-Methylnapthalene-d10	7297-45-2	51.8%	29 – 112	05/25/2023 09:02	
Fluoranthene-d10	93951-69-0	77.6%	45 – 130	05/25/2023 09:02	

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	06/01/2023 13:37	TMP	A
1,1,1-Trichloroethane	1.0 U	U	ug/L	1.0	SW846 8260D	1	06/01/2023 13:37	TMP	A
1,1,2,2-Tetrachloroethane	1.0 U	U	ug/L	1.0	SW846 8260D	1	06/01/2023 13:37	TMP	A
1,1,2-Trichloroethane	1.0 U	U	ug/L	1.0	SW846 8260D	1	06/01/2023 13:37	TMP	A
1,1-Dichloroethane	1.0 U	U	ug/L	1.0	SW846 8260D	1	06/01/2023 13:37	TMP	A
1,1-Dichloroethene	1.0 U	U	ug/L	1.0	SW846 8260D	1	06/01/2023 13:37	TMP	A
1,1-Dichloropropene	1.0 U	U	ug/L	1.0	SW846 8260D	1	06/01/2023 13:37	TMP	A
1,2,3-Trichlorobenzene	2.0 U	U	ug/L	2.0	SW846 8260D	1	06/01/2023 13:37	TMP	A
1,2,3-Trichloropropane	2.0 U	U	ug/L	2.0	SW846 8260D	1	06/01/2023 13:37	TMP	A
1,2,4-Trichlorobenzene	2.0 U	U	ug/L	2.0	SW846 8260D	1	06/01/2023 13:37	TMP	A
1,2-Dibromo-3-chloropropane	7.0 U	U	ug/L	7.0	SW846 8260D	1	06/01/2023 13:37	TMP	A
1,2-Dibromoethane	1.0 U	U	ug/L	1.0	SW846 8260D	1	06/01/2023 13:37	TMP	A
1,2-Dichlorobenzene	1.0 U	U	ug/L	1.0	SW846 8260D	1	06/01/2023 13:37	TMP	A
1,2-Dichloroethane	1.0 U	U	ug/L	1.0	SW846 8260D	1	06/01/2023 13:37	TMP	A
1,2-Dichloropropane	1.0 U	U	ug/L	1.0	SW846 8260D	1	06/01/2023 13:37	TMP	A
1,3-Dichlorobenzene	1.0 U	U	ug/L	1.0	SW846 8260D	1	06/01/2023 13:37	TMP	A
1,3-Dichloropropane	1.0 U	U	ug/L	1.0	SW846 8260D	1	06/01/2023 13:37	TMP	A
1,4-Dichlorobenzene	1.0 U	U	ug/L	1.0	SW846 8260D	1	06/01/2023 13:37	TMP	A
2,2-Dichloropropane	1.0 U	U	ug/L	1.0	SW846 8260D	1	06/01/2023 13:37	TMP	A
2-Butanone	10.0 U	U	ug/L	10.0	SW846 8260D	1	06/01/2023 13:37	TMP	A
2-Hexanone	5.0 U	U	ug/L	5.0	SW846 8260D	1	06/01/2023 13:37	TMP	A
4-Methyl-2-Pentanone(MIBK)	5.0 U	U	ug/L	5.0	SW846 8260D	1	06/01/2023 13:37	TMP	A
Acetone	10.0 U	U	ug/L	10.0	SW846 8260D	1	06/01/2023 13:37	TMP	A
Benzene	1.0 U	U	ug/L	1.0	SW846 8260D	1	06/01/2023 13:37	TMP	A
Bromobenzene	1.0 U	U	ug/L	1.0	SW846 8260D	1	06/01/2023 13:37	TMP	A
Bromochloromethane	1.0 U	U	ug/L	1.0	SW846 8260D	1	06/01/2023 13:37	TMP	A
Bromodichloromethane	1.0 U	U	ug/L	1.0	SW846 8260D	1	06/01/2023 13:37	TMP	A
Bromoform	1.0 U	U	ug/L	1.0	SW846 8260D	1	06/01/2023 13:37	TMP	A
Bromomethane	1.0 U	U	ug/L	1.0	SW846 8260D	1	06/01/2023 13:37	TMP	A
Carbon Tetrachloride	1.0 U	U	ug/L	1.0	SW846 8260D	1	06/01/2023 13:37	TMP	A
Chlorobenzene	1.0 U	U	ug/L	1.0	SW846 8260D	1	06/01/2023 13:37	TMP	A
Chlorodibromomethane	1.0 U	U	ug/L	1.0	SW846 8260D	1	06/01/2023 13:37	TMP	A
Chloroethane	1.0 U	U,1	ug/L	1.0	SW846 8260D	1	06/01/2023 13:37	TMP	A
Chloroform	1.0 U	U	ug/L	1.0	SW846 8260D	1	06/01/2023 13:37	TMP	A
Chloromethane	1.0 U	U	ug/L	1.0	SW846 8260D	1	06/01/2023 13:37	TMP	A

Results

Client Sample ID	MW-33D-235	Collected	05/22/2023 09:35
Lab Sample ID	3304366004	Lab Receipt	05/22/2023 18:15

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	06/01/2023 13:37	TMP	A
cis-1,3-Dichloropropene	1.0 U	U	ug/L	1.0	SW846 8260D	1	06/01/2023 13:37	TMP	A
Dibromomethane	1.0 U	U	ug/L	1.0	SW846 8260D	1	06/01/2023 13:37	TMP	A
Dichlorodifluoromethane	1.0 U	U	ug/L	1.0	SW846 8260D	1	06/01/2023 13:37	TMP	A
Diisopropyl ether	1.0 U	U	ug/L	1.0	SW846 8260D	1	06/01/2023 13:37	TMP	A
Ethylbenzene	1.0 U	U	ug/L	1.0	SW846 8260D	1	06/01/2023 13:37	TMP	A
Hexachlorobutadiene	5.0 U	U	ug/L	5.0	SW846 8260D	1	06/01/2023 13:37	TMP	A
Methyl t-Butyl Ether	1.0 U	U	ug/L	1.0	SW846 8260D	1	06/01/2023 13:37	TMP	A
Methylene Chloride	1.0 U	U	ug/L	1.0	SW846 8260D	1	06/01/2023 13:37	TMP	A
mp-Xylene	2.0 U	U	ug/L	2.0	SW846 8260D	1	06/01/2023 13:37	TMP	A
Naphthalene	2.0 U	U	ug/L	2.0	SW846 8260D	1	06/01/2023 13:37	TMP	A
o-Chlorotoluene	1.0 U	U	ug/L	1.0	SW846 8260D	1	06/01/2023 13:37	TMP	A
o-Xylene	1.0 U	U	ug/L	1.0	SW846 8260D	1	06/01/2023 13:37	TMP	A
p-Chlorotoluene	1.0 U	U	ug/L	1.0	SW846 8260D	1	06/01/2023 13:37	TMP	A
p-Isopropyltoluene	1.0 U	U	ug/L	1.0	SW846 8260D	1	06/01/2023 13:37	TMP	A
Styrene	1.0 U	U	ug/L	1.0	SW846 8260D	1	06/01/2023 13:37	TMP	A
Tetrachloroethene	1.0 U	U	ug/L	1.0	SW846 8260D	1	06/01/2023 13:37	TMP	A
Toluene	1.0 U	U	ug/L	1.0	SW846 8260D	1	06/01/2023 13:37	TMP	A
Total Xylenes	3.0 U	U	ug/L	3.0	SW846 8260D	1	06/01/2023 13:37	TMP	A
trans-1,2-Dichloroethene	1.0 U	U	ug/L	1.0	SW846 8260D	1	06/01/2023 13:37	TMP	A
trans-1,3-Dichloropropene	1.0 U	U	ug/L	1.0	SW846 8260D	1	06/01/2023 13:37	TMP	A
Trichloroethene	1.0 U	U	ug/L	1.0	SW846 8260D	1	06/01/2023 13:37	TMP	A
Trichlorofluoromethane	1.0 U	U,2	ug/L	1.0	SW846 8260D	1	06/01/2023 13:37	TMP	A
Vinyl Acetate	5.0 U	U	ug/L	5.0	SW846 8260D	1	06/01/2023 13:37	TMP	A
Vinyl Chloride	1.0 U	U	ug/L	1.0	SW846 8260D	1	06/01/2023 13:37	TMP	A

SURROGATES

Compound	CAS No	Recovery	Limits(%)	Analysis Date/Time	Qualifiers
1,2-Dichloroethane-d4	17060-07-0	102%	62 – 133	06/01/2023 13:37	
4-Bromofluorobenzene	460-00-4	98.3%	79 – 114	06/01/2023 13:37	
Dibromofluoromethane	1868-53-7	96.9%	78 – 116	06/01/2023 13:37	
Toluene-d8	2037-26-5	99.8%	76 – 127	06/01/2023 13:37	

Results

Client Sample ID	MW-31D	Collected	05/22/2023 09:50
Lab Sample ID	3304366005	Lab Receipt	05/22/2023 18:15

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	05/25/2023 09:29	GEC	C

SURROGATES

Compound	CAS No	Recovery	Limits(%)	Analysis Date/Time	Qualifiers
2-Methylnapthalene-d10	7297-45-2	53.1%	29 – 112	05/25/2023 09:29	
Fluoranthene-d10	93951-69-0	74%	45 – 130	05/25/2023 09:29	

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	06/01/2023 14:00	TMP	A
1,1,1-Trichloroethane	1.0 U	U	ug/L	1.0	SW846 8260D	1	06/01/2023 14:00	TMP	A
1,1,2,2-Tetrachloroethane	1.0 U	U	ug/L	1.0	SW846 8260D	1	06/01/2023 14:00	TMP	A
1,1,2-Trichloroethane	1.0 U	U	ug/L	1.0	SW846 8260D	1	06/01/2023 14:00	TMP	A
1,1-Dichloroethane	1.0 U	U	ug/L	1.0	SW846 8260D	1	06/01/2023 14:00	TMP	A
1,1-Dichloroethene	1.0 U	U	ug/L	1.0	SW846 8260D	1	06/01/2023 14:00	TMP	A
1,1-Dichloropropene	1.0 U	U	ug/L	1.0	SW846 8260D	1	06/01/2023 14:00	TMP	A
1,2,3-Trichlorobenzene	2.0 U	U	ug/L	2.0	SW846 8260D	1	06/01/2023 14:00	TMP	A
1,2,3-Trichloropropane	2.0 U	U	ug/L	2.0	SW846 8260D	1	06/01/2023 14:00	TMP	A
1,2,4-Trichlorobenzene	2.0 U	U	ug/L	2.0	SW846 8260D	1	06/01/2023 14:00	TMP	A
1,2-Dibromo-3-chloropropane	7.0 U	U	ug/L	7.0	SW846 8260D	1	06/01/2023 14:00	TMP	A
1,2-Dibromoethane	1.0 U	U	ug/L	1.0	SW846 8260D	1	06/01/2023 14:00	TMP	A
1,2-Dichlorobenzene	1.0 U	U	ug/L	1.0	SW846 8260D	1	06/01/2023 14:00	TMP	A
1,2-Dichloroethane	1.0 U	U	ug/L	1.0	SW846 8260D	1	06/01/2023 14:00	TMP	A
1,2-Dichloropropane	1.0 U	U	ug/L	1.0	SW846 8260D	1	06/01/2023 14:00	TMP	A
1,3-Dichlorobenzene	1.0 U	U	ug/L	1.0	SW846 8260D	1	06/01/2023 14:00	TMP	A
1,3-Dichloropropane	1.0 U	U	ug/L	1.0	SW846 8260D	1	06/01/2023 14:00	TMP	A
1,4-Dichlorobenzene	1.0 U	U	ug/L	1.0	SW846 8260D	1	06/01/2023 14:00	TMP	A
2,2-Dichloropropane	1.0 U	U	ug/L	1.0	SW846 8260D	1	06/01/2023 14:00	TMP	A
2-Butanone	10.0 U	U	ug/L	10.0	SW846 8260D	1	06/01/2023 14:00	TMP	A
2-Hexanone	5.0 U	U	ug/L	5.0	SW846 8260D	1	06/01/2023 14:00	TMP	A
4-Methyl-2-Pentanone(MIBK)	5.0 U	U	ug/L	5.0	SW846 8260D	1	06/01/2023 14:00	TMP	A
Acetone	10.0 U	U	ug/L	10.0	SW846 8260D	1	06/01/2023 14:00	TMP	A
Benzene	1.0 U	U	ug/L	1.0	SW846 8260D	1	06/01/2023 14:00	TMP	A
Bromobenzene	1.0 U	U	ug/L	1.0	SW846 8260D	1	06/01/2023 14:00	TMP	A
Bromochloromethane	1.0 U	U	ug/L	1.0	SW846 8260D	1	06/01/2023 14:00	TMP	A
Bromodichloromethane	1.0 U	U	ug/L	1.0	SW846 8260D	1	06/01/2023 14:00	TMP	A
Bromoform	1.0 U	U	ug/L	1.0	SW846 8260D	1	06/01/2023 14:00	TMP	A
Bromomethane	1.0 U	U	ug/L	1.0	SW846 8260D	1	06/01/2023 14:00	TMP	A
Carbon Tetrachloride	1.0 U	U	ug/L	1.0	SW846 8260D	1	06/01/2023 14:00	TMP	A
Chlorobenzene	1.0 U	U	ug/L	1.0	SW846 8260D	1	06/01/2023 14:00	TMP	A
Chlorodibromomethane	1.0 U	U	ug/L	1.0	SW846 8260D	1	06/01/2023 14:00	TMP	A
Chloroethane	1.0 U	U,1	ug/L	1.0	SW846 8260D	1	06/01/2023 14:00	TMP	A
Chloroform	1.0 U	U	ug/L	1.0	SW846 8260D	1	06/01/2023 14:00	TMP	A
Chloromethane	1.0 U	U	ug/L	1.0	SW846 8260D	1	06/01/2023 14:00	TMP	A

Results

Client Sample ID	MW-31D	Collected	05/22/2023 09:50
Lab Sample ID	3304366005	Lab Receipt	05/22/2023 18:15

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	06/01/2023 14:00	TMP	A
cis-1,3-Dichloropropene	1.0 U	U	ug/L	1.0	SW846 8260D	1	06/01/2023 14:00	TMP	A
Dibromomethane	1.0 U	U	ug/L	1.0	SW846 8260D	1	06/01/2023 14:00	TMP	A
Dichlorodifluoromethane	1.0 U	U	ug/L	1.0	SW846 8260D	1	06/01/2023 14:00	TMP	A
Diisopropyl ether	1.0 U	U	ug/L	1.0	SW846 8260D	1	06/01/2023 14:00	TMP	A
Ethylbenzene	1.0 U	U	ug/L	1.0	SW846 8260D	1	06/01/2023 14:00	TMP	A
Hexachlorobutadiene	5.0 U	U	ug/L	5.0	SW846 8260D	1	06/01/2023 14:00	TMP	A
Methyl t-Butyl Ether	1.0 U	U	ug/L	1.0	SW846 8260D	1	06/01/2023 14:00	TMP	A
Methylene Chloride	1.0 U	U	ug/L	1.0	SW846 8260D	1	06/01/2023 14:00	TMP	A
mp-Xylene	2.0 U	U	ug/L	2.0	SW846 8260D	1	06/01/2023 14:00	TMP	A
Naphthalene	2.0 U	U	ug/L	2.0	SW846 8260D	1	06/01/2023 14:00	TMP	A
o-Chlorotoluene	1.0 U	U	ug/L	1.0	SW846 8260D	1	06/01/2023 14:00	TMP	A
o-Xylene	1.0 U	U	ug/L	1.0	SW846 8260D	1	06/01/2023 14:00	TMP	A
p-Chlorotoluene	1.0 U	U	ug/L	1.0	SW846 8260D	1	06/01/2023 14:00	TMP	A
p-Isopropyltoluene	1.0 U	U	ug/L	1.0	SW846 8260D	1	06/01/2023 14:00	TMP	A
Styrene	1.0 U	U	ug/L	1.0	SW846 8260D	1	06/01/2023 14:00	TMP	A
Tetrachloroethene	1.0 U	U	ug/L	1.0	SW846 8260D	1	06/01/2023 14:00	TMP	A
Toluene	1.0 U	U	ug/L	1.0	SW846 8260D	1	06/01/2023 14:00	TMP	A
Total Xylenes	3.0 U	U	ug/L	3.0	SW846 8260D	1	06/01/2023 14:00	TMP	A
trans-1,2-Dichloroethene	1.0 U	U	ug/L	1.0	SW846 8260D	1	06/01/2023 14:00	TMP	A
trans-1,3-Dichloropropene	1.0 U	U	ug/L	1.0	SW846 8260D	1	06/01/2023 14:00	TMP	A
Trichloroethene	1.0 U	U	ug/L	1.0	SW846 8260D	1	06/01/2023 14:00	TMP	A
Trichlorofluoromethane	1.0 U	U,2	ug/L	1.0	SW846 8260D	1	06/01/2023 14:00	TMP	A
Vinyl Acetate	5.0 U	U	ug/L	5.0	SW846 8260D	1	06/01/2023 14:00	TMP	A
Vinyl Chloride	1.0 U	U	ug/L	1.0	SW846 8260D	1	06/01/2023 14:00	TMP	A

SURROGATES

Compound	CAS No	Recovery	Limits(%)	Analysis Date/Time	Qualifiers
1,2-Dichloroethane-d4	17060-07-0	100%	62 – 133	06/01/2023 14:00	
4-Bromofluorobenzene	460-00-4	98.7%	79 – 114	06/01/2023 14:00	
Dibromofluoromethane	1868-53-7	95.2%	78 – 116	06/01/2023 14:00	
Toluene-d8	2037-26-5	99%	76 – 127	06/01/2023 14:00	

Results

Client Sample ID	MW-30D-413	Collected	05/22/2023 10:10
Lab Sample ID	3304366006	Lab Receipt	05/22/2023 18:15

SEMIVOLATILE SIM

Compound	Result	Flag	Units	RDL	Method	Dilution	Analysis Date/Time	By	Cntr
1,4-Dioxane	1.4 U	U	ug/L	1.4	SW846 8270E SIM	1	05/25/2023 09:57	GEC	C

SURROGATES

Compound	CAS No	Recovery	Limits(%)	Analysis Date/Time	Qualifiers
2-Methylnapthalene-d10	7297-45-2	52.6%	29 – 112	05/25/2023 09:57	
Fluoranthene-d10	93951-69-0	75.8%	45 – 130	05/25/2023 09:57	

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	06/01/2023 14:23	TMP	A
1,1,1-Trichloroethane	1.0 U	U	ug/L	1.0	SW846 8260D	1	06/01/2023 14:23	TMP	A
1,1,2,2-Tetrachloroethane	1.0 U	U	ug/L	1.0	SW846 8260D	1	06/01/2023 14:23	TMP	A
1,1,2-Trichloroethane	1.0 U	U	ug/L	1.0	SW846 8260D	1	06/01/2023 14:23	TMP	A
1,1-Dichloroethane	1.0 U	U	ug/L	1.0	SW846 8260D	1	06/01/2023 14:23	TMP	A
1,1-Dichloroethene	1.0 U	U	ug/L	1.0	SW846 8260D	1	06/01/2023 14:23	TMP	A
1,1-Dichloropropene	1.0 U	U	ug/L	1.0	SW846 8260D	1	06/01/2023 14:23	TMP	A
1,2,3-Trichlorobenzene	2.0 U	U	ug/L	2.0	SW846 8260D	1	06/01/2023 14:23	TMP	A
1,2,3-Trichloropropane	2.0 U	U	ug/L	2.0	SW846 8260D	1	06/01/2023 14:23	TMP	A
1,2,4-Trichlorobenzene	2.0 U	U	ug/L	2.0	SW846 8260D	1	06/01/2023 14:23	TMP	A
1,2-Dibromo-3-chloropropane	7.0 U	U	ug/L	7.0	SW846 8260D	1	06/01/2023 14:23	TMP	A
1,2-Dibromoethane	1.0 U	U	ug/L	1.0	SW846 8260D	1	06/01/2023 14:23	TMP	A
1,2-Dichlorobenzene	1.0 U	U	ug/L	1.0	SW846 8260D	1	06/01/2023 14:23	TMP	A
1,2-Dichloroethane	1.0 U	U	ug/L	1.0	SW846 8260D	1	06/01/2023 14:23	TMP	A
1,2-Dichloropropane	1.0 U	U	ug/L	1.0	SW846 8260D	1	06/01/2023 14:23	TMP	A
1,3-Dichlorobenzene	1.0 U	U	ug/L	1.0	SW846 8260D	1	06/01/2023 14:23	TMP	A
1,3-Dichloropropane	1.0 U	U	ug/L	1.0	SW846 8260D	1	06/01/2023 14:23	TMP	A
1,4-Dichlorobenzene	1.0 U	U	ug/L	1.0	SW846 8260D	1	06/01/2023 14:23	TMP	A
2,2-Dichloropropane	1.0 U	U	ug/L	1.0	SW846 8260D	1	06/01/2023 14:23	TMP	A
2-Butanone	10.0 U	U	ug/L	10.0	SW846 8260D	1	06/01/2023 14:23	TMP	A
2-Hexanone	5.0 U	U	ug/L	5.0	SW846 8260D	1	06/01/2023 14:23	TMP	A
4-Methyl-2-Pentanone(MIBK)	5.0 U	U	ug/L	5.0	SW846 8260D	1	06/01/2023 14:23	TMP	A
Acetone	10.0 U	U	ug/L	10.0	SW846 8260D	1	06/01/2023 14:23	TMP	A
Benzene	1.0 U	U	ug/L	1.0	SW846 8260D	1	06/01/2023 14:23	TMP	A
Bromobenzene	1.0 U	U	ug/L	1.0	SW846 8260D	1	06/01/2023 14:23	TMP	A
Bromochloromethane	1.0 U	U	ug/L	1.0	SW846 8260D	1	06/01/2023 14:23	TMP	A
Bromodichloromethane	1.0 U	U	ug/L	1.0	SW846 8260D	1	06/01/2023 14:23	TMP	A
Bromoform	1.0 U	U	ug/L	1.0	SW846 8260D	1	06/01/2023 14:23	TMP	A
Bromomethane	1.0 U	U	ug/L	1.0	SW846 8260D	1	06/01/2023 14:23	TMP	A
Carbon Tetrachloride	1.0 U	U	ug/L	1.0	SW846 8260D	1	06/01/2023 14:23	TMP	A
Chlorobenzene	1.0 U	U	ug/L	1.0	SW846 8260D	1	06/01/2023 14:23	TMP	A
Chlorodibromomethane	1.0 U	U	ug/L	1.0	SW846 8260D	1	06/01/2023 14:23	TMP	A
Chloroethane	1.0 U	U,1	ug/L	1.0	SW846 8260D	1	06/01/2023 14:23	TMP	A
Chloroform	1.0 U	U	ug/L	1.0	SW846 8260D	1	06/01/2023 14:23	TMP	A
Chloromethane	1.0 U	U	ug/L	1.0	SW846 8260D	1	06/01/2023 14:23	TMP	A

Results

Client Sample ID	MW-30D-413	Collected	05/22/2023 10:10
Lab Sample ID	3304366006	Lab Receipt	05/22/2023 18:15

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	06/01/2023 14:23	TMP	A
cis-1,3-Dichloropropene	1.0 U	U	ug/L	1.0	SW846 8260D	1	06/01/2023 14:23	TMP	A
Dibromomethane	1.0 U	U	ug/L	1.0	SW846 8260D	1	06/01/2023 14:23	TMP	A
Dichlorodifluoromethane	1.0 U	U	ug/L	1.0	SW846 8260D	1	06/01/2023 14:23	TMP	A
Diisopropyl ether	1.0 U	U	ug/L	1.0	SW846 8260D	1	06/01/2023 14:23	TMP	A
Ethylbenzene	1.0 U	U	ug/L	1.0	SW846 8260D	1	06/01/2023 14:23	TMP	A
Hexachlorobutadiene	5.0 U	U	ug/L	5.0	SW846 8260D	1	06/01/2023 14:23	TMP	A
Methyl t-Butyl Ether	1.0 U	U	ug/L	1.0	SW846 8260D	1	06/01/2023 14:23	TMP	A
Methylene Chloride	1.0 U	U	ug/L	1.0	SW846 8260D	1	06/01/2023 14:23	TMP	A
mp-Xylene	2.0 U	U	ug/L	2.0	SW846 8260D	1	06/01/2023 14:23	TMP	A
Naphthalene	2.0 U	U	ug/L	2.0	SW846 8260D	1	06/01/2023 14:23	TMP	A
o-Chlorotoluene	1.0 U	U	ug/L	1.0	SW846 8260D	1	06/01/2023 14:23	TMP	A
o-Xylene	1.0 U	U	ug/L	1.0	SW846 8260D	1	06/01/2023 14:23	TMP	A
p-Chlorotoluene	1.0 U	U	ug/L	1.0	SW846 8260D	1	06/01/2023 14:23	TMP	A
p-Isopropyltoluene	1.0 U	U	ug/L	1.0	SW846 8260D	1	06/01/2023 14:23	TMP	A
Styrene	1.0 U	U	ug/L	1.0	SW846 8260D	1	06/01/2023 14:23	TMP	A
Tetrachloroethene	1.0 U	U	ug/L	1.0	SW846 8260D	1	06/01/2023 14:23	TMP	A
Toluene	1.0 U	U	ug/L	1.0	SW846 8260D	1	06/01/2023 14:23	TMP	A
Total Xylenes	3.0 U	U	ug/L	3.0	SW846 8260D	1	06/01/2023 14:23	TMP	A
trans-1,2-Dichloroethene	1.0 U	U	ug/L	1.0	SW846 8260D	1	06/01/2023 14:23	TMP	A
trans-1,3-Dichloropropene	1.0 U	U	ug/L	1.0	SW846 8260D	1	06/01/2023 14:23	TMP	A
Trichloroethene	1.0 U	U	ug/L	1.0	SW846 8260D	1	06/01/2023 14:23	TMP	A
Trichlorofluoromethane	1.0 U	U,2	ug/L	1.0	SW846 8260D	1	06/01/2023 14:23	TMP	A
Vinyl Acetate	5.0 U	U	ug/L	5.0	SW846 8260D	1	06/01/2023 14:23	TMP	A
Vinyl Chloride	1.0 U	U	ug/L	1.0	SW846 8260D	1	06/01/2023 14:23	TMP	A

SURROGATES

Compound	CAS No	Recovery	Limits(%)	Analysis Date/Time	Qualifiers
1,2-Dichloroethane-d4	17060-07-0	98.5%	62 – 133	06/01/2023 14:23	
4-Bromofluorobenzene	460-00-4	99.1%	79 – 114	06/01/2023 14:23	
Dibromofluoromethane	1868-53-7	94.3%	78 – 116	06/01/2023 14:23	
Toluene-d8	2037-26-5	99%	76 – 127	06/01/2023 14:23	

Results

Client Sample ID	MW-30D-273	Collected	05/22/2023 10:20
Lab Sample ID	3304366007	Lab Receipt	05/22/2023 18:15

SEMIVOLATILE SIM

Compound	Result	Flag	Units	RDL	Method	Dilution	Analysis Date/Time	By	Cntr
1,4-Dioxane	8.0		ug/L	1.0	SW846 8270E SIM	1	05/25/2023 10:24	GEC	C

SURROGATES

Compound	CAS No	Recovery	Limits(%)	Analysis Date/Time	Qualifiers
2-Methylnapthalene-d10	7297-45-2	57.8%	29 – 112	05/25/2023 10:24	
Fluoranthene-d10	93951-69-0	73%	45 – 130	05/25/2023 10:24	

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	06/01/2023 14:46	TMP	A
1,1,1-Trichloroethane	1.4		ug/L	1.0	SW846 8260D	1	06/01/2023 14:46	TMP	A
1,1,2,2-Tetrachloroethane	1.0 U	U	ug/L	1.0	SW846 8260D	1	06/01/2023 14:46	TMP	A
1,1,2-Trichloroethane	1.0 U	U	ug/L	1.0	SW846 8260D	1	06/01/2023 14:46	TMP	A
1,1-Dichloroethane	1.0 U	U	ug/L	1.0	SW846 8260D	1	06/01/2023 14:46	TMP	A
1,1-Dichloroethene	35.1		ug/L	1.0	SW846 8260D	1	06/01/2023 14:46	TMP	A
1,1-Dichloropropene	1.0 U	U	ug/L	1.0	SW846 8260D	1	06/01/2023 14:46	TMP	A
1,2,3-Trichlorobenzene	2.0 U	U	ug/L	2.0	SW846 8260D	1	06/01/2023 14:46	TMP	A
1,2,3-Trichloropropane	2.0 U	U	ug/L	2.0	SW846 8260D	1	06/01/2023 14:46	TMP	A
1,2,4-Trichlorobenzene	2.0 U	U	ug/L	2.0	SW846 8260D	1	06/01/2023 14:46	TMP	A
1,2-Dibromo-3-chloropropane	7.0 U	U	ug/L	7.0	SW846 8260D	1	06/01/2023 14:46	TMP	A
1,2-Dibromoethane	1.0 U	U	ug/L	1.0	SW846 8260D	1	06/01/2023 14:46	TMP	A
1,2-Dichlorobenzene	1.0 U	U	ug/L	1.0	SW846 8260D	1	06/01/2023 14:46	TMP	A
1,2-Dichloroethane	1.0 U	U	ug/L	1.0	SW846 8260D	1	06/01/2023 14:46	TMP	A
1,2-Dichloropropane	1.0 U	U	ug/L	1.0	SW846 8260D	1	06/01/2023 14:46	TMP	A
1,3-Dichlorobenzene	1.0 U	U	ug/L	1.0	SW846 8260D	1	06/01/2023 14:46	TMP	A
1,3-Dichloropropane	1.0 U	U	ug/L	1.0	SW846 8260D	1	06/01/2023 14:46	TMP	A
1,4-Dichlorobenzene	1.0 U	U	ug/L	1.0	SW846 8260D	1	06/01/2023 14:46	TMP	A
2,2-Dichloropropane	1.0 U	U	ug/L	1.0	SW846 8260D	1	06/01/2023 14:46	TMP	A
2-Butanone	10.0 U	U	ug/L	10.0	SW846 8260D	1	06/01/2023 14:46	TMP	A
2-Hexanone	5.0 U	U	ug/L	5.0	SW846 8260D	1	06/01/2023 14:46	TMP	A
4-Methyl-2-Pentanone(MIBK)	5.0 U	U	ug/L	5.0	SW846 8260D	1	06/01/2023 14:46	TMP	A
Acetone	10.0 U	U	ug/L	10.0	SW846 8260D	1	06/01/2023 14:46	TMP	A
Benzene	1.0 U	U	ug/L	1.0	SW846 8260D	1	06/01/2023 14:46	TMP	A
Bromobenzene	1.0 U	U	ug/L	1.0	SW846 8260D	1	06/01/2023 14:46	TMP	A
Bromochloromethane	1.0 U	U	ug/L	1.0	SW846 8260D	1	06/01/2023 14:46	TMP	A
Bromodichloromethane	1.0 U	U	ug/L	1.0	SW846 8260D	1	06/01/2023 14:46	TMP	A
Bromoform	1.0 U	U	ug/L	1.0	SW846 8260D	1	06/01/2023 14:46	TMP	A
Bromomethane	1.0 U	U	ug/L	1.0	SW846 8260D	1	06/01/2023 14:46	TMP	A
Carbon Tetrachloride	1.0 U	U	ug/L	1.0	SW846 8260D	1	06/01/2023 14:46	TMP	A
Chlorobenzene	1.0 U	U	ug/L	1.0	SW846 8260D	1	06/01/2023 14:46	TMP	A
Chlorodibromomethane	1.0 U	U	ug/L	1.0	SW846 8260D	1	06/01/2023 14:46	TMP	A
Chloroethane	1.0 U	U,1	ug/L	1.0	SW846 8260D	1	06/01/2023 14:46	TMP	A
Chloroform	1.0 U	U	ug/L	1.0	SW846 8260D	1	06/01/2023 14:46	TMP	A
Chloromethane	1.0 U	U	ug/L	1.0	SW846 8260D	1	06/01/2023 14:46	TMP	A

Results

Client Sample ID	MW-30D-273	Collected	05/22/2023 10:20
Lab Sample ID	3304366007	Lab Receipt	05/22/2023 18:15

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	06/01/2023 14:46	TMP	A
cis-1,3-Dichloropropene	1.0 U	U	ug/L	1.0	SW846 8260D	1	06/01/2023 14:46	TMP	A
Dibromomethane	1.0 U	U	ug/L	1.0	SW846 8260D	1	06/01/2023 14:46	TMP	A
Dichlorodifluoromethane	1.0 U	U	ug/L	1.0	SW846 8260D	1	06/01/2023 14:46	TMP	A
Diisopropyl ether	1.0 U	U	ug/L	1.0	SW846 8260D	1	06/01/2023 14:46	TMP	A
Ethylbenzene	1.0 U	U	ug/L	1.0	SW846 8260D	1	06/01/2023 14:46	TMP	A
Hexachlorobutadiene	5.0 U	U	ug/L	5.0	SW846 8260D	1	06/01/2023 14:46	TMP	A
Methyl t-Butyl Ether	1.0 U	U	ug/L	1.0	SW846 8260D	1	06/01/2023 14:46	TMP	A
Methylene Chloride	1.0 U	U	ug/L	1.0	SW846 8260D	1	06/01/2023 14:46	TMP	A
mp-Xylene	2.0 U	U	ug/L	2.0	SW846 8260D	1	06/01/2023 14:46	TMP	A
Naphthalene	2.0 U	U	ug/L	2.0	SW846 8260D	1	06/01/2023 14:46	TMP	A
o-Chlorotoluene	1.0 U	U	ug/L	1.0	SW846 8260D	1	06/01/2023 14:46	TMP	A
o-Xylene	1.0 U	U	ug/L	1.0	SW846 8260D	1	06/01/2023 14:46	TMP	A
p-Chlorotoluene	1.0 U	U	ug/L	1.0	SW846 8260D	1	06/01/2023 14:46	TMP	A
p-Isopropyltoluene	1.0 U	U	ug/L	1.0	SW846 8260D	1	06/01/2023 14:46	TMP	A
Styrene	1.0 U	U	ug/L	1.0	SW846 8260D	1	06/01/2023 14:46	TMP	A
Tetrachloroethene	1.0 U	U	ug/L	1.0	SW846 8260D	1	06/01/2023 14:46	TMP	A
Toluene	1.0 U	U	ug/L	1.0	SW846 8260D	1	06/01/2023 14:46	TMP	A
Total Xylenes	3.0 U	U	ug/L	3.0	SW846 8260D	1	06/01/2023 14:46	TMP	A
trans-1,2-Dichloroethene	1.0 U	U	ug/L	1.0	SW846 8260D	1	06/01/2023 14:46	TMP	A
trans-1,3-Dichloropropene	1.0 U	U	ug/L	1.0	SW846 8260D	1	06/01/2023 14:46	TMP	A
Trichloroethene	1.0 U	U	ug/L	1.0	SW846 8260D	1	06/01/2023 14:46	TMP	A
Trichlorofluoromethane	1.0 U	U,2	ug/L	1.0	SW846 8260D	1	06/01/2023 14:46	TMP	A
Vinyl Acetate	5.0 U	U	ug/L	5.0	SW846 8260D	1	06/01/2023 14:46	TMP	A
Vinyl Chloride	1.0 U	U	ug/L	1.0	SW846 8260D	1	06/01/2023 14:46	TMP	A

SURROGATES

Compound	CAS No	Recovery	Limits(%)	Analysis Date/Time	Qualifiers
1,2-Dichloroethane-d4	17060-07-0	99.4%	62 – 133	06/01/2023 14:46	
4-Bromofluorobenzene	460-00-4	98%	79 – 114	06/01/2023 14:46	
Dibromofluoromethane	1868-53-7	93.4%	78 – 116	06/01/2023 14:46	
Toluene-d8	2037-26-5	98%	76 – 127	06/01/2023 14:46	

Results

Client Sample ID	MW-29D	Collected	05/22/2023 10:45
Lab Sample ID	3304366008	Lab Receipt	05/22/2023 18:15

SEMIVOLATILE SIM

Compound	Result	Flag	Units	RDL	Method	Dilution	Analysis Date/Time	By	Cntr
1,4-Dioxane	1.3 U	U	ug/L	1.3	SW846 8270E SIM	1	05/25/2023 10:52	GEC	C

SURROGATES

Compound	CAS No	Recovery	Limits(%)	Analysis Date/Time	Qualifiers
2-Methylnapthalene-d10	7297-45-2	58.4%	29 – 112	05/25/2023 10:52	
Fluoranthene-d10	93951-69-0	67.2%	45 – 130	05/25/2023 10:52	

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	06/01/2023 15:09	TMP	A
1,1,1-Trichloroethane	1.0 U	U	ug/L	1.0	SW846 8260D	1	06/01/2023 15:09	TMP	A
1,1,2,2-Tetrachloroethane	1.0 U	U	ug/L	1.0	SW846 8260D	1	06/01/2023 15:09	TMP	A
1,1,2-Trichloroethane	1.0 U	U	ug/L	1.0	SW846 8260D	1	06/01/2023 15:09	TMP	A
1,1-Dichloroethane	1.0 U	U	ug/L	1.0	SW846 8260D	1	06/01/2023 15:09	TMP	A
1,1-Dichloroethene	1.0 U	U	ug/L	1.0	SW846 8260D	1	06/01/2023 15:09	TMP	A
1,1-Dichloropropene	1.0 U	U	ug/L	1.0	SW846 8260D	1	06/01/2023 15:09	TMP	A
1,2,3-Trichlorobenzene	2.0 U	U	ug/L	2.0	SW846 8260D	1	06/01/2023 15:09	TMP	A
1,2,3-Trichloropropane	2.0 U	U	ug/L	2.0	SW846 8260D	1	06/01/2023 15:09	TMP	A
1,2,4-Trichlorobenzene	2.0 U	U	ug/L	2.0	SW846 8260D	1	06/01/2023 15:09	TMP	A
1,2-Dibromo-3-chloropropane	7.0 U	U	ug/L	7.0	SW846 8260D	1	06/01/2023 15:09	TMP	A
1,2-Dibromoethane	1.0 U	U	ug/L	1.0	SW846 8260D	1	06/01/2023 15:09	TMP	A
1,2-Dichlorobenzene	1.0 U	U	ug/L	1.0	SW846 8260D	1	06/01/2023 15:09	TMP	A
1,2-Dichloroethane	1.0 U	U	ug/L	1.0	SW846 8260D	1	06/01/2023 15:09	TMP	A
1,2-Dichloropropane	1.0 U	U	ug/L	1.0	SW846 8260D	1	06/01/2023 15:09	TMP	A
1,3-Dichlorobenzene	1.0 U	U	ug/L	1.0	SW846 8260D	1	06/01/2023 15:09	TMP	A
1,3-Dichloropropane	1.0 U	U	ug/L	1.0	SW846 8260D	1	06/01/2023 15:09	TMP	A
1,4-Dichlorobenzene	1.0 U	U	ug/L	1.0	SW846 8260D	1	06/01/2023 15:09	TMP	A
2,2-Dichloropropane	1.0 U	U	ug/L	1.0	SW846 8260D	1	06/01/2023 15:09	TMP	A
2-Butanone	10.0 U	U	ug/L	10.0	SW846 8260D	1	06/01/2023 15:09	TMP	A
2-Hexanone	5.0 U	U	ug/L	5.0	SW846 8260D	1	06/01/2023 15:09	TMP	A
4-Methyl-2-Pentanone(MIBK)	5.0 U	U	ug/L	5.0	SW846 8260D	1	06/01/2023 15:09	TMP	A
Acetone	10.0 U	U	ug/L	10.0	SW846 8260D	1	06/01/2023 15:09	TMP	A
Benzene	1.0 U	U	ug/L	1.0	SW846 8260D	1	06/01/2023 15:09	TMP	A
Bromobenzene	1.0 U	U	ug/L	1.0	SW846 8260D	1	06/01/2023 15:09	TMP	A
Bromochloromethane	1.0 U	U	ug/L	1.0	SW846 8260D	1	06/01/2023 15:09	TMP	A
Bromodichloromethane	1.0 U	U	ug/L	1.0	SW846 8260D	1	06/01/2023 15:09	TMP	A
Bromoform	1.0 U	U	ug/L	1.0	SW846 8260D	1	06/01/2023 15:09	TMP	A
Bromomethane	1.0 U	U	ug/L	1.0	SW846 8260D	1	06/01/2023 15:09	TMP	A
Carbon Tetrachloride	1.0 U	U	ug/L	1.0	SW846 8260D	1	06/01/2023 15:09	TMP	A
Chlorobenzene	1.0 U	U	ug/L	1.0	SW846 8260D	1	06/01/2023 15:09	TMP	A
Chlorodibromomethane	1.0 U	U	ug/L	1.0	SW846 8260D	1	06/01/2023 15:09	TMP	A
Chloroethane	1.0 U	U,1	ug/L	1.0	SW846 8260D	1	06/01/2023 15:09	TMP	A
Chloroform	1.0 U	U	ug/L	1.0	SW846 8260D	1	06/01/2023 15:09	TMP	A
Chloromethane	1.0 U	U	ug/L	1.0	SW846 8260D	1	06/01/2023 15:09	TMP	A

Results

Client Sample ID	MW-29D	Collected	05/22/2023 10:45
Lab Sample ID	3304366008	Lab Receipt	05/22/2023 18:15

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	06/01/2023 15:09	TMP	A
cis-1,3-Dichloropropene	1.0 U	U	ug/L	1.0	SW846 8260D	1	06/01/2023 15:09	TMP	A
Dibromomethane	1.0 U	U	ug/L	1.0	SW846 8260D	1	06/01/2023 15:09	TMP	A
Dichlorodifluoromethane	1.0 U	U	ug/L	1.0	SW846 8260D	1	06/01/2023 15:09	TMP	A
Diisopropyl ether	1.0 U	U	ug/L	1.0	SW846 8260D	1	06/01/2023 15:09	TMP	A
Ethylbenzene	1.0 U	U	ug/L	1.0	SW846 8260D	1	06/01/2023 15:09	TMP	A
Hexachlorobutadiene	5.0 U	U	ug/L	5.0	SW846 8260D	1	06/01/2023 15:09	TMP	A
Methyl t-Butyl Ether	1.0 U	U	ug/L	1.0	SW846 8260D	1	06/01/2023 15:09	TMP	A
Methylene Chloride	1.0 U	U	ug/L	1.0	SW846 8260D	1	06/01/2023 15:09	TMP	A
mp-Xylene	2.0 U	U	ug/L	2.0	SW846 8260D	1	06/01/2023 15:09	TMP	A
Naphthalene	2.0 U	U	ug/L	2.0	SW846 8260D	1	06/01/2023 15:09	TMP	A
o-Chlorotoluene	1.0 U	U	ug/L	1.0	SW846 8260D	1	06/01/2023 15:09	TMP	A
o-Xylene	1.0 U	U	ug/L	1.0	SW846 8260D	1	06/01/2023 15:09	TMP	A
p-Chlorotoluene	1.0 U	U	ug/L	1.0	SW846 8260D	1	06/01/2023 15:09	TMP	A
p-Isopropyltoluene	1.0 U	U	ug/L	1.0	SW846 8260D	1	06/01/2023 15:09	TMP	A
Styrene	1.0 U	U	ug/L	1.0	SW846 8260D	1	06/01/2023 15:09	TMP	A
Tetrachloroethene	1.0 U	U	ug/L	1.0	SW846 8260D	1	06/01/2023 15:09	TMP	A
Toluene	1.0 U	U	ug/L	1.0	SW846 8260D	1	06/01/2023 15:09	TMP	A
Total Xylenes	3.0 U	U	ug/L	3.0	SW846 8260D	1	06/01/2023 15:09	TMP	A
trans-1,2-Dichloroethene	1.0 U	U	ug/L	1.0	SW846 8260D	1	06/01/2023 15:09	TMP	A
trans-1,3-Dichloropropene	1.0 U	U	ug/L	1.0	SW846 8260D	1	06/01/2023 15:09	TMP	A
Trichloroethene	1.0 U	U	ug/L	1.0	SW846 8260D	1	06/01/2023 15:09	TMP	A
Trichlorofluoromethane	1.0 U	U,2	ug/L	1.0	SW846 8260D	1	06/01/2023 15:09	TMP	A
Vinyl Acetate	5.0 U	U	ug/L	5.0	SW846 8260D	1	06/01/2023 15:09	TMP	A
Vinyl Chloride	1.0 U	U	ug/L	1.0	SW846 8260D	1	06/01/2023 15:09	TMP	A

SURROGATES

Compound	CAS No	Recovery	Limits(%)	Analysis Date/Time	Qualifiers
1,2-Dichloroethane-d4	17060-07-0	100%	62 – 133	06/01/2023 15:09	
4-Bromofluorobenzene	460-00-4	97%	79 – 114	06/01/2023 15:09	
Dibromofluoromethane	1868-53-7	95.1%	78 – 116	06/01/2023 15:09	
Toluene-d8	2037-26-5	98.8%	76 – 127	06/01/2023 15:09	

Results

Client Sample ID	MW-32D	Collected	05/22/2023 11:05
Lab Sample ID	3304366009	Lab Receipt	05/22/2023 18:15

SEMIVOLATILE SIM

Compound	Result	Flag	Units	RDL	Method	Dilution	Analysis Date/Time	By	Cntr
1,4-Dioxane	1.7 U	U	ug/L	1.7	SW846 8270E SIM	1	05/25/2023 11:19	GEC	C

SURROGATES

Compound	CAS No	Recovery	Limits(%)	Analysis Date/Time	Qualifiers
2-Methylnapthalene-d10	7297-45-2	50.4%	29 – 112	05/25/2023 11:19	
Fluoranthene-d10	93951-69-0	38.2*%	45 – 130	05/25/2023 11:19	3

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	06/01/2023 15:32	TMP	A
1,1,1-Trichloroethane	1.0 U	U	ug/L	1.0	SW846 8260D	1	06/01/2023 15:32	TMP	A
1,1,2,2-Tetrachloroethane	1.0 U	U	ug/L	1.0	SW846 8260D	1	06/01/2023 15:32	TMP	A
1,1,2-Trichloroethane	1.0 U	U	ug/L	1.0	SW846 8260D	1	06/01/2023 15:32	TMP	A
1,1-Dichloroethane	1.0 U	U	ug/L	1.0	SW846 8260D	1	06/01/2023 15:32	TMP	A
1,1-Dichloroethene	1.0 U	U	ug/L	1.0	SW846 8260D	1	06/01/2023 15:32	TMP	A
1,1-Dichloropropene	1.0 U	U	ug/L	1.0	SW846 8260D	1	06/01/2023 15:32	TMP	A
1,2,3-Trichlorobenzene	2.0 U	U	ug/L	2.0	SW846 8260D	1	06/01/2023 15:32	TMP	A
1,2,3-Trichloropropane	2.0 U	U	ug/L	2.0	SW846 8260D	1	06/01/2023 15:32	TMP	A
1,2,4-Trichlorobenzene	2.0 U	U	ug/L	2.0	SW846 8260D	1	06/01/2023 15:32	TMP	A
1,2-Dibromo-3-chloropropane	7.0 U	U	ug/L	7.0	SW846 8260D	1	06/01/2023 15:32	TMP	A
1,2-Dibromoethane	1.0 U	U	ug/L	1.0	SW846 8260D	1	06/01/2023 15:32	TMP	A
1,2-Dichlorobenzene	1.0 U	U	ug/L	1.0	SW846 8260D	1	06/01/2023 15:32	TMP	A
1,2-Dichloroethane	1.0 U	U	ug/L	1.0	SW846 8260D	1	06/01/2023 15:32	TMP	A
1,2-Dichloropropane	1.0 U	U	ug/L	1.0	SW846 8260D	1	06/01/2023 15:32	TMP	A
1,3-Dichlorobenzene	1.0 U	U	ug/L	1.0	SW846 8260D	1	06/01/2023 15:32	TMP	A
1,3-Dichloropropane	1.0 U	U	ug/L	1.0	SW846 8260D	1	06/01/2023 15:32	TMP	A
1,4-Dichlorobenzene	1.0 U	U	ug/L	1.0	SW846 8260D	1	06/01/2023 15:32	TMP	A
2,2-Dichloropropane	1.0 U	U	ug/L	1.0	SW846 8260D	1	06/01/2023 15:32	TMP	A
2-Butanone	10.0 U	U	ug/L	10.0	SW846 8260D	1	06/01/2023 15:32	TMP	A
2-Hexanone	5.0 U	U	ug/L	5.0	SW846 8260D	1	06/01/2023 15:32	TMP	A
4-Methyl-2-Pentanone(MIBK)	5.0 U	U	ug/L	5.0	SW846 8260D	1	06/01/2023 15:32	TMP	A
Acetone	10.0 U	U	ug/L	10.0	SW846 8260D	1	06/01/2023 15:32	TMP	A
Benzene	1.0 U	U	ug/L	1.0	SW846 8260D	1	06/01/2023 15:32	TMP	A
Bromobenzene	1.0 U	U	ug/L	1.0	SW846 8260D	1	06/01/2023 15:32	TMP	A
Bromochloromethane	1.0 U	U	ug/L	1.0	SW846 8260D	1	06/01/2023 15:32	TMP	A
Bromodichloromethane	1.0 U	U	ug/L	1.0	SW846 8260D	1	06/01/2023 15:32	TMP	A
Bromoform	1.0 U	U	ug/L	1.0	SW846 8260D	1	06/01/2023 15:32	TMP	A
Bromomethane	1.0 U	U	ug/L	1.0	SW846 8260D	1	06/01/2023 15:32	TMP	A
Carbon Tetrachloride	1.0 U	U	ug/L	1.0	SW846 8260D	1	06/01/2023 15:32	TMP	A
Chlorobenzene	1.0 U	U	ug/L	1.0	SW846 8260D	1	06/01/2023 15:32	TMP	A
Chlorodibromomethane	1.0 U	U	ug/L	1.0	SW846 8260D	1	06/01/2023 15:32	TMP	A
Chloroethane	1.0 U	U,1	ug/L	1.0	SW846 8260D	1	06/01/2023 15:32	TMP	A
Chloroform	1.0 U	U	ug/L	1.0	SW846 8260D	1	06/01/2023 15:32	TMP	A
Chloromethane	1.0 U	U	ug/L	1.0	SW846 8260D	1	06/01/2023 15:32	TMP	A

Results

Client Sample ID	MW-32D	Collected	05/22/2023 11:05
Lab Sample ID	3304366009	Lab Receipt	05/22/2023 18:15

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	06/01/2023 15:32	TMP	A
cis-1,3-Dichloropropene	1.0 U	U	ug/L	1.0	SW846 8260D	1	06/01/2023 15:32	TMP	A
Dibromomethane	1.0 U	U	ug/L	1.0	SW846 8260D	1	06/01/2023 15:32	TMP	A
Dichlorodifluoromethane	1.0 U	U	ug/L	1.0	SW846 8260D	1	06/01/2023 15:32	TMP	A
Diisopropyl ether	1.0 U	U	ug/L	1.0	SW846 8260D	1	06/01/2023 15:32	TMP	A
Ethylbenzene	1.0 U	U	ug/L	1.0	SW846 8260D	1	06/01/2023 15:32	TMP	A
Hexachlorobutadiene	5.0 U	U	ug/L	5.0	SW846 8260D	1	06/01/2023 15:32	TMP	A
Methyl t-Butyl Ether	1.0 U	U	ug/L	1.0	SW846 8260D	1	06/01/2023 15:32	TMP	A
Methylene Chloride	1.0 U	U	ug/L	1.0	SW846 8260D	1	06/01/2023 15:32	TMP	A
mp-Xylene	2.0 U	U	ug/L	2.0	SW846 8260D	1	06/01/2023 15:32	TMP	A
Naphthalene	2.0 U	U	ug/L	2.0	SW846 8260D	1	06/01/2023 15:32	TMP	A
o-Chlorotoluene	1.0 U	U	ug/L	1.0	SW846 8260D	1	06/01/2023 15:32	TMP	A
o-Xylene	1.0 U	U	ug/L	1.0	SW846 8260D	1	06/01/2023 15:32	TMP	A
p-Chlorotoluene	1.0 U	U	ug/L	1.0	SW846 8260D	1	06/01/2023 15:32	TMP	A
p-Isopropyltoluene	1.0 U	U	ug/L	1.0	SW846 8260D	1	06/01/2023 15:32	TMP	A
Styrene	1.0 U	U	ug/L	1.0	SW846 8260D	1	06/01/2023 15:32	TMP	A
Tetrachloroethene	1.0 U	U	ug/L	1.0	SW846 8260D	1	06/01/2023 15:32	TMP	A
Toluene	1.0 U	U	ug/L	1.0	SW846 8260D	1	06/01/2023 15:32	TMP	A
Total Xylenes	3.0 U	U	ug/L	3.0	SW846 8260D	1	06/01/2023 15:32	TMP	A
trans-1,2-Dichloroethene	1.0 U	U	ug/L	1.0	SW846 8260D	1	06/01/2023 15:32	TMP	A
trans-1,3-Dichloropropene	1.0 U	U	ug/L	1.0	SW846 8260D	1	06/01/2023 15:32	TMP	A
Trichloroethene	1.0 U	U	ug/L	1.0	SW846 8260D	1	06/01/2023 15:32	TMP	A
Trichlorofluoromethane	1.0 U	U,2	ug/L	1.0	SW846 8260D	1	06/01/2023 15:32	TMP	A
Vinyl Acetate	5.0 U	U	ug/L	5.0	SW846 8260D	1	06/01/2023 15:32	TMP	A
Vinyl Chloride	1.0 U	U	ug/L	1.0	SW846 8260D	1	06/01/2023 15:32	TMP	A

SURROGATES

Compound	CAS No	Recovery	Limits(%)	Analysis Date/Time	Qualifiers
1,2-Dichloroethane-d4	17060-07-0	99.8%	62 – 133	06/01/2023 15:32	
4-Bromofluorobenzene	460-00-4	97.3%	79 – 114	06/01/2023 15:32	
Dibromofluoromethane	1868-53-7	95.8%	78 – 116	06/01/2023 15:32	
Toluene-d8	2037-26-5	98.2%	76 – 127	06/01/2023 15:32	

Results

Client Sample ID	MW-28D	Collected	05/22/2023 12:25
Lab Sample ID	3304366010	Lab Receipt	05/22/2023 18:15

SEMIVOLATILE SIM

Compound	Result	Flag	Units	RDL	Method	Dilution	Analysis Date/Time	By	Cntr
1,4-Dioxane	1.8		ug/L	1.0	SW846 8270E SIM	1	05/25/2023 11:46	GEC	C

SURROGATES

Compound	CAS No	Recovery	Limits(%)	Analysis Date/Time	Qualifiers
2-Methylnapthalene-d10	7297-45-2	44.1%	29 – 112	05/25/2023 11:46	
Fluoranthene-d10	93951-69-0	72.6%	45 – 130	05/25/2023 11:46	

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	06/01/2023 15:55	TMP	A
1,1,1-Trichloroethane	1.0 U	U	ug/L	1.0	SW846 8260D	1	06/01/2023 15:55	TMP	A
1,1,2,2-Tetrachloroethane	1.0 U	U	ug/L	1.0	SW846 8260D	1	06/01/2023 15:55	TMP	A
1,1,2-Trichloroethane	1.0 U	U	ug/L	1.0	SW846 8260D	1	06/01/2023 15:55	TMP	A
1,1-Dichloroethane	1.0 U	U	ug/L	1.0	SW846 8260D	1	06/01/2023 15:55	TMP	A
1,1-Dichloroethene	8.3		ug/L	1.0	SW846 8260D	1	06/01/2023 15:55	TMP	A
1,1-Dichloropropene	1.0 U	U	ug/L	1.0	SW846 8260D	1	06/01/2023 15:55	TMP	A
1,2,3-Trichlorobenzene	2.0 U	U	ug/L	2.0	SW846 8260D	1	06/01/2023 15:55	TMP	A
1,2,3-Trichloropropane	2.0 U	U	ug/L	2.0	SW846 8260D	1	06/01/2023 15:55	TMP	A
1,2,4-Trichlorobenzene	2.0 U	U	ug/L	2.0	SW846 8260D	1	06/01/2023 15:55	TMP	A
1,2-Dibromo-3-chloropropane	7.0 U	U	ug/L	7.0	SW846 8260D	1	06/01/2023 15:55	TMP	A
1,2-Dibromoethane	1.0 U	U	ug/L	1.0	SW846 8260D	1	06/01/2023 15:55	TMP	A
1,2-Dichlorobenzene	1.0 U	U	ug/L	1.0	SW846 8260D	1	06/01/2023 15:55	TMP	A
1,2-Dichloroethane	1.0 U	U	ug/L	1.0	SW846 8260D	1	06/01/2023 15:55	TMP	A
1,2-Dichloropropane	1.0 U	U	ug/L	1.0	SW846 8260D	1	06/01/2023 15:55	TMP	A
1,3-Dichlorobenzene	1.0 U	U	ug/L	1.0	SW846 8260D	1	06/01/2023 15:55	TMP	A
1,3-Dichloropropane	1.0 U	U	ug/L	1.0	SW846 8260D	1	06/01/2023 15:55	TMP	A
1,4-Dichlorobenzene	1.0 U	U	ug/L	1.0	SW846 8260D	1	06/01/2023 15:55	TMP	A
2,2-Dichloropropane	1.0 U	U	ug/L	1.0	SW846 8260D	1	06/01/2023 15:55	TMP	A
2-Butanone	10.0 U	U	ug/L	10.0	SW846 8260D	1	06/01/2023 15:55	TMP	A
2-Hexanone	5.0 U	U	ug/L	5.0	SW846 8260D	1	06/01/2023 15:55	TMP	A
4-Methyl-2-Pentanone(MIBK)	5.0 U	U	ug/L	5.0	SW846 8260D	1	06/01/2023 15:55	TMP	A
Acetone	10.0 U	U	ug/L	10.0	SW846 8260D	1	06/01/2023 15:55	TMP	A
Benzene	1.0 U	U	ug/L	1.0	SW846 8260D	1	06/01/2023 15:55	TMP	A
Bromobenzene	1.0 U	U	ug/L	1.0	SW846 8260D	1	06/01/2023 15:55	TMP	A
Bromochloromethane	1.0 U	U	ug/L	1.0	SW846 8260D	1	06/01/2023 15:55	TMP	A
Bromodichloromethane	1.0 U	U	ug/L	1.0	SW846 8260D	1	06/01/2023 15:55	TMP	A
Bromoform	1.0 U	U	ug/L	1.0	SW846 8260D	1	06/01/2023 15:55	TMP	A
Bromomethane	1.0 U	U	ug/L	1.0	SW846 8260D	1	06/01/2023 15:55	TMP	A
Carbon Tetrachloride	1.0 U	U	ug/L	1.0	SW846 8260D	1	06/01/2023 15:55	TMP	A
Chlorobenzene	1.0 U	U	ug/L	1.0	SW846 8260D	1	06/01/2023 15:55	TMP	A
Chlorodibromomethane	1.0 U	U	ug/L	1.0	SW846 8260D	1	06/01/2023 15:55	TMP	A
Chloroethane	1.0 U	U,1	ug/L	1.0	SW846 8260D	1	06/01/2023 15:55	TMP	A
Chloroform	1.0 U	U	ug/L	1.0	SW846 8260D	1	06/01/2023 15:55	TMP	A
Chloromethane	1.0 U	U	ug/L	1.0	SW846 8260D	1	06/01/2023 15:55	TMP	A

Results

Client Sample ID	MW-28D	Collected	05/22/2023 12:25
Lab Sample ID	3304366010	Lab Receipt	05/22/2023 18:15

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	06/01/2023 15:55	TMP	A
cis-1,3-Dichloropropene	1.0 U	U	ug/L	1.0	SW846 8260D	1	06/01/2023 15:55	TMP	A
Dibromomethane	1.0 U	U	ug/L	1.0	SW846 8260D	1	06/01/2023 15:55	TMP	A
Dichlorodifluoromethane	1.0 U	U	ug/L	1.0	SW846 8260D	1	06/01/2023 15:55	TMP	A
Diisopropyl ether	1.0 U	U	ug/L	1.0	SW846 8260D	1	06/01/2023 15:55	TMP	A
Ethylbenzene	1.0 U	U	ug/L	1.0	SW846 8260D	1	06/01/2023 15:55	TMP	A
Hexachlorobutadiene	5.0 U	U	ug/L	5.0	SW846 8260D	1	06/01/2023 15:55	TMP	A
Methyl t-Butyl Ether	1.0 U	U	ug/L	1.0	SW846 8260D	1	06/01/2023 15:55	TMP	A
Methylene Chloride	1.0 U	U	ug/L	1.0	SW846 8260D	1	06/01/2023 15:55	TMP	A
mp-Xylene	2.0 U	U	ug/L	2.0	SW846 8260D	1	06/01/2023 15:55	TMP	A
Naphthalene	2.0 U	U	ug/L	2.0	SW846 8260D	1	06/01/2023 15:55	TMP	A
o-Chlorotoluene	1.0 U	U	ug/L	1.0	SW846 8260D	1	06/01/2023 15:55	TMP	A
o-Xylene	1.0 U	U	ug/L	1.0	SW846 8260D	1	06/01/2023 15:55	TMP	A
p-Chlorotoluene	1.0 U	U	ug/L	1.0	SW846 8260D	1	06/01/2023 15:55	TMP	A
p-Isopropyltoluene	1.0 U	U	ug/L	1.0	SW846 8260D	1	06/01/2023 15:55	TMP	A
Styrene	1.0 U	U	ug/L	1.0	SW846 8260D	1	06/01/2023 15:55	TMP	A
Tetrachloroethene	1.0 U	U	ug/L	1.0	SW846 8260D	1	06/01/2023 15:55	TMP	A
Toluene	1.0 U	U	ug/L	1.0	SW846 8260D	1	06/01/2023 15:55	TMP	A
Total Xylenes	3.0 U	U	ug/L	3.0	SW846 8260D	1	06/01/2023 15:55	TMP	A
trans-1,2-Dichloroethene	1.0 U	U	ug/L	1.0	SW846 8260D	1	06/01/2023 15:55	TMP	A
trans-1,3-Dichloropropene	1.0 U	U	ug/L	1.0	SW846 8260D	1	06/01/2023 15:55	TMP	A
Trichloroethene	1.0 U	U	ug/L	1.0	SW846 8260D	1	06/01/2023 15:55	TMP	A
Trichlorofluoromethane	1.0 U	U,2	ug/L	1.0	SW846 8260D	1	06/01/2023 15:55	TMP	A
Vinyl Acetate	5.0 U	U	ug/L	5.0	SW846 8260D	1	06/01/2023 15:55	TMP	A
Vinyl Chloride	1.0 U	U	ug/L	1.0	SW846 8260D	1	06/01/2023 15:55	TMP	A

SURROGATES

Compound	CAS No	Recovery	Limits(%)	Analysis Date/Time	Qualifiers
1,2-Dichloroethane-d4	17060-07-0	98.1%	62 – 133	06/01/2023 15:55	
4-Bromofluorobenzene	460-00-4	97.9%	79 – 114	06/01/2023 15:55	
Dibromofluoromethane	1868-53-7	94.5%	78 – 116	06/01/2023 15:55	
Toluene-d8	2037-26-5	98.8%	76 – 127	06/01/2023 15:55	

Results

Client Sample ID	MW-36D	Collected	05/22/2023 12:40
Lab Sample ID	3304366011	Lab Receipt	05/22/2023 18:15

SEMIVOLATILE SIM

Compound	Result	Flag	Units	RDL	Method	Dilution	Analysis Date/Time	By	Cntr
1,4-Dioxane	1.5 U	U	ug/L	1.5	SW846 8270E SIM	1	05/25/2023 12:14	GEC	C

SURROGATES

Compound	CAS No	Recovery	Limits(%)	Analysis Date/Time	Qualifiers
2-Methylnapthalene-d10	7297-45-2	45.8%	29 – 112	05/25/2023 12:14	
Fluoranthene-d10	93951-69-0	65.1%	45 – 130	05/25/2023 12:14	

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	06/01/2023 16:18	TMP	A
1,1,1-Trichloroethane	1.0 U	U	ug/L	1.0	SW846 8260D	1	06/01/2023 16:18	TMP	A
1,1,2,2-Tetrachloroethane	1.0 U	U	ug/L	1.0	SW846 8260D	1	06/01/2023 16:18	TMP	A
1,1,2-Trichloroethane	1.0 U	U	ug/L	1.0	SW846 8260D	1	06/01/2023 16:18	TMP	A
1,1-Dichloroethane	1.0 U	U	ug/L	1.0	SW846 8260D	1	06/01/2023 16:18	TMP	A
1,1-Dichloroethene	1.0 U	U	ug/L	1.0	SW846 8260D	1	06/01/2023 16:18	TMP	A
1,1-Dichloropropene	1.0 U	U	ug/L	1.0	SW846 8260D	1	06/01/2023 16:18	TMP	A
1,2,3-Trichlorobenzene	2.0 U	U	ug/L	2.0	SW846 8260D	1	06/01/2023 16:18	TMP	A
1,2,3-Trichloropropane	2.0 U	U	ug/L	2.0	SW846 8260D	1	06/01/2023 16:18	TMP	A
1,2,4-Trichlorobenzene	2.0 U	U	ug/L	2.0	SW846 8260D	1	06/01/2023 16:18	TMP	A
1,2-Dibromo-3-chloropropane	7.0 U	U	ug/L	7.0	SW846 8260D	1	06/01/2023 16:18	TMP	A
1,2-Dibromoethane	1.0 U	U	ug/L	1.0	SW846 8260D	1	06/01/2023 16:18	TMP	A
1,2-Dichlorobenzene	1.0 U	U	ug/L	1.0	SW846 8260D	1	06/01/2023 16:18	TMP	A
1,2-Dichloroethane	1.0 U	U	ug/L	1.0	SW846 8260D	1	06/01/2023 16:18	TMP	A
1,2-Dichloropropane	1.0 U	U	ug/L	1.0	SW846 8260D	1	06/01/2023 16:18	TMP	A
1,3-Dichlorobenzene	1.0 U	U	ug/L	1.0	SW846 8260D	1	06/01/2023 16:18	TMP	A
1,3-Dichloropropane	1.0 U	U	ug/L	1.0	SW846 8260D	1	06/01/2023 16:18	TMP	A
1,4-Dichlorobenzene	1.0 U	U	ug/L	1.0	SW846 8260D	1	06/01/2023 16:18	TMP	A
2,2-Dichloropropane	1.0 U	U	ug/L	1.0	SW846 8260D	1	06/01/2023 16:18	TMP	A
2-Butanone	10.0 U	U	ug/L	10.0	SW846 8260D	1	06/01/2023 16:18	TMP	A
2-Hexanone	5.0 U	U	ug/L	5.0	SW846 8260D	1	06/01/2023 16:18	TMP	A
4-Methyl-2-Pentanone(MIBK)	5.0 U	U	ug/L	5.0	SW846 8260D	1	06/01/2023 16:18	TMP	A
Acetone	10.0 U	U	ug/L	10.0	SW846 8260D	1	06/01/2023 16:18	TMP	A
Benzene	1.0 U	U	ug/L	1.0	SW846 8260D	1	06/01/2023 16:18	TMP	A
Bromobenzene	1.0 U	U	ug/L	1.0	SW846 8260D	1	06/01/2023 16:18	TMP	A
Bromochloromethane	1.0 U	U	ug/L	1.0	SW846 8260D	1	06/01/2023 16:18	TMP	A
Bromodichloromethane	1.0 U	U	ug/L	1.0	SW846 8260D	1	06/01/2023 16:18	TMP	A
Bromoform	1.0 U	U	ug/L	1.0	SW846 8260D	1	06/01/2023 16:18	TMP	A
Bromomethane	1.0 U	U	ug/L	1.0	SW846 8260D	1	06/01/2023 16:18	TMP	A
Carbon Tetrachloride	1.0 U	U	ug/L	1.0	SW846 8260D	1	06/01/2023 16:18	TMP	A
Chlorobenzene	1.0 U	U	ug/L	1.0	SW846 8260D	1	06/01/2023 16:18	TMP	A
Chlorodibromomethane	1.0 U	U	ug/L	1.0	SW846 8260D	1	06/01/2023 16:18	TMP	A
Chloroethane	1.0 U	U,1	ug/L	1.0	SW846 8260D	1	06/01/2023 16:18	TMP	A
Chloroform	1.0 U	U	ug/L	1.0	SW846 8260D	1	06/01/2023 16:18	TMP	A
Chloromethane	1.0 U	U	ug/L	1.0	SW846 8260D	1	06/01/2023 16:18	TMP	A

Results

Client Sample ID	MW-36D	Collected	05/22/2023 12:40
Lab Sample ID	3304366011	Lab Receipt	05/22/2023 18:15

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	06/01/2023 16:18	TMP	A
cis-1,3-Dichloropropene	1.0 U	U	ug/L	1.0	SW846 8260D	1	06/01/2023 16:18	TMP	A
Dibromomethane	1.0 U	U	ug/L	1.0	SW846 8260D	1	06/01/2023 16:18	TMP	A
Dichlorodifluoromethane	1.0 U	U	ug/L	1.0	SW846 8260D	1	06/01/2023 16:18	TMP	A
Diisopropyl ether	1.0 U	U	ug/L	1.0	SW846 8260D	1	06/01/2023 16:18	TMP	A
Ethylbenzene	1.0 U	U	ug/L	1.0	SW846 8260D	1	06/01/2023 16:18	TMP	A
Hexachlorobutadiene	5.0 U	U	ug/L	5.0	SW846 8260D	1	06/01/2023 16:18	TMP	A
Methyl t-Butyl Ether	1.0 U	U	ug/L	1.0	SW846 8260D	1	06/01/2023 16:18	TMP	A
Methylene Chloride	1.0 U	U	ug/L	1.0	SW846 8260D	1	06/01/2023 16:18	TMP	A
mp-Xylene	2.0 U	U	ug/L	2.0	SW846 8260D	1	06/01/2023 16:18	TMP	A
Naphthalene	2.0 U	U	ug/L	2.0	SW846 8260D	1	06/01/2023 16:18	TMP	A
o-Chlorotoluene	1.0 U	U	ug/L	1.0	SW846 8260D	1	06/01/2023 16:18	TMP	A
o-Xylene	1.0 U	U	ug/L	1.0	SW846 8260D	1	06/01/2023 16:18	TMP	A
p-Chlorotoluene	1.0 U	U	ug/L	1.0	SW846 8260D	1	06/01/2023 16:18	TMP	A
p-Isopropyltoluene	1.0 U	U	ug/L	1.0	SW846 8260D	1	06/01/2023 16:18	TMP	A
Styrene	1.0 U	U	ug/L	1.0	SW846 8260D	1	06/01/2023 16:18	TMP	A
Tetrachloroethene	1.0 U	U	ug/L	1.0	SW846 8260D	1	06/01/2023 16:18	TMP	A
Toluene	1.0 U	U	ug/L	1.0	SW846 8260D	1	06/01/2023 16:18	TMP	A
Total Xylenes	3.0 U	U	ug/L	3.0	SW846 8260D	1	06/01/2023 16:18	TMP	A
trans-1,2-Dichloroethene	1.0 U	U	ug/L	1.0	SW846 8260D	1	06/01/2023 16:18	TMP	A
trans-1,3-Dichloropropene	1.0 U	U	ug/L	1.0	SW846 8260D	1	06/01/2023 16:18	TMP	A
Trichloroethene	1.0 U	U	ug/L	1.0	SW846 8260D	1	06/01/2023 16:18	TMP	A
Trichlorofluoromethane	1.0 U	U,2	ug/L	1.0	SW846 8260D	1	06/01/2023 16:18	TMP	A
Vinyl Acetate	5.0 U	U	ug/L	5.0	SW846 8260D	1	06/01/2023 16:18	TMP	A
Vinyl Chloride	1.0 U	U	ug/L	1.0	SW846 8260D	1	06/01/2023 16:18	TMP	A

SURROGATES

Compound	CAS No	Recovery	Limits(%)	Analysis Date/Time	Qualifiers
1,2-Dichloroethane-d4	17060-07-0	100%	62 – 133	06/01/2023 16:18	
4-Bromofluorobenzene	460-00-4	98.2%	79 – 114	06/01/2023 16:18	
Dibromofluoromethane	1868-53-7	95.7%	78 – 116	06/01/2023 16:18	
Toluene-d8	2037-26-5	98.8%	76 – 127	06/01/2023 16:18	

Results

Client Sample ID	MW-25D-130	Collected	05/22/2023 13:45
Lab Sample ID	3304366012	Lab Receipt	05/22/2023 18:15

SEMIVOLATILE SIM

Compound	Result	Flag	Units	RDL	Method	Dilution	Analysis Date/Time	By	Cntr
1,4-Dioxane	21.4 U	U	ug/L	21.4	SW846 8270E SIM	20	05/25/2023 14:57	GEC	C

SURROGATES

Compound	CAS No	Recovery	Limits(%)	Analysis Date/Time	Qualifiers
2-Methylnapthalene-d10	7297-45-2	50.9%	29 – 112	05/25/2023 12:41	
2-Methylnapthalene-d10	7297-45-2	0*%	29 – 112	05/25/2023 14:57	4
Fluoranthene-d10	93951-69-0	68.3%	45 – 130	05/25/2023 12:41	
Fluoranthene-d10	93951-69-0	0*%	45 – 130	05/25/2023 14:57	5

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	06/01/2023 16:41	TMP	A
1,1,1-Trichloroethane	4.5		ug/L	1.0	SW846 8260D	1	06/01/2023 16:41	TMP	A
1,1,2,2-Tetrachloroethane	1.0 U	U	ug/L	1.0	SW846 8260D	1	06/01/2023 16:41	TMP	A
1,1,2-Trichloroethane	1.0 U	U	ug/L	1.0	SW846 8260D	1	06/01/2023 16:41	TMP	A
1,1-Dichloroethane	4.3		ug/L	1.0	SW846 8260D	1	06/01/2023 16:41	TMP	A
1,1-Dichloroethene	52.0		ug/L	1.0	SW846 8260D	1	06/01/2023 16:41	TMP	A
1,1-Dichloropropene	1.0 U	U	ug/L	1.0	SW846 8260D	1	06/01/2023 16:41	TMP	A
1,2,3-Trichlorobenzene	2.0 U	U	ug/L	2.0	SW846 8260D	1	06/01/2023 16:41	TMP	A
1,2,3-Trichloropropane	2.0 U	U	ug/L	2.0	SW846 8260D	1	06/01/2023 16:41	TMP	A
1,2,4-Trichlorobenzene	2.0 U	U	ug/L	2.0	SW846 8260D	1	06/01/2023 16:41	TMP	A
1,2-Dibromo-3-chloropropane	7.0 U	U	ug/L	7.0	SW846 8260D	1	06/01/2023 16:41	TMP	A
1,2-Dibromoethane	1.0 U	U	ug/L	1.0	SW846 8260D	1	06/01/2023 16:41	TMP	A
1,2-Dichlorobenzene	1.0 U	U	ug/L	1.0	SW846 8260D	1	06/01/2023 16:41	TMP	A
1,2-Dichloroethane	1.0 U	U	ug/L	1.0	SW846 8260D	1	06/01/2023 16:41	TMP	A
1,2-Dichloropropane	1.0 U	U	ug/L	1.0	SW846 8260D	1	06/01/2023 16:41	TMP	A
1,3-Dichlorobenzene	1.0 U	U	ug/L	1.0	SW846 8260D	1	06/01/2023 16:41	TMP	A
1,3-Dichloropropane	1.0 U	U	ug/L	1.0	SW846 8260D	1	06/01/2023 16:41	TMP	A
1,4-Dichlorobenzene	1.0 U	U	ug/L	1.0	SW846 8260D	1	06/01/2023 16:41	TMP	A
2,2-Dichloropropane	1.0 U	U	ug/L	1.0	SW846 8260D	1	06/01/2023 16:41	TMP	A
2-Butanone	10.0 U	U	ug/L	10.0	SW846 8260D	1	06/01/2023 16:41	TMP	A
2-Hexanone	5.0 U	U	ug/L	5.0	SW846 8260D	1	06/01/2023 16:41	TMP	A
4-Methyl-2-Pentanone(MIBK)	5.0 U	U	ug/L	5.0	SW846 8260D	1	06/01/2023 16:41	TMP	A
Acetone	10.0 U	U	ug/L	10.0	SW846 8260D	1	06/01/2023 16:41	TMP	A
Benzene	1.0 U	U	ug/L	1.0	SW846 8260D	1	06/01/2023 16:41	TMP	A
Bromobenzene	1.0 U	U	ug/L	1.0	SW846 8260D	1	06/01/2023 16:41	TMP	A
Bromochloromethane	1.0 U	U	ug/L	1.0	SW846 8260D	1	06/01/2023 16:41	TMP	A
Bromodichloromethane	1.0 U	U	ug/L	1.0	SW846 8260D	1	06/01/2023 16:41	TMP	A
Bromoform	1.0 U	U	ug/L	1.0	SW846 8260D	1	06/01/2023 16:41	TMP	A
Bromomethane	1.0 U	U	ug/L	1.0	SW846 8260D	1	06/01/2023 16:41	TMP	A
Carbon Tetrachloride	1.0 U	U	ug/L	1.0	SW846 8260D	1	06/01/2023 16:41	TMP	A
Chlorobenzene	1.0 U	U	ug/L	1.0	SW846 8260D	1	06/01/2023 16:41	TMP	A
Chlorodibromomethane	1.0 U	U	ug/L	1.0	SW846 8260D	1	06/01/2023 16:41	TMP	A
Chloroethane	1.0 U	U,1	ug/L	1.0	SW846 8260D	1	06/01/2023 16:41	TMP	A

Results

Client Sample ID	MW-25D-130	Collected	05/22/2023 13:45
Lab Sample ID	3304366012	Lab Receipt	05/22/2023 18:15

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	06/01/2023 16:41	TMP	A
Chloromethane	1.0 U	U	ug/L	1.0	SW846 8260D	1	06/01/2023 16:41	TMP	A
cis-1,2-Dichloroethene	1.0 U	U	ug/L	1.0	SW846 8260D	1	06/01/2023 16:41	TMP	A
cis-1,3-Dichloropropene	1.0 U	U	ug/L	1.0	SW846 8260D	1	06/01/2023 16:41	TMP	A
Dibromomethane	1.0 U	U	ug/L	1.0	SW846 8260D	1	06/01/2023 16:41	TMP	A
Dichlorodifluoromethane	1.0 U	U	ug/L	1.0	SW846 8260D	1	06/01/2023 16:41	TMP	A
Diisopropyl ether	1.0 U	U	ug/L	1.0	SW846 8260D	1	06/01/2023 16:41	TMP	A
Ethylbenzene	1.0 U	U	ug/L	1.0	SW846 8260D	1	06/01/2023 16:41	TMP	A
Hexachlorobutadiene	5.0 U	U	ug/L	5.0	SW846 8260D	1	06/01/2023 16:41	TMP	A
Methyl t-Butyl Ether	1.0 U	U	ug/L	1.0	SW846 8260D	1	06/01/2023 16:41	TMP	A
Methylene Chloride	1.0 U	U	ug/L	1.0	SW846 8260D	1	06/01/2023 16:41	TMP	A
mp-Xylene	2.0 U	U	ug/L	2.0	SW846 8260D	1	06/01/2023 16:41	TMP	A
Naphthalene	2.0 U	U	ug/L	2.0	SW846 8260D	1	06/01/2023 16:41	TMP	A
o-Chlorotoluene	1.0 U	U	ug/L	1.0	SW846 8260D	1	06/01/2023 16:41	TMP	A
o-Xylene	1.0 U	U	ug/L	1.0	SW846 8260D	1	06/01/2023 16:41	TMP	A
p-Chlorotoluene	1.0 U	U	ug/L	1.0	SW846 8260D	1	06/01/2023 16:41	TMP	A
p-Isopropyltoluene	1.0 U	U	ug/L	1.0	SW846 8260D	1	06/01/2023 16:41	TMP	A
Styrene	1.0 U	U	ug/L	1.0	SW846 8260D	1	06/01/2023 16:41	TMP	A
Tetrachloroethene	1.0 U	U	ug/L	1.0	SW846 8260D	1	06/01/2023 16:41	TMP	A
Toluene	1.0 U	U	ug/L	1.0	SW846 8260D	1	06/01/2023 16:41	TMP	A
Total Xylenes	3.0 U	U	ug/L	3.0	SW846 8260D	1	06/01/2023 16:41	TMP	A
trans-1,2-Dichloroethene	1.0 U	U	ug/L	1.0	SW846 8260D	1	06/01/2023 16:41	TMP	A
trans-1,3-Dichloropropene	1.0 U	U	ug/L	1.0	SW846 8260D	1	06/01/2023 16:41	TMP	A
Trichloroethene	1.0 U	U	ug/L	1.0	SW846 8260D	1	06/01/2023 16:41	TMP	A
Trichlorofluoromethane	1.0 U	U,2	ug/L	1.0	SW846 8260D	1	06/01/2023 16:41	TMP	A
Vinyl Acetate	5.0 U	U	ug/L	5.0	SW846 8260D	1	06/01/2023 16:41	TMP	A
Vinyl Chloride	1.0 U	U	ug/L	1.0	SW846 8260D	1	06/01/2023 16:41	TMP	A

SURROGATES

Compound	CAS No	Recovery	Limits(%)	Analysis Date/Time	Qualifiers
1,2-Dichloroethane-d4	17060-07-0	103%	62 – 133	06/01/2023 16:41	
4-Bromofluorobenzene	460-00-4	96.5%	79 – 114	06/01/2023 16:41	
Dibromofluoromethane	1868-53-7	96.1%	78 – 116	06/01/2023 16:41	
Toluene-d8	2037-26-5	98.7%	76 – 127	06/01/2023 16:41	

Results

Client Sample ID	DUP-052223	Collected	05/22/2023 11:30
Lab Sample ID	3304366013	Lab Receipt	05/22/2023 18:15

SEMIVOLATILE SIM

Compound	Result	Flag	Units	RDL	Method	Dilution	Analysis Date/Time	By	Cntr
1,4-Dioxane	25.9 U	U	ug/L	25.9	SW846 8270E SIM	20	05/25/2023 15:25	GEC	C

SURROGATES

Compound	CAS No	Recovery	Limits(%)	Analysis Date/Time	Qualifiers
2-Methylnapthalene-d10	7297-45-2	61.3%	29 – 112	05/25/2023 13:09	
2-Methylnapthalene-d10	7297-45-2	0*%	29 – 112	05/25/2023 15:25	4
Fluoranthene-d10	93951-69-0	78.3%	45 – 130	05/25/2023 13:09	
Fluoranthene-d10	93951-69-0	80.9%	45 – 130	05/25/2023 15:25	

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	06/01/2023 17:04	TMP	A
1,1,1-Trichloroethane	5.2		ug/L	1.0	SW846 8260D	1	06/01/2023 17:04	TMP	A
1,1,2,2-Tetrachloroethane	1.0 U	U	ug/L	1.0	SW846 8260D	1	06/01/2023 17:04	TMP	A
1,1,2-Trichloroethane	1.0 U	U	ug/L	1.0	SW846 8260D	1	06/01/2023 17:04	TMP	A
1,1-Dichloroethane	5.0		ug/L	1.0	SW846 8260D	1	06/01/2023 17:04	TMP	A
1,1-Dichloroethene	60.0		ug/L	1.0	SW846 8260D	1	06/01/2023 17:04	TMP	A
1,1-Dichloropropene	1.0 U	U	ug/L	1.0	SW846 8260D	1	06/01/2023 17:04	TMP	A
1,2,3-Trichlorobenzene	2.0 U	U	ug/L	2.0	SW846 8260D	1	06/01/2023 17:04	TMP	A
1,2,3-Trichloropropane	2.0 U	U	ug/L	2.0	SW846 8260D	1	06/01/2023 17:04	TMP	A
1,2,4-Trichlorobenzene	2.0 U	U	ug/L	2.0	SW846 8260D	1	06/01/2023 17:04	TMP	A
1,2-Dibromo-3-chloropropane	7.0 U	U	ug/L	7.0	SW846 8260D	1	06/01/2023 17:04	TMP	A
1,2-Dibromoethane	1.0 U	U	ug/L	1.0	SW846 8260D	1	06/01/2023 17:04	TMP	A
1,2-Dichlorobenzene	1.0 U	U	ug/L	1.0	SW846 8260D	1	06/01/2023 17:04	TMP	A
1,2-Dichloroethane	1.0 U	U	ug/L	1.0	SW846 8260D	1	06/01/2023 17:04	TMP	A
1,2-Dichloropropane	1.0 U	U	ug/L	1.0	SW846 8260D	1	06/01/2023 17:04	TMP	A
1,3-Dichlorobenzene	1.0 U	U	ug/L	1.0	SW846 8260D	1	06/01/2023 17:04	TMP	A
1,3-Dichloropropane	1.0 U	U	ug/L	1.0	SW846 8260D	1	06/01/2023 17:04	TMP	A
1,4-Dichlorobenzene	1.0 U	U	ug/L	1.0	SW846 8260D	1	06/01/2023 17:04	TMP	A
2,2-Dichloropropane	1.0 U	U	ug/L	1.0	SW846 8260D	1	06/01/2023 17:04	TMP	A
2-Butanone	10.0 U	U	ug/L	10.0	SW846 8260D	1	06/01/2023 17:04	TMP	A
2-Hexanone	5.0 U	U	ug/L	5.0	SW846 8260D	1	06/01/2023 17:04	TMP	A
4-Methyl-2-Pentanone(MIBK)	5.0 U	U	ug/L	5.0	SW846 8260D	1	06/01/2023 17:04	TMP	A
Acetone	10.0 U	U	ug/L	10.0	SW846 8260D	1	06/01/2023 17:04	TMP	A
Benzene	1.0 U	U	ug/L	1.0	SW846 8260D	1	06/01/2023 17:04	TMP	A
Bromobenzene	1.0 U	U	ug/L	1.0	SW846 8260D	1	06/01/2023 17:04	TMP	A
Bromochloromethane	1.0 U	U	ug/L	1.0	SW846 8260D	1	06/01/2023 17:04	TMP	A
Bromodichloromethane	1.0 U	U	ug/L	1.0	SW846 8260D	1	06/01/2023 17:04	TMP	A
Bromoform	1.0 U	U	ug/L	1.0	SW846 8260D	1	06/01/2023 17:04	TMP	A
Bromomethane	1.0 U	U	ug/L	1.0	SW846 8260D	1	06/01/2023 17:04	TMP	A
Carbon Tetrachloride	1.0 U	U	ug/L	1.0	SW846 8260D	1	06/01/2023 17:04	TMP	A
Chlorobenzene	1.0 U	U	ug/L	1.0	SW846 8260D	1	06/01/2023 17:04	TMP	A
Chlorodibromomethane	1.0 U	U	ug/L	1.0	SW846 8260D	1	06/01/2023 17:04	TMP	A
Chloroethane	1.0 U	U,1	ug/L	1.0	SW846 8260D	1	06/01/2023 17:04	TMP	A

Results

Client Sample ID	DUP-052223	Collected	05/22/2023 11:30
Lab Sample ID	3304366013	Lab Receipt	05/22/2023 18:15

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	06/01/2023 17:04	TMP	A
Chloromethane	1.0 U	U	ug/L	1.0	SW846 8260D	1	06/01/2023 17:04	TMP	A
cis-1,2-Dichloroethene	1.0 U	U	ug/L	1.0	SW846 8260D	1	06/01/2023 17:04	TMP	A
cis-1,3-Dichloropropene	1.0 U	U	ug/L	1.0	SW846 8260D	1	06/01/2023 17:04	TMP	A
Dibromomethane	1.0 U	U	ug/L	1.0	SW846 8260D	1	06/01/2023 17:04	TMP	A
Dichlorodifluoromethane	1.0 U	U	ug/L	1.0	SW846 8260D	1	06/01/2023 17:04	TMP	A
Diisopropyl ether	1.0 U	U	ug/L	1.0	SW846 8260D	1	06/01/2023 17:04	TMP	A
Ethylbenzene	1.0 U	U	ug/L	1.0	SW846 8260D	1	06/01/2023 17:04	TMP	A
Hexachlorobutadiene	5.0 U	U	ug/L	5.0	SW846 8260D	1	06/01/2023 17:04	TMP	A
Methyl t-Butyl Ether	1.0 U	U	ug/L	1.0	SW846 8260D	1	06/01/2023 17:04	TMP	A
Methylene Chloride	1.0 U	U	ug/L	1.0	SW846 8260D	1	06/01/2023 17:04	TMP	A
mp-Xylene	2.0 U	U	ug/L	2.0	SW846 8260D	1	06/01/2023 17:04	TMP	A
Naphthalene	2.0 U	U	ug/L	2.0	SW846 8260D	1	06/01/2023 17:04	TMP	A
o-Chlorotoluene	1.0 U	U	ug/L	1.0	SW846 8260D	1	06/01/2023 17:04	TMP	A
o-Xylene	1.0 U	U	ug/L	1.0	SW846 8260D	1	06/01/2023 17:04	TMP	A
p-Chlorotoluene	1.0 U	U	ug/L	1.0	SW846 8260D	1	06/01/2023 17:04	TMP	A
p-Isopropyltoluene	1.0 U	U	ug/L	1.0	SW846 8260D	1	06/01/2023 17:04	TMP	A
Styrene	1.0 U	U	ug/L	1.0	SW846 8260D	1	06/01/2023 17:04	TMP	A
Tetrachloroethene	1.0 U	U	ug/L	1.0	SW846 8260D	1	06/01/2023 17:04	TMP	A
Toluene	1.0 U	U	ug/L	1.0	SW846 8260D	1	06/01/2023 17:04	TMP	A
Total Xylenes	3.0 U	U	ug/L	3.0	SW846 8260D	1	06/01/2023 17:04	TMP	A
trans-1,2-Dichloroethene	1.0 U	U	ug/L	1.0	SW846 8260D	1	06/01/2023 17:04	TMP	A
trans-1,3-Dichloropropene	1.0 U	U	ug/L	1.0	SW846 8260D	1	06/01/2023 17:04	TMP	A
Trichloroethene	1.0 U	U	ug/L	1.0	SW846 8260D	1	06/01/2023 17:04	TMP	A
Trichlorofluoromethane	1.0 U	U,2	ug/L	1.0	SW846 8260D	1	06/01/2023 17:04	TMP	A
Vinyl Acetate	5.0 U	U	ug/L	5.0	SW846 8260D	1	06/01/2023 17:04	TMP	A
Vinyl Chloride	1.0 U	U	ug/L	1.0	SW846 8260D	1	06/01/2023 17:04	TMP	A

SURROGATES

Compound	CAS No	Recovery	Limits(%)	Analysis Date/Time	Qualifiers
1,2-Dichloroethane-d4	17060-07-0	103%	62 – 133	06/01/2023 17:04	
4-Bromofluorobenzene	460-00-4	98.5%	79 – 114	06/01/2023 17:04	
Dibromofluoromethane	1868-53-7	97.1%	78 – 116	06/01/2023 17:04	
Toluene-d8	2037-26-5	99%	76 – 127	06/01/2023 17:04	

Results

Client Sample ID	MW-25D-190	Collected	05/22/2023 14:00
Lab Sample ID	3304366014	Lab Receipt	05/22/2023 18:15

SEMIVOLATILE SIM

Compound	Result	Flag	Units	RDL	Method	Dilution	Analysis Date/Time	By	Cntr
1,4-Dioxane	9.0	6,7,8	ug/L	1.0	SW846 8270E SIM	1	05/25/2023 13:36	GEC	G

SURROGATES

Compound	CAS No	Recovery	Limits(%)	Analysis Date/Time	Qualifiers
2-Methylnapthalene-d10	7297-45-2	55.8%	29 – 112	05/25/2023 13:36	
Fluoranthene-d10	93951-69-0	52.4%	45 – 130	05/25/2023 13:36	

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	06/01/2023 17:27	TMP	A
1,1,1-Trichloroethane	3.6		ug/L	1.0	SW846 8260D	1	06/01/2023 17:27	TMP	A
1,1,2,2-Tetrachloroethane	1.0 U	U	ug/L	1.0	SW846 8260D	1	06/01/2023 17:27	TMP	A
1,1,2-Trichloroethane	1.0 U	U	ug/L	1.0	SW846 8260D	1	06/01/2023 17:27	TMP	A
1,1-Dichloroethane	7.1		ug/L	1.0	SW846 8260D	1	06/01/2023 17:27	TMP	A
1,1-Dichloroethene	30.1		ug/L	1.0	SW846 8260D	1	06/01/2023 17:27	TMP	A
1,1-Dichloropropene	1.0 U	U	ug/L	1.0	SW846 8260D	1	06/01/2023 17:27	TMP	A
1,2,3-Trichlorobenzene	2.0 U	U	ug/L	2.0	SW846 8260D	1	06/01/2023 17:27	TMP	A
1,2,3-Trichloropropane	2.0 U	U	ug/L	2.0	SW846 8260D	1	06/01/2023 17:27	TMP	A
1,2,4-Trichlorobenzene	2.0 U	U	ug/L	2.0	SW846 8260D	1	06/01/2023 17:27	TMP	A
1,2-Dibromo-3-chloropropane	7.0 U	U	ug/L	7.0	SW846 8260D	1	06/01/2023 17:27	TMP	A
1,2-Dibromoethane	1.0 U	U	ug/L	1.0	SW846 8260D	1	06/01/2023 17:27	TMP	A
1,2-Dichlorobenzene	1.0 U	U	ug/L	1.0	SW846 8260D	1	06/01/2023 17:27	TMP	A
1,2-Dichloroethane	1.0 U	U	ug/L	1.0	SW846 8260D	1	06/01/2023 17:27	TMP	A
1,2-Dichloropropane	1.0 U	U	ug/L	1.0	SW846 8260D	1	06/01/2023 17:27	TMP	A
1,3-Dichlorobenzene	1.0 U	U	ug/L	1.0	SW846 8260D	1	06/01/2023 17:27	TMP	A
1,3-Dichloropropane	1.0 U	U	ug/L	1.0	SW846 8260D	1	06/01/2023 17:27	TMP	A
1,4-Dichlorobenzene	1.0 U	U	ug/L	1.0	SW846 8260D	1	06/01/2023 17:27	TMP	A
2,2-Dichloropropane	1.0 U	U	ug/L	1.0	SW846 8260D	1	06/01/2023 17:27	TMP	A
2-Butanone	10.0 U	U	ug/L	10.0	SW846 8260D	1	06/01/2023 17:27	TMP	A
2-Hexanone	5.0 U	U	ug/L	5.0	SW846 8260D	1	06/01/2023 17:27	TMP	A
4-Methyl-2-Pentanone(MIBK)	5.0 U	U	ug/L	5.0	SW846 8260D	1	06/01/2023 17:27	TMP	A
Acetone	10.0 U	U	ug/L	10.0	SW846 8260D	1	06/01/2023 17:27	TMP	A
Benzene	1.0 U	U	ug/L	1.0	SW846 8260D	1	06/01/2023 17:27	TMP	A
Bromobenzene	1.0 U	U	ug/L	1.0	SW846 8260D	1	06/01/2023 17:27	TMP	A
Bromochloromethane	1.0 U	U	ug/L	1.0	SW846 8260D	1	06/01/2023 17:27	TMP	A
Bromodichloromethane	1.0 U	U	ug/L	1.0	SW846 8260D	1	06/01/2023 17:27	TMP	A
Bromoform	1.0 U	U	ug/L	1.0	SW846 8260D	1	06/01/2023 17:27	TMP	A
Bromomethane	1.0 U	U	ug/L	1.0	SW846 8260D	1	06/01/2023 17:27	TMP	A
Carbon Tetrachloride	1.0 U	U	ug/L	1.0	SW846 8260D	1	06/01/2023 17:27	TMP	A
Chlorobenzene	1.0 U	U	ug/L	1.0	SW846 8260D	1	06/01/2023 17:27	TMP	A
Chlorodibromomethane	1.0 U	U	ug/L	1.0	SW846 8260D	1	06/01/2023 17:27	TMP	A
Chloroethane	1.0 U	U,1	ug/L	1.0	SW846 8260D	1	06/01/2023 17:27	TMP	A
Chloroform	1.0 U	U	ug/L	1.0	SW846 8260D	1	06/01/2023 17:27	TMP	A
Chloromethane	1.0 U	U	ug/L	1.0	SW846 8260D	1	06/01/2023 17:27	TMP	A

Results

Client Sample ID	MW-25D-190	Collected	05/22/2023 14:00
Lab Sample ID	3304366014	Lab Receipt	05/22/2023 18:15

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	06/01/2023 17:27	TMP	A
cis-1,3-Dichloropropene	1.0 U	U	ug/L	1.0	SW846 8260D	1	06/01/2023 17:27	TMP	A
Dibromomethane	1.0 U	U	ug/L	1.0	SW846 8260D	1	06/01/2023 17:27	TMP	A
Dichlorodifluoromethane	1.0 U	U	ug/L	1.0	SW846 8260D	1	06/01/2023 17:27	TMP	A
Diisopropyl ether	1.0 U	U	ug/L	1.0	SW846 8260D	1	06/01/2023 17:27	TMP	A
Ethylbenzene	1.0 U	U	ug/L	1.0	SW846 8260D	1	06/01/2023 17:27	TMP	A
Hexachlorobutadiene	5.0 U	U	ug/L	5.0	SW846 8260D	1	06/01/2023 17:27	TMP	A
Methyl t-Butyl Ether	1.4		ug/L	1.0	SW846 8260D	1	06/01/2023 17:27	TMP	A
Methylene Chloride	1.0 U	U	ug/L	1.0	SW846 8260D	1	06/01/2023 17:27	TMP	A
mp-Xylene	2.0 U	U	ug/L	2.0	SW846 8260D	1	06/01/2023 17:27	TMP	A
Naphthalene	2.0 U	U	ug/L	2.0	SW846 8260D	1	06/01/2023 17:27	TMP	A
o-Chlorotoluene	1.0 U	U	ug/L	1.0	SW846 8260D	1	06/01/2023 17:27	TMP	A
o-Xylene	1.0 U	U	ug/L	1.0	SW846 8260D	1	06/01/2023 17:27	TMP	A
p-Chlorotoluene	1.0 U	U	ug/L	1.0	SW846 8260D	1	06/01/2023 17:27	TMP	A
p-Isopropyltoluene	1.0 U	U	ug/L	1.0	SW846 8260D	1	06/01/2023 17:27	TMP	A
Styrene	1.0 U	U	ug/L	1.0	SW846 8260D	1	06/01/2023 17:27	TMP	A
Tetrachloroethene	1.0 U	U	ug/L	1.0	SW846 8260D	1	06/01/2023 17:27	TMP	A
Toluene	1.0 U	U	ug/L	1.0	SW846 8260D	1	06/01/2023 17:27	TMP	A
Total Xylenes	3.0 U	U	ug/L	3.0	SW846 8260D	1	06/01/2023 17:27	TMP	A
trans-1,2-Dichloroethene	1.0 U	U	ug/L	1.0	SW846 8260D	1	06/01/2023 17:27	TMP	A
trans-1,3-Dichloropropene	1.0 U	U	ug/L	1.0	SW846 8260D	1	06/01/2023 17:27	TMP	A
Trichloroethene	1.0 U	U	ug/L	1.0	SW846 8260D	1	06/01/2023 17:27	TMP	A
Trichlorofluoromethane	1.0 U	U,2	ug/L	1.0	SW846 8260D	1	06/01/2023 17:27	TMP	A
Vinyl Acetate	5.0 U	U	ug/L	5.0	SW846 8260D	1	06/01/2023 17:27	TMP	A
Vinyl Chloride	1.0 U	U	ug/L	1.0	SW846 8260D	1	06/01/2023 17:27	TMP	A

SURROGATES

Compound	CAS No	Recovery	Limits(%)	Analysis Date/Time	Qualifiers
1,2-Dichloroethane-d4	17060-07-0	102%	62 – 133	06/01/2023 17:27	
4-Bromofluorobenzene	460-00-4	99%	79 – 114	06/01/2023 17:27	
Dibromofluoromethane	1868-53-7	95.2%	78 – 116	06/01/2023 17:27	
Toluene-d8	2037-26-5	99.8%	76 – 127	06/01/2023 17:27	

Results

Client Sample ID	Trip Blank A	Collected	05/22/2023 00:00
Lab Sample ID	3304366015	Lab Receipt	05/22/2023 18:15

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	06/01/2023 11:42	TMP	A
1,1,1-Trichloroethane	1.0 U	U	ug/L	1.0	SW846 8260D	1	06/01/2023 11:42	TMP	A
1,1,2,2-Tetrachloroethane	1.0 U	U	ug/L	1.0	SW846 8260D	1	06/01/2023 11:42	TMP	A
1,1,2-Trichloroethane	1.0 U	U	ug/L	1.0	SW846 8260D	1	06/01/2023 11:42	TMP	A
1,1-Dichloroethane	1.0 U	U	ug/L	1.0	SW846 8260D	1	06/01/2023 11:42	TMP	A
1,1-Dichloroethene	1.0 U	U	ug/L	1.0	SW846 8260D	1	06/01/2023 11:42	TMP	A
1,1-Dichloropropene	1.0 U	U	ug/L	1.0	SW846 8260D	1	06/01/2023 11:42	TMP	A
1,2,3-Trichlorobenzene	2.0 U	U	ug/L	2.0	SW846 8260D	1	06/01/2023 11:42	TMP	A
1,2,3-Trichloropropane	2.0 U	U	ug/L	2.0	SW846 8260D	1	06/01/2023 11:42	TMP	A
1,2,4-Trichlorobenzene	2.0 U	U	ug/L	2.0	SW846 8260D	1	06/01/2023 11:42	TMP	A
1,2-Dibromo-3-chloropropane	7.0 U	U	ug/L	7.0	SW846 8260D	1	06/01/2023 11:42	TMP	A
1,2-Dibromoethane	1.0 U	U	ug/L	1.0	SW846 8260D	1	06/01/2023 11:42	TMP	A
1,2-Dichlorobenzene	1.0 U	U	ug/L	1.0	SW846 8260D	1	06/01/2023 11:42	TMP	A
1,2-Dichloroethane	1.0 U	U	ug/L	1.0	SW846 8260D	1	06/01/2023 11:42	TMP	A
1,2-Dichloropropane	1.0 U	U	ug/L	1.0	SW846 8260D	1	06/01/2023 11:42	TMP	A
1,3-Dichlorobenzene	1.0 U	U	ug/L	1.0	SW846 8260D	1	06/01/2023 11:42	TMP	A
1,3-Dichloropropane	1.0 U	U	ug/L	1.0	SW846 8260D	1	06/01/2023 11:42	TMP	A
1,4-Dichlorobenzene	1.0 U	U	ug/L	1.0	SW846 8260D	1	06/01/2023 11:42	TMP	A
2,2-Dichloropropane	1.0 U	U	ug/L	1.0	SW846 8260D	1	06/01/2023 11:42	TMP	A
2-Butanone	10.0 U	U	ug/L	10.0	SW846 8260D	1	06/01/2023 11:42	TMP	A
2-Hexanone	5.0 U	U	ug/L	5.0	SW846 8260D	1	06/01/2023 11:42	TMP	A
4-Methyl-2-Pentanone(MIBK)	5.0 U	U	ug/L	5.0	SW846 8260D	1	06/01/2023 11:42	TMP	A
Acetone	10.0 U	U	ug/L	10.0	SW846 8260D	1	06/01/2023 11:42	TMP	A
Benzene	1.0 U	U	ug/L	1.0	SW846 8260D	1	06/01/2023 11:42	TMP	A
Bromobenzene	1.0 U	U	ug/L	1.0	SW846 8260D	1	06/01/2023 11:42	TMP	A
Bromochloromethane	1.0 U	U	ug/L	1.0	SW846 8260D	1	06/01/2023 11:42	TMP	A
Bromodichloromethane	1.0 U	U	ug/L	1.0	SW846 8260D	1	06/01/2023 11:42	TMP	A
Bromoform	1.0 U	U	ug/L	1.0	SW846 8260D	1	06/01/2023 11:42	TMP	A
Bromomethane	1.0 U	U	ug/L	1.0	SW846 8260D	1	06/01/2023 11:42	TMP	A
Carbon Tetrachloride	1.0 U	U	ug/L	1.0	SW846 8260D	1	06/01/2023 11:42	TMP	A
Chlorobenzene	1.0 U	U	ug/L	1.0	SW846 8260D	1	06/01/2023 11:42	TMP	A
Chlorodibromomethane	1.0 U	U	ug/L	1.0	SW846 8260D	1	06/01/2023 11:42	TMP	A
Chloroethane	1.0 U	U,1	ug/L	1.0	SW846 8260D	1	06/01/2023 11:42	TMP	A
Chloroform	1.0 U	U	ug/L	1.0	SW846 8260D	1	06/01/2023 11:42	TMP	A
Chloromethane	1.0 U	U	ug/L	1.0	SW846 8260D	1	06/01/2023 11:42	TMP	A
cis-1,2-Dichloroethene	1.0 U	U	ug/L	1.0	SW846 8260D	1	06/01/2023 11:42	TMP	A
cis-1,3-Dichloropropene	1.0 U	U	ug/L	1.0	SW846 8260D	1	06/01/2023 11:42	TMP	A
Dibromomethane	1.0 U	U	ug/L	1.0	SW846 8260D	1	06/01/2023 11:42	TMP	A
Dichlorodifluoromethane	1.0 U	U	ug/L	1.0	SW846 8260D	1	06/01/2023 11:42	TMP	A
Diisopropyl ether	1.0 U	U	ug/L	1.0	SW846 8260D	1	06/01/2023 11:42	TMP	A
Ethylbenzene	1.0 U	U	ug/L	1.0	SW846 8260D	1	06/01/2023 11:42	TMP	A
Hexachlorobutadiene	5.0 U	U	ug/L	5.0	SW846 8260D	1	06/01/2023 11:42	TMP	A
Methyl t-Butyl Ether	1.0 U	U	ug/L	1.0	SW846 8260D	1	06/01/2023 11:42	TMP	A
Methylene Chloride	1.0 U	U	ug/L	1.0	SW846 8260D	1	06/01/2023 11:42	TMP	A
mp-Xylene	2.0 U	U	ug/L	2.0	SW846 8260D	1	06/01/2023 11:42	TMP	A
Naphthalene	2.0 U	U	ug/L	2.0	SW846 8260D	1	06/01/2023 11:42	TMP	A
o-Chlorotoluene	1.0 U	U	ug/L	1.0	SW846 8260D	1	06/01/2023 11:42	TMP	A

Results

Client Sample ID	Trip Blank A	Collected	05/22/2023 00:00
Lab Sample ID	3304366015	Lab Receipt	05/22/2023 18:15

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	06/01/2023 11:42	TMP	A
p-Chlorotoluene	1.0 U	U	ug/L	1.0	SW846 8260D	1	06/01/2023 11:42	TMP	A
p-Isopropyltoluene	1.0 U	U	ug/L	1.0	SW846 8260D	1	06/01/2023 11:42	TMP	A
Styrene	1.0 U	U	ug/L	1.0	SW846 8260D	1	06/01/2023 11:42	TMP	A
Tetrachloroethene	1.0 U	U	ug/L	1.0	SW846 8260D	1	06/01/2023 11:42	TMP	A
Toluene	1.0 U	U	ug/L	1.0	SW846 8260D	1	06/01/2023 11:42	TMP	A
Total Xylenes	3.0 U	U	ug/L	3.0	SW846 8260D	1	06/01/2023 11:42	TMP	A
trans-1,2-Dichloroethene	1.0 U	U	ug/L	1.0	SW846 8260D	1	06/01/2023 11:42	TMP	A
trans-1,3-Dichloropropene	1.0 U	U	ug/L	1.0	SW846 8260D	1	06/01/2023 11:42	TMP	A
Trichloroethene	1.0 U	U	ug/L	1.0	SW846 8260D	1	06/01/2023 11:42	TMP	A
Trichlorofluoromethane	1.0 U	U,2	ug/L	1.0	SW846 8260D	1	06/01/2023 11:42	TMP	A
Vinyl Acetate	5.0 U	U	ug/L	5.0	SW846 8260D	1	06/01/2023 11:42	TMP	A
Vinyl Chloride	1.0 U	U	ug/L	1.0	SW846 8260D	1	06/01/2023 11:42	TMP	A

SURROGATES

Compound	CAS No	Recovery	Limits(%)	Analysis Date/Time	Qualifiers
1,2-Dichloroethane-d4	17060-07-0	100%	62 – 133	06/01/2023 11:42	
4-Bromofluorobenzene	460-00-4	101%	79 – 114	06/01/2023 11:42	
Dibromofluoromethane	1868-53-7	94.2%	78 – 116	06/01/2023 11:42	
Toluene-d8	2037-26-5	100%	76 – 127	06/01/2023 11:42	

Results

Client Sample ID	Trip Blank B	Collected	05/22/2023 00:00
Lab Sample ID	3304366016	Lab Receipt	05/22/2023 18:15

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	06/01/2023 12:05	TMP	A
1,1,1-Trichloroethane	1.0 U	U	ug/L	1.0	SW846 8260D	1	06/01/2023 12:05	TMP	A
1,1,2,2-Tetrachloroethane	1.0 U	U	ug/L	1.0	SW846 8260D	1	06/01/2023 12:05	TMP	A
1,1,2-Trichloroethane	1.0 U	U	ug/L	1.0	SW846 8260D	1	06/01/2023 12:05	TMP	A
1,1-Dichloroethane	1.0 U	U	ug/L	1.0	SW846 8260D	1	06/01/2023 12:05	TMP	A
1,1-Dichloroethene	1.0 U	U	ug/L	1.0	SW846 8260D	1	06/01/2023 12:05	TMP	A
1,1-Dichloropropene	1.0 U	U	ug/L	1.0	SW846 8260D	1	06/01/2023 12:05	TMP	A
1,2,3-Trichlorobenzene	2.0 U	U	ug/L	2.0	SW846 8260D	1	06/01/2023 12:05	TMP	A
1,2,3-Trichloropropane	2.0 U	U	ug/L	2.0	SW846 8260D	1	06/01/2023 12:05	TMP	A
1,2,4-Trichlorobenzene	2.0 U	U	ug/L	2.0	SW846 8260D	1	06/01/2023 12:05	TMP	A
1,2-Dibromo-3-chloropropane	7.0 U	U	ug/L	7.0	SW846 8260D	1	06/01/2023 12:05	TMP	A
1,2-Dibromoethane	1.0 U	U	ug/L	1.0	SW846 8260D	1	06/01/2023 12:05	TMP	A
1,2-Dichlorobenzene	1.0 U	U	ug/L	1.0	SW846 8260D	1	06/01/2023 12:05	TMP	A
1,2-Dichloroethane	1.0 U	U	ug/L	1.0	SW846 8260D	1	06/01/2023 12:05	TMP	A
1,2-Dichloropropane	1.0 U	U	ug/L	1.0	SW846 8260D	1	06/01/2023 12:05	TMP	A
1,3-Dichlorobenzene	1.0 U	U	ug/L	1.0	SW846 8260D	1	06/01/2023 12:05	TMP	A
1,3-Dichloropropane	1.0 U	U	ug/L	1.0	SW846 8260D	1	06/01/2023 12:05	TMP	A
1,4-Dichlorobenzene	1.0 U	U	ug/L	1.0	SW846 8260D	1	06/01/2023 12:05	TMP	A
2,2-Dichloropropane	1.0 U	U	ug/L	1.0	SW846 8260D	1	06/01/2023 12:05	TMP	A
2-Butanone	10.0 U	U	ug/L	10.0	SW846 8260D	1	06/01/2023 12:05	TMP	A
2-Hexanone	5.0 U	U	ug/L	5.0	SW846 8260D	1	06/01/2023 12:05	TMP	A
4-Methyl-2-Pentanone(MIBK)	5.0 U	U	ug/L	5.0	SW846 8260D	1	06/01/2023 12:05	TMP	A
Acetone	10.0 U	U	ug/L	10.0	SW846 8260D	1	06/01/2023 12:05	TMP	A
Benzene	1.0 U	U	ug/L	1.0	SW846 8260D	1	06/01/2023 12:05	TMP	A
Bromobenzene	1.0 U	U	ug/L	1.0	SW846 8260D	1	06/01/2023 12:05	TMP	A
Bromochloromethane	1.0 U	U	ug/L	1.0	SW846 8260D	1	06/01/2023 12:05	TMP	A
Bromodichloromethane	1.0 U	U	ug/L	1.0	SW846 8260D	1	06/01/2023 12:05	TMP	A
Bromoform	1.0 U	U	ug/L	1.0	SW846 8260D	1	06/01/2023 12:05	TMP	A
Bromomethane	1.0 U	U	ug/L	1.0	SW846 8260D	1	06/01/2023 12:05	TMP	A
Carbon Tetrachloride	1.0 U	U	ug/L	1.0	SW846 8260D	1	06/01/2023 12:05	TMP	A
Chlorobenzene	1.0 U	U	ug/L	1.0	SW846 8260D	1	06/01/2023 12:05	TMP	A
Chlorodibromomethane	1.0 U	U	ug/L	1.0	SW846 8260D	1	06/01/2023 12:05	TMP	A
Chloroethane	1.0 U	U,1	ug/L	1.0	SW846 8260D	1	06/01/2023 12:05	TMP	A
Chloroform	1.0 U	U	ug/L	1.0	SW846 8260D	1	06/01/2023 12:05	TMP	A
Chloromethane	1.0 U	U	ug/L	1.0	SW846 8260D	1	06/01/2023 12:05	TMP	A
cis-1,2-Dichloroethene	1.0 U	U	ug/L	1.0	SW846 8260D	1	06/01/2023 12:05	TMP	A
cis-1,3-Dichloropropene	1.0 U	U	ug/L	1.0	SW846 8260D	1	06/01/2023 12:05	TMP	A
Dibromomethane	1.0 U	U	ug/L	1.0	SW846 8260D	1	06/01/2023 12:05	TMP	A
Dichlorodifluoromethane	1.0 U	U	ug/L	1.0	SW846 8260D	1	06/01/2023 12:05	TMP	A
Diisopropyl ether	1.0 U	U	ug/L	1.0	SW846 8260D	1	06/01/2023 12:05	TMP	A
Ethylbenzene	1.0 U	U	ug/L	1.0	SW846 8260D	1	06/01/2023 12:05	TMP	A
Hexachlorobutadiene	5.0 U	U	ug/L	5.0	SW846 8260D	1	06/01/2023 12:05	TMP	A
Methyl t-Butyl Ether	1.0 U	U	ug/L	1.0	SW846 8260D	1	06/01/2023 12:05	TMP	A
Methylene Chloride	1.0 U	U	ug/L	1.0	SW846 8260D	1	06/01/2023 12:05	TMP	A
mp-Xylene	2.0 U	U	ug/L	2.0	SW846 8260D	1	06/01/2023 12:05	TMP	A
Naphthalene	2.0 U	U	ug/L	2.0	SW846 8260D	1	06/01/2023 12:05	TMP	A
o-Chlorotoluene	1.0 U	U	ug/L	1.0	SW846 8260D	1	06/01/2023 12:05	TMP	A

Results

Client Sample ID	Trip Blank B	Collected	05/22/2023 00:00
Lab Sample ID	3304366016	Lab Receipt	05/22/2023 18:15

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	06/01/2023 12:05	TMP	A
p-Chlorotoluene	1.0 U	U	ug/L	1.0	SW846 8260D	1	06/01/2023 12:05	TMP	A
p-Isopropyltoluene	1.0 U	U	ug/L	1.0	SW846 8260D	1	06/01/2023 12:05	TMP	A
Styrene	1.0 U	U	ug/L	1.0	SW846 8260D	1	06/01/2023 12:05	TMP	A
Tetrachloroethene	1.0 U	U	ug/L	1.0	SW846 8260D	1	06/01/2023 12:05	TMP	A
Toluene	1.0 U	U	ug/L	1.0	SW846 8260D	1	06/01/2023 12:05	TMP	A
Total Xylenes	3.0 U	U	ug/L	3.0	SW846 8260D	1	06/01/2023 12:05	TMP	A
trans-1,2-Dichloroethene	1.0 U	U	ug/L	1.0	SW846 8260D	1	06/01/2023 12:05	TMP	A
trans-1,3-Dichloropropene	1.0 U	U	ug/L	1.0	SW846 8260D	1	06/01/2023 12:05	TMP	A
Trichloroethene	1.0 U	U	ug/L	1.0	SW846 8260D	1	06/01/2023 12:05	TMP	A
Trichlorofluoromethane	1.0 U	U,2	ug/L	1.0	SW846 8260D	1	06/01/2023 12:05	TMP	A
Vinyl Acetate	5.0 U	U	ug/L	5.0	SW846 8260D	1	06/01/2023 12:05	TMP	A
Vinyl Chloride	1.0 U	U	ug/L	1.0	SW846 8260D	1	06/01/2023 12:05	TMP	A

SURROGATES

Compound	CAS No	Recovery	Limits(%)	Analysis Date/Time	Qualifiers
1,2-Dichloroethane-d4	17060-07-0	99.9%	62 – 133	06/01/2023 12:05	
4-Bromofluorobenzene	460-00-4	97.3%	79 – 114	06/01/2023 12:05	
Dibromofluoromethane	1868-53-7	95.5%	78 – 116	06/01/2023 12:05	
Toluene-d8	2037-26-5	98.6%	76 – 127	06/01/2023 12:05	

Sample - Method Cross Reference Table

Lab ID	Sample ID	Analysis Method	Preparation Method	Leachate Method
3304366001	MW-35D	SW846 8270E SIM	SW846 3510C	
		SW846 8260D	N/A	
3304366002	MW-34D	SW846 8270E SIM	SW846 3510C	
		SW846 8260D	N/A	
3304366003	MW-33D-295	SW846 8270E SIM	SW846 3510C	
		SW846 8260D	N/A	
3304366004	MW-33D-235	SW846 8270E SIM	SW846 3510C	
		SW846 8260D	N/A	
3304366005	MW-31D	SW846 8270E SIM	SW846 3510C	
		SW846 8260D	N/A	
3304366006	MW-30D-413	SW846 8270E SIM	SW846 3510C	
		SW846 8260D	N/A	
3304366007	MW-30D-273	SW846 8270E SIM	SW846 3510C	
		SW846 8260D	N/A	
3304366008	MW-29D	SW846 8270E SIM	SW846 3510C	
		SW846 8260D	N/A	
3304366009	MW-32D	SW846 8270E SIM	SW846 3510C	
		SW846 8260D	N/A	
3304366010	MW-28D	SW846 8270E SIM	SW846 3510C	
		SW846 8260D	N/A	
3304366011	MW-36D	SW846 8270E SIM	SW846 3510C	
		SW846 8260D	N/A	
3304366012	MW-25D-130	SW846 8270E SIM	SW846 3510C	
		SW846 8260D	N/A	
3304366013	DUP-052223	SW846 8270E SIM	SW846 3510C	
		SW846 8260D	N/A	
3304366014	MW-25D-190	SW846 8270E SIM	SW846 3510C	
		SW846 8260D	N/A	
3304366015	Trip Blank A	SW846 8260D	N/A	
3304366016	Trip Blank B	SW846 8260D	N/A	

QUALITY CONTROL SAMPLES

SEMIVOLATILE SIM

QC Batch

QC Batch	1005851	Prep Method	SW846 3510C
Date	05/24/2023 09:20	Analysis Method	SW846 8270E SIM
Tech.	AJW		

Associated Samples

3304366003	3304366001	3304366002	3304366005
3304366006	3304366011	3304366012	3304366007
3304366008	3304366013	3304366014	3304366009
3304366004	3304366010		

Method Blank 3673724 (MB) Created on 05/23/2023 22:44 For QC Batch 1005851

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	0.63	1	63.1	29 - 112	
Fluoranthene-d10	93951-69-0	BLK	0.81	1	81.2	45 - 130	

Lab Control Standard 3673725 (LCS) Created on 05/23/2023 22:44 For QC Batch 1005851

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	0.41		1	40.6	22 - 75		U

SURROGATES

Compound	CAS No		Result (ug/L)	Expected (ug/L)	Rec. (%)	Limits (%)	Qualifiers
2-Methylnapthalene-d10	7297-45-2	LCS	0.60	1	60.3	29 - 112	
Fluoranthene-d10	93951-69-0	LCS	0.78	1	77.6	45 - 130	

Matrix Spike 3673726 (MS) 3304366014 For QC Batch 1005851

****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 3673727 (MSD) 3304366014 For QC Batch 1005851

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	10.40	9	1.10	NC	22 - 75		
1,4-Dioxane	123-91-1	MSD	5.80	9	1	NC	22 - 75	RPD 56.80* (Max-30)	

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	MS	0.65	1.10	61.4	29 - 112	
2-Methylnapthalene-d10	7297-45-2	MSD	0.39	1	39.1	29 - 112	
Fluoranthene-d10	93951-69-0	MS	0.75	1.10	70.3	45 - 130	
Fluoranthene-d10	93951-69-0	MSD	0.65	1	64.9	45 - 130	

QUALITY CONTROL SAMPLES

VOLATILE ORGANICS

QC Batch

QC Batch	1008495	Prep Method	N/A
Date	N/A	Analysis Method	SW846 8260D
Tech.			

Associated Samples

3304366002	3304366001	3304366003	3304366004
3304366005	3304366010	3304366006	3304366011
3304366012	3304366007	3304366008	3304366013
3304366009	3304366014	3304366015	3304366016

Method Blank 3677099 (MB) Created on 06/01/2023 10:14 For QC Batch 1008495

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

QUALITY CONTROL SAMPLES

VOLATILE ORGANICS (cont.)

RESULTS

Compound	CAS No		Result	Units	RDL	Qualifiers
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	29.80	30	99.4	62 - 133	
4-Bromofluorobenzene	460-00-4	BLK	28.60	30	95.4	79 - 114	
Dibromofluoromethane	1868-53-7	BLK	28.40	30	94.6	78 - 116	
Toluene-d8	2037-26-5	BLK	29.70	30	99.1	76 - 127	

Lab Control Standard 3677100 (LCS) Created on 06/01/2023 10:14 For QC Batch 1008495

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	16.50		20	82.7	78 - 121		
1,1,1-Trichloroethane	71-55-6	LCS	20.70		20	103	66 - 130		
1,1,2,2-Tetrachloroethane	79-34-5	LCS	20.60		20	103	74 - 135		
1,1,2-Trichloroethane	79-00-5	LCS	19.90		20	99.4	82 - 126		
1,1-Dichloroethane	75-34-3	LCS	19.70		20	98.4	78 - 124		
1,1-Dichloroethene	75-35-4	LCS	22.30		20	111	63 - 128		
1,1-Dichloropropene	563-58-6	LCS	20.60		20	103	76 - 126		
1,2,3-Trichlorobenzene	87-61-6	LCS	21.90		20	110	61 - 126		
1,2,3-Trichloropropane	96-18-4	LCS	20.70		20	104	75 - 132		
1,2,4-Trichlorobenzene	120-82-1	LCS	20.70		20	104	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	17		20	85	59 - 133		
1,2-Dibromoethane	106-93-4	LCS	20.10		20	100	80 - 124		
1,2-Dichlorobenzene	95-50-1	LCS	20.40		20	102	82 - 118		
1,2-Dichloroethane	107-06-2	LCS	19.90		20	99.3	70 - 133		
1,2-Dichloropropane	78-87-5	LCS	19.50		20	97.4	81 - 127		
1,3-Dichlorobenzene	541-73-1	LCS	20		20	100	81 - 118		
1,3-Dichloropropane	142-28-9	LCS	19.80		20	98.9	82 - 126		
1,4-Dichlorobenzene	106-46-7	LCS	20.70		20	103	81 - 116		
2,2-Dichloropropane	594-20-7	LCS	20.70		20	104	64 - 129		
2-Butanone	78-93-3	LCS	107		100	107	50 - 152		
2-Hexanone	591-78-6	LCS	104		100	104	65 - 154		
4-Methyl-2-Pentanone(MIBK)	108-10-1	LCS	109		100	109	71 - 146		
Acetone	67-64-1	LCS	106		100	106	40 - 151		
Benzene	71-43-2	LCS	20.60		20	103	80 - 124		
Bromobenzene	108-86-1	LCS	20.80		20	104	81 - 119		
Bromochloromethane	74-97-5	LCS	17.80		20	89	73 - 117		
Bromodichloromethane	75-27-4	LCS	19.90		20	99.5	79 - 126		
Bromoform	75-25-2	LCS	18.80		20	94	70 - 123		
Bromomethane	74-83-9	LCS	17.20		20	85.8	45 - 148		
Carbon Tetrachloride	56-23-5	LCS	20.90		20	104	62 - 132		
Chlorobenzene	108-90-7	LCS	20.20		20	101	85 - 117		
Chlorodibromomethane	124-48-1	LCS	19.40		20	97	77 - 122		
Chloroethane	75-00-3	LCS	13.70		20	68.5	51 - 142		
Chloroform	67-66-3	LCS	21		20	105	78 - 122		
Chloromethane	74-87-3	LCS	21.90		20	110	38 - 156		
cis-1,2-Dichloroethene	156-59-2	LCS	20.40		20	102	78 - 125		
cis-1,3-Dichloropropene	10061-01-5	LCS	19.80		20	99	81 - 121		
Dibromomethane	74-95-3	LCS	20.70		20	104	81 - 125		
Dichlorodifluoromethane	75-71-8	LCS	25.30		20	127	17 - 166		
Diisopropyl ether	108-20-3	LCS	21.60		20	108	74 - 131		
Ethylbenzene	100-41-4	LCS	20.40		20	102	80 - 124		
Hexachlorobutadiene	87-68-3	LCS	24.10		20	121	55 - 128		
Methyl t-Butyl Ether	1634-04-4	LCS	21.30		20	107	69 - 115		
Methylene Chloride	75-09-2	LCS	21.80		20	109	76 - 121		
mp-Xylene	108383/106423	LCS	41.70		40	104	79 - 125		
Naphthalene	91-20-3	LCS	21.30		20	106	56 - 134		
o-Chlorotoluene	95-49-8	LCS	20.90		20	105	78 - 126		
o-Xylene	95-47-6	LCS	19.90		20	99.5	79 - 124		
p-Chlorotoluene	106-43-4	LCS	20.60		20	103	78 - 125		
p-Isopropyltoluene	99-87-6	LCS	21.70		20	108	72 - 123		
Styrene	100-42-5	LCS	21.30		20	106	79 - 123		
Tetrachloroethene	127-18-4	LCS	20.30		20	101	72 - 124		
Toluene	108-88-3	LCS	20.60		20	103	80 - 125		
Total Xylenes	1330-20-7	LCS	61.60		60	103	79 - 125		
trans-1,2-Dichloroethene	156-60-5	LCS	20.30		20	102	71 - 122		
trans-1,3-Dichloropropene	10061-02-6	LCS	20.40		20	102	78 - 126		
Trichloroethene	79-01-6	LCS	19.50		20	97.7	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	16		20	80.1	38 - 123		
Vinyl Acetate	108-05-4	LCS	19.30		20	96.6	58 - 136		
Vinyl Chloride	75-01-4	LCS	21.60		20	108	27 - 138		

SURROGATES

Compound	CAS No		Result (ug/L)	Expected (ug/L)	Rec. (%)	Limits (%)	Qualifiers
1,2-Dichloroethane-d4	17060-07-0	LCS	30	30	100	62 - 133	
4-Bromofluorobenzene	460-00-4	LCS	30.10	30	100	79 - 114	
Dibromofluoromethane	1868-53-7	LCS	30.50	30	102	78 - 116	
Toluene-d8	2037-26-5	LCS	30.40	30	101	76 - 127	

Matrix Spike 3677151 (MS) 3304366014 For QC Batch 1008495

****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 3677152 (MSD) 3304366014 For QC Batch 1008495

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	16.80	0	20	84.1	78 - 121		
1,1,1,2-Tetrachloroethane	630-20-6	MSD	16.40	0	20	81.8	78 - 121	RPD 2.74 (Max-16)	
1,1,1-Trichloroethane	71-55-6	MS	26.90	3.60	20	117	66 - 130		
1,1,1-Trichloroethane	71-55-6	MSD	25.20	3.60	20	108	66 - 130	RPD 6.52 (Max-20)	
1,1,2,2-Tetrachloroethane	79-34-5	MS	21.50	0	20	108	74 - 135		
1,1,2,2-Tetrachloroethane	79-34-5	MSD	21.50	0	20	107	74 - 135	RPD 0.34 (Max-16)	
1,1,2-Trichloroethane	79-00-5	MS	20.80	0	20	104	82 - 126		
1,1,2-Trichloroethane	79-00-5	MSD	20.90	0	20	104	82 - 126	RPD 0.50 (Max-15)	
1,1-Dichloroethane	75-34-3	MS	29.40	7.10	20	111	78 - 124		
1,1-Dichloroethane	75-34-3	MSD	28	7.10	20	104	78 - 124	RPD 4.85 (Max-15)	
1,1-Dichloroethene	75-35-4	MS	53.20	30.10	20	115	63 - 128		
1,1-Dichloroethene	75-35-4	MSD	49.90	30.10	20	98.8	63 - 128	RPD 6.44 (Max-21)	
1,1-Dichloropropene	563-58-6	MS	22.70	0	20	113	76 - 126		
1,1-Dichloropropene	563-58-6	MSD	21.30	0	20	107	76 - 126	RPD 6.15 (Max-16)	
1,2,3-Trichlorobenzene	87-61-6	MS	20.30	0	20	102	61 - 126		
1,2,3-Trichlorobenzene	87-61-6	MSD	20.80	0	20	104	61 - 126	RPD 2.24 (Max-36)	
1,2,3-Trichloropropane	96-18-4	MS	21.90	0	20	110	75 - 132		
1,2,3-Trichloropropane	96-18-4	MSD	21.80	0	20	109	75 - 132	RPD 0.55 (Max-19)	
1,2,4-Trichlorobenzene	120-82-1	MS	19.90	0	20	99.3	67 - 123		
1,2,4-Trichlorobenzene	120-82-1	MSD	20.20	0	20	101	67 - 123	RPD 1.43 (Max-22)	
1,2-Dibromo-3-chloropropane	96-12-8	MS	17.50	0	20	87.7	59 - 133		
1,2-Dibromo-3-chloropropane	96-12-8	MSD	17.10	0	20	85.7	59 - 133	RPD 2.34 (Max-26)	
1,2-Dibromoethane	106-93-4	MS	20.10	0	20	101	80 - 124		
1,2-Dibromoethane	106-93-4	MSD	20	0	20	100	80 - 124	RPD 0.47 (Max-19)	
1,2-Dichlorobenzene	95-50-1	MS	20.90	0	20	104	82 - 118		

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-Dichlorobenzene	95-50-1	MSD	20.70	0	20	104	82 - 118	RPD 0.65 (Max-15)	
1,2-Dichloroethane	107-06-2	MS	21.50	0	20	108	70 - 133		
1,2-Dichloroethane	107-06-2	MSD	20.90	0	20	104	70 - 133	RPD 3.08 (Max-19)	
1,2-Dichloropropane	78-87-5	MS	21	0	20	105	81 - 127		
1,2-Dichloropropane	78-87-5	MSD	20.40	0	20	102	81 - 127	RPD 2.93 (Max-15)	
1,3-Dichlorobenzene	541-73-1	MS	20.50	0	20	102	81 - 118		
1,3-Dichlorobenzene	541-73-1	MSD	20.10	0	20	101	81 - 118	RPD 1.68 (Max-16)	
1,3-Dichloropropane	142-28-9	MS	20.60	0	20	103	82 - 126		
1,3-Dichloropropane	142-28-9	MSD	20.10	0	20	101	82 - 126	RPD 2.30 (Max-15)	
1,4-Dichlorobenzene	106-46-7	MS	21.20	0	20	106	81 - 116		
1,4-Dichlorobenzene	106-46-7	MSD	20.70	0	20	103	81 - 116	RPD 2.64 (Max-15)	
2,2-Dichloropropane	594-20-7	MS	19.40	0	20	97.1	64 - 129		
2,2-Dichloropropane	594-20-7	MSD	18.10	0	20	90.4	64 - 129	RPD 7.17 (Max-18)	
2-Butanone	78-93-3	MS	120	0	100	120	50 - 152		
2-Butanone	78-93-3	MSD	121	0	100	121	50 - 152	RPD 0.29 (Max-16)	
2-Hexanone	591-78-6	MS	111	0	100	111	65 - 154		
2-Hexanone	591-78-6	MSD	110	0	100	110	65 - 154	RPD 0.89 (Max-17)	
4-Methyl-2-Pentanone(MIBK)	108-10-1	MS	117	0	100	117	71 - 146		
4-Methyl-2-Pentanone(MIBK)	108-10-1	MSD	116	0	100	116	71 - 146	RPD 0.76 (Max-16)	
Acetone	67-64-1	MS	109	0	100	109	40 - 151		
Acetone	67-64-1	MSD	107	0	100	107	40 - 151	RPD 1.85 (Max-40)	
Benzene	71-43-2	MS	22.10	0	20	111	80 - 124		
Benzene	71-43-2	MSD	20.70	0	20	103	80 - 124	RPD 6.92 (Max-26)	
Bromobenzene	108-86-1	MS	21.40	0	20	107	81 - 119		
Bromobenzene	108-86-1	MSD	20.90	0	20	104	81 - 119	RPD 2.58 (Max-17)	
Bromochloromethane	74-97-5	MS	18	0	20	89.9	73 - 117		
Bromochloromethane	74-97-5	MSD	17.30	0	20	86.7	73 - 117	RPD 3.66 (Max-19)	
Bromodichloromethane	75-27-4	MS	21	0	20	105	79 - 126		
Bromodichloromethane	75-27-4	MSD	19.90	0	20	99.5	79 - 126	RPD 5.33 (Max-16)	
Bromoform	75-25-2	MS	17.60	0	20	88	70 - 123		
Bromoform	75-25-2	MSD	17.70	0	20	88.4	70 - 123	RPD 0.44 (Max-16)	
Bromomethane	74-83-9	MS	16.70	0	20	83.7	45 - 148		
Bromomethane	74-83-9	MSD	16.90	0	20	84.3	45 - 148	RPD 0.66 (Max-26)	
Carbon Tetrachloride	56-23-5	MS	22.60	0	20	113	62 - 132		
Carbon Tetrachloride	56-23-5	MSD	20.40	0	20	102	62 - 132	RPD 10.40 (Max-17)	
Chlorobenzene	108-90-7	MS	21	0	20	105	85 - 117		
Chlorobenzene	108-90-7	MSD	20.10	0	20	101	85 - 117	RPD 4.04 (Max-15)	
Chlorodibromomethane	124-48-1	MS	19.20	0	20	96.2	77 - 122		
Chlorodibromomethane	124-48-1	MSD	19	0	20	95.1	77 - 122	RPD 1.18 (Max-15)	
Chloroethane	75-00-3	MS	14	0	20	70.1	51 - 142		
Chloroethane	75-00-3	MSD	13.60	0	20	68.2	51 - 142	RPD 2.69 (Max-24)	
Chloroform	67-66-3	MS	22.50	0	20	112	78 - 122		
Chloroform	67-66-3	MSD	21.70	0	20	108	78 - 122	RPD 3.62 (Max-16)	
Chloromethane	74-87-3	MS	24.50	0	20	123	38 - 156		
Chloromethane	74-87-3	MSD	22.60	0	20	113	38 - 156	RPD 8.14 (Max-27)	
cis-1,2-Dichloroethene	156-59-2	MS	22.30	0	20	111	78 - 125		
cis-1,2-Dichloroethene	156-59-2	MSD	20.80	0	20	104	78 - 125	RPD 6.91 (Max-21)	
cis-1,3-Dichloropropene	10061-01-5	MS	19.80	0	20	98.8	81 - 121		
cis-1,3-Dichloropropene	10061-01-5	MSD	19	0	20	94.8	81 - 121	RPD 4.12 (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
Dibromomethane	74-95-3	MS	21	0	20	105	81 - 125		
Dibromomethane	74-95-3	MSD	21	0	20	105	81 - 125	RPD 0.12 (Max-16)	
Dichlorodifluoromethane	75-71-8	MS	28.40	0	20	142	17 - 166		
Dichlorodifluoromethane	75-71-8	MSD	26.20	0	20	131	17 - 166	RPD 7.94 (Max-24)	
Diisopropyl ether	108-20-3	MS	23.20	0	20	116	74 - 131		
Diisopropyl ether	108-20-3	MSD	22.40	0	20	112	74 - 131	RPD 3.72 (Max-15)	
Ethylbenzene	100-41-4	MS	21.60	0	20	108	80 - 124		
Ethylbenzene	100-41-4	MSD	20.50	0	20	102	80 - 124	RPD 5.32 (Max-19)	
Hexachlorobutadiene	87-68-3	MS	22.80	0	20	114	55 - 128		
Hexachlorobutadiene	87-68-3	MSD	21.40	0	20	107	55 - 128	RPD 6.34 (Max-35)	
Methyl t-Butyl Ether	1634-04-4	MS	23.80	1.40	20	112	69 - 115		
Methyl t-Butyl Ether	1634-04-4	MSD	23.70	1.40	20	112	69 - 115	RPD 0.52 (Max-20)	
Methylene Chloride	75-09-2	MS	22.40	0	20	112	76 - 121		
Methylene Chloride	75-09-2	MSD	21.80	0	20	109	76 - 121	RPD 2.66 (Max-17)	
mp-Xylene	108383/106423	MS	43.60	0	40	109	79 - 125		
mp-Xylene	108383/106423	MSD	41.60	0	40	104	79 - 125	RPD 4.63 (Max-21)	
Naphthalene	91-20-3	MS	19.50	0	20	97.6	56 - 134		
Naphthalene	91-20-3	MSD	20.20	0	20	101	56 - 134	RPD 3.54 (Max-40)	
o-Chlorotoluene	95-49-8	MS	21.80	0	20	109	78 - 126		
o-Chlorotoluene	95-49-8	MSD	21.40	0	20	107	78 - 126	RPD 1.92 (Max-17)	
o-Xylene	95-47-6	MS	21	0	20	105	79 - 124		
o-Xylene	95-47-6	MSD	20.30	0	20	101	79 - 124	RPD 3.59 (Max-19)	
p-Chlorotoluene	106-43-4	MS	21.30	0	20	107	78 - 125		
p-Chlorotoluene	106-43-4	MSD	20.80	0	20	104	78 - 125	RPD 2.46 (Max-16)	
p-Isopropyltoluene	99-87-6	MS	22.30	0	20	112	72 - 123		
p-Isopropyltoluene	99-87-6	MSD	22.60	0	20	113	72 - 123	RPD 1.10 (Max-17)	
Styrene	100-42-5	MS	21.40	0	20	107	79 - 123		
Styrene	100-42-5	MSD	20.80	0	20	104	79 - 123	RPD 2.77 (Max-16)	
Tetrachloroethene	127-18-4	MS	20.90	0	20	105	72 - 124		
Tetrachloroethene	127-18-4	MSD	19.90	0	20	99.3	72 - 124	RPD 5.32 (Max-38)	
Toluene	108-88-3	MS	21.70	0	20	108	80 - 125		
Toluene	108-88-3	MSD	20.50	0	20	103	80 - 125	RPD 5.46 (Max-20)	
Total Xylenes	1330-20-7	MS	64.70	0	60	108	79 - 125		
Total Xylenes	1330-20-7	MSD	61.90	0	60	103	79 - 125	RPD 4.29 (Max-35)	
trans-1,2-Dichloroethene	156-60-5	MS	22.80	0	20	114	71 - 122		
trans-1,2-Dichloroethene	156-60-5	MSD	20.90	0	20	105	71 - 122	RPD 8.73 (Max-22)	
trans-1,3-Dichloropropene	10061-02-6	MS	20.10	0	20	101	78 - 126		
trans-1,3-Dichloropropene	10061-02-6	MSD	19.90	0	20	99.5	78 - 126	RPD 0.98 (Max-18)	
Trichloroethene	79-01-6	MS	21.70	0	20	108	77 - 124		
Trichloroethene	79-01-6	MSD	20.30	0	20	102	77 - 124	RPD 6.42 (Max-18)	
Trichlorofluoromethane	75-69-4	MS	16.90	0	20	84.5	38 - 123		
Trichlorofluoromethane	75-69-4	MSD	15.80	0	20	79	38 - 123	RPD 6.67 (Max-23)	
Vinyl Acetate	108-05-4	MS	15.90	0	20	79.6	58 - 136		
Vinyl Acetate	108-05-4	MSD	16.20	0	20	80.8	58 - 136	RPD 1.45 (Max-17)	
Vinyl Chloride	75-01-4	MS	24.30	0	20	121	27 - 138		
Vinyl Chloride	75-01-4	MSD	22	0	20	110	27 - 138	RPD 9.79 (Max-40)	

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	MS	30.40	30	101	62 - 133	
1,2-Dichloroethane-d4	17060-07-0	MSD	30.30	30	101	62 - 133	
4-Bromofluorobenzene	460-00-4	MS	29.90	30	99.6	79 - 114	
4-Bromofluorobenzene	460-00-4	MSD	29.80	30	99.5	79 - 114	
Dibromofluoromethane	1868-53-7	MS	30.20	30	101	78 - 116	
Dibromofluoromethane	1868-53-7	MSD	29.80	30	99.3	78 - 116	
Toluene-d8	2037-26-5	MS	29.50	30	98.4	76 - 127	
Toluene-d8	2037-26-5	MSD	29.60	30	98.6	76 - 127	

QUALITY CONTROL DATA CROSS REFERENCE TABLE

Lab ID	Sample ID	Preparation Method	Prep Batch	Prep Date/Time	By	Analysis Method	Anly Batch
3304366001	MW-35D	SW846 3510C N/A	1005851 N/A	05/24/2023 09:20 N/A	AJW	SW846 8270E SIM SW846 8260D	1006130 1008495
3304366002	MW-34D	SW846 3510C N/A	1005851 N/A	05/24/2023 09:20 N/A	AJW	SW846 8270E SIM SW846 8260D	1006130 1008495
3304366003	MW-33D-295	SW846 3510C N/A	1005851 N/A	05/24/2023 09:20 N/A	AJW	SW846 8270E SIM SW846 8260D	1006130 1008495
3304366004	MW-33D-235	SW846 3510C N/A	1005851 N/A	05/24/2023 09:20 N/A	AJW	SW846 8270E SIM SW846 8260D	1006130 1008495
3304366005	MW-31D	SW846 3510C N/A	1005851 N/A	05/24/2023 09:20 N/A	AJW	SW846 8270E SIM SW846 8260D	1006130 1008495
3304366006	MW-30D-413	SW846 3510C N/A	1005851 N/A	05/24/2023 09:20 N/A	AJW	SW846 8270E SIM SW846 8260D	1006130 1008495
3304366007	MW-30D-273	SW846 3510C N/A	1005851 N/A	05/24/2023 09:20 N/A	AJW	SW846 8270E SIM SW846 8260D	1006130 1008495
3304366008	MW-29D	SW846 3510C N/A	1005851 N/A	05/24/2023 09:20 N/A	AJW	SW846 8270E SIM SW846 8260D	1006130 1008495
3304366009	MW-32D	SW846 3510C N/A	1005851 N/A	05/24/2023 09:20 N/A	AJW	SW846 8270E SIM SW846 8260D	1006130 1008495
3304366010	MW-28D	SW846 3510C N/A	1005851 N/A	05/24/2023 09:20 N/A	AJW	SW846 8270E SIM SW846 8260D	1006130 1008495
3304366011	MW-36D	SW846 3510C N/A	1005851 N/A	05/24/2023 09:20 N/A	AJW	SW846 8270E SIM SW846 8260D	1006130 1008495
3304366012	MW-25D-130	SW846 3510C N/A	1005851 N/A	05/24/2023 09:20 N/A	AJW	SW846 8270E SIM SW846 8260D	1006130 1008495
3304366013	DUP-052223	SW846 3510C N/A	1005851 N/A	05/24/2023 09:20 N/A	AJW	SW846 8270E SIM SW846 8260D	1006130 1008495
3304366014	MW-25D-190	SW846 3510C N/A	1005851 N/A	05/24/2023 09:20 N/A	AJW	SW846 8270E SIM SW846 8260D	1006130 1008495
3304366015	Trip Blank A	N/A	N/A	N/A		SW846 8260D	1008495
3304366016	Trip Blank B	N/A	N/A	N/A		SW846 8260D	1008495

6/5/2023 3:08 PM

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 CLIEI SAMPLER. INSTRUCTIONS ON THE BACK.

3304366
Logged By: SLS
PM: SJB

04366

1 of 2

Client Name: WSP

Address: 13530 Dulles Technology Dr Suite 300 Herndon VA 20171

Contact: Eric Johnson
Phone#: (709)703-6500
Project Name/#: Kop-Flex offsite/31405608:0011
Bill To:
Purchase Order #:

TAT: [X] Normal-Standard TAT is 10-12 business days. [ ] Rush-Subject to ALS approval and surcharges.
Date Required: Approved?
Email? [ ] eric.johnson@wsp.com

	Container Type	VOA	AG							
	Container Size	40mL	250mL							
	Preservative	HCl	None							

Orthophosphate Filtered? Y N (NA) Hexavalent Chromium Filtered? Y N (NA)

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 8260	1,4 Dioxane 8270E								
	Enter Number of Containers Per Sample or Field Results Below.															
1	MW-35D	5/22/23	0825		G	GW	2X	2X								
2	MW-34D	5/22/23	0900		G	GW	2X	2X								
3	MW-33D-295	5/22/23	0920		G	GW	2X	2X								
4	MW-33D-235	5/22/23	0935		G	GW	2X	2X								
5	MW-31D	5/22/23	0950		G	GW	2X	2X								
6	MW-30D-413	5/22/23	1010		G	GW	2X	2X								
7	MW-30D-273	5/22/23	1020		G	GW	2X	2X								
8	MW-29D	5/22/23	1045		G	GW	2X	2X								
9	MW-32D	5/22/23	1105		G	GW	2X	2X								
10	MW-28D	5/22/23	1225		G	GW	2X	2X								

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

Comments: DPB 5/22/23

Date:	Time		Relinquished By / Company Name		Received By / Company Name
5/22/23	1505	1	Elliott M WSP	2	
5/22/23	1615	3	Herndon	4	
		5		6	
		7		8	
		9		10	

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
Deviations? NO YES
If YES, list below:

Temp By: JPB | WO Temp (°C) 3° | Therm ID 570

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 Headspace Present	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

Client contact:
Date/Tech:

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

Entry Point
R=Raw P=Plant C=Check S=Special A=Annual Startup

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 11.14.22

B B A B B B B B A

6/5/2023 3:08 PM

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 #: 3304346 — 2 of 2
ALS Quote #:

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

Orthophosphate Filtered? Y N (NA) Hexavalent Chromium Filtered? Y N (NA)

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)	Container Type	Container Size	Preservative	VOC 8260	1,4 Dioxane 8270E								
							VOA	AG		HCl	None								
							40mL	250											
1	MW-36D	5/22/23	1240		G	GW	2	2											
2	MW-25D-130	5/22/23	1345		G	GW	2	2											
3	DUP-052223	5/22/23	1130		G	GW	2	2											
4	MW-25D-190	5/22/23	1400		G	GW	2	2											
5	MW-25D-190MS/MSD	5/22/23	1410		G	GW	4	2											
6	Trip Blank A							2											
7	Trip Blank B							2											
8																			
9																			
10																			

Enter Number of Containers Per Sample or Field Results Below.

DOD 5/22/23

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

Comments: MS/MSD has 6 total bottles

Date:	Time		Relinquished By / Company Name		Received By / Company Name
5/22/23	1505	1	Elliott M / WSP	2	
5/22/23	1715	3		4	
		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: Headspace Present	Y	N	NA
VOA only: Trip Blank	Y	N	NA

Deviations? NO YES
If YES, llist below:

NJ ≤ 4 days? Y N
Courier/Tracking #:
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

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

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

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

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

Project Former KOP-Flex Facility Onsit
Workorder 3313252
Report ID 259848 on 7/27/2023

Certificate of Analysis

Enclosed are the analytical results for samples received by the laboratory on Jul 15, 2023.

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.

This laboratory report may not be reproduced, except in full, without the written approval of ALS Global.
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
3313252001	MW-45	Ground Water	07/14/2023 10:25	07/15/2023 09:28	CBC	Collected By Client
3313252002	MW-24D	Ground Water	07/14/2023 10:40	07/15/2023 09:28	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.

Detected Results Summary

Client Sample ID	MW-24D	Collected	07/14/2023 10:40
Lab Sample ID	3313252002	Lab Receipt	07/15/2023 09:28

Compound	Result	Units	RDL	Method	Flag
SEMIVOLATILE SIM					
1,4-Dioxane	89.9	ug/L	26.0	SW846 8270E SIM	#
VOLATILE ORGANICS					
1,1,1-Trichloroethane	14.8	ug/L	1.0	SW846 8260D	#
1,1,2-Trichloroethane	1.1	ug/L	1.0	SW846 8260D	#
1,1-Dichloroethane	110	ug/L	1.0	SW846 8260D	#
1,1-Dichloroethene	954	ug/L	50.0	SW846 8260D	#
1,2-Dichloroethane	7.1	ug/L	1.0	SW846 8260D	#
Chloroethane	1.6	ug/L	1.0	SW846 8260D	#
cis-1,2-Dichloroethene	4.8	ug/L	1.0	SW846 8260D	#
Tetrachloroethene	1.1	ug/L	1.0	SW846 8260D	#
Trichloroethene	7.3	ug/L	1.0	SW846 8260D	#

Results

Client Sample ID	MW-45	Collected	07/14/2023 10:25
Lab Sample ID	3313252001	Lab Receipt	07/15/2023 09:28

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	07/25/2023 11:21	S7M	C

SURROGATES

Compound	CAS No	Recovery	Limits(%)	Analysis Date/Time	Qualifiers
2-Methylnapthalene-d10	7297-45-2	58.3%	29 – 112	07/25/2023 11:21	
Fluoranthene-d10	93951-69-0	80.8%	45 – 130	07/25/2023 11:21	

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	07/20/2023 19:58	AGL	A
1,1,1-Trichloroethane	1.0 U	U	ug/L	1.0	SW846 8260D	1	07/20/2023 19:58	AGL	A
1,1,2,2-Tetrachloroethane	1.0 U	U	ug/L	1.0	SW846 8260D	1	07/20/2023 19:58	AGL	A
1,1,2-Trichloroethane	1.0 U	U	ug/L	1.0	SW846 8260D	1	07/20/2023 19:58	AGL	A
1,1-Dichloroethane	1.0 U	U	ug/L	1.0	SW846 8260D	1	07/20/2023 19:58	AGL	A
1,1-Dichloroethene	1.0 U	U	ug/L	1.0	SW846 8260D	1	07/20/2023 19:58	AGL	A
1,1-Dichloropropene	1.0 U	U	ug/L	1.0	SW846 8260D	1	07/20/2023 19:58	AGL	A
1,2,3-Trichlorobenzene	2.0 U	U	ug/L	2.0	SW846 8260D	1	07/20/2023 19:58	AGL	A
1,2,3-Trichloropropane	2.0 U	U	ug/L	2.0	SW846 8260D	1	07/20/2023 19:58	AGL	A
1,2,4-Trichlorobenzene	2.0 U	U	ug/L	2.0	SW846 8260D	1	07/20/2023 19:58	AGL	A
1,2-Dibromo-3-chloropropane	7.0 U	U	ug/L	7.0	SW846 8260D	1	07/20/2023 19:58	AGL	A
1,2-Dibromoethane	1.0 U	U	ug/L	1.0	SW846 8260D	1	07/20/2023 19:58	AGL	A
1,2-Dichlorobenzene	1.0 U	U	ug/L	1.0	SW846 8260D	1	07/20/2023 19:58	AGL	A
1,2-Dichloroethane	1.0 U	U	ug/L	1.0	SW846 8260D	1	07/20/2023 19:58	AGL	A
1,2-Dichloropropane	1.0 U	U	ug/L	1.0	SW846 8260D	1	07/20/2023 19:58	AGL	A
1,3-Dichlorobenzene	1.0 U	U	ug/L	1.0	SW846 8260D	1	07/20/2023 19:58	AGL	A
1,3-Dichloropropane	1.0 U	U	ug/L	1.0	SW846 8260D	1	07/20/2023 19:58	AGL	A
1,4-Dichlorobenzene	1.0 U	U	ug/L	1.0	SW846 8260D	1	07/20/2023 19:58	AGL	A
2,2-Dichloropropane	1.0 U	U	ug/L	1.0	SW846 8260D	1	07/20/2023 19:58	AGL	A
2-Butanone	10.0 U	U	ug/L	10.0	SW846 8260D	1	07/20/2023 19:58	AGL	A
2-Hexanone	5.0 U	U	ug/L	5.0	SW846 8260D	1	07/20/2023 19:58	AGL	A
4-Methyl-2-Pentanone(MIBK)	5.0 U	U	ug/L	5.0	SW846 8260D	1	07/20/2023 19:58	AGL	A
Acetone	10.0 U	U	ug/L	10.0	SW846 8260D	1	07/20/2023 19:58	AGL	A
Benzene	1.0 U	U	ug/L	1.0	SW846 8260D	1	07/20/2023 19:58	AGL	A
Bromobenzene	1.0 U	U	ug/L	1.0	SW846 8260D	1	07/20/2023 19:58	AGL	A
Bromochloromethane	1.0 U	U	ug/L	1.0	SW846 8260D	1	07/20/2023 19:58	AGL	A
Bromodichloromethane	1.0 U	U	ug/L	1.0	SW846 8260D	1	07/20/2023 19:58	AGL	A
Bromoform	1.0 U	U	ug/L	1.0	SW846 8260D	1	07/20/2023 19:58	AGL	A
Bromomethane	1.0 U	U	ug/L	1.0	SW846 8260D	1	07/20/2023 19:58	AGL	A
Carbon Tetrachloride	1.0 U	U	ug/L	1.0	SW846 8260D	1	07/20/2023 19:58	AGL	A
Chlorobenzene	1.0 U	U	ug/L	1.0	SW846 8260D	1	07/20/2023 19:58	AGL	A
Chlorodibromomethane	1.0 U	U	ug/L	1.0	SW846 8260D	1	07/20/2023 19:58	AGL	A
Chloroethane	1.0 U	U	ug/L	1.0	SW846 8260D	1	07/20/2023 19:58	AGL	A
Chloroform	1.0 U	U	ug/L	1.0	SW846 8260D	1	07/20/2023 19:58	AGL	A
Chloromethane	1.0 U	U	ug/L	1.0	SW846 8260D	1	07/20/2023 19:58	AGL	A

Results

Client Sample ID	MW-45	Collected	07/14/2023 10:25
Lab Sample ID	3313252001	Lab Receipt	07/15/2023 09:28

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	07/20/2023 19:58	AGL	A
cis-1,3-Dichloropropene	1.0 U	U	ug/L	1.0	SW846 8260D	1	07/20/2023 19:58	AGL	A
Dibromomethane	1.0 U	U	ug/L	1.0	SW846 8260D	1	07/20/2023 19:58	AGL	A
Dichlorodifluoromethane	1.0 U	U	ug/L	1.0	SW846 8260D	1	07/20/2023 19:58	AGL	A
Diisopropyl ether	1.0 U	U	ug/L	1.0	SW846 8260D	1	07/20/2023 19:58	AGL	A
Ethylbenzene	1.0 U	U	ug/L	1.0	SW846 8260D	1	07/20/2023 19:58	AGL	A
Hexachlorobutadiene	5.0 U	U	ug/L	5.0	SW846 8260D	1	07/20/2023 19:58	AGL	A
Methyl t-Butyl Ether	1.0 U	U	ug/L	1.0	SW846 8260D	1	07/20/2023 19:58	AGL	A
Methylene Chloride	1.0 U	U	ug/L	1.0	SW846 8260D	1	07/20/2023 19:58	AGL	A
mp-Xylene	2.0 U	U	ug/L	2.0	SW846 8260D	1	07/20/2023 19:58	AGL	A
Naphthalene	2.0 U	U	ug/L	2.0	SW846 8260D	1	07/20/2023 19:58	AGL	A
o-Chlorotoluene	1.0 U	U	ug/L	1.0	SW846 8260D	1	07/20/2023 19:58	AGL	A
o-Xylene	1.0 U	U	ug/L	1.0	SW846 8260D	1	07/20/2023 19:58	AGL	A
p-Chlorotoluene	1.0 U	U	ug/L	1.0	SW846 8260D	1	07/20/2023 19:58	AGL	A
p-Isopropyltoluene	1.0 U	U	ug/L	1.0	SW846 8260D	1	07/20/2023 19:58	AGL	A
Styrene	1.0 U	U	ug/L	1.0	SW846 8260D	1	07/20/2023 19:58	AGL	A
Tetrachloroethene	1.0 U	U	ug/L	1.0	SW846 8260D	1	07/20/2023 19:58	AGL	A
Toluene	1.0 U	U	ug/L	1.0	SW846 8260D	1	07/20/2023 19:58	AGL	A
Total Xylenes	3.0 U	U	ug/L	3.0	SW846 8260D	1	07/20/2023 19:58	AGL	A
trans-1,2-Dichloroethene	1.0 U	U	ug/L	1.0	SW846 8260D	1	07/20/2023 19:58	AGL	A
trans-1,3-Dichloropropene	1.0 U	U	ug/L	1.0	SW846 8260D	1	07/20/2023 19:58	AGL	A
Trichloroethene	1.0 U	U	ug/L	1.0	SW846 8260D	1	07/20/2023 19:58	AGL	A
Trichlorofluoromethane	1.0 U	U	ug/L	1.0	SW846 8260D	1	07/20/2023 19:58	AGL	A
Vinyl Acetate	5.0 U	U	ug/L	5.0	SW846 8260D	1	07/20/2023 19:58	AGL	A
Vinyl Chloride	1.0 U	U	ug/L	1.0	SW846 8260D	1	07/20/2023 19:58	AGL	A

SURROGATES

Compound	CAS No	Recovery	Limits(%)	Analysis Date/Time	Qualifiers
1,2-Dichloroethane-d4	17060-07-0	99.1%	62 – 133	07/20/2023 19:58	
4-Bromofluorobenzene	460-00-4	96.1%	79 – 114	07/20/2023 19:58	
Dibromofluoromethane	1868-53-7	97.9%	78 – 116	07/20/2023 19:58	
Toluene-d8	2037-26-5	93.9%	76 – 127	07/20/2023 19:58	

Results

Client Sample ID	MW-24D	Collected	07/14/2023 10:40
Lab Sample ID	3313252002	Lab Receipt	07/15/2023 09:28

SEMIVOLATILE SIM

Compound	Result	Flag	Units	RDL	Method	Dilution	Analysis Date/Time	By	Cntr
1,4-Dioxane	89.9		ug/L	26.0	SW846 8270E SIM	25	07/27/2023 11:21	S7M	C

SURROGATES

Compound	CAS No	Recovery	Limits(%)	Analysis Date/Time	Qualifiers
2-Methylnapthalene-d10	7297-45-2	51.1%	29 – 112	07/25/2023 11:48	
2-Methylnapthalene-d10	7297-45-2	48.2%	29 – 112	07/27/2023 11:21	
Fluoranthene-d10	93951-69-0	80.7%	45 – 130	07/25/2023 11:48	
Fluoranthene-d10	93951-69-0	79.9%	45 – 130	07/27/2023 11:21	

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	07/20/2023 20:22	AGL	A
1,1,1-Trichloroethane	14.8		ug/L	1.0	SW846 8260D	1	07/20/2023 20:22	AGL	A
1,1,2,2-Tetrachloroethane	1.0 U	U	ug/L	1.0	SW846 8260D	1	07/20/2023 20:22	AGL	A
1,1,2-Trichloroethane	1.1		ug/L	1.0	SW846 8260D	1	07/20/2023 20:22	AGL	A
1,1-Dichloroethane	110		ug/L	1.0	SW846 8260D	1	07/20/2023 20:22	AGL	A
1,1-Dichloroethene	954		ug/L	50.0	SW846 8260D	50	07/25/2023 19:47	ILY	A
1,1-Dichloropropene	1.0 U	U	ug/L	1.0	SW846 8260D	1	07/20/2023 20:22	AGL	A
1,2,3-Trichlorobenzene	2.0 U	U	ug/L	2.0	SW846 8260D	1	07/20/2023 20:22	AGL	A
1,2,3-Trichloropropane	2.0 U	U	ug/L	2.0	SW846 8260D	1	07/20/2023 20:22	AGL	A
1,2,4-Trichlorobenzene	2.0 U	U	ug/L	2.0	SW846 8260D	1	07/20/2023 20:22	AGL	A
1,2-Dibromo-3-chloropropane	7.0 U	U	ug/L	7.0	SW846 8260D	1	07/20/2023 20:22	AGL	A
1,2-Dibromoethane	1.0 U	U	ug/L	1.0	SW846 8260D	1	07/20/2023 20:22	AGL	A
1,2-Dichlorobenzene	1.0 U	U	ug/L	1.0	SW846 8260D	1	07/20/2023 20:22	AGL	A
1,2-Dichloroethane	7.1		ug/L	1.0	SW846 8260D	1	07/20/2023 20:22	AGL	A
1,2-Dichloropropane	1.0 U	U	ug/L	1.0	SW846 8260D	1	07/20/2023 20:22	AGL	A
1,3-Dichlorobenzene	1.0 U	U	ug/L	1.0	SW846 8260D	1	07/20/2023 20:22	AGL	A
1,3-Dichloropropane	1.0 U	U	ug/L	1.0	SW846 8260D	1	07/20/2023 20:22	AGL	A
1,4-Dichlorobenzene	1.0 U	U	ug/L	1.0	SW846 8260D	1	07/20/2023 20:22	AGL	A
2,2-Dichloropropane	1.0 U	U	ug/L	1.0	SW846 8260D	1	07/20/2023 20:22	AGL	A
2-Butanone	10.0 U	U	ug/L	10.0	SW846 8260D	1	07/20/2023 20:22	AGL	A
2-Hexanone	5.0 U	U	ug/L	5.0	SW846 8260D	1	07/20/2023 20:22	AGL	A
4-Methyl-2-Pentanone(MIBK)	5.0 U	U	ug/L	5.0	SW846 8260D	1	07/20/2023 20:22	AGL	A
Acetone	10.0 U	U	ug/L	10.0	SW846 8260D	1	07/20/2023 20:22	AGL	A
Benzene	1.0 U	U	ug/L	1.0	SW846 8260D	1	07/20/2023 20:22	AGL	A
Bromobenzene	1.0 U	U	ug/L	1.0	SW846 8260D	1	07/20/2023 20:22	AGL	A
Bromochloromethane	1.0 U	U	ug/L	1.0	SW846 8260D	1	07/20/2023 20:22	AGL	A
Bromodichloromethane	1.0 U	U	ug/L	1.0	SW846 8260D	1	07/20/2023 20:22	AGL	A
Bromoform	1.0 U	U	ug/L	1.0	SW846 8260D	1	07/20/2023 20:22	AGL	A
Bromomethane	1.0 U	U	ug/L	1.0	SW846 8260D	1	07/20/2023 20:22	AGL	A
Carbon Tetrachloride	1.0 U	U	ug/L	1.0	SW846 8260D	1	07/20/2023 20:22	AGL	A
Chlorobenzene	1.0 U	U	ug/L	1.0	SW846 8260D	1	07/20/2023 20:22	AGL	A
Chlorodibromomethane	1.0 U	U	ug/L	1.0	SW846 8260D	1	07/20/2023 20:22	AGL	A
Chloroethane	1.6		ug/L	1.0	SW846 8260D	1	07/20/2023 20:22	AGL	A

Results

Client Sample ID	MW-24D	Collected	07/14/2023 10:40
Lab Sample ID	3313252002	Lab Receipt	07/15/2023 09:28

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	07/20/2023 20:22	AGL	A
Chloromethane	1.0 U	U	ug/L	1.0	SW846 8260D	1	07/20/2023 20:22	AGL	A
cis-1,2-Dichloroethene	4.8		ug/L	1.0	SW846 8260D	1	07/20/2023 20:22	AGL	A
cis-1,3-Dichloropropene	1.0 U	U	ug/L	1.0	SW846 8260D	1	07/20/2023 20:22	AGL	A
Dibromomethane	1.0 U	U	ug/L	1.0	SW846 8260D	1	07/20/2023 20:22	AGL	A
Dichlorodifluoromethane	1.0 U	U	ug/L	1.0	SW846 8260D	1	07/20/2023 20:22	AGL	A
Diisopropyl ether	1.0 U	U	ug/L	1.0	SW846 8260D	1	07/20/2023 20:22	AGL	A
Ethylbenzene	1.0 U	U	ug/L	1.0	SW846 8260D	1	07/20/2023 20:22	AGL	A
Hexachlorobutadiene	5.0 U	U	ug/L	5.0	SW846 8260D	1	07/20/2023 20:22	AGL	A
Methyl t-Butyl Ether	1.0 U	U	ug/L	1.0	SW846 8260D	1	07/20/2023 20:22	AGL	A
Methylene Chloride	1.0 U	U	ug/L	1.0	SW846 8260D	1	07/20/2023 20:22	AGL	A
mp-Xylene	2.0 U	U	ug/L	2.0	SW846 8260D	1	07/20/2023 20:22	AGL	A
Naphthalene	2.0 U	U	ug/L	2.0	SW846 8260D	1	07/20/2023 20:22	AGL	A
o-Chlorotoluene	1.0 U	U	ug/L	1.0	SW846 8260D	1	07/20/2023 20:22	AGL	A
o-Xylene	1.0 U	U	ug/L	1.0	SW846 8260D	1	07/20/2023 20:22	AGL	A
p-Chlorotoluene	1.0 U	U	ug/L	1.0	SW846 8260D	1	07/20/2023 20:22	AGL	A
p-Isopropyltoluene	1.0 U	U	ug/L	1.0	SW846 8260D	1	07/20/2023 20:22	AGL	A
Styrene	1.0 U	U	ug/L	1.0	SW846 8260D	1	07/20/2023 20:22	AGL	A
Tetrachloroethene	1.1		ug/L	1.0	SW846 8260D	1	07/20/2023 20:22	AGL	A
Toluene	1.0 U	U	ug/L	1.0	SW846 8260D	1	07/20/2023 20:22	AGL	A
Total Xylenes	3.0 U	U	ug/L	3.0	SW846 8260D	1	07/20/2023 20:22	AGL	A
trans-1,2-Dichloroethene	1.0 U	U	ug/L	1.0	SW846 8260D	1	07/20/2023 20:22	AGL	A
trans-1,3-Dichloropropene	1.0 U	U	ug/L	1.0	SW846 8260D	1	07/20/2023 20:22	AGL	A
Trichloroethene	7.3		ug/L	1.0	SW846 8260D	1	07/20/2023 20:22	AGL	A
Trichlorofluoromethane	1.0 U	U	ug/L	1.0	SW846 8260D	1	07/20/2023 20:22	AGL	A
Vinyl Acetate	5.0 U	U	ug/L	5.0	SW846 8260D	1	07/20/2023 20:22	AGL	A
Vinyl Chloride	1.0 U	U	ug/L	1.0	SW846 8260D	1	07/20/2023 20:22	AGL	A

SURROGATES

Compound	CAS No	Recovery	Limits(%)	Analysis Date/Time	Qualifiers
1,2-Dichloroethane-d4	17060-07-0	101%	62 – 133	07/20/2023 20:22	
1,2-Dichloroethane-d4	17060-07-0	97.1%	62 – 133	07/25/2023 19:47	
4-Bromofluorobenzene	460-00-4	92.1%	79 – 114	07/20/2023 20:22	
4-Bromofluorobenzene	460-00-4	105%	79 – 114	07/25/2023 19:47	
Dibromofluoromethane	1868-53-7	98.1%	78 – 116	07/20/2023 20:22	
Dibromofluoromethane	1868-53-7	98.3%	78 – 116	07/25/2023 19:47	
Toluene-d8	2037-26-5	95.4%	76 – 127	07/20/2023 20:22	
Toluene-d8	2037-26-5	105%	76 – 127	07/25/2023 19:47	

Sample - Method Cross Reference Table

Lab ID	Sample ID	Analysis Method	Preparation Method	Leachate Method
3313252001	MW-45	SW846 8270E SIM	SW846 3510C	
		SW846 8260D	N/A	
3313252002	MW-24D	SW846 8270E SIM	SW846 3510C	
		SW846 8260D	N/A	
		SW846 8260D	N/A	

QUALITY CONTROL SAMPLES

SEMIVOLATILE SIM

QC Batch

QC Batch	1026361	Prep Method	SW846 3510C
Date	07/18/2023 10:00	Analysis Method	SW846 8270E SIM
Tech.	LDC		

Associated Samples

3313252001 3313252002

Method Blank 3696153 (MB) Created on 07/18/2023 08:13 For QC Batch 1026361

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	0.75	1	74.8	29 - 112	
Fluoranthene-d10	93951-69-0	BLK	0.96	1	96.5	45 - 130	

Lab Control Standard 3696154 (LCS) Created on 07/18/2023 08:13 For QC Batch 1026361

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	0.52		1	51.9	22 - 75		U

SURROGATES

Compound	CAS No		Result (ug/L)	Expected (ug/L)	Rec. (%)	Limits (%)	Qualifiers
2-Methylnapthalene-d10	7297-45-2	LCS	0.69	1	69.5	29 - 112	
Fluoranthene-d10	93951-69-0	LCS	0.88	1	88.1	45 - 130	

QUALITY CONTROL SAMPLES

VOLATILE ORGANICS

QC Batch

QC Batch	1027691	Prep Method	N/A
Date	N/A	Analysis Method	SW846 8260D
Tech.			

Associated Samples

3313252001 3313252002

Matrix Spike 3697459 (MS) 3313459001 (non-Project Sample) For QC Batch 1027691

****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 3697460 (MSD) 3313459001 (non-Project Sample) For QC Batch 1027691

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	21.90	0	20	109	78 - 121		
1,1,1,2-Tetrachloroethane	630-20-6	MSD	22.10	0	20	110	78 - 121	RPD 0.72 (Max-16)	
1,1,1-Trichloroethane	71-55-6	MS	24.40	0	20	122	66 - 130		
1,1,1-Trichloroethane	71-55-6	MSD	23.70	0	20	119	66 - 130	RPD 2.79 (Max-20)	
1,1,2,2-Tetrachloroethane	79-34-5	MS	22.10	0	20	111	74 - 135		
1,1,2,2-Tetrachloroethane	79-34-5	MSD	23.30	0	20	116	74 - 135	RPD 5.13 (Max-16)	
1,1,2-Trichloroethane	79-00-5	MS	21.90	0	20	109	82 - 126		
1,1,2-Trichloroethane	79-00-5	MSD	22.40	0	20	112	82 - 126	RPD 2.56 (Max-15)	
1,1-Dichloroethane	75-34-3	MS	23.60	0	20	118	78 - 124		
1,1-Dichloroethane	75-34-3	MSD	23.20	0	20	116	78 - 124	RPD 1.96 (Max-15)	
1,1-Dichloroethene	75-35-4	MS	28.80	0	20	144*	63 - 128		
1,1-Dichloroethene	75-35-4	MSD	26.30	0	20	132*	63 - 128	RPD 8.93 (Max-21)	
1,1-Dichloropropene	563-58-6	MS	24.40	0	20	122	76 - 126		
1,1-Dichloropropene	563-58-6	MSD	23.80	0	20	119	76 - 126	RPD 2.49 (Max-16)	
1,2,3-Trichlorobenzene	87-61-6	MS	20.70	0	20	104	61 - 126		
1,2,3-Trichlorobenzene	87-61-6	MSD	21.30	0	20	106	61 - 126	RPD 2.69 (Max-36)	
1,2,3-Trichloropropane	96-18-4	MS	21.10	0	20	105	75 - 132		
1,2,3-Trichloropropane	96-18-4	MSD	21.70	0	20	109	75 - 132	RPD 3.13 (Max-19)	
1,2,4-Trichlorobenzene	120-82-1	MS	20.50	0	20	102	67 - 123		
1,2,4-Trichlorobenzene	120-82-1	MSD	21	0	20	105	67 - 123	RPD 2.60 (Max-22)	
1,2-Dibromo-3-chloropropane	96-12-8	MS	19.30	0	20	96.7	59 - 133		
1,2-Dibromo-3-chloropropane	96-12-8	MSD	20.50	0	20	103	59 - 133	RPD 6.01 (Max-26)	
1,2-Dibromoethane	106-93-4	MS	21	0	20	105	80 - 124		
1,2-Dibromoethane	106-93-4	MSD	21.60	0	20	108	80 - 124	RPD 3.04 (Max-19)	
1,2-Dichlorobenzene	95-50-1	MS	21	0	20	105	82 - 118		
1,2-Dichlorobenzene	95-50-1	MSD	21.40	0	20	107	82 - 118	RPD 1.88 (Max-15)	
1,2-Dichloroethane	107-06-2	MS	21.50	0	20	108	70 - 133		
1,2-Dichloroethane	107-06-2	MSD	21.80	0	20	109	70 - 133	RPD 1.18 (Max-19)	
1,2-Dichloropropane	78-87-5	MS	22.80	0	20	114	81 - 127		
1,2-Dichloropropane	78-87-5	MSD	22.60	0	20	113	81 - 127	RPD 0.84 (Max-15)	
1,3-Dichlorobenzene	541-73-1	MS	20.90	0	20	105	81 - 118		
1,3-Dichlorobenzene	541-73-1	MSD	21.30	0	20	106	81 - 118	RPD 1.65 (Max-16)	
1,3-Dichloropropane	142-28-9	MS	21.40	0	20	107	82 - 126		
1,3-Dichloropropane	142-28-9	MSD	22.20	0	20	111	82 - 126	RPD 3.43 (Max-15)	
1,4-Dichlorobenzene	106-46-7	MS	21.40	0	20	107	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	21.80	0	20	109	81 - 116	RPD 1.88 (Max-15)	
2,2-Dichloropropane	594-20-7	MS	20	0	20	100	64 - 129		
2,2-Dichloropropane	594-20-7	MSD	19.90	0	20	99.6	64 - 129	RPD 0.41 (Max-18)	
2-Butanone	78-93-3	MS	114	0	100	114	50 - 152		
2-Butanone	78-93-3	MSD	116	0	100	116	50 - 152	RPD 1.75 (Max-16)	
2-Hexanone	591-78-6	MS	116	0	100	116	65 - 154		
2-Hexanone	591-78-6	MSD	122	0	100	122	65 - 154	RPD 5.11 (Max-17)	
4-Methyl-2-Pentanone(MIBK)	108-10-1	MS	117	0	100	117	71 - 146		
4-Methyl-2-Pentanone(MIBK)	108-10-1	MSD	122	0	100	122	71 - 146	RPD 4.55 (Max-16)	
Acetone	67-64-1	MS	111	4.30	100	106	40 - 151		
Acetone	67-64-1	MSD	113	4.30	100	108	40 - 151	RPD 1.89 (Max-40)	
Benzene	71-43-2	MS	23.70	0	20	118	80 - 124		
Benzene	71-43-2	MSD	23.30	0	20	116	80 - 124	RPD 1.83 (Max-26)	
Bromobenzene	108-86-1	MS	21.30	0	20	107	81 - 119		
Bromobenzene	108-86-1	MSD	21.70	0	20	109	81 - 119	RPD 1.69 (Max-17)	
Bromochloromethane	74-97-5	MS	22.60	0	20	113	73 - 117		
Bromochloromethane	74-97-5	MSD	22.80	0	20	114	73 - 117	RPD 0.96 (Max-19)	
Bromodichloromethane	75-27-4	MS	28	5.70	20	111	79 - 126		
Bromodichloromethane	75-27-4	MSD	28.10	5.70	20	112	79 - 126	RPD 0.13 (Max-16)	
Bromoform	75-25-2	MS	20.30	0	20	101	70 - 123		
Bromoform	75-25-2	MSD	21.30	0	20	107	70 - 123	RPD 4.92 (Max-16)	
Bromomethane	74-83-9	MS	17	0.40	20	83	45 - 148		
Bromomethane	74-83-9	MSD	18.50	0.40	20	90.6	45 - 148	RPD 8.58 (Max-26)	
Carbon Tetrachloride	56-23-5	MS	28.60	0	20	143*	62 - 132		
Carbon Tetrachloride	56-23-5	MSD	27.90	0	20	140*	62 - 132	RPD 2.35 (Max-17)	
Chlorobenzene	108-90-7	MS	21.80	0	20	109	85 - 117		
Chlorobenzene	108-90-7	MSD	21.80	0	20	109	85 - 117	RPD 0.28 (Max-15)	
Chlorodibromomethane	124-48-1	MS	22.80	1.30	20	107	77 - 122		
Chlorodibromomethane	124-48-1	MSD	23.40	1.30	20	111	77 - 122	RPD 2.96 (Max-15)	
Chloroethane	75-00-3	MS	29	0	20	145*	51 - 142		
Chloroethane	75-00-3	MSD	32.50	0	20	162*	51 - 142	RPD 11.40 (Max-24)	
Chloroform	67-66-3	MS	35	12.90	20	111	78 - 122		
Chloroform	67-66-3	MSD	34.70	12.90	20	109	78 - 122	RPD 0.85 (Max-16)	
Chloromethane	74-87-3	MS	32.90	0	20	164*	38 - 156		
Chloromethane	74-87-3	MSD	36.30	0	20	181*	38 - 156	RPD 9.79 (Max-27)	
cis-1,2-Dichloroethene	156-59-2	MS	23.20	0	20	116	78 - 125		
cis-1,2-Dichloroethene	156-59-2	MSD	22.80	0	20	114	78 - 125	RPD 1.90 (Max-21)	
cis-1,3-Dichloropropene	10061-01-5	MS	20.60	0	20	103	81 - 121		
cis-1,3-Dichloropropene	10061-01-5	MSD	21.20	0	20	106	81 - 121	RPD 2.81 (Max-16)	
Dibromomethane	74-95-3	MS	21.80	0	20	109	81 - 125		
Dibromomethane	74-95-3	MSD	22	0	20	110	81 - 125	RPD 0.75 (Max-16)	
Dichlorodifluoromethane	75-71-8	MS	27.80	0	20	139	17 - 166		
Dichlorodifluoromethane	75-71-8	MSD	26.30	0	20	131	17 - 166	RPD 5.71 (Max-24)	
Diisopropyl ether	108-20-3	MS	23.30	0	20	116	74 - 131		
Diisopropyl ether	108-20-3	MSD	23.40	0	20	117	74 - 131	RPD 0.49 (Max-15)	
Ethylbenzene	100-41-4	MS	22.80	0	20	114	80 - 124		
Ethylbenzene	100-41-4	MSD	22.70	0	20	113	80 - 124	RPD 0.54 (Max-19)	
Hexachlorobutadiene	87-68-3	MS	22.30	0	20	112	55 - 128		
Hexachlorobutadiene	87-68-3	MSD	22.70	0	20	113	55 - 128	RPD 1.66 (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	22	0	20	110	69 - 115		
Methyl t-Butyl Ether	1634-04-4	MSD	22.30	0	20	111	69 - 115	RPD 1.05 (Max-20)	
Methylene Chloride	75-09-2	MS	23	0	20	115	76 - 121		
Methylene Chloride	75-09-2	MSD	23.10	0	20	116	76 - 121	RPD 0.64 (Max-17)	
mp-Xylene	108383/106423	MS	44.90	0	40	112	79 - 125		
mp-Xylene	108383/106423	MSD	45.10	0	40	113	79 - 125	RPD 0.45 (Max-21)	
Naphthalene	91-20-3	MS	20.70	0	20	104	56 - 134		
Naphthalene	91-20-3	MSD	21.70	0	20	108	56 - 134	RPD 4.41 (Max-40)	
o-Chlorotoluene	95-49-8	MS	22.10	0	20	110	78 - 126		
o-Chlorotoluene	95-49-8	MSD	22.40	0	20	112	78 - 126	RPD 1.62 (Max-17)	
o-Xylene	95-47-6	MS	21.70	0	20	109	79 - 124		
o-Xylene	95-47-6	MSD	21.90	0	20	110	79 - 124	RPD 0.90 (Max-19)	
p-Chlorotoluene	106-43-4	MS	21.70	0	20	109	78 - 125		
p-Chlorotoluene	106-43-4	MSD	22.30	0	20	111	78 - 125	RPD 2.47 (Max-16)	
p-Isopropyltoluene	99-87-6	MS	22.90	0	20	114	72 - 123		
p-Isopropyltoluene	99-87-6	MSD	23	0	20	115	72 - 123	RPD 0.78 (Max-17)	
Styrene	100-42-5	MS	22.70	0	20	113	79 - 123		
Styrene	100-42-5	MSD	23.40	0	20	117	79 - 123	RPD 3.15 (Max-16)	
Tetrachloroethene	127-18-4	MS	19.10	0	20	95.6	72 - 124		
Tetrachloroethene	127-18-4	MSD	19	0	20	94.9	72 - 124	RPD 0.72 (Max-38)	
Toluene	108-88-3	MS	21.80	0	20	109	80 - 125		
Toluene	108-88-3	MSD	22.10	0	20	111	80 - 125	RPD 1.34 (Max-20)	
Total Xylenes	1330-20-7	MS	66.60	0	60	111	79 - 125		
Total Xylenes	1330-20-7	MSD	67	0	60	112	79 - 125	RPD 0.60 (Max-35)	
trans-1,2-Dichloroethene	156-60-5	MS	24.10	0	20	121	71 - 122		
trans-1,2-Dichloroethene	156-60-5	MSD	23.50	0	20	118	71 - 122	RPD 2.53 (Max-22)	
trans-1,3-Dichloropropene	10061-02-6	MS	21.30	0	20	107	78 - 126		
trans-1,3-Dichloropropene	10061-02-6	MSD	21.90	0	20	110	78 - 126	RPD 2.79 (Max-18)	
Trichloroethene	79-01-6	MS	22.50	0	20	113	77 - 124		
Trichloroethene	79-01-6	MSD	22	0	20	110	77 - 124	RPD 2.51 (Max-18)	
Trichlorofluoromethane	75-69-4	MS	21.20	0	20	106	38 - 123		
Trichlorofluoromethane	75-69-4	MSD	20.50	0	20	103	38 - 123	RPD 3.14 (Max-23)	
Vinyl Acetate	108-05-4	MS	18.30	0	20	91.4	58 - 136		
Vinyl Acetate	108-05-4	MSD	19.30	0	20	96.3	58 - 136	RPD 5.19 (Max-17)	
Vinyl Chloride	75-01-4	MS	26.70	0	20	133	27 - 138		
Vinyl Chloride	75-01-4	MSD	25.70	0	20	128	27 - 138	RPD 3.86 (Max-40)	

SURROGATES

Compound	CAS No		Result (ug/L)	Expected (ug/L)	Rec. (%)	Limits (%)	Qualifiers
1,2-Dichloroethane-d4	17060-07-0	MS	30.50	30	102	62 - 133	
1,2-Dichloroethane-d4	17060-07-0	MSD	30	30	100	62 - 133	
4-Bromofluorobenzene	460-00-4	MS	28.60	30	95.4	79 - 114	
4-Bromofluorobenzene	460-00-4	MSD	31.20	30	104	79 - 114	
Dibromofluoromethane	1868-53-7	MS	29.50	30	98.2	78 - 116	
Dibromofluoromethane	1868-53-7	MSD	29	30	96.5	78 - 116	
Toluene-d8	2037-26-5	MS	29.30	30	97.6	76 - 127	
Toluene-d8	2037-26-5	MSD	29.20	30	97.2	76 - 127	

QUALITY CONTROL SAMPLES

VOLATILE ORGANICS (cont.)

Method Blank 3697298 (MB) Created on 07/20/2023 10:05 For QC Batch 1027691

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	30.90	30	103	62 - 133	
4-Bromofluorobenzene	460-00-4	BLK	30.80	30	103	79 - 114	
Dibromofluoromethane	1868-53-7	BLK	30.50	30	102	78 - 116	
Toluene-d8	2037-26-5	BLK	31.30	30	104	76 - 127	

Lab Control Standard 3697299 (LCS) Created on 07/20/2023 10:05 For QC Batch 1027691

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	20.40		20	102	78 - 121		
1,1,1-Trichloroethane	71-55-6	LCS	21.50		20	107	66 - 130		
1,1,2,2-Tetrachloroethane	79-34-5	LCS	21.20		20	106	74 - 135		
1,1,2-Trichloroethane	79-00-5	LCS	20.20		20	101	82 - 126		
1,1-Dichloroethane	75-34-3	LCS	21.60		20	108	78 - 124		
1,1-Dichloroethene	75-35-4	LCS	23.70		20	118	63 - 128		
1,1-Dichloropropene	563-58-6	LCS	21.50		20	108	76 - 126		
1,2,3-Trichlorobenzene	87-61-6	LCS	20.80		20	104	61 - 126		
1,2,3-Trichloropropane	96-18-4	LCS	20.90		20	104	75 - 132		
1,2,4-Trichlorobenzene	120-82-1	LCS	20.60		20	103	67 - 123		
1,2-Dibromo-3-chloropropane	96-12-8	LCS	19.40		20	97.2	59 - 133		
1,2-Dibromoethane	106-93-4	LCS	20.20		20	101	80 - 124		
1,2-Dichlorobenzene	95-50-1	LCS	20.30		20	101	82 - 118		
1,2-Dichloroethane	107-06-2	LCS	20.30		20	102	70 - 133		
1,2-Dichloropropane	78-87-5	LCS	21.10		20	106	81 - 127		
1,3-Dichlorobenzene	541-73-1	LCS	19.90		20	99.5	81 - 118		
1,3-Dichloropropane	142-28-9	LCS	20.20		20	101	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	20.50		20	103	81 - 116		
2,2-Dichloropropane	594-20-7	LCS	23		20	115	64 - 129		
2-Butanone	78-93-3	LCS	110		100	110	50 - 152		
2-Hexanone	591-78-6	LCS	111		100	111	65 - 154		
4-Methyl-2-Pentanone(MIBK)	108-10-1	LCS	112		100	112	71 - 146		
Acetone	67-64-1	LCS	103		100	103	40 - 151		
Benzene	71-43-2	LCS	21.40		20	107	80 - 124		
Bromobenzene	108-86-1	LCS	20.40		20	102	81 - 119		
Bromochloromethane	74-97-5	LCS	21.40		20	107	73 - 117		
Bromodichloromethane	75-27-4	LCS	20.90		20	105	79 - 126		
Bromoform	75-25-2	LCS	20.40		20	102	70 - 123		
Bromomethane	74-83-9	LCS	21		20	105	45 - 148		
Carbon Tetrachloride	56-23-5	LCS	25		20	125	62 - 132		
Chlorobenzene	108-90-7	LCS	19.90		20	99.5	85 - 117		
Chlorodibromomethane	124-48-1	LCS	20.20		20	101	77 - 122		
Chloroethane	75-00-3	LCS	15.30		20	76.5	51 - 142		
Chloroform	67-66-3	LCS	21.20		20	106	78 - 122		
Chloromethane	74-87-3	LCS	25.80		20	129	38 - 156		
cis-1,2-Dichloroethene	156-59-2	LCS	21.70		20	109	78 - 125		
cis-1,3-Dichloropropene	10061-01-5	LCS	20.60		20	103	81 - 121		
Dibromomethane	74-95-3	LCS	20.50		20	102	81 - 125		
Dichlorodifluoromethane	75-71-8	LCS	23.60		20	118	17 - 166		
Diisopropyl ether	108-20-3	LCS	22.20		20	111	74 - 131		
Ethylbenzene	100-41-4	LCS	20.30		20	102	80 - 124		
Hexachlorobutadiene	87-68-3	LCS	21.30		20	106	55 - 128		
Methyl t-Butyl Ether	1634-04-4	LCS	21.50		20	107	69 - 115		
Methylene Chloride	75-09-2	LCS	21.90		20	109	76 - 121		
mp-Xylene	108383/106423	LCS	40.70		40	102	79 - 125		
Naphthalene	91-20-3	LCS	21.30		20	107	56 - 134		
o-Chlorotoluene	95-49-8	LCS	20.70		20	104	78 - 126		
o-Xylene	95-47-6	LCS	19.90		20	99.3	79 - 124		
p-Chlorotoluene	106-43-4	LCS	20.70		20	104	78 - 125		
p-Isopropyltoluene	99-87-6	LCS	21.20		20	106	72 - 123		
Styrene	100-42-5	LCS	21.70		20	108	79 - 123		
Tetrachloroethene	127-18-4	LCS	18.20		20	91.2	72 - 124		
Toluene	108-88-3	LCS	19.90		20	99.4	80 - 125		
Total Xylenes	1330-20-7	LCS	60.60		60	101	79 - 125		
trans-1,2-Dichloroethene	156-60-5	LCS	22.60		20	113	71 - 122		
trans-1,3-Dichloropropene	10061-02-6	LCS	21		20	105	78 - 126		
Trichloroethene	79-01-6	LCS	20.20		20	101	77 - 124		
Trichlorofluoromethane	75-69-4	LCS	17.80		20	88.9	38 - 123		
Vinyl Acetate	108-05-4	LCS	21.30		20	106	58 - 136		
Vinyl Chloride	75-01-4	LCS	24.30		20	121	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	30.40	30	101	79 - 114	
Dibromofluoromethane	1868-53-7	LCS	31.10	30	104	78 - 116	
Toluene-d8	2037-26-5	LCS	30.70	30	102	76 - 127	

QC Batch

QC Batch	1030151	Prep Method	N/A
Date	N/A	Analysis Method	SW846 8260D
Tech.			

Associated Samples

3313252002

Matrix Spike 3699334 (MS) 3313728006 (non-Project Sample) For QC Batch 1030151

****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 3699335 (MSD) 3313728006 (non-Project Sample) For QC Batch 1030151

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	0	20	110	78 - 121		
1,1,1,2-Tetrachloroethane	630-20-6	MSD	22.10	0	20	111	78 - 121	RPD 0.66 (Max-16)	
1,1,1-Trichloroethane	71-55-6	MS	23.50	0	20	117	66 - 130		
1,1,1-Trichloroethane	71-55-6	MSD	22.40	0	20	112	66 - 130	RPD 4.64 (Max-20)	
1,1,2,2-Tetrachloroethane	79-34-5	MS	21.70	0	20	108	74 - 135		
1,1,2,2-Tetrachloroethane	79-34-5	MSD	22.20	0	20	111	74 - 135	RPD 2.23 (Max-16)	
1,1,2-Trichloroethane	79-00-5	MS	22.10	0	20	110	82 - 126		
1,1,2-Trichloroethane	79-00-5	MSD	21.80	0	20	109	82 - 126	RPD 1.34 (Max-15)	
1,1-Dichloroethane	75-34-3	MS	22.20	0	20	111	78 - 124		
1,1-Dichloroethane	75-34-3	MSD	21	0	20	105	78 - 124	RPD 5.50 (Max-15)	
1,1-Dichloroethene	75-35-4	MS	24.20	0	20	121	63 - 128		
1,1-Dichloroethene	75-35-4	MSD	22.20	0	20	111	63 - 128	RPD 8.49 (Max-21)	
1,1-Dichloropropene	563-58-6	MS	24.20	0	20	121	76 - 126		
1,1-Dichloropropene	563-58-6	MSD	22.60	0	20	113	76 - 126	RPD 6.83 (Max-16)	
1,2,3-Trichlorobenzene	87-61-6	MS	21.40	0	20	107	61 - 126		
1,2,3-Trichlorobenzene	87-61-6	MSD	25.40	0	20	127*	61 - 126	RPD 17.20 (Max-36)	
1,2,3-Trichloropropane	96-18-4	MS	21.60	0	20	108	75 - 132		
1,2,3-Trichloropropane	96-18-4	MSD	22	0	20	110	75 - 132	RPD 1.89 (Max-19)	
1,2,4-Trichlorobenzene	120-82-1	MS	20.20	0	20	101	67 - 123		
1,2,4-Trichlorobenzene	120-82-1	MSD	21.30	0	20	106	67 - 123	RPD 5.43 (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	18.30	0	20	91.3	59 - 133	RPD 5.02 (Max-26)	
1,2-Dibromoethane	106-93-4	MS	21.70	0	20	109	80 - 124		
1,2-Dibromoethane	106-93-4	MSD	22.20	0	20	111	80 - 124	RPD 2.18 (Max-19)	
1,2-Dichlorobenzene	95-50-1	MS	21.60	0	20	108	82 - 118		

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-Dichlorobenzene	95-50-1	MSD	21.90	0	20	110	82 - 118	RPD 1.25 (Max-15)	
1,2-Dichloroethane	107-06-2	MS	20.80	0	20	104	70 - 133		
1,2-Dichloroethane	107-06-2	MSD	20.60	0	20	103	70 - 133	RPD 0.64 (Max-19)	
1,2-Dichloropropane	78-87-5	MS	21.70	0	20	108	81 - 127		
1,2-Dichloropropane	78-87-5	MSD	22.30	0	20	111	81 - 127	RPD 2.73 (Max-15)	
1,3-Dichlorobenzene	541-73-1	MS	21.70	0	20	109	81 - 118		
1,3-Dichlorobenzene	541-73-1	MSD	21.80	0	20	109	81 - 118	RPD 0.26 (Max-16)	
1,3-Dichloropropane	142-28-9	MS	21.10	0	20	105	82 - 126		
1,3-Dichloropropane	142-28-9	MSD	21.40	0	20	107	82 - 126	RPD 1.69 (Max-15)	
1,4-Dichlorobenzene	106-46-7	MS	21.80	0	20	109	81 - 116		
1,4-Dichlorobenzene	106-46-7	MSD	21.70	0	20	109	81 - 116	RPD 0.07 (Max-15)	
2,2-Dichloropropane	594-20-7	MS	21.30	0	20	106	64 - 129		
2,2-Dichloropropane	594-20-7	MSD	20.10	0	20	100	64 - 129	RPD 5.85 (Max-18)	
2-Butanone	78-93-3	MS	114	2.20	100	111	50 - 152		
2-Butanone	78-93-3	MSD	118	2.20	100	116	50 - 152	RPD 3.78 (Max-16)	
2-Hexanone	591-78-6	MS	104	0	100	104	65 - 154		
2-Hexanone	591-78-6	MSD	111	0	100	111	65 - 154	RPD 6.98 (Max-17)	
4-Methyl-2-Pentanone(MIBK)	108-10-1	MS	117	0	100	117	71 - 146		
4-Methyl-2-Pentanone(MIBK)	108-10-1	MSD	122	0	100	122	71 - 146	RPD 4.22 (Max-16)	
Acetone	67-64-1	MS	135	32.60	100	103	40 - 151		
Acetone	67-64-1	MSD	144	32.60	100	111	40 - 151	RPD 6.09 (Max-40)	
Benzene	71-43-2	MS	22	0	20	110	80 - 124		
Benzene	71-43-2	MSD	21.20	0	20	106	80 - 124	RPD 3.94 (Max-26)	
Bromobenzene	108-86-1	MS	21.50	0	20	107	81 - 119		
Bromobenzene	108-86-1	MSD	21.50	0	20	108	81 - 119	RPD 0.20 (Max-17)	
Bromochloromethane	74-97-5	MS	22.90	0	20	114	73 - 117		
Bromochloromethane	74-97-5	MSD	22.90	0	20	114	73 - 117	RPD 0.13 (Max-19)	
Bromodichloromethane	75-27-4	MS	23.10	0	20	116	79 - 126		
Bromodichloromethane	75-27-4	MSD	21.60	0	20	108	79 - 126	RPD 6.98 (Max-16)	
Bromoform	75-25-2	MS	17.70	0	20	88.4	70 - 123		
Bromoform	75-25-2	MSD	18.10	0	20	90.3	70 - 123	RPD 2.18 (Max-16)	
Bromomethane	74-83-9	MS	16.20	0.45	20	78.9	45 - 148		
Bromomethane	74-83-9	MSD	23.30	0.45	20	114	45 - 148	RPD 35.90* (Max-26)	
Carbon Tetrachloride	56-23-5	MS	24.40	0	20	122	62 - 132		
Carbon Tetrachloride	56-23-5	MSD	23.10	0	20	116	62 - 132	RPD 5.46 (Max-17)	
Chlorobenzene	108-90-7	MS	21.70	0	20	109	85 - 117		
Chlorobenzene	108-90-7	MSD	21.30	0	20	106	85 - 117	RPD 2.17 (Max-15)	
Chlorodibromomethane	124-48-1	MS	21.50	0	20	108	77 - 122		
Chlorodibromomethane	124-48-1	MSD	22.10	0	20	110	77 - 122	RPD 2.52 (Max-15)	
Chloroethane	75-00-3	MS	18.80	0	20	94	51 - 142		
Chloroethane	75-00-3	MSD	16.80	0	20	84	51 - 142	RPD 11.20 (Max-24)	
Chloroform	67-66-3	MS	21.30	0	20	106	78 - 122		
Chloroform	67-66-3	MSD	22	0	20	110	78 - 122	RPD 3.44 (Max-16)	
Chloromethane	74-87-3	MS	25.30	0	20	127	38 - 156		
Chloromethane	74-87-3	MSD	22.20	0	20	111	38 - 156	RPD 13 (Max-27)	
cis-1,2-Dichloroethene	156-59-2	MS	22.80	0	20	114	78 - 125		
cis-1,2-Dichloroethene	156-59-2	MSD	21.80	0	20	109	78 - 125	RPD 4.57 (Max-21)	
cis-1,3-Dichloropropene	10061-01-5	MS	21.90	0	20	110	81 - 121		
cis-1,3-Dichloropropene	10061-01-5	MSD	21.50	0	20	108	81 - 121	RPD 1.79 (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
Dibromomethane	74-95-3	MS	22.20	0	20	111	81 - 125		
Dibromomethane	74-95-3	MSD	22.70	0	20	114	81 - 125	RPD 2.48 (Max-16)	
Dichlorodifluoromethane	75-71-8	MS	27.90	0	20	140	17 - 166		
Dichlorodifluoromethane	75-71-8	MSD	25.60	0	20	128	17 - 166	RPD 8.78 (Max-24)	
Diisopropyl ether	108-20-3	MS	22.20	0	20	111	74 - 131		
Diisopropyl ether	108-20-3	MSD	22.90	0	20	115	74 - 131	RPD 3.04 (Max-15)	
Ethylbenzene	100-41-4	MS	22.30	0	20	111	80 - 124		
Ethylbenzene	100-41-4	MSD	22.20	0	20	111	80 - 124	RPD 0.52 (Max-19)	
Hexachlorobutadiene	87-68-3	MS	26.90	0	20	135*	55 - 128		
Hexachlorobutadiene	87-68-3	MSD	24.30	0	20	122	55 - 128	RPD 10.20 (Max-35)	
Methyl t-Butyl Ether	1634-04-4	MS	21.50	0	20	108	69 - 115		
Methyl t-Butyl Ether	1634-04-4	MSD	21.70	0	20	108	69 - 115	RPD 0.76 (Max-20)	
Methylene Chloride	75-09-2	MS	22.40	0	20	112	76 - 121		
Methylene Chloride	75-09-2	MSD	22	0	20	110	76 - 121	RPD 2.10 (Max-17)	
mp-Xylene	108383/106423	MS	44.30	0	40	111	79 - 125		
mp-Xylene	108383/106423	MSD	44.40	0	40	111	79 - 125	RPD 0.14 (Max-21)	
Naphthalene	91-20-3	MS	17.10	0	20	85.7	56 - 134		
Naphthalene	91-20-3	MSD	21.10	0	20	106	56 - 134	RPD 20.80 (Max-40)	
o-Chlorotoluene	95-49-8	MS	22	0	20	110	78 - 126		
o-Chlorotoluene	95-49-8	MSD	21.90	0	20	110	78 - 126	RPD 0.19 (Max-17)	
o-Xylene	95-47-6	MS	21.80	0	20	109	79 - 124		
o-Xylene	95-47-6	MSD	21.90	0	20	109	79 - 124	RPD 0.25 (Max-19)	
p-Chlorotoluene	106-43-4	MS	21.80	0	20	109	78 - 125		
p-Chlorotoluene	106-43-4	MSD	21.70	0	20	109	78 - 125	RPD 0.24 (Max-16)	
p-Isopropyltoluene	99-87-6	MS	21.70	0	20	109	72 - 123		
p-Isopropyltoluene	99-87-6	MSD	22.20	0	20	111	72 - 123	RPD 2.14 (Max-17)	
Styrene	100-42-5	MS	22.60	0	20	113	79 - 123		
Styrene	100-42-5	MSD	20.90	0	20	105	79 - 123	RPD 7.66 (Max-16)	
Tetrachloroethene	127-18-4	MS	20.40	0	20	102	72 - 124		
Tetrachloroethene	127-18-4	MSD	19.90	0	20	99.3	72 - 124	RPD 2.49 (Max-38)	
Toluene	108-88-3	MS	22	0	20	110	80 - 125		
Toluene	108-88-3	MSD	21.20	0	20	106	80 - 125	RPD 3.83 (Max-20)	
Total Xylenes	1330-20-7	MS	66.10	0	60	110	79 - 125		
Total Xylenes	1330-20-7	MSD	66.20	0	60	110	79 - 125	RPD 0.18 (Max-35)	
trans-1,2-Dichloroethene	156-60-5	MS	23.30	0	20	116	71 - 122		
trans-1,2-Dichloroethene	156-60-5	MSD	21.40	0	20	107	71 - 122	RPD 8.45 (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	22	0	20	110	78 - 126	RPD 0.69 (Max-18)	
Trichloroethene	79-01-6	MS	21.20	0	20	106	77 - 124		
Trichloroethene	79-01-6	MSD	19.80	0	20	99	77 - 124	RPD 6.76 (Max-18)	
Trichlorofluoromethane	75-69-4	MS	22.10	0	20	111	38 - 123		
Trichlorofluoromethane	75-69-4	MSD	20.40	0	20	102	38 - 123	RPD 8.07 (Max-23)	
Vinyl Acetate	108-05-4	MS	17	0	20	85	58 - 136		
Vinyl Acetate	108-05-4	MSD	16.70	0	20	83.3	58 - 136	RPD 2.01 (Max-17)	
Vinyl Chloride	75-01-4	MS	24.70	0	20	124	27 - 138		
Vinyl Chloride	75-01-4	MSD	22.50	0	20	112	27 - 138	RPD 9.60 (Max-40)	

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	MS	30.60	30	102	62 - 133	
1,2-Dichloroethane-d4	17060-07-0	MSD	29.90	30	99.6	62 - 133	
4-Bromofluorobenzene	460-00-4	MS	29.70	30	99.2	79 - 114	
4-Bromofluorobenzene	460-00-4	MSD	29.60	30	98.6	79 - 114	
Dibromofluoromethane	1868-53-7	MS	30.50	30	102	78 - 116	
Dibromofluoromethane	1868-53-7	MSD	29.30	30	97.8	78 - 116	
Toluene-d8	2037-26-5	MS	29	30	96.5	76 - 127	
Toluene-d8	2037-26-5	MSD	28.80	30	96.1	76 - 127	

Method Blank 3699332 (MB) Created on 07/25/2023 14:54 For QC Batch 1030151

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

QUALITY CONTROL SAMPLES

VOLATILE ORGANICS (cont.)

RESULTS

Compound	CAS No		Result	Units	RDL	Qualifiers
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	29.50	30	98.2	62 - 133	
4-Bromofluorobenzene	460-00-4	BLK	31.90	30	106	79 - 114	
Dibromofluoromethane	1868-53-7	BLK	29.50	30	98.3	78 - 116	
Toluene-d8	2037-26-5	BLK	31	30	103	76 - 127	

Lab Control Standard 3699333 (LCS) Created on 07/25/2023 14:54 For QC Batch 1030151

RESULTS

Compound	CAS No		Result (ug/L)	Orig. Result (ug/L)	Spk Added (ug/L)	Rec. (%)	Limits (%)	RPD Limit (%)	Qualifiers
1,1,1,2-Tetrachloroethane	630-20-6	LCS	21.10		20	106	78 - 121		
1,1,1-Trichloroethane	71-55-6	LCS	21		20	105	66 - 130		
1,1,2,2-Tetrachloroethane	79-34-5	LCS	21.20		20	106	74 - 135		
1,1,2-Trichloroethane	79-00-5	LCS	21.10		20	106	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
1,1-Dichloroethane	75-34-3	LCS	19.90		20	99.3	78 - 124		
1,1-Dichloroethene	75-35-4	LCS	21.10		20	105	63 - 128		
1,1-Dichloropropene	563-58-6	LCS	20.20		20	101	76 - 126		
1,2,3-Trichlorobenzene	87-61-6	LCS	29.90		20	150*	61 - 126		
1,2,3-Trichloropropane	96-18-4	LCS	21.40		20	107	75 - 132		
1,2,4-Trichlorobenzene	120-82-1	LCS	22.50		20	112	67 - 123		
1,2-Dibromo-3-chloropropane	96-12-8	LCS	18.60		20	93.1	59 - 133		
1,2-Dibromoethane	106-93-4	LCS	21.50		20	108	80 - 124		
1,2-Dichlorobenzene	95-50-1	LCS	21.10		20	105	82 - 118		
1,2-Dichloroethane	107-06-2	LCS	19.10		20	95.7	70 - 133		
1,2-Dichloropropane	78-87-5	LCS	19.90		20	99.3	81 - 127		
1,3-Dichlorobenzene	541-73-1	LCS	21		20	105	81 - 118		
1,3-Dichloropropane	142-28-9	LCS	20.70		20	103	82 - 126		
1,4-Dichlorobenzene	106-46-7	LCS	21		20	105	81 - 116		
2,2-Dichloropropane	594-20-7	LCS	19.90		20	99.6	64 - 129		
2-Butanone	78-93-3	LCS	114		100	114	50 - 152		
2-Hexanone	591-78-6	LCS	105		100	105	65 - 154		
4-Methyl-2-Pentanone(MIBK)	108-10-1	LCS	115		100	115	71 - 146		
Acetone	67-64-1	LCS	104		100	104	40 - 151		
Benzene	71-43-2	LCS	20		20	100	80 - 124		
Bromobenzene	108-86-1	LCS	20.60		20	103	81 - 119		
Bromochloromethane	74-97-5	LCS	21.40		20	107	73 - 117		
Bromodichloromethane	75-27-4	LCS	20.10		20	101	79 - 126		
Bromoform	75-25-2	LCS	17.30		20	86.4	70 - 123		
Bromomethane	74-83-9	LCS	21.20		20	106	45 - 148		
Carbon Tetrachloride	56-23-5	LCS	19.50		20	97.5	62 - 132		
Chlorobenzene	108-90-7	LCS	20.50		20	103	85 - 117		
Chlorodibromomethane	124-48-1	LCS	21.10		20	106	77 - 122		
Chloroethane	75-00-3	LCS	16.40		20	81.9	51 - 142		
Chloroform	67-66-3	LCS	20.30		20	101	78 - 122		
Chloromethane	74-87-3	LCS	19.90		20	99.3	38 - 156		
cis-1,2-Dichloroethene	156-59-2	LCS	20.30		20	102	78 - 125		
cis-1,3-Dichloropropene	10061-01-5	LCS	20.20		20	101	81 - 121		
Dibromomethane	74-95-3	LCS	21		20	105	81 - 125		
Dichlorodifluoromethane	75-71-8	LCS	24.50		20	123	17 - 166		
Diisopropyl ether	108-20-3	LCS	20.10		20	101	74 - 131		
Ethylbenzene	100-41-4	LCS	20.80		20	104	80 - 124		
Hexachlorobutadiene	87-68-3	LCS	27.70		20	138*	55 - 128		
Methyl t-Butyl Ether	1634-04-4	LCS	22.10		20	111	69 - 115		
Methylene Chloride	75-09-2	LCS	21.10		20	106	76 - 121		
mp-Xylene	108383/106423	LCS	42.40		40	106	79 - 125		
Naphthalene	91-20-3	LCS	23.70		20	118	56 - 134		
o-Chlorotoluene	95-49-8	LCS	20.90		20	105	78 - 126		
o-Xylene	95-47-6	LCS	20.90		20	105	79 - 124		
p-Chlorotoluene	106-43-4	LCS	20.90		20	104	78 - 125		
p-Isopropyltoluene	99-87-6	LCS	21.80		20	109	72 - 123		
Styrene	100-42-5	LCS	21.30		20	107	79 - 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
Tetrachloroethene	127-18-4	LCS	21.70		20	109	72 - 124		
Toluene	108-88-3	LCS	20.30		20	102	80 - 125		
Total Xylenes	1330-20-7	LCS	63.30		60	106	79 - 125		
trans-1,2-Dichloroethene	156-60-5	LCS	20.40		20	102	71 - 122		
trans-1,3-Dichloropropene	10061-02-6	LCS	21.80		20	109	78 - 126		
Trichloroethene	79-01-6	LCS	16.40		20	82.2	77 - 124		
Trichlorofluoromethane	75-69-4	LCS	19.20		20	96	38 - 123		
Vinyl Acetate	108-05-4	LCS	17.10		20	85.3	58 - 136		
Vinyl Chloride	75-01-4	LCS	21.40		20	107	27 - 138		

SURROGATES

Compound	CAS No		Result (ug/L)	Expected (ug/L)	Rec. (%)	Limits (%)	Qualifiers
1,2-Dichloroethane-d4	17060-07-0	LCS	30.20	30	101	62 - 133	
4-Bromofluorobenzene	460-00-4	LCS	29.90	30	99.6	79 - 114	
Dibromofluoromethane	1868-53-7	LCS	29.40	30	98.1	78 - 116	
Toluene-d8	2037-26-5	LCS	30.90	30	103	76 - 127	

QUALITY CONTROL DATA CROSS REFERENCE TABLE

Lab ID	Sample ID	Preparation Method	Prep Batch	Prep Date/Time	By	Analysis Method	Anly Batch
3313252001	MW-45	SW846 3510C	1026361	07/18/2023 10:00	LDC	SW846 8270E SIM	1030076
		N/A	N/A	N/A		SW846 8260D	1027691
3313252002	MW-24D	SW846 3510C	1026361	07/18/2023 10:00	LDC	SW846 8270E SIM	1030076
		N/A	N/A	N/A		SW846 8260D	1027691
		N/A	N/A	N/A		SW846 8260D	1030151

CHAIN-OF-CUSTODY REC

3313252

Logged By: KSB
PM: SJB

No. 008232

wsp

WSP USA Office Address	13530 Dulles Technology Dr Herndon VA
Project Name	Kop-Flex Offsite
WSP USA Contact Name	Eric Johnson
Project Location	Hanover MD
WSP USA Contact E-mail	Eric.Johnson@wsp.com
Project Number & Task	31405608.01 \$ /02.03
WSP USA Contact Phone	(703) 709-6500
Sampler(s) Name(s)	Elliott Martyniewicz, Tushar Khaire
Sampler(s) Signature(s)	
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 SW846 8270D	1,4-Dioxane (SW846 8270E Sim)	Sample Comments
MW-45	GW			7/14/23	1025	4	X	X	
MW-24D	GW			7/14/23	1040	4	X	X	

2x G/HCl per sample
2x B/UNP
no g/c
KSB 7.15.23

Temp By: KSB | WO Temp (°C): 2 | Therm ID: 570

Receipt Info Completed By: KSB

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 #:	8094 7936 8139
SDWA Compliance	Y N
PWSID	
WV Containers 0-6°C	Y N NA

Relinquished By (Signature)	Date	Time	Received By (Signature)	Date	Time	Shipment Method	Tracking Number(s)
Elliott Martyniewicz	7/14/23	1330	Fedex				
Fedex			ALS	7.15.23	928	Number of Packages	Custody Seal Number(s)

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

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

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

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

Project	Former KOP-Flex Facility Offsi
Workorder	3335524
Report ID	288686 on 12/13/2023

Certificate of Analysis

Enclosed are the analytical results for samples received by the laboratory on Dec 04, 2023.

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

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

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

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Eric Johnson - WSP USA INC

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Susan Scherer

Susan Scherer *(ALS Digital Signature)*
Project Coordinator

Sample Summary

Lab ID	Sample ID	Matrix	Date Collected	Date Received	Collector	Collection Company
3335524001	MW-24D	Ground Water	12/04/2023 13:45	12/04/2023 18:15	CBC	Collected By Client
3335524002	MW-25D-130	Ground Water	12/04/2023 12:00	12/04/2023 18:15	CBC	Collected By Client
3335524003	MW-25D-190	Ground Water	12/04/2023 12:15	12/04/2023 18:15	CBC	Collected By Client
3335524004	MW-28D	Ground Water	12/04/2023 11:20	12/04/2023 18:15	CBC	Collected By Client
3335524005	MW-29D	Ground Water	12/04/2023 10:45	12/04/2023 18:15	CBC	Collected By Client
3335524006	MW-30D-273	Ground Water	12/04/2023 10:20	12/04/2023 18:15	CBC	Collected By Client
3335524007	MW-30D-413	Ground Water	12/04/2023 10:30	12/04/2023 18:15	CBC	Collected By Client
3335524008	MW-31D	Ground Water	12/04/2023 10:00	12/04/2023 18:15	CBC	Collected By Client
3335524009	MW-32D	Ground Water	12/04/2023 11:10	12/04/2023 18:15	CBC	Collected By Client
3335524010	MW-33D-235	Ground Water	12/04/2023 09:25	12/04/2023 18:15	CBC	Collected By Client
3335524011	MW-33D-295	Ground Water	12/04/2023 09:30	12/04/2023 18:15	CBC	Collected By Client
3335524012	MW-34D	Ground Water	12/04/2023 09:05	12/04/2023 18:15	CBC	Collected By Client
3335524013	MW-35D	Ground Water	12/04/2023 08:45	12/04/2023 18:15	CBC	Collected By Client
3335524014	MW-36D	Ground Water	12/04/2023 11:45	12/04/2023 18:15	CBC	Collected By Client
3335524015	DUP-120423	Ground Water	12/04/2023 09:45	12/04/2023 18:15	CBC	Collected By Client
3335524016	Trip Blank A	Ground Water	12/04/2023 00:00	12/04/2023 18:15	CBC	Collected By Client
3335524017	Trip Blank B	Ground Water	12/04/2023 00:00	12/04/2023 18:15	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		
3335524009	MW-32D	**S1**	This sample was analyzed at a dilution in the 8260 volatiles analysis due to matrix. Reporting limits were adjusted accordingly.
3335524012	MW-34D	**S2**	This sample was analyzed at a dilution in the 8260 volatiles analysis due to matrix. Reporting limits were adjusted accordingly.

Result Notations

Notation Ref.	
1	The initial calibration verification for method SW846 8260D was outside the control limits for the analyte chloroethane. The % Recovery was reported as 51% and the control limits were 70 to 130%.
2	The QC sample type LCS for method SW846 8260D was outside the control limits for the analyte Chloroethane. The % Recovery was reported as 49.9 and the control limits were 51 to 142.
3	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 40.
4	The surrogate Fluoranthene-d10 for method SW846 8270E SIM was outside of control limits. The % Recovery was reported as 0 and the control limits were 45 to 130. This result was reported at a dilution of 40.
5	The QC sample type MS for method SW846 8260D was outside the control limits for the analyte Bromochloromethane. The % Recovery was reported as 118 and the control limits were 73 to 117.
6	The QC sample type MS for method SW846 8260D was outside the control limits for the analyte 1,1-Dichloroethane. The % Recovery was reported as 126 and the control limits were 78 to 124.
7	The QC sample type MS for method SW846 8260D was outside the control limits for the analyte 1,1-Dichloroethene. The % Recovery was reported as 136 and the control limits were 63 to 128.
8	The QC sample type MS for method SW846 8260D was outside the control limits for the analyte cis-1,2-Dichloroethene. The % Recovery was reported as 126 and the control limits were 78 to 125.
9	The QC sample type MS for method SW846 8260D was outside the control limits for the analyte trans-1,2-Dichloroethene. The % Recovery was reported as 129 and the control limits were 71 to 122.
10	The QC sample type MS for method SW846 8260D was outside the control limits for the analyte 1,1-Dichloropropene. The % Recovery was reported as 128 and the control limits were 76 to 126.
11	The QC sample type MS for method SW846 8260D was outside the control limits for the analyte Methyl t-Butyl Ether. The % Recovery was reported as 119 and the control limits were 69 to 115.
12	The QC sample type MSD for method SW846 8260D was outside the control limits for the analyte Methyl t-Butyl Ether. The % Recovery was reported as 117 and the control limits were 69 to 115.
13	The QC sample type MSD for method SW846 8270E SIM was outside the control limits for the analyte 1,4-Dioxane. The % Recovery was reported as 21.5 and the control limits were 22 to 75.

Detected Results Summary

Client Sample ID	MW-24D	Collected	12/04/2023 13:45
Lab Sample ID	3335524001	Lab Receipt	12/04/2023 18:15

Compound	Result	Units	RDL	Method	Flag
SEMIVOLATILE SIM					
1,4-Dioxane	102	ug/L	40.0	SW846 8270E SIM	#
VOLATILE ORGANICS					
1,1,1-Trichloroethane	11.9	ug/L	10.0	SW846 8260D	#
1,1-Dichloroethane	88.1	ug/L	10.0	SW846 8260D	#
1,1-Dichloroethene	1130	ug/L	10.0	SW846 8260D	#

Detected Results Summary

Client Sample ID	MW-25D-130	Collected	12/04/2023 12:00
Lab Sample ID	3335524002	Lab Receipt	12/04/2023 18:15

Compound	Result	Units	RDL	Method	Flag
SEMIVOLATILE SIM					
1,4-Dioxane	28.4	ug/L	2.5	SW846 8270E SIM	#
VOLATILE ORGANICS					
1,1,1-Trichloroethane	6.2	ug/L	1.0	SW846 8260D	#
1,1-Dichloroethane	6.9	ug/L	1.0	SW846 8260D	#
1,1-Dichloroethene	110	ug/L	1.0	SW846 8260D	#
1,2-Dichloroethane	1.1	ug/L	1.0	SW846 8260D	#

Detected Results Summary

Client Sample ID	MW-25D-190	Collected	12/04/2023 12:15
Lab Sample ID	3335524003	Lab Receipt	12/04/2023 18:15

Compound	Result	Units	RDL	Method	Flag
SEMIVOLATILE SIM					
1,4-Dioxane	9.4	ug/L	5.0	SW846 8270E SIM	#
VOLATILE ORGANICS					
1,1,1-Trichloroethane	3.9	ug/L	1.0	SW846 8260D	#
1,1-Dichloroethane	8.4	ug/L	1.0	SW846 8260D	#
1,1-Dichloroethene	36.5	ug/L	1.0	SW846 8260D	#
Methyl t-Butyl Ether	1.2	ug/L	1.0	SW846 8260D	#

Detected Results Summary

Client Sample ID	MW-28D	Collected	12/04/2023 11:20
Lab Sample ID	3335524004	Lab Receipt	12/04/2023 18:15

Compound	Result	Units	RDL	Method	Flag
SEMIVOLATILE SIM					
1,4-Dioxane	3.8	ug/L	1.0	SW846 8270E SIM	#
VOLATILE ORGANICS					
1,1-Dichloroethene	13.3	ug/L	1.0	SW846 8260D	#

Detected Results Summary

Client Sample ID	MW-30D-273	Collected	12/04/2023 10:20
Lab Sample ID	3335524006	Lab Receipt	12/04/2023 18:15

Compound	Result	Units	RDL	Method	Flag
SEMIVOLATILE SIM					
1,4-Dioxane	9.6	ug/L	1.0	SW846 8270E SIM	#
VOLATILE ORGANICS					
1,1,1-Trichloroethane	1.7	ug/L	1.0	SW846 8260D	#
1,1-Dichloroethane	1.3	ug/L	1.0	SW846 8260D	#
1,1-Dichloroethene	51.0	ug/L	1.0	SW846 8260D	#

Detected Results Summary

Client Sample ID	MW-33D-295	Collected	12/04/2023 09:30
Lab Sample ID	3335524011	Lab Receipt	12/04/2023 18:15

Compound	Result	Units	RDL	Method	Flag
SEMIVOLATILE SIM					
1,4-Dioxane	3.3	ug/L	1.0	SW846 8270E SIM	#
VOLATILE ORGANICS					
1,1-Dichloroethene	8.9	ug/L	1.0	SW846 8260D	#

Detected Results Summary

Client Sample ID	DUP-120423	Collected	12/04/2023 09:45
Lab Sample ID	3335524015	Lab Receipt	12/04/2023 18:15

Compound	Result	Units	RDL	Method	Flag
SEMIVOLATILE SIM					
1,4-Dioxane	23.7	ug/L	5.0	SW846 8270E SIM	#
VOLATILE ORGANICS					
1,1,1-Trichloroethane	5.6	ug/L	1.0	SW846 8260D	#
1,1-Dichloroethane	5.9	ug/L	1.0	SW846 8260D	#
1,1-Dichloroethene	100	ug/L	1.0	SW846 8260D	#

Results

Client Sample ID	MW-24D	Collected	12/04/2023 13:45
Lab Sample ID	3335524001	Lab Receipt	12/04/2023 18:15

SEMIVOLATILE SIM

Compound	Result	Flag	Units	RDL	Method	Dilution	Analysis Date/Time	By	Cntr
1,4-Dioxane	102		ug/L	40.0	SW846 8270E SIM	40	12/12/2023 07:15	S7M	C

SURROGATES

Compound	CAS No	Recovery	Limits(%)	Analysis Date/Time	Qualifiers
2-Methylnapthalene-d10	7297-45-2	62.6%	29 – 112	12/06/2023 21:24	
2-Methylnapthalene-d10	7297-45-2	0* %	29 – 112	12/12/2023 07:15	3
Fluoranthene-d10	93951-69-0	83.5%	45 – 130	12/06/2023 21:24	
Fluoranthene-d10	93951-69-0	0* %	45 – 130	12/12/2023 07:15	4

VOLATILE ORGANICS

Compound	Result	Flag	Units	RDL	Method	Dilution	Analysis Date/Time	By	Cntr
1,1,1,2-Tetrachloroethane	10.0 U	U	ug/L	10.0	SW846 8260D	10	12/07/2023 18:28	AHI	A
1,1,1-Trichloroethane	11.9		ug/L	10.0	SW846 8260D	10	12/07/2023 18:28	AHI	A
1,1,2,2-Tetrachloroethane	10.0 U	U	ug/L	10.0	SW846 8260D	10	12/07/2023 18:28	AHI	A
1,1,2-Trichloroethane	10.0 U	U	ug/L	10.0	SW846 8260D	10	12/07/2023 18:28	AHI	A
1,1-Dichloroethane	88.1		ug/L	10.0	SW846 8260D	10	12/07/2023 18:28	AHI	A
1,1-Dichloroethene	1130		ug/L	10.0	SW846 8260D	10	12/07/2023 18:28	AHI	A
1,1-Dichloropropene	10.0 U	U	ug/L	10.0	SW846 8260D	10	12/07/2023 18:28	AHI	A
1,2,3-Trichlorobenzene	20.0 U	U	ug/L	20.0	SW846 8260D	10	12/07/2023 18:28	AHI	A
1,2,3-Trichloropropane	20.0 U	U	ug/L	20.0	SW846 8260D	10	12/07/2023 18:28	AHI	A
1,2,4-Trichlorobenzene	20.0 U	U	ug/L	20.0	SW846 8260D	10	12/07/2023 18:28	AHI	A
1,2-Dibromo-3-chloropropane	70.0 U	U	ug/L	70.0	SW846 8260D	10	12/07/2023 18:28	AHI	A
1,2-Dibromoethane	10.0 U	U	ug/L	10.0	SW846 8260D	10	12/07/2023 18:28	AHI	A
1,2-Dichlorobenzene	10.0 U	U	ug/L	10.0	SW846 8260D	10	12/07/2023 18:28	AHI	A
1,2-Dichloroethane	10.0 U	U	ug/L	10.0	SW846 8260D	10	12/07/2023 18:28	AHI	A
1,2-Dichloropropane	10.0 U	U	ug/L	10.0	SW846 8260D	10	12/07/2023 18:28	AHI	A
1,3-Dichlorobenzene	10.0 U	U	ug/L	10.0	SW846 8260D	10	12/07/2023 18:28	AHI	A
1,3-Dichloropropane	10.0 U	U	ug/L	10.0	SW846 8260D	10	12/07/2023 18:28	AHI	A
1,4-Dichlorobenzene	10.0 U	U	ug/L	10.0	SW846 8260D	10	12/07/2023 18:28	AHI	A
2,2-Dichloropropane	10.0 U	U	ug/L	10.0	SW846 8260D	10	12/07/2023 18:28	AHI	A
2-Butanone	100 U	U	ug/L	100	SW846 8260D	10	12/07/2023 18:28	AHI	A
2-Hexanone	50.0 U	U	ug/L	50.0	SW846 8260D	10	12/07/2023 18:28	AHI	A
4-Methyl-2-Pentanone(MIBK)	50.0 U	U	ug/L	50.0	SW846 8260D	10	12/07/2023 18:28	AHI	A
Acetone	100 U	U	ug/L	100	SW846 8260D	10	12/07/2023 18:28	AHI	A
Benzene	10.0 U	U	ug/L	10.0	SW846 8260D	10	12/07/2023 18:28	AHI	A
Bromobenzene	10.0 U	U	ug/L	10.0	SW846 8260D	10	12/07/2023 18:28	AHI	A
Bromochloromethane	10.0 U	U	ug/L	10.0	SW846 8260D	10	12/07/2023 18:28	AHI	A
Bromodichloromethane	10.0 U	U	ug/L	10.0	SW846 8260D	10	12/07/2023 18:28	AHI	A
Bromoform	10.0 U	U	ug/L	10.0	SW846 8260D	10	12/07/2023 18:28	AHI	A
Bromomethane	10.0 U	U	ug/L	10.0	SW846 8260D	10	12/07/2023 18:28	AHI	A
Carbon Tetrachloride	10.0 U	U	ug/L	10.0	SW846 8260D	10	12/07/2023 18:28	AHI	A
Chlorobenzene	10.0 U	U	ug/L	10.0	SW846 8260D	10	12/07/2023 18:28	AHI	A
Chlorodibromomethane	10.0 U	U	ug/L	10.0	SW846 8260D	10	12/07/2023 18:28	AHI	A
Chloroethane	10.0 U	U,1,2	ug/L	10.0	SW846 8260D	10	12/07/2023 18:28	AHI	A

Results

Client Sample ID	MW-24D	Collected	12/04/2023 13:45
Lab Sample ID	3335524001	Lab Receipt	12/04/2023 18:15

VOLATILE ORGANICS (cont.)

Compound	Result	Flag	Units	RDL	Method	Dilution	Analysis Date/Time	By	Cntr
Chloroform	10.0 U	U	ug/L	10.0	SW846 8260D	10	12/07/2023 18:28	AHI	A
Chloromethane	10.0 U	U	ug/L	10.0	SW846 8260D	10	12/07/2023 18:28	AHI	A
cis-1,2-Dichloroethene	10.0 U	U	ug/L	10.0	SW846 8260D	10	12/07/2023 18:28	AHI	A
cis-1,3-Dichloropropene	10.0 U	U	ug/L	10.0	SW846 8260D	10	12/07/2023 18:28	AHI	A
Dibromomethane	10.0 U	U	ug/L	10.0	SW846 8260D	10	12/07/2023 18:28	AHI	A
Dichlorodifluoromethane	10.0 U	U	ug/L	10.0	SW846 8260D	10	12/07/2023 18:28	AHI	A
Diisopropyl ether	10.0 U	U	ug/L	10.0	SW846 8260D	10	12/07/2023 18:28	AHI	A
Ethylbenzene	10.0 U	U	ug/L	10.0	SW846 8260D	10	12/07/2023 18:28	AHI	A
Hexachlorobutadiene	50.0 U	U	ug/L	50.0	SW846 8260D	10	12/07/2023 18:28	AHI	A
Methyl t-Butyl Ether	10.0 U	U	ug/L	10.0	SW846 8260D	10	12/07/2023 18:28	AHI	A
Methylene Chloride	10.0 U	U	ug/L	10.0	SW846 8260D	10	12/07/2023 18:28	AHI	A
mp-Xylene	20.0 U	U	ug/L	20.0	SW846 8260D	10	12/07/2023 18:28	AHI	A
Naphthalene	20.0 U	U	ug/L	20.0	SW846 8260D	10	12/07/2023 18:28	AHI	A
o-Chlorotoluene	10.0 U	U	ug/L	10.0	SW846 8260D	10	12/07/2023 18:28	AHI	A
o-Xylene	10.0 U	U	ug/L	10.0	SW846 8260D	10	12/07/2023 18:28	AHI	A
p-Chlorotoluene	10.0 U	U	ug/L	10.0	SW846 8260D	10	12/07/2023 18:28	AHI	A
p-Isopropyltoluene	10.0 U	U	ug/L	10.0	SW846 8260D	10	12/07/2023 18:28	AHI	A
Styrene	10.0 U	U	ug/L	10.0	SW846 8260D	10	12/07/2023 18:28	AHI	A
Tetrachloroethene	10.0 U	U	ug/L	10.0	SW846 8260D	10	12/07/2023 18:28	AHI	A
Toluene	10.0 U	U	ug/L	10.0	SW846 8260D	10	12/07/2023 18:28	AHI	A
Total Xylenes	30.0 U	U	ug/L	30.0	SW846 8260D	10	12/07/2023 18:28	AHI	A
trans-1,2-Dichloroethene	10.0 U	U	ug/L	10.0	SW846 8260D	10	12/07/2023 18:28	AHI	A
trans-1,3-Dichloropropene	10.0 U	U	ug/L	10.0	SW846 8260D	10	12/07/2023 18:28	AHI	A
Trichloroethene	10.0 U	U	ug/L	10.0	SW846 8260D	10	12/07/2023 18:28	AHI	A
Trichlorofluoromethane	10.0 U	U	ug/L	10.0	SW846 8260D	10	12/07/2023 18:28	AHI	A
Vinyl Acetate	50.0 U	U	ug/L	50.0	SW846 8260D	10	12/07/2023 18:28	AHI	A
Vinyl Chloride	10.0 U	U	ug/L	10.0	SW846 8260D	10	12/07/2023 18:28	AHI	A

SURROGATES

Compound	CAS No	Recovery	Limits(%)	Analysis Date/Time	Qualifiers
1,2-Dichloroethane-d4	17060-07-0	104%	62 – 133	12/07/2023 18:28	
4-Bromofluorobenzene	460-00-4	101%	79 – 114	12/07/2023 18:28	
Dibromofluoromethane	1868-53-7	103%	78 – 116	12/07/2023 18:28	
Toluene-d8	2037-26-5	103%	76 – 127	12/07/2023 18:28	

Results

Client Sample ID	MW-25D-130	Collected	12/04/2023 12:00
Lab Sample ID	3335524002	Lab Receipt	12/04/2023 18:15

SEMIVOLATILE SIM

Compound	Result	Flag	Units	RDL	Method	Dilution	Analysis Date/Time	By	Cntr
1,4-Dioxane	28.4		ug/L	2.5	SW846 8270E SIM	1	12/06/2023 21:51	M1O	C

SURROGATES

Compound	CAS No	Recovery	Limits(%)	Analysis Date/Time	Qualifiers
2-Methylnapthalene-d10	7297-45-2	65.5%	29 – 112	12/06/2023 21:51	
Fluoranthene-d10	93951-69-0	71.2%	45 – 130	12/06/2023 21:51	

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	12/07/2023 13:02	AHI	A
1,1,1-Trichloroethane	6.2		ug/L	1.0	SW846 8260D	1	12/07/2023 13:02	AHI	A
1,1,2,2-Tetrachloroethane	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/07/2023 13:02	AHI	A
1,1,2-Trichloroethane	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/07/2023 13:02	AHI	A
1,1-Dichloroethane	6.9		ug/L	1.0	SW846 8260D	1	12/07/2023 13:02	AHI	A
1,1-Dichloroethene	110		ug/L	1.0	SW846 8260D	1	12/07/2023 13:02	AHI	A
1,1-Dichloropropene	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/07/2023 13:02	AHI	A
1,2,3-Trichlorobenzene	2.0 U	U	ug/L	2.0	SW846 8260D	1	12/07/2023 13:02	AHI	A
1,2,3-Trichloropropane	2.0 U	U	ug/L	2.0	SW846 8260D	1	12/07/2023 13:02	AHI	A
1,2,4-Trichlorobenzene	2.0 U	U	ug/L	2.0	SW846 8260D	1	12/07/2023 13:02	AHI	A
1,2-Dibromo-3-chloropropane	7.0 U	U	ug/L	7.0	SW846 8260D	1	12/07/2023 13:02	AHI	A
1,2-Dibromoethane	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/07/2023 13:02	AHI	A
1,2-Dichlorobenzene	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/07/2023 13:02	AHI	A
1,2-Dichloroethane	1.1		ug/L	1.0	SW846 8260D	1	12/07/2023 13:02	AHI	A
1,2-Dichloropropane	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/07/2023 13:02	AHI	A
1,3-Dichlorobenzene	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/07/2023 13:02	AHI	A
1,3-Dichloropropane	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/07/2023 13:02	AHI	A
1,4-Dichlorobenzene	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/07/2023 13:02	AHI	A
2,2-Dichloropropane	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/07/2023 13:02	AHI	A
2-Butanone	10.0 U	U	ug/L	10.0	SW846 8260D	1	12/07/2023 13:02	AHI	A
2-Hexanone	5.0 U	U	ug/L	5.0	SW846 8260D	1	12/07/2023 13:02	AHI	A
4-Methyl-2-Pentanone(MIBK)	5.0 U	U	ug/L	5.0	SW846 8260D	1	12/07/2023 13:02	AHI	A
Acetone	10.0 U	U	ug/L	10.0	SW846 8260D	1	12/07/2023 13:02	AHI	A
Benzene	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/07/2023 13:02	AHI	A
Bromobenzene	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/07/2023 13:02	AHI	A
Bromochloromethane	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/07/2023 13:02	AHI	A
Bromodichloromethane	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/07/2023 13:02	AHI	A
Bromoform	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/07/2023 13:02	AHI	A
Bromomethane	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/07/2023 13:02	AHI	A
Carbon Tetrachloride	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/07/2023 13:02	AHI	A
Chlorobenzene	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/07/2023 13:02	AHI	A
Chlorodibromomethane	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/07/2023 13:02	AHI	A
Chloroethane	1.0 U	U,1,2	ug/L	1.0	SW846 8260D	1	12/07/2023 13:02	AHI	A
Chloroform	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/07/2023 13:02	AHI	A
Chloromethane	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/07/2023 13:02	AHI	A

Results

Client Sample ID	MW-25D-130	Collected	12/04/2023 12:00
Lab Sample ID	3335524002	Lab Receipt	12/04/2023 18:15

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	12/07/2023 13:02	AHI	A
cis-1,3-Dichloropropene	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/07/2023 13:02	AHI	A
Dibromomethane	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/07/2023 13:02	AHI	A
Dichlorodifluoromethane	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/07/2023 13:02	AHI	A
Diisopropyl ether	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/07/2023 13:02	AHI	A
Ethylbenzene	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/07/2023 13:02	AHI	A
Hexachlorobutadiene	5.0 U	U	ug/L	5.0	SW846 8260D	1	12/07/2023 13:02	AHI	A
Methyl t-Butyl Ether	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/07/2023 13:02	AHI	A
Methylene Chloride	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/07/2023 13:02	AHI	A
mp-Xylene	2.0 U	U	ug/L	2.0	SW846 8260D	1	12/07/2023 13:02	AHI	A
Naphthalene	2.0 U	U	ug/L	2.0	SW846 8260D	1	12/07/2023 13:02	AHI	A
o-Chlorotoluene	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/07/2023 13:02	AHI	A
o-Xylene	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/07/2023 13:02	AHI	A
p-Chlorotoluene	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/07/2023 13:02	AHI	A
p-Isopropyltoluene	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/07/2023 13:02	AHI	A
Styrene	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/07/2023 13:02	AHI	A
Tetrachloroethene	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/07/2023 13:02	AHI	A
Toluene	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/07/2023 13:02	AHI	A
Total Xylenes	3.0 U	U	ug/L	3.0	SW846 8260D	1	12/07/2023 13:02	AHI	A
trans-1,2-Dichloroethene	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/07/2023 13:02	AHI	A
trans-1,3-Dichloropropene	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/07/2023 13:02	AHI	A
Trichloroethene	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/07/2023 13:02	AHI	A
Trichlorofluoromethane	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/07/2023 13:02	AHI	A
Vinyl Acetate	5.0 U	U	ug/L	5.0	SW846 8260D	1	12/07/2023 13:02	AHI	A
Vinyl Chloride	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/07/2023 13:02	AHI	A

SURROGATES

Compound	CAS No	Recovery	Limits(%)	Analysis Date/Time	Qualifiers
1,2-Dichloroethane-d4	17060-07-0	104%	62 – 133	12/07/2023 13:02	
4-Bromofluorobenzene	460-00-4	105%	79 – 114	12/07/2023 13:02	
Dibromofluoromethane	1868-53-7	102%	78 – 116	12/07/2023 13:02	
Toluene-d8	2037-26-5	103%	76 – 127	12/07/2023 13:02	

Results

Client Sample ID	MW-25D-190	Collected	12/04/2023 12:15
Lab Sample ID	3335524003	Lab Receipt	12/04/2023 18:15

SEMIVOLATILE SIM

Compound	Result	Flag	Units	RDL	Method	Dilution	Analysis Date/Time	By	Cntr
1,4-Dioxane	9.4	13	ug/L	5.0	SW846 8270E SIM	1	12/06/2023 22:17	M1O	C

SURROGATES

Compound	CAS No	Recovery	Limits(%)	Analysis Date/Time	Qualifiers
2-Methylnapthalene-d10	7297-45-2	59%	29 – 112	12/06/2023 22:17	
Fluoranthene-d10	93951-69-0	67.2%	45 – 130	12/06/2023 22:17	

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	12/07/2023 13:25	AHI	A
1,1,1-Trichloroethane	3.9		ug/L	1.0	SW846 8260D	1	12/07/2023 13:25	AHI	A
1,1,2,2-Tetrachloroethane	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/07/2023 13:25	AHI	A
1,1,2-Trichloroethane	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/07/2023 13:25	AHI	A
1,1-Dichloroethane	8.4	6	ug/L	1.0	SW846 8260D	1	12/07/2023 13:25	AHI	A
1,1-Dichloroethene	36.5	7	ug/L	1.0	SW846 8260D	1	12/07/2023 13:25	AHI	A
1,1-Dichloropropene	1.0 U	U,10	ug/L	1.0	SW846 8260D	1	12/07/2023 13:25	AHI	A
1,2,3-Trichlorobenzene	2.0 U	U	ug/L	2.0	SW846 8260D	1	12/07/2023 13:25	AHI	A
1,2,3-Trichloropropane	2.0 U	U	ug/L	2.0	SW846 8260D	1	12/07/2023 13:25	AHI	A
1,2,4-Trichlorobenzene	2.0 U	U	ug/L	2.0	SW846 8260D	1	12/07/2023 13:25	AHI	A
1,2-Dibromo-3-chloropropane	7.0 U	U	ug/L	7.0	SW846 8260D	1	12/07/2023 13:25	AHI	A
1,2-Dibromoethane	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/07/2023 13:25	AHI	A
1,2-Dichlorobenzene	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/07/2023 13:25	AHI	A
1,2-Dichloroethane	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/07/2023 13:25	AHI	A
1,2-Dichloropropane	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/07/2023 13:25	AHI	A
1,3-Dichlorobenzene	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/07/2023 13:25	AHI	A
1,3-Dichloropropane	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/07/2023 13:25	AHI	A
1,4-Dichlorobenzene	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/07/2023 13:25	AHI	A
2,2-Dichloropropane	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/07/2023 13:25	AHI	A
2-Butanone	10.0 U	U	ug/L	10.0	SW846 8260D	1	12/07/2023 13:25	AHI	A
2-Hexanone	5.0 U	U	ug/L	5.0	SW846 8260D	1	12/07/2023 13:25	AHI	A
4-Methyl-2-Pentanone(MIBK)	5.0 U	U	ug/L	5.0	SW846 8260D	1	12/07/2023 13:25	AHI	A
Acetone	10.0 U	U	ug/L	10.0	SW846 8260D	1	12/07/2023 13:25	AHI	A
Benzene	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/07/2023 13:25	AHI	A
Bromobenzene	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/07/2023 13:25	AHI	A
Bromochloromethane	1.0 U	U,5	ug/L	1.0	SW846 8260D	1	12/07/2023 13:25	AHI	A
Bromodichloromethane	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/07/2023 13:25	AHI	A
Bromoform	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/07/2023 13:25	AHI	A
Bromomethane	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/07/2023 13:25	AHI	A
Carbon Tetrachloride	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/07/2023 13:25	AHI	A
Chlorobenzene	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/07/2023 13:25	AHI	A
Chlorodibromomethane	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/07/2023 13:25	AHI	A
Chloroethane	1.0 U	U,1,2	ug/L	1.0	SW846 8260D	1	12/07/2023 13:25	AHI	A
Chloroform	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/07/2023 13:25	AHI	A
Chloromethane	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/07/2023 13:25	AHI	A

Results

Client Sample ID	MW-25D-190	Collected	12/04/2023 12:15
Lab Sample ID	3335524003	Lab Receipt	12/04/2023 18:15

VOLATILE ORGANICS (cont.)

Compound	Result	Flag	Units	RDL	Method	Dilution	Analysis Date/Time	By	Cntr
cis-1,2-Dichloroethene	1.0 U	U,8	ug/L	1.0	SW846 8260D	1	12/07/2023 13:25	AHI	A
cis-1,3-Dichloropropene	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/07/2023 13:25	AHI	A
Dibromomethane	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/07/2023 13:25	AHI	A
Dichlorodifluoromethane	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/07/2023 13:25	AHI	A
Diisopropyl ether	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/07/2023 13:25	AHI	A
Ethylbenzene	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/07/2023 13:25	AHI	A
Hexachlorobutadiene	5.0 U	U	ug/L	5.0	SW846 8260D	1	12/07/2023 13:25	AHI	A
Methyl t-Butyl Ether	1.2	11,12	ug/L	1.0	SW846 8260D	1	12/07/2023 13:25	AHI	A
Methylene Chloride	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/07/2023 13:25	AHI	A
mp-Xylene	2.0 U	U	ug/L	2.0	SW846 8260D	1	12/07/2023 13:25	AHI	A
Naphthalene	2.0 U	U	ug/L	2.0	SW846 8260D	1	12/07/2023 13:25	AHI	A
o-Chlorotoluene	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/07/2023 13:25	AHI	A
o-Xylene	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/07/2023 13:25	AHI	A
p-Chlorotoluene	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/07/2023 13:25	AHI	A
p-Isopropyltoluene	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/07/2023 13:25	AHI	A
Styrene	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/07/2023 13:25	AHI	A
Tetrachloroethene	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/07/2023 13:25	AHI	A
Toluene	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/07/2023 13:25	AHI	A
Total Xylenes	3.0 U	U	ug/L	3.0	SW846 8260D	1	12/07/2023 13:25	AHI	A
trans-1,2-Dichloroethene	1.0 U	U,9	ug/L	1.0	SW846 8260D	1	12/07/2023 13:25	AHI	A
trans-1,3-Dichloropropene	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/07/2023 13:25	AHI	A
Trichloroethene	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/07/2023 13:25	AHI	A
Trichlorofluoromethane	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/07/2023 13:25	AHI	A
Vinyl Acetate	5.0 U	U	ug/L	5.0	SW846 8260D	1	12/07/2023 13:25	AHI	A
Vinyl Chloride	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/07/2023 13:25	AHI	A

SURROGATES

Compound	CAS No	Recovery	Limits(%)	Analysis Date/Time	Qualifiers
1,2-Dichloroethane-d4	17060-07-0	104%	62 – 133	12/07/2023 13:25	
4-Bromofluorobenzene	460-00-4	106%	79 – 114	12/07/2023 13:25	
Dibromofluoromethane	1868-53-7	100%	78 – 116	12/07/2023 13:25	
Toluene-d8	2037-26-5	101%	76 – 127	12/07/2023 13:25	

Results

Client Sample ID	MW-28D	Collected	12/04/2023 11:20
Lab Sample ID	3335524004	Lab Receipt	12/04/2023 18:15

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	12/06/2023 23:35	M1O	C

SURROGATES

Compound	CAS No	Recovery	Limits(%)	Analysis Date/Time	Qualifiers
2-Methylnapthalene-d10	7297-45-2	66.8%	29 – 112	12/06/2023 23:35	
Fluoranthene-d10	93951-69-0	83.8%	45 – 130	12/06/2023 23:35	

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	12/07/2023 13:48	AHI	A
1,1,1-Trichloroethane	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/07/2023 13:48	AHI	A
1,1,2,2-Tetrachloroethane	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/07/2023 13:48	AHI	A
1,1,2-Trichloroethane	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/07/2023 13:48	AHI	A
1,1-Dichloroethane	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/07/2023 13:48	AHI	A
1,1-Dichloroethene	13.3		ug/L	1.0	SW846 8260D	1	12/07/2023 13:48	AHI	A
1,1-Dichloropropene	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/07/2023 13:48	AHI	A
1,2,3-Trichlorobenzene	2.0 U	U	ug/L	2.0	SW846 8260D	1	12/07/2023 13:48	AHI	A
1,2,3-Trichloropropane	2.0 U	U	ug/L	2.0	SW846 8260D	1	12/07/2023 13:48	AHI	A
1,2,4-Trichlorobenzene	2.0 U	U	ug/L	2.0	SW846 8260D	1	12/07/2023 13:48	AHI	A
1,2-Dibromo-3-chloropropane	7.0 U	U	ug/L	7.0	SW846 8260D	1	12/07/2023 13:48	AHI	A
1,2-Dibromoethane	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/07/2023 13:48	AHI	A
1,2-Dichlorobenzene	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/07/2023 13:48	AHI	A
1,2-Dichloroethane	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/07/2023 13:48	AHI	A
1,2-Dichloropropane	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/07/2023 13:48	AHI	A
1,3-Dichlorobenzene	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/07/2023 13:48	AHI	A
1,3-Dichloropropane	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/07/2023 13:48	AHI	A
1,4-Dichlorobenzene	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/07/2023 13:48	AHI	A
2,2-Dichloropropane	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/07/2023 13:48	AHI	A
2-Butanone	10.0 U	U	ug/L	10.0	SW846 8260D	1	12/07/2023 13:48	AHI	A
2-Hexanone	5.0 U	U	ug/L	5.0	SW846 8260D	1	12/07/2023 13:48	AHI	A
4-Methyl-2-Pentanone(MIBK)	5.0 U	U	ug/L	5.0	SW846 8260D	1	12/07/2023 13:48	AHI	A
Acetone	10.0 U	U	ug/L	10.0	SW846 8260D	1	12/07/2023 13:48	AHI	A
Benzene	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/07/2023 13:48	AHI	A
Bromobenzene	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/07/2023 13:48	AHI	A
Bromochloromethane	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/07/2023 13:48	AHI	A
Bromodichloromethane	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/07/2023 13:48	AHI	A
Bromoform	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/07/2023 13:48	AHI	A
Bromomethane	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/07/2023 13:48	AHI	A
Carbon Tetrachloride	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/07/2023 13:48	AHI	A
Chlorobenzene	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/07/2023 13:48	AHI	A
Chlorodibromomethane	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/07/2023 13:48	AHI	A
Chloroethane	1.0 U	U,1,2	ug/L	1.0	SW846 8260D	1	12/07/2023 13:48	AHI	A
Chloroform	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/07/2023 13:48	AHI	A
Chloromethane	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/07/2023 13:48	AHI	A

Results

Client Sample ID	MW-28D	Collected	12/04/2023 11:20
Lab Sample ID	3335524004	Lab Receipt	12/04/2023 18:15

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	12/07/2023 13:48	AHI	A
cis-1,3-Dichloropropene	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/07/2023 13:48	AHI	A
Dibromomethane	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/07/2023 13:48	AHI	A
Dichlorodifluoromethane	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/07/2023 13:48	AHI	A
Diisopropyl ether	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/07/2023 13:48	AHI	A
Ethylbenzene	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/07/2023 13:48	AHI	A
Hexachlorobutadiene	5.0 U	U	ug/L	5.0	SW846 8260D	1	12/07/2023 13:48	AHI	A
Methyl t-Butyl Ether	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/07/2023 13:48	AHI	A
Methylene Chloride	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/07/2023 13:48	AHI	A
mp-Xylene	2.0 U	U	ug/L	2.0	SW846 8260D	1	12/07/2023 13:48	AHI	A
Naphthalene	2.0 U	U	ug/L	2.0	SW846 8260D	1	12/07/2023 13:48	AHI	A
o-Chlorotoluene	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/07/2023 13:48	AHI	A
o-Xylene	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/07/2023 13:48	AHI	A
p-Chlorotoluene	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/07/2023 13:48	AHI	A
p-Isopropyltoluene	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/07/2023 13:48	AHI	A
Styrene	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/07/2023 13:48	AHI	A
Tetrachloroethene	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/07/2023 13:48	AHI	A
Toluene	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/07/2023 13:48	AHI	A
Total Xylenes	3.0 U	U	ug/L	3.0	SW846 8260D	1	12/07/2023 13:48	AHI	A
trans-1,2-Dichloroethene	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/07/2023 13:48	AHI	A
trans-1,3-Dichloropropene	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/07/2023 13:48	AHI	A
Trichloroethene	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/07/2023 13:48	AHI	A
Trichlorofluoromethane	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/07/2023 13:48	AHI	A
Vinyl Acetate	5.0 U	U	ug/L	5.0	SW846 8260D	1	12/07/2023 13:48	AHI	A
Vinyl Chloride	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/07/2023 13:48	AHI	A

SURROGATES

Compound	CAS No	Recovery	Limits(%)	Analysis Date/Time	Qualifiers
1,2-Dichloroethane-d4	17060-07-0	105%	62 – 133	12/07/2023 13:48	
4-Bromofluorobenzene	460-00-4	104%	79 – 114	12/07/2023 13:48	
Dibromofluoromethane	1868-53-7	102%	78 – 116	12/07/2023 13:48	
Toluene-d8	2037-26-5	103%	76 – 127	12/07/2023 13:48	

Results

Client Sample ID	MW-29D	Collected	12/04/2023 10:45
Lab Sample ID	3335524005	Lab Receipt	12/04/2023 18:15

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	12/07/2023 00:02	M1O	C

SURROGATES

Compound	CAS No	Recovery	Limits(%)	Analysis Date/Time	Qualifiers
2-Methylnapthalene-d10	7297-45-2	62.9%	29 – 112	12/07/2023 00:02	
Fluoranthene-d10	93951-69-0	76.4%	45 – 130	12/07/2023 00:02	

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	12/07/2023 14:12	AHI	A
1,1,1-Trichloroethane	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/07/2023 14:12	AHI	A
1,1,2,2-Tetrachloroethane	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/07/2023 14:12	AHI	A
1,1,2-Trichloroethane	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/07/2023 14:12	AHI	A
1,1-Dichloroethane	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/07/2023 14:12	AHI	A
1,1-Dichloroethene	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/07/2023 14:12	AHI	A
1,1-Dichloropropene	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/07/2023 14:12	AHI	A
1,2,3-Trichlorobenzene	2.0 U	U	ug/L	2.0	SW846 8260D	1	12/07/2023 14:12	AHI	A
1,2,3-Trichloropropane	2.0 U	U	ug/L	2.0	SW846 8260D	1	12/07/2023 14:12	AHI	A
1,2,4-Trichlorobenzene	2.0 U	U	ug/L	2.0	SW846 8260D	1	12/07/2023 14:12	AHI	A
1,2-Dibromo-3-chloropropane	7.0 U	U	ug/L	7.0	SW846 8260D	1	12/07/2023 14:12	AHI	A
1,2-Dibromoethane	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/07/2023 14:12	AHI	A
1,2-Dichlorobenzene	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/07/2023 14:12	AHI	A
1,2-Dichloroethane	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/07/2023 14:12	AHI	A
1,2-Dichloropropane	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/07/2023 14:12	AHI	A
1,3-Dichlorobenzene	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/07/2023 14:12	AHI	A
1,3-Dichloropropane	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/07/2023 14:12	AHI	A
1,4-Dichlorobenzene	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/07/2023 14:12	AHI	A
2,2-Dichloropropane	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/07/2023 14:12	AHI	A
2-Butanone	10.0 U	U	ug/L	10.0	SW846 8260D	1	12/07/2023 14:12	AHI	A
2-Hexanone	5.0 U	U	ug/L	5.0	SW846 8260D	1	12/07/2023 14:12	AHI	A
4-Methyl-2-Pentanone(MIBK)	5.0 U	U	ug/L	5.0	SW846 8260D	1	12/07/2023 14:12	AHI	A
Acetone	10.0 U	U	ug/L	10.0	SW846 8260D	1	12/07/2023 14:12	AHI	A
Benzene	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/07/2023 14:12	AHI	A
Bromobenzene	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/07/2023 14:12	AHI	A
Bromochloromethane	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/07/2023 14:12	AHI	A
Bromodichloromethane	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/07/2023 14:12	AHI	A
Bromoform	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/07/2023 14:12	AHI	A
Bromomethane	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/07/2023 14:12	AHI	A
Carbon Tetrachloride	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/07/2023 14:12	AHI	A
Chlorobenzene	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/07/2023 14:12	AHI	A
Chlorodibromomethane	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/07/2023 14:12	AHI	A
Chloroethane	1.0 U	U,1,2	ug/L	1.0	SW846 8260D	1	12/07/2023 14:12	AHI	A
Chloroform	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/07/2023 14:12	AHI	A
Chloromethane	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/07/2023 14:12	AHI	A

Results

Client Sample ID	MW-29D	Collected	12/04/2023 10:45
Lab Sample ID	3335524005	Lab Receipt	12/04/2023 18:15

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	12/07/2023 14:12	AHI	A
cis-1,3-Dichloropropene	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/07/2023 14:12	AHI	A
Dibromomethane	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/07/2023 14:12	AHI	A
Dichlorodifluoromethane	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/07/2023 14:12	AHI	A
Diisopropyl ether	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/07/2023 14:12	AHI	A
Ethylbenzene	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/07/2023 14:12	AHI	A
Hexachlorobutadiene	5.0 U	U	ug/L	5.0	SW846 8260D	1	12/07/2023 14:12	AHI	A
Methyl t-Butyl Ether	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/07/2023 14:12	AHI	A
Methylene Chloride	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/07/2023 14:12	AHI	A
mp-Xylene	2.0 U	U	ug/L	2.0	SW846 8260D	1	12/07/2023 14:12	AHI	A
Naphthalene	2.0 U	U	ug/L	2.0	SW846 8260D	1	12/07/2023 14:12	AHI	A
o-Chlorotoluene	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/07/2023 14:12	AHI	A
o-Xylene	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/07/2023 14:12	AHI	A
p-Chlorotoluene	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/07/2023 14:12	AHI	A
p-Isopropyltoluene	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/07/2023 14:12	AHI	A
Styrene	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/07/2023 14:12	AHI	A
Tetrachloroethene	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/07/2023 14:12	AHI	A
Toluene	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/07/2023 14:12	AHI	A
Total Xylenes	3.0 U	U	ug/L	3.0	SW846 8260D	1	12/07/2023 14:12	AHI	A
trans-1,2-Dichloroethene	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/07/2023 14:12	AHI	A
trans-1,3-Dichloropropene	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/07/2023 14:12	AHI	A
Trichloroethene	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/07/2023 14:12	AHI	A
Trichlorofluoromethane	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/07/2023 14:12	AHI	A
Vinyl Acetate	5.0 U	U	ug/L	5.0	SW846 8260D	1	12/07/2023 14:12	AHI	A
Vinyl Chloride	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/07/2023 14:12	AHI	A

SURROGATES

Compound	CAS No	Recovery	Limits(%)	Analysis Date/Time	Qualifiers
1,2-Dichloroethane-d4	17060-07-0	103%	62 – 133	12/07/2023 14:12	
4-Bromofluorobenzene	460-00-4	101%	79 – 114	12/07/2023 14:12	
Dibromofluoromethane	1868-53-7	101%	78 – 116	12/07/2023 14:12	
Toluene-d8	2037-26-5	101%	76 – 127	12/07/2023 14:12	

Results

Client Sample ID	MW-30D-273	Collected	12/04/2023 10:20
Lab Sample ID	3335524006	Lab Receipt	12/04/2023 18:15

SEMIVOLATILE SIM

Compound	Result	Flag	Units	RDL	Method	Dilution	Analysis Date/Time	By	Cntr
1,4-Dioxane	9.6		ug/L	1.0	SW846 8270E SIM	1	12/07/2023 00:28	M1O	C

SURROGATES

Compound	CAS No	Recovery	Limits(%)	Analysis Date/Time	Qualifiers
2-Methylnapthalene-d10	7297-45-2	58.3%	29 – 112	12/07/2023 00:28	
Fluoranthene-d10	93951-69-0	80.3%	45 – 130	12/07/2023 00:28	

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	12/07/2023 14:35	AHI	A
1,1,1-Trichloroethane	1.7		ug/L	1.0	SW846 8260D	1	12/07/2023 14:35	AHI	A
1,1,2,2-Tetrachloroethane	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/07/2023 14:35	AHI	A
1,1,2-Trichloroethane	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/07/2023 14:35	AHI	A
1,1-Dichloroethane	1.3		ug/L	1.0	SW846 8260D	1	12/07/2023 14:35	AHI	A
1,1-Dichloroethene	51.0		ug/L	1.0	SW846 8260D	1	12/07/2023 14:35	AHI	A
1,1-Dichloropropene	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/07/2023 14:35	AHI	A
1,2,3-Trichlorobenzene	2.0 U	U	ug/L	2.0	SW846 8260D	1	12/07/2023 14:35	AHI	A
1,2,3-Trichloropropane	2.0 U	U	ug/L	2.0	SW846 8260D	1	12/07/2023 14:35	AHI	A
1,2,4-Trichlorobenzene	2.0 U	U	ug/L	2.0	SW846 8260D	1	12/07/2023 14:35	AHI	A
1,2-Dibromo-3-chloropropane	7.0 U	U	ug/L	7.0	SW846 8260D	1	12/07/2023 14:35	AHI	A
1,2-Dibromoethane	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/07/2023 14:35	AHI	A
1,2-Dichlorobenzene	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/07/2023 14:35	AHI	A
1,2-Dichloroethane	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/07/2023 14:35	AHI	A
1,2-Dichloropropane	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/07/2023 14:35	AHI	A
1,3-Dichlorobenzene	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/07/2023 14:35	AHI	A
1,3-Dichloropropane	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/07/2023 14:35	AHI	A
1,4-Dichlorobenzene	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/07/2023 14:35	AHI	A
2,2-Dichloropropane	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/07/2023 14:35	AHI	A
2-Butanone	10.0 U	U	ug/L	10.0	SW846 8260D	1	12/07/2023 14:35	AHI	A
2-Hexanone	5.0 U	U	ug/L	5.0	SW846 8260D	1	12/07/2023 14:35	AHI	A
4-Methyl-2-Pentanone(MIBK)	5.0 U	U	ug/L	5.0	SW846 8260D	1	12/07/2023 14:35	AHI	A
Acetone	10.0 U	U	ug/L	10.0	SW846 8260D	1	12/07/2023 14:35	AHI	A
Benzene	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/07/2023 14:35	AHI	A
Bromobenzene	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/07/2023 14:35	AHI	A
Bromochloromethane	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/07/2023 14:35	AHI	A
Bromodichloromethane	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/07/2023 14:35	AHI	A
Bromoform	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/07/2023 14:35	AHI	A
Bromomethane	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/07/2023 14:35	AHI	A
Carbon Tetrachloride	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/07/2023 14:35	AHI	A
Chlorobenzene	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/07/2023 14:35	AHI	A
Chlorodibromomethane	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/07/2023 14:35	AHI	A
Chloroethane	1.0 U	U,1,2	ug/L	1.0	SW846 8260D	1	12/07/2023 14:35	AHI	A
Chloroform	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/07/2023 14:35	AHI	A
Chloromethane	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/07/2023 14:35	AHI	A

Results

Client Sample ID	MW-30D-273	Collected	12/04/2023 10:20
Lab Sample ID	3335524006	Lab Receipt	12/04/2023 18:15

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	12/07/2023 14:35	AHI	A
cis-1,3-Dichloropropene	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/07/2023 14:35	AHI	A
Dibromomethane	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/07/2023 14:35	AHI	A
Dichlorodifluoromethane	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/07/2023 14:35	AHI	A
Diisopropyl ether	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/07/2023 14:35	AHI	A
Ethylbenzene	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/07/2023 14:35	AHI	A
Hexachlorobutadiene	5.0 U	U	ug/L	5.0	SW846 8260D	1	12/07/2023 14:35	AHI	A
Methyl t-Butyl Ether	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/07/2023 14:35	AHI	A
Methylene Chloride	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/07/2023 14:35	AHI	A
mp-Xylene	2.0 U	U	ug/L	2.0	SW846 8260D	1	12/07/2023 14:35	AHI	A
Naphthalene	2.0 U	U	ug/L	2.0	SW846 8260D	1	12/07/2023 14:35	AHI	A
o-Chlorotoluene	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/07/2023 14:35	AHI	A
o-Xylene	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/07/2023 14:35	AHI	A
p-Chlorotoluene	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/07/2023 14:35	AHI	A
p-Isopropyltoluene	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/07/2023 14:35	AHI	A
Styrene	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/07/2023 14:35	AHI	A
Tetrachloroethene	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/07/2023 14:35	AHI	A
Toluene	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/07/2023 14:35	AHI	A
Total Xylenes	3.0 U	U	ug/L	3.0	SW846 8260D	1	12/07/2023 14:35	AHI	A
trans-1,2-Dichloroethene	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/07/2023 14:35	AHI	A
trans-1,3-Dichloropropene	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/07/2023 14:35	AHI	A
Trichloroethene	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/07/2023 14:35	AHI	A
Trichlorofluoromethane	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/07/2023 14:35	AHI	A
Vinyl Acetate	5.0 U	U	ug/L	5.0	SW846 8260D	1	12/07/2023 14:35	AHI	A
Vinyl Chloride	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/07/2023 14:35	AHI	A

SURROGATES

Compound	CAS No	Recovery	Limits(%)	Analysis Date/Time	Qualifiers
1,2-Dichloroethane-d4	17060-07-0	103%	62 – 133	12/07/2023 14:35	
4-Bromofluorobenzene	460-00-4	104%	79 – 114	12/07/2023 14:35	
Dibromofluoromethane	1868-53-7	101%	78 – 116	12/07/2023 14:35	
Toluene-d8	2037-26-5	102%	76 – 127	12/07/2023 14:35	

Results

Client Sample ID	MW-30D-413	Collected	12/04/2023 10:30
Lab Sample ID	3335524007	Lab Receipt	12/04/2023 18:15

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	12/07/2023 00:54	M1O	C

SURROGATES

Compound	CAS No	Recovery	Limits(%)	Analysis Date/Time	Qualifiers
2-Methylnapthalene-d10	7297-45-2	60%	29 – 112	12/07/2023 00:54	
Fluoranthene-d10	93951-69-0	75.7%	45 – 130	12/07/2023 00:54	

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	12/07/2023 14:58	AHI	A
1,1,1-Trichloroethane	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/07/2023 14:58	AHI	A
1,1,2,2-Tetrachloroethane	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/07/2023 14:58	AHI	A
1,1,2-Trichloroethane	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/07/2023 14:58	AHI	A
1,1-Dichloroethane	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/07/2023 14:58	AHI	A
1,1-Dichloroethene	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/07/2023 14:58	AHI	A
1,1-Dichloropropene	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/07/2023 14:58	AHI	A
1,2,3-Trichlorobenzene	2.0 U	U	ug/L	2.0	SW846 8260D	1	12/07/2023 14:58	AHI	A
1,2,3-Trichloropropane	2.0 U	U	ug/L	2.0	SW846 8260D	1	12/07/2023 14:58	AHI	A
1,2,4-Trichlorobenzene	2.0 U	U	ug/L	2.0	SW846 8260D	1	12/07/2023 14:58	AHI	A
1,2-Dibromo-3-chloropropane	7.0 U	U	ug/L	7.0	SW846 8260D	1	12/07/2023 14:58	AHI	A
1,2-Dibromoethane	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/07/2023 14:58	AHI	A
1,2-Dichlorobenzene	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/07/2023 14:58	AHI	A
1,2-Dichloroethane	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/07/2023 14:58	AHI	A
1,2-Dichloropropane	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/07/2023 14:58	AHI	A
1,3-Dichlorobenzene	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/07/2023 14:58	AHI	A
1,3-Dichloropropane	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/07/2023 14:58	AHI	A
1,4-Dichlorobenzene	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/07/2023 14:58	AHI	A
2,2-Dichloropropane	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/07/2023 14:58	AHI	A
2-Butanone	10.0 U	U	ug/L	10.0	SW846 8260D	1	12/07/2023 14:58	AHI	A
2-Hexanone	5.0 U	U	ug/L	5.0	SW846 8260D	1	12/07/2023 14:58	AHI	A
4-Methyl-2-Pentanone(MIBK)	5.0 U	U	ug/L	5.0	SW846 8260D	1	12/07/2023 14:58	AHI	A
Acetone	10.0 U	U	ug/L	10.0	SW846 8260D	1	12/07/2023 14:58	AHI	A
Benzene	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/07/2023 14:58	AHI	A
Bromobenzene	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/07/2023 14:58	AHI	A
Bromochloromethane	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/07/2023 14:58	AHI	A
Bromodichloromethane	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/07/2023 14:58	AHI	A
Bromoform	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/07/2023 14:58	AHI	A
Bromomethane	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/07/2023 14:58	AHI	A
Carbon Tetrachloride	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/07/2023 14:58	AHI	A
Chlorobenzene	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/07/2023 14:58	AHI	A
Chlorodibromomethane	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/07/2023 14:58	AHI	A
Chloroethane	1.0 U	U,1,2	ug/L	1.0	SW846 8260D	1	12/07/2023 14:58	AHI	A
Chloroform	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/07/2023 14:58	AHI	A
Chloromethane	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/07/2023 14:58	AHI	A

Results

Client Sample ID	MW-30D-413	Collected	12/04/2023 10:30
Lab Sample ID	3335524007	Lab Receipt	12/04/2023 18:15

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	12/07/2023 14:58	AHI	A
cis-1,3-Dichloropropene	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/07/2023 14:58	AHI	A
Dibromomethane	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/07/2023 14:58	AHI	A
Dichlorodifluoromethane	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/07/2023 14:58	AHI	A
Diisopropyl ether	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/07/2023 14:58	AHI	A
Ethylbenzene	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/07/2023 14:58	AHI	A
Hexachlorobutadiene	5.0 U	U	ug/L	5.0	SW846 8260D	1	12/07/2023 14:58	AHI	A
Methyl t-Butyl Ether	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/07/2023 14:58	AHI	A
Methylene Chloride	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/07/2023 14:58	AHI	A
mp-Xylene	2.0 U	U	ug/L	2.0	SW846 8260D	1	12/07/2023 14:58	AHI	A
Naphthalene	2.0 U	U	ug/L	2.0	SW846 8260D	1	12/07/2023 14:58	AHI	A
o-Chlorotoluene	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/07/2023 14:58	AHI	A
o-Xylene	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/07/2023 14:58	AHI	A
p-Chlorotoluene	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/07/2023 14:58	AHI	A
p-Isopropyltoluene	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/07/2023 14:58	AHI	A
Styrene	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/07/2023 14:58	AHI	A
Tetrachloroethene	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/07/2023 14:58	AHI	A
Toluene	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/07/2023 14:58	AHI	A
Total Xylenes	3.0 U	U	ug/L	3.0	SW846 8260D	1	12/07/2023 14:58	AHI	A
trans-1,2-Dichloroethene	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/07/2023 14:58	AHI	A
trans-1,3-Dichloropropene	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/07/2023 14:58	AHI	A
Trichloroethene	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/07/2023 14:58	AHI	A
Trichlorofluoromethane	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/07/2023 14:58	AHI	A
Vinyl Acetate	5.0 U	U	ug/L	5.0	SW846 8260D	1	12/07/2023 14:58	AHI	A
Vinyl Chloride	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/07/2023 14:58	AHI	A

SURROGATES

Compound	CAS No	Recovery	Limits(%)	Analysis Date/Time	Qualifiers
1,2-Dichloroethane-d4	17060-07-0	102%	62 – 133	12/07/2023 14:58	
4-Bromofluorobenzene	460-00-4	101%	79 – 114	12/07/2023 14:58	
Dibromofluoromethane	1868-53-7	102%	78 – 116	12/07/2023 14:58	
Toluene-d8	2037-26-5	102%	76 – 127	12/07/2023 14:58	

Results

Client Sample ID	MW-31D	Collected	12/04/2023 10:00
Lab Sample ID	3335524008	Lab Receipt	12/04/2023 18:15

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	12/07/2023 01:20	M1O	C

SURROGATES

Compound	CAS No	Recovery	Limits(%)	Analysis Date/Time	Qualifiers
2-Methylnapthalene-d10	7297-45-2	59.6%	29 – 112	12/07/2023 01:20	
Fluoranthene-d10	93951-69-0	78.7%	45 – 130	12/07/2023 01:20	

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	12/07/2023 15:22	AHI	A
1,1,1-Trichloroethane	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/07/2023 15:22	AHI	A
1,1,2,2-Tetrachloroethane	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/07/2023 15:22	AHI	A
1,1,2-Trichloroethane	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/07/2023 15:22	AHI	A
1,1-Dichloroethane	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/07/2023 15:22	AHI	A
1,1-Dichloroethene	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/07/2023 15:22	AHI	A
1,1-Dichloropropene	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/07/2023 15:22	AHI	A
1,2,3-Trichlorobenzene	2.0 U	U	ug/L	2.0	SW846 8260D	1	12/07/2023 15:22	AHI	A
1,2,3-Trichloropropane	2.0 U	U	ug/L	2.0	SW846 8260D	1	12/07/2023 15:22	AHI	A
1,2,4-Trichlorobenzene	2.0 U	U	ug/L	2.0	SW846 8260D	1	12/07/2023 15:22	AHI	A
1,2-Dibromo-3-chloropropane	7.0 U	U	ug/L	7.0	SW846 8260D	1	12/07/2023 15:22	AHI	A
1,2-Dibromoethane	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/07/2023 15:22	AHI	A
1,2-Dichlorobenzene	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/07/2023 15:22	AHI	A
1,2-Dichloroethane	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/07/2023 15:22	AHI	A
1,2-Dichloropropane	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/07/2023 15:22	AHI	A
1,3-Dichlorobenzene	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/07/2023 15:22	AHI	A
1,3-Dichloropropane	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/07/2023 15:22	AHI	A
1,4-Dichlorobenzene	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/07/2023 15:22	AHI	A
2,2-Dichloropropane	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/07/2023 15:22	AHI	A
2-Butanone	10.0 U	U	ug/L	10.0	SW846 8260D	1	12/07/2023 15:22	AHI	A
2-Hexanone	5.0 U	U	ug/L	5.0	SW846 8260D	1	12/07/2023 15:22	AHI	A
4-Methyl-2-Pentanone(MIBK)	5.0 U	U	ug/L	5.0	SW846 8260D	1	12/07/2023 15:22	AHI	A
Acetone	10.0 U	U	ug/L	10.0	SW846 8260D	1	12/07/2023 15:22	AHI	A
Benzene	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/07/2023 15:22	AHI	A
Bromobenzene	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/07/2023 15:22	AHI	A
Bromochloromethane	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/07/2023 15:22	AHI	A
Bromodichloromethane	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/07/2023 15:22	AHI	A
Bromoform	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/07/2023 15:22	AHI	A
Bromomethane	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/07/2023 15:22	AHI	A
Carbon Tetrachloride	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/07/2023 15:22	AHI	A
Chlorobenzene	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/07/2023 15:22	AHI	A
Chlorodibromomethane	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/07/2023 15:22	AHI	A
Chloroethane	1.0 U	U,1,2	ug/L	1.0	SW846 8260D	1	12/07/2023 15:22	AHI	A
Chloroform	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/07/2023 15:22	AHI	A
Chloromethane	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/07/2023 15:22	AHI	A

Results

Client Sample ID	MW-31D	Collected	12/04/2023 10:00
Lab Sample ID	3335524008	Lab Receipt	12/04/2023 18:15

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	12/07/2023 15:22	AHI	A
cis-1,3-Dichloropropene	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/07/2023 15:22	AHI	A
Dibromomethane	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/07/2023 15:22	AHI	A
Dichlorodifluoromethane	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/07/2023 15:22	AHI	A
Diisopropyl ether	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/07/2023 15:22	AHI	A
Ethylbenzene	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/07/2023 15:22	AHI	A
Hexachlorobutadiene	5.0 U	U	ug/L	5.0	SW846 8260D	1	12/07/2023 15:22	AHI	A
Methyl t-Butyl Ether	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/07/2023 15:22	AHI	A
Methylene Chloride	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/07/2023 15:22	AHI	A
mp-Xylene	2.0 U	U	ug/L	2.0	SW846 8260D	1	12/07/2023 15:22	AHI	A
Naphthalene	2.0 U	U	ug/L	2.0	SW846 8260D	1	12/07/2023 15:22	AHI	A
o-Chlorotoluene	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/07/2023 15:22	AHI	A
o-Xylene	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/07/2023 15:22	AHI	A
p-Chlorotoluene	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/07/2023 15:22	AHI	A
p-Isopropyltoluene	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/07/2023 15:22	AHI	A
Styrene	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/07/2023 15:22	AHI	A
Tetrachloroethene	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/07/2023 15:22	AHI	A
Toluene	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/07/2023 15:22	AHI	A
Total Xylenes	3.0 U	U	ug/L	3.0	SW846 8260D	1	12/07/2023 15:22	AHI	A
trans-1,2-Dichloroethene	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/07/2023 15:22	AHI	A
trans-1,3-Dichloropropene	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/07/2023 15:22	AHI	A
Trichloroethene	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/07/2023 15:22	AHI	A
Trichlorofluoromethane	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/07/2023 15:22	AHI	A
Vinyl Acetate	5.0 U	U	ug/L	5.0	SW846 8260D	1	12/07/2023 15:22	AHI	A
Vinyl Chloride	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/07/2023 15:22	AHI	A

SURROGATES

Compound	CAS No	Recovery	Limits(%)	Analysis Date/Time	Qualifiers
1,2-Dichloroethane-d4	17060-07-0	103%	62 – 133	12/07/2023 15:22	
4-Bromofluorobenzene	460-00-4	101%	79 – 114	12/07/2023 15:22	
Dibromofluoromethane	1868-53-7	102%	78 – 116	12/07/2023 15:22	
Toluene-d8	2037-26-5	104%	76 – 127	12/07/2023 15:22	

Results

Client Sample ID	MW-32D	Collected	12/04/2023 11:10
Lab Sample ID	3335524009	Lab Receipt	12/04/2023 18:15

SEMIVOLATILE SIM

Compound	Result	Flag	Units	RDL	Method	Dilution	Analysis Date/Time	By	Cntr
1,4-Dioxane	1.0 U	U,S1	ug/L	1.0	SW846 8270E SIM	1	12/07/2023 01:46	M1O	C

SURROGATES

Compound	CAS No	Recovery	Limits(%)	Analysis Date/Time	Qualifiers
2-Methylnapthalene-d10	7297-45-2	39.1%	29 – 112	12/07/2023 01:46	
Fluoranthene-d10	93951-69-0	72%	45 – 130	12/07/2023 01:46	

VOLATILE ORGANICS

Compound	Result	Flag	Units	RDL	Method	Dilution	Analysis Date/Time	By	Cntr
1,1,1,2-Tetrachloroethane	5.0 U	U,S1	ug/L	5.0	SW846 8260D	5	12/07/2023 16:32	AHI	A
1,1,1-Trichloroethane	5.0 U	U,S1	ug/L	5.0	SW846 8260D	5	12/07/2023 16:32	AHI	A
1,1,2,2-Tetrachloroethane	5.0 U	U,S1	ug/L	5.0	SW846 8260D	5	12/07/2023 16:32	AHI	A
1,1,2-Trichloroethane	5.0 U	U,S1	ug/L	5.0	SW846 8260D	5	12/07/2023 16:32	AHI	A
1,1-Dichloroethane	5.0 U	U,S1	ug/L	5.0	SW846 8260D	5	12/07/2023 16:32	AHI	A
1,1-Dichloroethene	5.0 U	U,S1	ug/L	5.0	SW846 8260D	5	12/07/2023 16:32	AHI	A
1,1-Dichloropropene	5.0 U	U,S1	ug/L	5.0	SW846 8260D	5	12/07/2023 16:32	AHI	A
1,2,3-Trichlorobenzene	10.0 U	U,S1	ug/L	10.0	SW846 8260D	5	12/07/2023 16:32	AHI	A
1,2,3-Trichloropropane	10.0 U	U,S1	ug/L	10.0	SW846 8260D	5	12/07/2023 16:32	AHI	A
1,2,4-Trichlorobenzene	10.0 U	U,S1	ug/L	10.0	SW846 8260D	5	12/07/2023 16:32	AHI	A
1,2-Dibromo-3-chloropropane	35.0 U	U,S1	ug/L	35.0	SW846 8260D	5	12/07/2023 16:32	AHI	A
1,2-Dibromoethane	5.0 U	U,S1	ug/L	5.0	SW846 8260D	5	12/07/2023 16:32	AHI	A
1,2-Dichlorobenzene	5.0 U	U,S1	ug/L	5.0	SW846 8260D	5	12/07/2023 16:32	AHI	A
1,2-Dichloroethane	5.0 U	U,S1	ug/L	5.0	SW846 8260D	5	12/07/2023 16:32	AHI	A
1,2-Dichloropropane	5.0 U	U,S1	ug/L	5.0	SW846 8260D	5	12/07/2023 16:32	AHI	A
1,3-Dichlorobenzene	5.0 U	U,S1	ug/L	5.0	SW846 8260D	5	12/07/2023 16:32	AHI	A
1,3-Dichloropropane	5.0 U	U,S1	ug/L	5.0	SW846 8260D	5	12/07/2023 16:32	AHI	A
1,4-Dichlorobenzene	5.0 U	U,S1	ug/L	5.0	SW846 8260D	5	12/07/2023 16:32	AHI	A
2,2-Dichloropropane	5.0 U	U,S1	ug/L	5.0	SW846 8260D	5	12/07/2023 16:32	AHI	A
2-Butanone	50.0 U	U,S1	ug/L	50.0	SW846 8260D	5	12/07/2023 16:32	AHI	A
2-Hexanone	25.0 U	U,S1	ug/L	25.0	SW846 8260D	5	12/07/2023 16:32	AHI	A
4-Methyl-2-Pentanone(MIBK)	25.0 U	U,S1	ug/L	25.0	SW846 8260D	5	12/07/2023 16:32	AHI	A
Acetone	50.0 U	U,S1	ug/L	50.0	SW846 8260D	5	12/07/2023 16:32	AHI	A
Benzene	5.0 U	U,S1	ug/L	5.0	SW846 8260D	5	12/07/2023 16:32	AHI	A
Bromobenzene	5.0 U	U,S1	ug/L	5.0	SW846 8260D	5	12/07/2023 16:32	AHI	A
Bromochloromethane	5.0 U	U,S1	ug/L	5.0	SW846 8260D	5	12/07/2023 16:32	AHI	A
Bromodichloromethane	5.0 U	U,S1	ug/L	5.0	SW846 8260D	5	12/07/2023 16:32	AHI	A
Bromoform	5.0 U	U,S1	ug/L	5.0	SW846 8260D	5	12/07/2023 16:32	AHI	A
Bromomethane	5.0 U	U,S1	ug/L	5.0	SW846 8260D	5	12/07/2023 16:32	AHI	A
Carbon Tetrachloride	5.0 U	U,S1	ug/L	5.0	SW846 8260D	5	12/07/2023 16:32	AHI	A
Chlorobenzene	5.0 U	U,S1	ug/L	5.0	SW846 8260D	5	12/07/2023 16:32	AHI	A
Chlorodibromomethane	5.0 U	U,S1	ug/L	5.0	SW846 8260D	5	12/07/2023 16:32	AHI	A
Chloroethane	5.0 U	U,1,2,S1	ug/L	5.0	SW846 8260D	5	12/07/2023 16:32	AHI	A
Chloroform	5.0 U	U,S1	ug/L	5.0	SW846 8260D	5	12/07/2023 16:32	AHI	A
Chloromethane	5.0 U	U,S1	ug/L	5.0	SW846 8260D	5	12/07/2023 16:32	AHI	A

Results

Client Sample ID	MW-32D	Collected	12/04/2023 11:10
Lab Sample ID	3335524009	Lab Receipt	12/04/2023 18:15

VOLATILE ORGANICS (cont.)

Compound	Result	Flag	Units	RDL	Method	Dilution	Analysis Date/Time	By	Cntr
cis-1,2-Dichloroethene	5.0 U	U,S1	ug/L	5.0	SW846 8260D	5	12/07/2023 16:32	AHI	A
cis-1,3-Dichloropropene	5.0 U	U,S1	ug/L	5.0	SW846 8260D	5	12/07/2023 16:32	AHI	A
Dibromomethane	5.0 U	U,S1	ug/L	5.0	SW846 8260D	5	12/07/2023 16:32	AHI	A
Dichlorodifluoromethane	5.0 U	U,S1	ug/L	5.0	SW846 8260D	5	12/07/2023 16:32	AHI	A
Diisopropyl ether	5.0 U	U,S1	ug/L	5.0	SW846 8260D	5	12/07/2023 16:32	AHI	A
Ethylbenzene	5.0 U	U,S1	ug/L	5.0	SW846 8260D	5	12/07/2023 16:32	AHI	A
Hexachlorobutadiene	25.0 U	U,S1	ug/L	25.0	SW846 8260D	5	12/07/2023 16:32	AHI	A
Methyl t-Butyl Ether	5.0 U	U,S1	ug/L	5.0	SW846 8260D	5	12/07/2023 16:32	AHI	A
Methylene Chloride	5.0 U	U,S1	ug/L	5.0	SW846 8260D	5	12/07/2023 16:32	AHI	A
mp-Xylene	10.0 U	U,S1	ug/L	10.0	SW846 8260D	5	12/07/2023 16:32	AHI	A
Naphthalene	10.0 U	U,S1	ug/L	10.0	SW846 8260D	5	12/07/2023 16:32	AHI	A
o-Chlorotoluene	5.0 U	U,S1	ug/L	5.0	SW846 8260D	5	12/07/2023 16:32	AHI	A
o-Xylene	5.0 U	U,S1	ug/L	5.0	SW846 8260D	5	12/07/2023 16:32	AHI	A
p-Chlorotoluene	5.0 U	U,S1	ug/L	5.0	SW846 8260D	5	12/07/2023 16:32	AHI	A
p-Isopropyltoluene	5.0 U	U,S1	ug/L	5.0	SW846 8260D	5	12/07/2023 16:32	AHI	A
Styrene	5.0 U	U,S1	ug/L	5.0	SW846 8260D	5	12/07/2023 16:32	AHI	A
Tetrachloroethene	5.0 U	U,S1	ug/L	5.0	SW846 8260D	5	12/07/2023 16:32	AHI	A
Toluene	5.0 U	U,S1	ug/L	5.0	SW846 8260D	5	12/07/2023 16:32	AHI	A
Total Xylenes	15.0 U	U,S1	ug/L	15.0	SW846 8260D	5	12/07/2023 16:32	AHI	A
trans-1,2-Dichloroethene	5.0 U	U,S1	ug/L	5.0	SW846 8260D	5	12/07/2023 16:32	AHI	A
trans-1,3-Dichloropropene	5.0 U	U,S1	ug/L	5.0	SW846 8260D	5	12/07/2023 16:32	AHI	A
Trichloroethene	5.0 U	U,S1	ug/L	5.0	SW846 8260D	5	12/07/2023 16:32	AHI	A
Trichlorofluoromethane	5.0 U	U,S1	ug/L	5.0	SW846 8260D	5	12/07/2023 16:32	AHI	A
Vinyl Acetate	25.0 U	U,S1	ug/L	25.0	SW846 8260D	5	12/07/2023 16:32	AHI	A
Vinyl Chloride	5.0 U	U,S1	ug/L	5.0	SW846 8260D	5	12/07/2023 16:32	AHI	A

SURROGATES

Compound	CAS No	Recovery	Limits(%)	Analysis Date/Time	Qualifiers
1,2-Dichloroethane-d4	17060-07-0	104%	62 – 133	12/07/2023 16:32	
4-Bromofluorobenzene	460-00-4	102%	79 – 114	12/07/2023 16:32	
Dibromofluoromethane	1868-53-7	104%	78 – 116	12/07/2023 16:32	
Toluene-d8	2037-26-5	103%	76 – 127	12/07/2023 16:32	

Results

Client Sample ID	MW-33D-235	Collected	12/04/2023 09:25
Lab Sample ID	3335524010	Lab Receipt	12/04/2023 18:15

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	12/07/2023 02:13	M1O	C

SURROGATES

Compound	CAS No	Recovery	Limits(%)	Analysis Date/Time	Qualifiers
2-Methylnapthalene-d10	7297-45-2	62.1%	29 – 112	12/07/2023 02:13	
Fluoranthene-d10	93951-69-0	76.2%	45 – 130	12/07/2023 02:13	

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	12/07/2023 15:45	AHI	A
1,1,1-Trichloroethane	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/07/2023 15:45	AHI	A
1,1,2,2-Tetrachloroethane	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/07/2023 15:45	AHI	A
1,1,2-Trichloroethane	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/07/2023 15:45	AHI	A
1,1-Dichloroethane	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/07/2023 15:45	AHI	A
1,1-Dichloroethene	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/07/2023 15:45	AHI	A
1,1-Dichloropropene	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/07/2023 15:45	AHI	A
1,2,3-Trichlorobenzene	2.0 U	U	ug/L	2.0	SW846 8260D	1	12/07/2023 15:45	AHI	A
1,2,3-Trichloropropane	2.0 U	U	ug/L	2.0	SW846 8260D	1	12/07/2023 15:45	AHI	A
1,2,4-Trichlorobenzene	2.0 U	U	ug/L	2.0	SW846 8260D	1	12/07/2023 15:45	AHI	A
1,2-Dibromo-3-chloropropane	7.0 U	U	ug/L	7.0	SW846 8260D	1	12/07/2023 15:45	AHI	A
1,2-Dibromoethane	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/07/2023 15:45	AHI	A
1,2-Dichlorobenzene	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/07/2023 15:45	AHI	A
1,2-Dichloroethane	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/07/2023 15:45	AHI	A
1,2-Dichloropropane	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/07/2023 15:45	AHI	A
1,3-Dichlorobenzene	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/07/2023 15:45	AHI	A
1,3-Dichloropropane	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/07/2023 15:45	AHI	A
1,4-Dichlorobenzene	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/07/2023 15:45	AHI	A
2,2-Dichloropropane	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/07/2023 15:45	AHI	A
2-Butanone	10.0 U	U	ug/L	10.0	SW846 8260D	1	12/07/2023 15:45	AHI	A
2-Hexanone	5.0 U	U	ug/L	5.0	SW846 8260D	1	12/07/2023 15:45	AHI	A
4-Methyl-2-Pentanone(MIBK)	5.0 U	U	ug/L	5.0	SW846 8260D	1	12/07/2023 15:45	AHI	A
Acetone	10.0 U	U	ug/L	10.0	SW846 8260D	1	12/07/2023 15:45	AHI	A
Benzene	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/07/2023 15:45	AHI	A
Bromobenzene	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/07/2023 15:45	AHI	A
Bromochloromethane	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/07/2023 15:45	AHI	A
Bromodichloromethane	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/07/2023 15:45	AHI	A
Bromoform	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/07/2023 15:45	AHI	A
Bromomethane	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/07/2023 15:45	AHI	A
Carbon Tetrachloride	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/07/2023 15:45	AHI	A
Chlorobenzene	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/07/2023 15:45	AHI	A
Chlorodibromomethane	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/07/2023 15:45	AHI	A
Chloroethane	1.0 U	U,1,2	ug/L	1.0	SW846 8260D	1	12/07/2023 15:45	AHI	A
Chloroform	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/07/2023 15:45	AHI	A
Chloromethane	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/07/2023 15:45	AHI	A

Results

Client Sample ID	MW-33D-235	Collected	12/04/2023 09:25
Lab Sample ID	3335524010	Lab Receipt	12/04/2023 18:15

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	12/07/2023 15:45	AHI	A
cis-1,3-Dichloropropene	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/07/2023 15:45	AHI	A
Dibromomethane	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/07/2023 15:45	AHI	A
Dichlorodifluoromethane	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/07/2023 15:45	AHI	A
Diisopropyl ether	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/07/2023 15:45	AHI	A
Ethylbenzene	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/07/2023 15:45	AHI	A
Hexachlorobutadiene	5.0 U	U	ug/L	5.0	SW846 8260D	1	12/07/2023 15:45	AHI	A
Methyl t-Butyl Ether	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/07/2023 15:45	AHI	A
Methylene Chloride	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/07/2023 15:45	AHI	A
mp-Xylene	2.0 U	U	ug/L	2.0	SW846 8260D	1	12/07/2023 15:45	AHI	A
Naphthalene	2.0 U	U	ug/L	2.0	SW846 8260D	1	12/07/2023 15:45	AHI	A
o-Chlorotoluene	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/07/2023 15:45	AHI	A
o-Xylene	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/07/2023 15:45	AHI	A
p-Chlorotoluene	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/07/2023 15:45	AHI	A
p-Isopropyltoluene	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/07/2023 15:45	AHI	A
Styrene	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/07/2023 15:45	AHI	A
Tetrachloroethene	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/07/2023 15:45	AHI	A
Toluene	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/07/2023 15:45	AHI	A
Total Xylenes	3.0 U	U	ug/L	3.0	SW846 8260D	1	12/07/2023 15:45	AHI	A
trans-1,2-Dichloroethene	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/07/2023 15:45	AHI	A
trans-1,3-Dichloropropene	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/07/2023 15:45	AHI	A
Trichloroethene	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/07/2023 15:45	AHI	A
Trichlorofluoromethane	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/07/2023 15:45	AHI	A
Vinyl Acetate	5.0 U	U	ug/L	5.0	SW846 8260D	1	12/07/2023 15:45	AHI	A
Vinyl Chloride	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/07/2023 15:45	AHI	A

SURROGATES

Compound	CAS No	Recovery	Limits(%)	Analysis Date/Time	Qualifiers
1,2-Dichloroethane-d4	17060-07-0	102%	62 – 133	12/07/2023 15:45	
4-Bromofluorobenzene	460-00-4	102%	79 – 114	12/07/2023 15:45	
Dibromofluoromethane	1868-53-7	101%	78 – 116	12/07/2023 15:45	
Toluene-d8	2037-26-5	102%	76 – 127	12/07/2023 15:45	

Results

Client Sample ID	MW-33D-295	Collected	12/04/2023 09:30
Lab Sample ID	3335524011	Lab Receipt	12/04/2023 18:15

SEMIVOLATILE SIM

Compound	Result	Flag	Units	RDL	Method	Dilution	Analysis Date/Time	By	Cntr
1,4-Dioxane	3.3		ug/L	1.0	SW846 8270E SIM	1	12/07/2023 02:39	M1O	C

SURROGATES

Compound	CAS No	Recovery	Limits(%)	Analysis Date/Time	Qualifiers
2-Methylnapthalene-d10	7297-45-2	65.9%	29 – 112	12/07/2023 02:39	
Fluoranthene-d10	93951-69-0	87.2%	45 – 130	12/07/2023 02:39	

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	12/07/2023 16:08	AHI	A
1,1,1-Trichloroethane	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/07/2023 16:08	AHI	A
1,1,2,2-Tetrachloroethane	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/07/2023 16:08	AHI	A
1,1,2-Trichloroethane	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/07/2023 16:08	AHI	A
1,1-Dichloroethane	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/07/2023 16:08	AHI	A
1,1-Dichloroethene	8.9		ug/L	1.0	SW846 8260D	1	12/07/2023 16:08	AHI	A
1,1-Dichloropropene	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/07/2023 16:08	AHI	A
1,2,3-Trichlorobenzene	2.0 U	U	ug/L	2.0	SW846 8260D	1	12/07/2023 16:08	AHI	A
1,2,3-Trichloropropane	2.0 U	U	ug/L	2.0	SW846 8260D	1	12/07/2023 16:08	AHI	A
1,2,4-Trichlorobenzene	2.0 U	U	ug/L	2.0	SW846 8260D	1	12/07/2023 16:08	AHI	A
1,2-Dibromo-3-chloropropane	7.0 U	U	ug/L	7.0	SW846 8260D	1	12/07/2023 16:08	AHI	A
1,2-Dibromoethane	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/07/2023 16:08	AHI	A
1,2-Dichlorobenzene	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/07/2023 16:08	AHI	A
1,2-Dichloroethane	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/07/2023 16:08	AHI	A
1,2-Dichloropropane	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/07/2023 16:08	AHI	A
1,3-Dichlorobenzene	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/07/2023 16:08	AHI	A
1,3-Dichloropropane	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/07/2023 16:08	AHI	A
1,4-Dichlorobenzene	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/07/2023 16:08	AHI	A
2,2-Dichloropropane	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/07/2023 16:08	AHI	A
2-Butanone	10.0 U	U	ug/L	10.0	SW846 8260D	1	12/07/2023 16:08	AHI	A
2-Hexanone	5.0 U	U	ug/L	5.0	SW846 8260D	1	12/07/2023 16:08	AHI	A
4-Methyl-2-Pentanone(MIBK)	5.0 U	U	ug/L	5.0	SW846 8260D	1	12/07/2023 16:08	AHI	A
Acetone	10.0 U	U	ug/L	10.0	SW846 8260D	1	12/07/2023 16:08	AHI	A
Benzene	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/07/2023 16:08	AHI	A
Bromobenzene	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/07/2023 16:08	AHI	A
Bromochloromethane	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/07/2023 16:08	AHI	A
Bromodichloromethane	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/07/2023 16:08	AHI	A
Bromoform	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/07/2023 16:08	AHI	A
Bromomethane	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/07/2023 16:08	AHI	A
Carbon Tetrachloride	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/07/2023 16:08	AHI	A
Chlorobenzene	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/07/2023 16:08	AHI	A
Chlorodibromomethane	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/07/2023 16:08	AHI	A
Chloroethane	1.0 U	U,1,2	ug/L	1.0	SW846 8260D	1	12/07/2023 16:08	AHI	A
Chloroform	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/07/2023 16:08	AHI	A
Chloromethane	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/07/2023 16:08	AHI	A

Results

Client Sample ID	MW-33D-295	Collected	12/04/2023 09:30
Lab Sample ID	3335524011	Lab Receipt	12/04/2023 18:15

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	12/07/2023 16:08	AHI	A
cis-1,3-Dichloropropene	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/07/2023 16:08	AHI	A
Dibromomethane	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/07/2023 16:08	AHI	A
Dichlorodifluoromethane	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/07/2023 16:08	AHI	A
Diisopropyl ether	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/07/2023 16:08	AHI	A
Ethylbenzene	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/07/2023 16:08	AHI	A
Hexachlorobutadiene	5.0 U	U	ug/L	5.0	SW846 8260D	1	12/07/2023 16:08	AHI	A
Methyl t-Butyl Ether	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/07/2023 16:08	AHI	A
Methylene Chloride	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/07/2023 16:08	AHI	A
mp-Xylene	2.0 U	U	ug/L	2.0	SW846 8260D	1	12/07/2023 16:08	AHI	A
Naphthalene	2.0 U	U	ug/L	2.0	SW846 8260D	1	12/07/2023 16:08	AHI	A
o-Chlorotoluene	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/07/2023 16:08	AHI	A
o-Xylene	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/07/2023 16:08	AHI	A
p-Chlorotoluene	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/07/2023 16:08	AHI	A
p-Isopropyltoluene	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/07/2023 16:08	AHI	A
Styrene	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/07/2023 16:08	AHI	A
Tetrachloroethene	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/07/2023 16:08	AHI	A
Toluene	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/07/2023 16:08	AHI	A
Total Xylenes	3.0 U	U	ug/L	3.0	SW846 8260D	1	12/07/2023 16:08	AHI	A
trans-1,2-Dichloroethene	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/07/2023 16:08	AHI	A
trans-1,3-Dichloropropene	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/07/2023 16:08	AHI	A
Trichloroethene	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/07/2023 16:08	AHI	A
Trichlorofluoromethane	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/07/2023 16:08	AHI	A
Vinyl Acetate	5.0 U	U	ug/L	5.0	SW846 8260D	1	12/07/2023 16:08	AHI	A
Vinyl Chloride	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/07/2023 16:08	AHI	A

SURROGATES

Compound	CAS No	Recovery	Limits(%)	Analysis Date/Time	Qualifiers
1,2-Dichloroethane-d4	17060-07-0	103%	62 – 133	12/07/2023 16:08	
4-Bromofluorobenzene	460-00-4	106%	79 – 114	12/07/2023 16:08	
Dibromofluoromethane	1868-53-7	102%	78 – 116	12/07/2023 16:08	
Toluene-d8	2037-26-5	103%	76 – 127	12/07/2023 16:08	

Results

Client Sample ID	MW-34D	Collected	12/04/2023 09:05
Lab Sample ID	3335524012	Lab Receipt	12/04/2023 18:15

SEMIVOLATILE SIM

Compound	Result	Flag	Units	RDL	Method	Dilution	Analysis Date/Time	By	Cntr
1,4-Dioxane	1.0 U	U,S2	ug/L	1.0	SW846 8270E SIM	1	12/07/2023 03:31	M1O	C

SURROGATES

Compound	CAS No	Recovery	Limits(%)	Analysis Date/Time	Qualifiers
2-Methylnapthalene-d10	7297-45-2	41.5%	29 – 112	12/07/2023 03:31	
Fluoranthene-d10	93951-69-0	81.9%	45 – 130	12/07/2023 03:31	

VOLATILE ORGANICS

Compound	Result	Flag	Units	RDL	Method	Dilution	Analysis Date/Time	By	Cntr
1,1,1,2-Tetrachloroethane	5.0 U	U,S2	ug/L	5.0	SW846 8260D	5	12/07/2023 16:55	AHI	A
1,1,1-Trichloroethane	5.0 U	U,S2	ug/L	5.0	SW846 8260D	5	12/07/2023 16:55	AHI	A
1,1,2,2-Tetrachloroethane	5.0 U	U,S2	ug/L	5.0	SW846 8260D	5	12/07/2023 16:55	AHI	A
1,1,2-Trichloroethane	5.0 U	U,S2	ug/L	5.0	SW846 8260D	5	12/07/2023 16:55	AHI	A
1,1-Dichloroethane	5.0 U	U,S2	ug/L	5.0	SW846 8260D	5	12/07/2023 16:55	AHI	A
1,1-Dichloroethene	5.0 U	U,S2	ug/L	5.0	SW846 8260D	5	12/07/2023 16:55	AHI	A
1,1-Dichloropropene	5.0 U	U,S2	ug/L	5.0	SW846 8260D	5	12/07/2023 16:55	AHI	A
1,2,3-Trichlorobenzene	10.0 U	U,S2	ug/L	10.0	SW846 8260D	5	12/07/2023 16:55	AHI	A
1,2,3-Trichloropropane	10.0 U	U,S2	ug/L	10.0	SW846 8260D	5	12/07/2023 16:55	AHI	A
1,2,4-Trichlorobenzene	10.0 U	U,S2	ug/L	10.0	SW846 8260D	5	12/07/2023 16:55	AHI	A
1,2-Dibromo-3-chloropropane	35.0 U	U,S2	ug/L	35.0	SW846 8260D	5	12/07/2023 16:55	AHI	A
1,2-Dibromoethane	5.0 U	U,S2	ug/L	5.0	SW846 8260D	5	12/07/2023 16:55	AHI	A
1,2-Dichlorobenzene	5.0 U	U,S2	ug/L	5.0	SW846 8260D	5	12/07/2023 16:55	AHI	A
1,2-Dichloroethane	5.0 U	U,S2	ug/L	5.0	SW846 8260D	5	12/07/2023 16:55	AHI	A
1,2-Dichloropropane	5.0 U	U,S2	ug/L	5.0	SW846 8260D	5	12/07/2023 16:55	AHI	A
1,3-Dichlorobenzene	5.0 U	U,S2	ug/L	5.0	SW846 8260D	5	12/07/2023 16:55	AHI	A
1,3-Dichloropropane	5.0 U	U,S2	ug/L	5.0	SW846 8260D	5	12/07/2023 16:55	AHI	A
1,4-Dichlorobenzene	5.0 U	U,S2	ug/L	5.0	SW846 8260D	5	12/07/2023 16:55	AHI	A
2,2-Dichloropropane	5.0 U	U,S2	ug/L	5.0	SW846 8260D	5	12/07/2023 16:55	AHI	A
2-Butanone	50.0 U	U,S2	ug/L	50.0	SW846 8260D	5	12/07/2023 16:55	AHI	A
2-Hexanone	25.0 U	U,S2	ug/L	25.0	SW846 8260D	5	12/07/2023 16:55	AHI	A
4-Methyl-2-Pentanone(MIBK)	25.0 U	U,S2	ug/L	25.0	SW846 8260D	5	12/07/2023 16:55	AHI	A
Acetone	50.0 U	U,S2	ug/L	50.0	SW846 8260D	5	12/07/2023 16:55	AHI	A
Benzene	5.0 U	U,S2	ug/L	5.0	SW846 8260D	5	12/07/2023 16:55	AHI	A
Bromobenzene	5.0 U	U,S2	ug/L	5.0	SW846 8260D	5	12/07/2023 16:55	AHI	A
Bromochloromethane	5.0 U	U,S2	ug/L	5.0	SW846 8260D	5	12/07/2023 16:55	AHI	A
Bromodichloromethane	5.0 U	U,S2	ug/L	5.0	SW846 8260D	5	12/07/2023 16:55	AHI	A
Bromoform	5.0 U	U,S2	ug/L	5.0	SW846 8260D	5	12/07/2023 16:55	AHI	A
Bromomethane	5.0 U	U,S2	ug/L	5.0	SW846 8260D	5	12/07/2023 16:55	AHI	A
Carbon Tetrachloride	5.0 U	U,S2	ug/L	5.0	SW846 8260D	5	12/07/2023 16:55	AHI	A
Chlorobenzene	5.0 U	U,S2	ug/L	5.0	SW846 8260D	5	12/07/2023 16:55	AHI	A
Chlorodibromomethane	5.0 U	U,S2	ug/L	5.0	SW846 8260D	5	12/07/2023 16:55	AHI	A
Chloroethane	5.0 U	U,1,2,S2	ug/L	5.0	SW846 8260D	5	12/07/2023 16:55	AHI	A
Chloroform	5.0 U	U,S2	ug/L	5.0	SW846 8260D	5	12/07/2023 16:55	AHI	A
Chloromethane	5.0 U	U,S2	ug/L	5.0	SW846 8260D	5	12/07/2023 16:55	AHI	A

Results

Client Sample ID	MW-34D	Collected	12/04/2023 09:05
Lab Sample ID	3335524012	Lab Receipt	12/04/2023 18:15

VOLATILE ORGANICS (cont.)

Compound	Result	Flag	Units	RDL	Method	Dilution	Analysis Date/Time	By	Cntr
cis-1,2-Dichloroethene	5.0 U	U,S2	ug/L	5.0	SW846 8260D	5	12/07/2023 16:55	AHI	A
cis-1,3-Dichloropropene	5.0 U	U,S2	ug/L	5.0	SW846 8260D	5	12/07/2023 16:55	AHI	A
Dibromomethane	5.0 U	U,S2	ug/L	5.0	SW846 8260D	5	12/07/2023 16:55	AHI	A
Dichlorodifluoromethane	5.0 U	U,S2	ug/L	5.0	SW846 8260D	5	12/07/2023 16:55	AHI	A
Diisopropyl ether	5.0 U	U,S2	ug/L	5.0	SW846 8260D	5	12/07/2023 16:55	AHI	A
Ethylbenzene	5.0 U	U,S2	ug/L	5.0	SW846 8260D	5	12/07/2023 16:55	AHI	A
Hexachlorobutadiene	25.0 U	U,S2	ug/L	25.0	SW846 8260D	5	12/07/2023 16:55	AHI	A
Methyl t-Butyl Ether	5.0 U	U,S2	ug/L	5.0	SW846 8260D	5	12/07/2023 16:55	AHI	A
Methylene Chloride	5.0 U	U,S2	ug/L	5.0	SW846 8260D	5	12/07/2023 16:55	AHI	A
mp-Xylene	10.0 U	U,S2	ug/L	10.0	SW846 8260D	5	12/07/2023 16:55	AHI	A
Naphthalene	10.0 U	U,S2	ug/L	10.0	SW846 8260D	5	12/07/2023 16:55	AHI	A
o-Chlorotoluene	5.0 U	U,S2	ug/L	5.0	SW846 8260D	5	12/07/2023 16:55	AHI	A
o-Xylene	5.0 U	U,S2	ug/L	5.0	SW846 8260D	5	12/07/2023 16:55	AHI	A
p-Chlorotoluene	5.0 U	U,S2	ug/L	5.0	SW846 8260D	5	12/07/2023 16:55	AHI	A
p-Isopropyltoluene	5.0 U	U,S2	ug/L	5.0	SW846 8260D	5	12/07/2023 16:55	AHI	A
Styrene	5.0 U	U,S2	ug/L	5.0	SW846 8260D	5	12/07/2023 16:55	AHI	A
Tetrachloroethene	5.0 U	U,S2	ug/L	5.0	SW846 8260D	5	12/07/2023 16:55	AHI	A
Toluene	5.0 U	U,S2	ug/L	5.0	SW846 8260D	5	12/07/2023 16:55	AHI	A
Total Xylenes	15.0 U	U,S2	ug/L	15.0	SW846 8260D	5	12/07/2023 16:55	AHI	A
trans-1,2-Dichloroethene	5.0 U	U,S2	ug/L	5.0	SW846 8260D	5	12/07/2023 16:55	AHI	A
trans-1,3-Dichloropropene	5.0 U	U,S2	ug/L	5.0	SW846 8260D	5	12/07/2023 16:55	AHI	A
Trichloroethene	5.0 U	U,S2	ug/L	5.0	SW846 8260D	5	12/07/2023 16:55	AHI	A
Trichlorofluoromethane	5.0 U	U,S2	ug/L	5.0	SW846 8260D	5	12/07/2023 16:55	AHI	A
Vinyl Acetate	25.0 U	U,S2	ug/L	25.0	SW846 8260D	5	12/07/2023 16:55	AHI	A
Vinyl Chloride	5.0 U	U,S2	ug/L	5.0	SW846 8260D	5	12/07/2023 16:55	AHI	A

SURROGATES

Compound	CAS No	Recovery	Limits(%)	Analysis Date/Time	Qualifiers
1,2-Dichloroethane-d4	17060-07-0	105%	62 – 133	12/07/2023 16:55	
4-Bromofluorobenzene	460-00-4	101%	79 – 114	12/07/2023 16:55	
Dibromofluoromethane	1868-53-7	102%	78 – 116	12/07/2023 16:55	
Toluene-d8	2037-26-5	102%	76 – 127	12/07/2023 16:55	

Results

Client Sample ID	MW-35D	Collected	12/04/2023 08:45
Lab Sample ID	3335524013	Lab Receipt	12/04/2023 18:15

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	12/07/2023 03:57	M1O	C

SURROGATES

Compound	CAS No	Recovery	Limits(%)	Analysis Date/Time	Qualifiers
2-Methylnapthalene-d10	7297-45-2	63.5%	29 – 112	12/07/2023 03:57	
Fluoranthene-d10	93951-69-0	70.3%	45 – 130	12/07/2023 03:57	

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	12/11/2023 16:29	ILY	A
1,1,1-Trichloroethane	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/11/2023 16:29	ILY	A
1,1,2,2-Tetrachloroethane	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/11/2023 16:29	ILY	A
1,1,2-Trichloroethane	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/11/2023 16:29	ILY	A
1,1-Dichloroethane	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/11/2023 16:29	ILY	A
1,1-Dichloroethene	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/11/2023 16:29	ILY	A
1,1-Dichloropropene	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/11/2023 16:29	ILY	A
1,2,3-Trichlorobenzene	2.0 U	U	ug/L	2.0	SW846 8260D	1	12/11/2023 16:29	ILY	A
1,2,3-Trichloropropane	2.0 U	U	ug/L	2.0	SW846 8260D	1	12/11/2023 16:29	ILY	A
1,2,4-Trichlorobenzene	2.0 U	U	ug/L	2.0	SW846 8260D	1	12/11/2023 16:29	ILY	A
1,2-Dibromo-3-chloropropane	7.0 U	U	ug/L	7.0	SW846 8260D	1	12/11/2023 16:29	ILY	A
1,2-Dibromoethane	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/11/2023 16:29	ILY	A
1,2-Dichlorobenzene	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/11/2023 16:29	ILY	A
1,2-Dichloroethane	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/11/2023 16:29	ILY	A
1,2-Dichloropropane	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/11/2023 16:29	ILY	A
1,3-Dichlorobenzene	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/11/2023 16:29	ILY	A
1,3-Dichloropropane	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/11/2023 16:29	ILY	A
1,4-Dichlorobenzene	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/11/2023 16:29	ILY	A
2,2-Dichloropropane	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/11/2023 16:29	ILY	A
2-Butanone	10.0 U	U	ug/L	10.0	SW846 8260D	1	12/11/2023 16:29	ILY	A
2-Hexanone	5.0 U	U	ug/L	5.0	SW846 8260D	1	12/11/2023 16:29	ILY	A
4-Methyl-2-Pentanone(MIBK)	5.0 U	U	ug/L	5.0	SW846 8260D	1	12/11/2023 16:29	ILY	A
Acetone	10.0 U	U	ug/L	10.0	SW846 8260D	1	12/11/2023 16:29	ILY	A
Benzene	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/11/2023 16:29	ILY	A
Bromobenzene	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/11/2023 16:29	ILY	A
Bromochloromethane	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/11/2023 16:29	ILY	A
Bromodichloromethane	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/11/2023 16:29	ILY	A
Bromoform	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/11/2023 16:29	ILY	A
Bromomethane	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/11/2023 16:29	ILY	A
Carbon Tetrachloride	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/11/2023 16:29	ILY	A
Chlorobenzene	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/11/2023 16:29	ILY	A
Chlorodibromomethane	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/11/2023 16:29	ILY	A
Chloroethane	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/11/2023 16:29	ILY	A
Chloroform	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/11/2023 16:29	ILY	A
Chloromethane	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/11/2023 16:29	ILY	A

Results

Client Sample ID	MW-35D	Collected	12/04/2023 08:45
Lab Sample ID	3335524013	Lab Receipt	12/04/2023 18:15

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	12/11/2023 16:29	ILY	A
cis-1,3-Dichloropropene	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/11/2023 16:29	ILY	A
Dibromomethane	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/11/2023 16:29	ILY	A
Dichlorodifluoromethane	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/11/2023 16:29	ILY	A
Diisopropyl ether	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/11/2023 16:29	ILY	A
Ethylbenzene	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/11/2023 16:29	ILY	A
Hexachlorobutadiene	5.0 U	U	ug/L	5.0	SW846 8260D	1	12/11/2023 16:29	ILY	A
Methyl t-Butyl Ether	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/11/2023 16:29	ILY	A
Methylene Chloride	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/11/2023 16:29	ILY	A
mp-Xylene	2.0 U	U	ug/L	2.0	SW846 8260D	1	12/11/2023 16:29	ILY	A
Naphthalene	2.0 U	U	ug/L	2.0	SW846 8260D	1	12/11/2023 16:29	ILY	A
o-Chlorotoluene	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/11/2023 16:29	ILY	A
o-Xylene	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/11/2023 16:29	ILY	A
p-Chlorotoluene	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/11/2023 16:29	ILY	A
p-Isopropyltoluene	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/11/2023 16:29	ILY	A
Styrene	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/11/2023 16:29	ILY	A
Tetrachloroethene	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/11/2023 16:29	ILY	A
Toluene	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/11/2023 16:29	ILY	A
Total Xylenes	3.0 U	U	ug/L	3.0	SW846 8260D	1	12/11/2023 16:29	ILY	A
trans-1,2-Dichloroethene	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/11/2023 16:29	ILY	A
trans-1,3-Dichloropropene	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/11/2023 16:29	ILY	A
Trichloroethene	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/11/2023 16:29	ILY	A
Trichlorofluoromethane	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/11/2023 16:29	ILY	A
Vinyl Acetate	5.0 U	U	ug/L	5.0	SW846 8260D	1	12/11/2023 16:29	ILY	A
Vinyl Chloride	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/11/2023 16:29	ILY	A

SURROGATES

Compound	CAS No	Recovery	Limits(%)	Analysis Date/Time	Qualifiers
1,2-Dichloroethane-d4	17060-07-0	105%	62 – 133	12/11/2023 16:29	
4-Bromofluorobenzene	460-00-4	85.5%	79 – 114	12/11/2023 16:29	
Dibromofluoromethane	1868-53-7	94.9%	78 – 116	12/11/2023 16:29	
Toluene-d8	2037-26-5	92.6%	76 – 127	12/11/2023 16:29	

Results

Client Sample ID	MW-36D	Collected	12/04/2023 11:45
Lab Sample ID	3335524014	Lab Receipt	12/04/2023 18:15

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	12/07/2023 04:24	M1O	C

SURROGATES

Compound	CAS No	Recovery	Limits(%)	Analysis Date/Time	Qualifiers
2-Methylnapthalene-d10	7297-45-2	66.5%	29 – 112	12/07/2023 04:24	
Fluoranthene-d10	93951-69-0	79.5%	45 – 130	12/07/2023 04:24	

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	12/11/2023 16:49	ILY	A
1,1,1-Trichloroethane	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/11/2023 16:49	ILY	A
1,1,2,2-Tetrachloroethane	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/11/2023 16:49	ILY	A
1,1,2-Trichloroethane	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/11/2023 16:49	ILY	A
1,1-Dichloroethane	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/11/2023 16:49	ILY	A
1,1-Dichloroethene	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/11/2023 16:49	ILY	A
1,1-Dichloropropene	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/11/2023 16:49	ILY	A
1,2,3-Trichlorobenzene	2.0 U	U	ug/L	2.0	SW846 8260D	1	12/11/2023 16:49	ILY	A
1,2,3-Trichloropropane	2.0 U	U	ug/L	2.0	SW846 8260D	1	12/11/2023 16:49	ILY	A
1,2,4-Trichlorobenzene	2.0 U	U	ug/L	2.0	SW846 8260D	1	12/11/2023 16:49	ILY	A
1,2-Dibromo-3-chloropropane	7.0 U	U	ug/L	7.0	SW846 8260D	1	12/11/2023 16:49	ILY	A
1,2-Dibromoethane	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/11/2023 16:49	ILY	A
1,2-Dichlorobenzene	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/11/2023 16:49	ILY	A
1,2-Dichloroethane	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/11/2023 16:49	ILY	A
1,2-Dichloropropane	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/11/2023 16:49	ILY	A
1,3-Dichlorobenzene	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/11/2023 16:49	ILY	A
1,3-Dichloropropane	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/11/2023 16:49	ILY	A
1,4-Dichlorobenzene	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/11/2023 16:49	ILY	A
2,2-Dichloropropane	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/11/2023 16:49	ILY	A
2-Butanone	10.0 U	U	ug/L	10.0	SW846 8260D	1	12/11/2023 16:49	ILY	A
2-Hexanone	5.0 U	U	ug/L	5.0	SW846 8260D	1	12/11/2023 16:49	ILY	A
4-Methyl-2-Pentanone(MIBK)	5.0 U	U	ug/L	5.0	SW846 8260D	1	12/11/2023 16:49	ILY	A
Acetone	10.0 U	U	ug/L	10.0	SW846 8260D	1	12/11/2023 16:49	ILY	A
Benzene	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/11/2023 16:49	ILY	A
Bromobenzene	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/11/2023 16:49	ILY	A
Bromochloromethane	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/11/2023 16:49	ILY	A
Bromodichloromethane	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/11/2023 16:49	ILY	A
Bromoform	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/11/2023 16:49	ILY	A
Bromomethane	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/11/2023 16:49	ILY	A
Carbon Tetrachloride	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/11/2023 16:49	ILY	A
Chlorobenzene	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/11/2023 16:49	ILY	A
Chlorodibromomethane	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/11/2023 16:49	ILY	A
Chloroethane	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/11/2023 16:49	ILY	A
Chloroform	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/11/2023 16:49	ILY	A
Chloromethane	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/11/2023 16:49	ILY	A

Results

Client Sample ID	MW-36D	Collected	12/04/2023 11:45
Lab Sample ID	3335524014	Lab Receipt	12/04/2023 18:15

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	12/11/2023 16:49	ILY	A
cis-1,3-Dichloropropene	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/11/2023 16:49	ILY	A
Dibromomethane	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/11/2023 16:49	ILY	A
Dichlorodifluoromethane	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/11/2023 16:49	ILY	A
Diisopropyl ether	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/11/2023 16:49	ILY	A
Ethylbenzene	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/11/2023 16:49	ILY	A
Hexachlorobutadiene	5.0 U	U	ug/L	5.0	SW846 8260D	1	12/11/2023 16:49	ILY	A
Methyl t-Butyl Ether	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/11/2023 16:49	ILY	A
Methylene Chloride	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/11/2023 16:49	ILY	A
mp-Xylene	2.0 U	U	ug/L	2.0	SW846 8260D	1	12/11/2023 16:49	ILY	A
Naphthalene	2.0 U	U	ug/L	2.0	SW846 8260D	1	12/11/2023 16:49	ILY	A
o-Chlorotoluene	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/11/2023 16:49	ILY	A
o-Xylene	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/11/2023 16:49	ILY	A
p-Chlorotoluene	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/11/2023 16:49	ILY	A
p-Isopropyltoluene	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/11/2023 16:49	ILY	A
Styrene	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/11/2023 16:49	ILY	A
Tetrachloroethene	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/11/2023 16:49	ILY	A
Toluene	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/11/2023 16:49	ILY	A
Total Xylenes	3.0 U	U	ug/L	3.0	SW846 8260D	1	12/11/2023 16:49	ILY	A
trans-1,2-Dichloroethene	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/11/2023 16:49	ILY	A
trans-1,3-Dichloropropene	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/11/2023 16:49	ILY	A
Trichloroethene	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/11/2023 16:49	ILY	A
Trichlorofluoromethane	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/11/2023 16:49	ILY	A
Vinyl Acetate	5.0 U	U	ug/L	5.0	SW846 8260D	1	12/11/2023 16:49	ILY	A
Vinyl Chloride	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/11/2023 16:49	ILY	A

SURROGATES

Compound	CAS No	Recovery	Limits(%)	Analysis Date/Time	Qualifiers
1,2-Dichloroethane-d4	17060-07-0	105%	62 – 133	12/11/2023 16:49	
4-Bromofluorobenzene	460-00-4	99.8%	79 – 114	12/11/2023 16:49	
Dibromofluoromethane	1868-53-7	96.5%	78 – 116	12/11/2023 16:49	
Toluene-d8	2037-26-5	96.8%	76 – 127	12/11/2023 16:49	

Results

Client Sample ID	DUP-120423	Collected	12/04/2023 09:45
Lab Sample ID	3335524015	Lab Receipt	12/04/2023 18:15

SEMIVOLATILE SIM

Compound	Result	Flag	Units	RDL	Method	Dilution	Analysis Date/Time	By	Cntr
1,4-Dioxane	23.7		ug/L	5.0	SW846 8270E SIM	1	12/12/2023 07:41	S7M	C

SURROGATES

Compound	CAS No	Recovery	Limits(%)	Analysis Date/Time	Qualifiers
2-Methylnapthalene-d10	7297-45-2	69.9%	29 – 112	12/12/2023 07:41	
Fluoranthene-d10	93951-69-0	74.1%	45 – 130	12/12/2023 07:41	

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	12/11/2023 17:10	ILY	A
1,1,1-Trichloroethane	5.6		ug/L	1.0	SW846 8260D	1	12/11/2023 17:10	ILY	A
1,1,2,2-Tetrachloroethane	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/11/2023 17:10	ILY	A
1,1,2-Trichloroethane	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/11/2023 17:10	ILY	A
1,1-Dichloroethane	5.9		ug/L	1.0	SW846 8260D	1	12/11/2023 17:10	ILY	A
1,1-Dichloroethene	100		ug/L	1.0	SW846 8260D	1	12/11/2023 17:10	ILY	A
1,1-Dichloropropene	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/11/2023 17:10	ILY	A
1,2,3-Trichlorobenzene	2.0 U	U	ug/L	2.0	SW846 8260D	1	12/11/2023 17:10	ILY	A
1,2,3-Trichloropropane	2.0 U	U	ug/L	2.0	SW846 8260D	1	12/11/2023 17:10	ILY	A
1,2,4-Trichlorobenzene	2.0 U	U	ug/L	2.0	SW846 8260D	1	12/11/2023 17:10	ILY	A
1,2-Dibromo-3-chloropropane	7.0 U	U	ug/L	7.0	SW846 8260D	1	12/11/2023 17:10	ILY	A
1,2-Dibromoethane	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/11/2023 17:10	ILY	A
1,2-Dichlorobenzene	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/11/2023 17:10	ILY	A
1,2-Dichloroethane	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/11/2023 17:10	ILY	A
1,2-Dichloropropane	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/11/2023 17:10	ILY	A
1,3-Dichlorobenzene	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/11/2023 17:10	ILY	A
1,3-Dichloropropane	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/11/2023 17:10	ILY	A
1,4-Dichlorobenzene	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/11/2023 17:10	ILY	A
2,2-Dichloropropane	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/11/2023 17:10	ILY	A
2-Butanone	10.0 U	U	ug/L	10.0	SW846 8260D	1	12/11/2023 17:10	ILY	A
2-Hexanone	5.0 U	U	ug/L	5.0	SW846 8260D	1	12/11/2023 17:10	ILY	A
4-Methyl-2-Pentanone(MIBK)	5.0 U	U	ug/L	5.0	SW846 8260D	1	12/11/2023 17:10	ILY	A
Acetone	10.0 U	U	ug/L	10.0	SW846 8260D	1	12/11/2023 17:10	ILY	A
Benzene	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/11/2023 17:10	ILY	A
Bromobenzene	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/11/2023 17:10	ILY	A
Bromochloromethane	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/11/2023 17:10	ILY	A
Bromodichloromethane	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/11/2023 17:10	ILY	A
Bromoform	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/11/2023 17:10	ILY	A
Bromomethane	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/11/2023 17:10	ILY	A
Carbon Tetrachloride	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/11/2023 17:10	ILY	A
Chlorobenzene	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/11/2023 17:10	ILY	A
Chlorodibromomethane	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/11/2023 17:10	ILY	A
Chloroethane	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/11/2023 17:10	ILY	A
Chloroform	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/11/2023 17:10	ILY	A
Chloromethane	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/11/2023 17:10	ILY	A

Results

Client Sample ID	DUP-120423	Collected	12/04/2023 09:45
Lab Sample ID	3335524015	Lab Receipt	12/04/2023 18:15

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	12/11/2023 17:10	ILY	A
cis-1,3-Dichloropropene	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/11/2023 17:10	ILY	A
Dibromomethane	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/11/2023 17:10	ILY	A
Dichlorodifluoromethane	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/11/2023 17:10	ILY	A
Diisopropyl ether	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/11/2023 17:10	ILY	A
Ethylbenzene	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/11/2023 17:10	ILY	A
Hexachlorobutadiene	5.0 U	U	ug/L	5.0	SW846 8260D	1	12/11/2023 17:10	ILY	A
Methyl t-Butyl Ether	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/11/2023 17:10	ILY	A
Methylene Chloride	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/11/2023 17:10	ILY	A
mp-Xylene	2.0 U	U	ug/L	2.0	SW846 8260D	1	12/11/2023 17:10	ILY	A
Naphthalene	2.0 U	U	ug/L	2.0	SW846 8260D	1	12/11/2023 17:10	ILY	A
o-Chlorotoluene	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/11/2023 17:10	ILY	A
o-Xylene	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/11/2023 17:10	ILY	A
p-Chlorotoluene	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/11/2023 17:10	ILY	A
p-Isopropyltoluene	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/11/2023 17:10	ILY	A
Styrene	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/11/2023 17:10	ILY	A
Tetrachloroethene	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/11/2023 17:10	ILY	A
Toluene	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/11/2023 17:10	ILY	A
Total Xylenes	3.0 U	U	ug/L	3.0	SW846 8260D	1	12/11/2023 17:10	ILY	A
trans-1,2-Dichloroethene	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/11/2023 17:10	ILY	A
trans-1,3-Dichloropropene	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/11/2023 17:10	ILY	A
Trichloroethene	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/11/2023 17:10	ILY	A
Trichlorofluoromethane	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/11/2023 17:10	ILY	A
Vinyl Acetate	5.0 U	U	ug/L	5.0	SW846 8260D	1	12/11/2023 17:10	ILY	A
Vinyl Chloride	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/11/2023 17:10	ILY	A

SURROGATES

Compound	CAS No	Recovery	Limits(%)	Analysis Date/Time	Qualifiers
1,2-Dichloroethane-d4	17060-07-0	106%	62 – 133	12/11/2023 17:10	
4-Bromofluorobenzene	460-00-4	88.8%	79 – 114	12/11/2023 17:10	
Dibromofluoromethane	1868-53-7	98.1%	78 – 116	12/11/2023 17:10	
Toluene-d8	2037-26-5	90.5%	76 – 127	12/11/2023 17:10	

Results

Client Sample ID	Trip Blank A	Collected	12/04/2023 00:00
Lab Sample ID	3335524016	Lab Receipt	12/04/2023 18:15

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	12/11/2023 12:44	ILY	A
1,1,1-Trichloroethane	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/11/2023 12:44	ILY	A
1,1,2,2-Tetrachloroethane	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/11/2023 12:44	ILY	A
1,1,2-Trichloroethane	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/11/2023 12:44	ILY	A
1,1-Dichloroethane	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/11/2023 12:44	ILY	A
1,1-Dichloroethene	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/11/2023 12:44	ILY	A
1,1-Dichloropropene	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/11/2023 12:44	ILY	A
1,2,3-Trichlorobenzene	2.0 U	U	ug/L	2.0	SW846 8260D	1	12/11/2023 12:44	ILY	A
1,2,3-Trichloropropane	2.0 U	U	ug/L	2.0	SW846 8260D	1	12/11/2023 12:44	ILY	A
1,2,4-Trichlorobenzene	2.0 U	U	ug/L	2.0	SW846 8260D	1	12/11/2023 12:44	ILY	A
1,2-Dibromo-3-chloropropane	7.0 U	U	ug/L	7.0	SW846 8260D	1	12/11/2023 12:44	ILY	A
1,2-Dibromoethane	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/11/2023 12:44	ILY	A
1,2-Dichlorobenzene	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/11/2023 12:44	ILY	A
1,2-Dichloroethane	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/11/2023 12:44	ILY	A
1,2-Dichloropropane	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/11/2023 12:44	ILY	A
1,3-Dichlorobenzene	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/11/2023 12:44	ILY	A
1,3-Dichloropropane	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/11/2023 12:44	ILY	A
1,4-Dichlorobenzene	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/11/2023 12:44	ILY	A
2,2-Dichloropropane	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/11/2023 12:44	ILY	A
2-Butanone	10.0 U	U	ug/L	10.0	SW846 8260D	1	12/11/2023 12:44	ILY	A
2-Hexanone	5.0 U	U	ug/L	5.0	SW846 8260D	1	12/11/2023 12:44	ILY	A
4-Methyl-2-Pentanone(MIBK)	5.0 U	U	ug/L	5.0	SW846 8260D	1	12/11/2023 12:44	ILY	A
Acetone	10.0 U	U	ug/L	10.0	SW846 8260D	1	12/11/2023 12:44	ILY	A
Benzene	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/11/2023 12:44	ILY	A
Bromobenzene	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/11/2023 12:44	ILY	A
Bromochloromethane	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/11/2023 12:44	ILY	A
Bromodichloromethane	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/11/2023 12:44	ILY	A
Bromoform	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/11/2023 12:44	ILY	A
Bromomethane	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/11/2023 12:44	ILY	A
Carbon Tetrachloride	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/11/2023 12:44	ILY	A
Chlorobenzene	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/11/2023 12:44	ILY	A
Chlorodibromomethane	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/11/2023 12:44	ILY	A
Chloroethane	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/11/2023 12:44	ILY	A
Chloroform	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/11/2023 12:44	ILY	A
Chloromethane	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/11/2023 12:44	ILY	A
cis-1,2-Dichloroethene	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/11/2023 12:44	ILY	A
cis-1,3-Dichloropropene	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/11/2023 12:44	ILY	A
Dibromomethane	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/11/2023 12:44	ILY	A
Dichlorodifluoromethane	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/11/2023 12:44	ILY	A
Diisopropyl ether	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/11/2023 12:44	ILY	A
Ethylbenzene	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/11/2023 12:44	ILY	A
Hexachlorobutadiene	5.0 U	U	ug/L	5.0	SW846 8260D	1	12/11/2023 12:44	ILY	A
Methyl t-Butyl Ether	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/11/2023 12:44	ILY	A
Methylene Chloride	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/11/2023 12:44	ILY	A
mp-Xylene	2.0 U	U	ug/L	2.0	SW846 8260D	1	12/11/2023 12:44	ILY	A
Naphthalene	2.0 U	U	ug/L	2.0	SW846 8260D	1	12/11/2023 12:44	ILY	A
o-Chlorotoluene	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/11/2023 12:44	ILY	A

Results

Client Sample ID	Trip Blank A	Collected	12/04/2023 00:00
Lab Sample ID	3335524016	Lab Receipt	12/04/2023 18:15

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	12/11/2023 12:44	ILY	A
p-Chlorotoluene	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/11/2023 12:44	ILY	A
p-Isopropyltoluene	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/11/2023 12:44	ILY	A
Styrene	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/11/2023 12:44	ILY	A
Tetrachloroethene	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/11/2023 12:44	ILY	A
Toluene	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/11/2023 12:44	ILY	A
Total Xylenes	3.0 U	U	ug/L	3.0	SW846 8260D	1	12/11/2023 12:44	ILY	A
trans-1,2-Dichloroethene	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/11/2023 12:44	ILY	A
trans-1,3-Dichloropropene	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/11/2023 12:44	ILY	A
Trichloroethene	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/11/2023 12:44	ILY	A
Trichlorofluoromethane	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/11/2023 12:44	ILY	A
Vinyl Acetate	5.0 U	U	ug/L	5.0	SW846 8260D	1	12/11/2023 12:44	ILY	A
Vinyl Chloride	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/11/2023 12:44	ILY	A

SURROGATES

Compound	CAS No	Recovery	Limits(%)	Analysis Date/Time	Qualifiers
1,2-Dichloroethane-d4	17060-07-0	101%	62 – 133	12/11/2023 12:44	
4-Bromofluorobenzene	460-00-4	94.8%	79 – 114	12/11/2023 12:44	
Dibromofluoromethane	1868-53-7	97.9%	78 – 116	12/11/2023 12:44	
Toluene-d8	2037-26-5	93.5%	76 – 127	12/11/2023 12:44	

Results

Client Sample ID	Trip Blank B	Collected	12/04/2023 00:00
Lab Sample ID	3335524017	Lab Receipt	12/04/2023 18:15

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	12/11/2023 13:05	ILY	A
1,1,1-Trichloroethane	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/11/2023 13:05	ILY	A
1,1,2,2-Tetrachloroethane	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/11/2023 13:05	ILY	A
1,1,2-Trichloroethane	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/11/2023 13:05	ILY	A
1,1-Dichloroethane	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/11/2023 13:05	ILY	A
1,1-Dichloroethene	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/11/2023 13:05	ILY	A
1,1-Dichloropropene	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/11/2023 13:05	ILY	A
1,2,3-Trichlorobenzene	2.0 U	U	ug/L	2.0	SW846 8260D	1	12/11/2023 13:05	ILY	A
1,2,3-Trichloropropane	2.0 U	U	ug/L	2.0	SW846 8260D	1	12/11/2023 13:05	ILY	A
1,2,4-Trichlorobenzene	2.0 U	U	ug/L	2.0	SW846 8260D	1	12/11/2023 13:05	ILY	A
1,2-Dibromo-3-chloropropane	7.0 U	U	ug/L	7.0	SW846 8260D	1	12/11/2023 13:05	ILY	A
1,2-Dibromoethane	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/11/2023 13:05	ILY	A
1,2-Dichlorobenzene	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/11/2023 13:05	ILY	A
1,2-Dichloroethane	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/11/2023 13:05	ILY	A
1,2-Dichloropropane	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/11/2023 13:05	ILY	A
1,3-Dichlorobenzene	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/11/2023 13:05	ILY	A
1,3-Dichloropropane	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/11/2023 13:05	ILY	A
1,4-Dichlorobenzene	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/11/2023 13:05	ILY	A
2,2-Dichloropropane	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/11/2023 13:05	ILY	A
2-Butanone	10.0 U	U	ug/L	10.0	SW846 8260D	1	12/11/2023 13:05	ILY	A
2-Hexanone	5.0 U	U	ug/L	5.0	SW846 8260D	1	12/11/2023 13:05	ILY	A
4-Methyl-2-Pentanone(MIBK)	5.0 U	U	ug/L	5.0	SW846 8260D	1	12/11/2023 13:05	ILY	A
Acetone	10.0 U	U	ug/L	10.0	SW846 8260D	1	12/11/2023 13:05	ILY	A
Benzene	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/11/2023 13:05	ILY	A
Bromobenzene	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/11/2023 13:05	ILY	A
Bromochloromethane	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/11/2023 13:05	ILY	A
Bromodichloromethane	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/11/2023 13:05	ILY	A
Bromoform	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/11/2023 13:05	ILY	A
Bromomethane	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/11/2023 13:05	ILY	A
Carbon Tetrachloride	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/11/2023 13:05	ILY	A
Chlorobenzene	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/11/2023 13:05	ILY	A
Chlorodibromomethane	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/11/2023 13:05	ILY	A
Chloroethane	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/11/2023 13:05	ILY	A
Chloroform	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/11/2023 13:05	ILY	A
Chloromethane	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/11/2023 13:05	ILY	A
cis-1,2-Dichloroethene	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/11/2023 13:05	ILY	A
cis-1,3-Dichloropropene	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/11/2023 13:05	ILY	A
Dibromomethane	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/11/2023 13:05	ILY	A
Dichlorodifluoromethane	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/11/2023 13:05	ILY	A
Diisopropyl ether	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/11/2023 13:05	ILY	A
Ethylbenzene	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/11/2023 13:05	ILY	A
Hexachlorobutadiene	5.0 U	U	ug/L	5.0	SW846 8260D	1	12/11/2023 13:05	ILY	A
Methyl t-Butyl Ether	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/11/2023 13:05	ILY	A
Methylene Chloride	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/11/2023 13:05	ILY	A
mp-Xylene	2.0 U	U	ug/L	2.0	SW846 8260D	1	12/11/2023 13:05	ILY	A
Naphthalene	2.0 U	U	ug/L	2.0	SW846 8260D	1	12/11/2023 13:05	ILY	A
o-Chlorotoluene	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/11/2023 13:05	ILY	A

Results

Client Sample ID	Trip Blank B	Collected	12/04/2023 00:00
Lab Sample ID	3335524017	Lab Receipt	12/04/2023 18:15

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	12/11/2023 13:05	ILY	A
p-Chlorotoluene	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/11/2023 13:05	ILY	A
p-Isopropyltoluene	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/11/2023 13:05	ILY	A
Styrene	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/11/2023 13:05	ILY	A
Tetrachloroethene	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/11/2023 13:05	ILY	A
Toluene	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/11/2023 13:05	ILY	A
Total Xylenes	3.0 U	U	ug/L	3.0	SW846 8260D	1	12/11/2023 13:05	ILY	A
trans-1,2-Dichloroethene	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/11/2023 13:05	ILY	A
trans-1,3-Dichloropropene	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/11/2023 13:05	ILY	A
Trichloroethene	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/11/2023 13:05	ILY	A
Trichlorofluoromethane	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/11/2023 13:05	ILY	A
Vinyl Acetate	5.0 U	U	ug/L	5.0	SW846 8260D	1	12/11/2023 13:05	ILY	A
Vinyl Chloride	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/11/2023 13:05	ILY	A

SURROGATES

Compound	CAS No	Recovery	Limits(%)	Analysis Date/Time	Qualifiers
1,2-Dichloroethane-d4	17060-07-0	104%	62 – 133	12/11/2023 13:05	
4-Bromofluorobenzene	460-00-4	103%	79 – 114	12/11/2023 13:05	
Dibromofluoromethane	1868-53-7	97.5%	78 – 116	12/11/2023 13:05	
Toluene-d8	2037-26-5	97.2%	76 – 127	12/11/2023 13:05	

Sample - Method Cross Reference Table

Lab ID	Sample ID	Analysis Method	Preparation Method	Leachate Method
3335524001	MW-24D	SW846 8270E SIM	SW846 3510C	
		SW846 8260D	N/A	
3335524002	MW-25D-130	SW846 8270E SIM	SW846 3510C	
		SW846 8260D	N/A	
3335524003	MW-25D-190	SW846 8270E SIM	SW846 3510C	
		SW846 8260D	N/A	
3335524004	MW-28D	SW846 8270E SIM	SW846 3510C	
		SW846 8260D	N/A	
3335524005	MW-29D	SW846 8270E SIM	SW846 3510C	
		SW846 8260D	N/A	
3335524006	MW-30D-273	SW846 8270E SIM	SW846 3510C	
		SW846 8260D	N/A	
3335524007	MW-30D-413	SW846 8270E SIM	SW846 3510C	
		SW846 8260D	N/A	
3335524008	MW-31D	SW846 8270E SIM	SW846 3510C	
		SW846 8260D	N/A	
3335524009	MW-32D	SW846 8270E SIM	SW846 3510C	
		SW846 8260D	N/A	
3335524010	MW-33D-235	SW846 8270E SIM	SW846 3510C	
		SW846 8260D	N/A	
3335524011	MW-33D-295	SW846 8270E SIM	SW846 3510C	
		SW846 8260D	N/A	
3335524012	MW-34D	SW846 8270E SIM	SW846 3510C	
		SW846 8260D	N/A	
3335524013	MW-35D	SW846 8270E SIM	SW846 3510C	
		SW846 8260D	N/A	
3335524014	MW-36D	SW846 8270E SIM	SW846 3510C	
		SW846 8260D	N/A	
3335524015	DUP-120423	SW846 8270E SIM	SW846 3510C	
		SW846 8260D	N/A	
3335524016	Trip Blank A	SW846 8260D	N/A	
3335524017	Trip Blank B	SW846 8260D	N/A	

QUALITY CONTROL SAMPLES

SEMIVOLATILE SIM

QC Batch

QC Batch	1096958	Prep Method	SW846 3510C
Date	12/06/2023 09:00	Analysis Method	SW846 8270E SIM
Tech.	SRL		

Associated Samples

3335524013	3335524004	3335524014	3335524005
3335524006	3335524015	3335524007	3335524008
3335524009	3335524010	3335524001	3335524002
3335524011	3335524003	3335524012	

Method Blank 3758523 (MB) Created on 12/05/2023 12:07 For QC Batch 1096958

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	0.71	1	71.3	29 - 112	
Fluoranthene-d10	93951-69-0	BLK	0.83	1	83	45 - 130	

Lab Control Standard 3758524 (LCS) Created on 12/05/2023 12:07 For QC Batch 1096958

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	56.8	22 - 75		U

SURROGATES

Compound	CAS No		Result (ug/L)	Expected (ug/L)	Rec. (%)	Limits (%)	Qualifiers
2-Methylnapthalene-d10	7297-45-2	LCS	0.65	1	64.5	29 - 112	
Fluoranthene-d10	93951-69-0	LCS	0.83	1	82.7	45 - 130	

Matrix Spike 3758525 (MS) 3335524003 For QC Batch 1096958

****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 3758526 (MSD) 3335524003 For QC Batch 1096958

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	11.70	9.40	5	46	22 - 75		
1,4-Dioxane	123-91-1	MSD	10.50	9.40	5	21.5*	22 - 75	RPD 11.10 (Max-30)	

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	MS	3	5	59.6	29 - 112	
2-Methylnapthalene-d10	7297-45-2	MSD	3	5	59.9	29 - 112	
Fluoranthene-d10	93951-69-0	MS	3.60	5	71.9	45 - 130	
Fluoranthene-d10	93951-69-0	MSD	3.50	5	69.5	45 - 130	

QUALITY CONTROL SAMPLES

VOLATILE ORGANICS

QC Batch

QC Batch	1097850	Prep Method	N/A
Date	N/A	Analysis Method	SW846 8260D
Tech.			

Associated Samples

3335524003	3335524012	3335524004	3335524005
3335524006	3335524007	3335524008	3335524001
3335524002	3335524010	3335524011	3335524009

Method Blank 3759543 (MB) Created on 12/07/2023 10:47 For QC Batch 1097850

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	30	30	100	62 - 133	
4-Bromofluorobenzene	460-00-4	BLK	31.20	30	104	79 - 114	
Dibromofluoromethane	1868-53-7	BLK	29.50	30	98.3	78 - 116	
Toluene-d8	2037-26-5	BLK	30.80	30	103	76 - 127	

Lab Control Standard 3759544 (LCS) Created on 12/07/2023 10:47 For QC Batch 1097850

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	20.40		20	102	78 - 121		
1,1,1-Trichloroethane	71-55-6	LCS	21.70		20	108	66 - 130		
1,1,2,2-Tetrachloroethane	79-34-5	LCS	20.60		20	103	74 - 135		
1,1,2-Trichloroethane	79-00-5	LCS	19.60		20	98.2	82 - 126		
1,1-Dichloroethane	75-34-3	LCS	21.10		20	105	78 - 124		
1,1-Dichloroethene	75-35-4	LCS	22		20	110	63 - 128		
1,1-Dichloropropene	563-58-6	LCS	21.80		20	109	76 - 126		
1,2,3-Trichlorobenzene	87-61-6	LCS	22.80		20	114	61 - 126		
1,2,3-Trichloropropane	96-18-4	LCS	20.50		20	102	75 - 132		
1,2,4-Trichlorobenzene	120-82-1	LCS	23.40		20	117	67 - 123		
1,2-Dibromo-3-chloropropane	96-12-8	LCS	20.20		20	101	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	99.8	80 - 124		
1,2-Dichlorobenzene	95-50-1	LCS	21		20	105	82 - 118		
1,2-Dichloroethane	107-06-2	LCS	19.80		20	99.1	70 - 133		
1,2-Dichloropropane	78-87-5	LCS	20.80		20	104	81 - 127		
1,3-Dichlorobenzene	541-73-1	LCS	21		20	105	81 - 118		
1,3-Dichloropropane	142-28-9	LCS	20.20		20	101	82 - 126		
1,4-Dichlorobenzene	106-46-7	LCS	20.80		20	104	81 - 116		
2,2-Dichloropropane	594-20-7	LCS	22.80		20	114	64 - 129		
2-Butanone	78-93-3	LCS	117		100	117	50 - 152		
2-Hexanone	591-78-6	LCS	101		100	101	65 - 154		
4-Methyl-2-Pentanone(MIBK)	108-10-1	LCS	109		100	109	71 - 146		
Acetone	67-64-1	LCS	112		100	112	40 - 151		
Benzene	71-43-2	LCS	21.30		20	107	80 - 124		
Bromobenzene	108-86-1	LCS	20		20	99.9	81 - 119		
Bromochloromethane	74-97-5	LCS	20.50		20	102	73 - 117		
Bromodichloromethane	75-27-4	LCS	20.90		20	104	79 - 126		
Bromoform	75-25-2	LCS	20.30		20	101	70 - 123		
Bromomethane	74-83-9	LCS	20.60		20	103	45 - 148		
Carbon Tetrachloride	56-23-5	LCS	21.50		20	108	62 - 132		
Chlorobenzene	108-90-7	LCS	19.70		20	98.7	85 - 117		
Chlorodibromomethane	124-48-1	LCS	19.80		20	99	77 - 122		
Chloroethane	75-00-3	LCS	10		20	49.9*	51 - 142		
Chloroform	67-66-3	LCS	21.20		20	106	78 - 122		
Chloromethane	74-87-3	LCS	15.90		20	79.4	38 - 156		
cis-1,2-Dichloroethene	156-59-2	LCS	22.10		20	110	78 - 125		
cis-1,3-Dichloropropene	10061-01-5	LCS	20.70		20	104	81 - 121		
Dibromomethane	74-95-3	LCS	20.50		20	103	81 - 125		
Dichlorodifluoromethane	75-71-8	LCS	13.40		20	67	17 - 166		
Diisopropyl ether	108-20-3	LCS	21.30		20	106	74 - 131		
Ethylbenzene	100-41-4	LCS	20.90		20	105	80 - 124		
Hexachlorobutadiene	87-68-3	LCS	25.50		20	128	55 - 128		
Methyl t-Butyl Ether	1634-04-4	LCS	21		20	105	69 - 115		
Methylene Chloride	75-09-2	LCS	20.60		20	103	76 - 121		
mp-Xylene	108383/106423	LCS	41.70		40	104	79 - 125		
Naphthalene	91-20-3	LCS	19.10		20	95.3	56 - 134		
o-Chlorotoluene	95-49-8	LCS	19.40		20	97	78 - 126		
o-Xylene	95-47-6	LCS	18.30		20	91.6	79 - 124		
p-Chlorotoluene	106-43-4	LCS	19		20	95	78 - 125		
p-Isopropyltoluene	99-87-6	LCS	20.60		20	103	72 - 123		
Styrene	100-42-5	LCS	19.30		20	96.7	79 - 123		
Tetrachloroethene	127-18-4	LCS	19.60		20	98.1	72 - 124		
Toluene	108-88-3	LCS	19.50		20	97.6	80 - 125		
Total Xylenes	1330-20-7	LCS	60.10		60	100	79 - 125		
trans-1,2-Dichloroethene	156-60-5	LCS	22.20		20	111	71 - 122		
trans-1,3-Dichloropropene	10061-02-6	LCS	20.70		20	103	78 - 126		
Trichloroethene	79-01-6	LCS	20.70		20	103	77 - 124		
Trichlorofluoromethane	75-69-4	LCS	12.80		20	64.2	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	20.60		20	103	58 - 136		
Vinyl Chloride	75-01-4	LCS	15		20	75.1	27 - 138		

SURROGATES

Compound	CAS No		Result (ug/L)	Expected (ug/L)	Rec. (%)	Limits (%)	Qualifiers
1,2-Dichloroethane-d4	17060-07-0	LCS	30.90	30	103	62 - 133	
4-Bromofluorobenzene	460-00-4	LCS	29.70	30	99.1	79 - 114	
Dibromofluoromethane	1868-53-7	LCS	29.60	30	98.8	78 - 116	
Toluene-d8	2037-26-5	LCS	29.60	30	98.7	76 - 127	

Matrix Spike 3759545 (MS) 3335524003 For QC Batch 1097850

****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 3759546 (MSD) 3335524003 For QC Batch 1097850

RESULTS

Compound	CAS No		Result (ug/L)	Orig. Result (ug/L)	Spk Added (ug/L)	Rec. (%)	Limits (%)	RPD Limit (%)	Qualifiers
1,1,1,2-Tetrachloroethane	630-20-6	MS	22.80	0	20	114	78 - 121		
1,1,1,2-Tetrachloroethane	630-20-6	MSD	22.30	0	20	112	78 - 121	RPD 2.31 (Max-16)	
1,1,1-Trichloroethane	71-55-6	MS	29.20	3.90	20	126	66 - 130		
1,1,1-Trichloroethane	71-55-6	MSD	27.90	3.90	20	120	66 - 130	RPD 4.33 (Max-20)	
1,1,2,2-Tetrachloroethane	79-34-5	MS	24.20	0	20	121	74 - 135		
1,1,2,2-Tetrachloroethane	79-34-5	MSD	24.10	0	20	120	74 - 135	RPD 0.40 (Max-16)	
1,1,2-Trichloroethane	79-00-5	MS	22.70	0	20	114	82 - 126		
1,1,2-Trichloroethane	79-00-5	MSD	21.90	0	20	110	82 - 126	RPD 3.71 (Max-15)	
1,1-Dichloroethane	75-34-3	MS	33.70	8.40	20	126*	78 - 124		
1,1-Dichloroethane	75-34-3	MSD	31.60	8.40	20	116	78 - 124	RPD 6.44 (Max-15)	
1,1-Dichloroethene	75-35-4	MS	63.70	37	20	136*	63 - 128		
1,1-Dichloroethene	75-35-4	MSD	59.80	37	20	116	63 - 128	RPD 6.25 (Max-21)	
1,1-Dichloropropene	563-58-6	MS	25.70	0	20	128*	76 - 126		
1,1-Dichloropropene	563-58-6	MSD	24.50	0	20	123	76 - 126	RPD 4.63 (Max-16)	
1,2,3-Trichlorobenzene	87-61-6	MS	21.80	0	20	109	61 - 126		
1,2,3-Trichlorobenzene	87-61-6	MSD	21.80	0	20	109	61 - 126	RPD 0.12 (Max-36)	
1,2,3-Trichloropropane	96-18-4	MS	22.80	0	20	114	75 - 132		
1,2,3-Trichloropropane	96-18-4	MSD	23.10	0	20	116	75 - 132	RPD 1.41 (Max-19)	
1,2,4-Trichlorobenzene	120-82-1	MS	22.20	0	20	111	67 - 123		
1,2,4-Trichlorobenzene	120-82-1	MSD	22.30	0	20	112	67 - 123	RPD 0.69 (Max-22)	
1,2-Dibromo-3-chloropropane	96-12-8	MS	21.60	0	20	108	59 - 133		
1,2-Dibromo-3-chloropropane	96-12-8	MSD	21.70	0	20	109	59 - 133	RPD 0.63 (Max-26)	
1,2-Dibromoethane	106-93-4	MS	22.40	0	20	112	80 - 124		
1,2-Dibromoethane	106-93-4	MSD	21.80	0	20	109	80 - 124	RPD 2.77 (Max-19)	
1,2-Dichlorobenzene	95-50-1	MS	22.80	0	20	114	82 - 118		
1,2-Dichlorobenzene	95-50-1	MSD	23.20	0	20	116	82 - 118	RPD 1.88 (Max-15)	

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-Dichloroethane	107-06-2	MS	23.20	0.41	20	114	70 - 133		
1,2-Dichloroethane	107-06-2	MSD	22.30	0.41	20	110	70 - 133	RPD 3.56 (Max-19)	
1,2-Dichloropropane	78-87-5	MS	24	0	20	120	81 - 127		
1,2-Dichloropropane	78-87-5	MSD	23.20	0	20	116	81 - 127	RPD 3.46 (Max-15)	
1,3-Dichlorobenzene	541-73-1	MS	22.70	0	20	114	81 - 118		
1,3-Dichlorobenzene	541-73-1	MSD	23	0	20	115	81 - 118	RPD 1.24 (Max-16)	
1,3-Dichloropropane	142-28-9	MS	23.30	0	20	116	82 - 126		
1,3-Dichloropropane	142-28-9	MSD	22.80	0	20	114	82 - 126	RPD 2.15 (Max-15)	
1,4-Dichlorobenzene	106-46-7	MS	22.60	0	20	113	81 - 116		
1,4-Dichlorobenzene	106-46-7	MSD	22.80	0	20	114	81 - 116	RPD 0.75 (Max-15)	
2,2-Dichloropropane	594-20-7	MS	22.30	0	20	112	64 - 129		
2,2-Dichloropropane	594-20-7	MSD	21.10	0	20	105	64 - 129	RPD 5.86 (Max-18)	
2-Butanone	78-93-3	MS	123	0	100	123	50 - 152		
2-Butanone	78-93-3	MSD	127	0	100	127	50 - 152	RPD 3.51 (Max-16)	
2-Hexanone	591-78-6	MS	111	0	100	111	65 - 154		
2-Hexanone	591-78-6	MSD	111	0	100	111	65 - 154	RPD 0.22 (Max-17)	
4-Methyl-2-Pentanone(MIBK)	108-10-1	MS	123	0	100	123	71 - 146		
4-Methyl-2-Pentanone(MIBK)	108-10-1	MSD	123	0	100	123	71 - 146	RPD 0.16 (Max-16)	
Acetone	67-64-1	MS	105	0	100	105	40 - 151		
Acetone	67-64-1	MSD	105	0	100	105	40 - 151	RPD 0.67 (Max-40)	
Benzene	71-43-2	MS	24.80	0	20	124	80 - 124		
Benzene	71-43-2	MSD	23.60	0	20	118	80 - 124	RPD 5.10 (Max-26)	
Bromobenzene	108-86-1	MS	23.10	0	20	116	81 - 119		
Bromobenzene	108-86-1	MSD	22.60	0	20	113	81 - 119	RPD 2.15 (Max-17)	
Bromochloromethane	74-97-5	MS	23.60	0	20	118*	73 - 117		
Bromochloromethane	74-97-5	MSD	23.30	0	20	117	73 - 117	RPD 1.23 (Max-19)	
Bromodichloromethane	75-27-4	MS	23.80	0	20	119	79 - 126		
Bromodichloromethane	75-27-4	MSD	22.70	0	20	114	79 - 126	RPD 4.89 (Max-16)	
Bromoform	75-25-2	MS	20.90	0	20	105	70 - 123		
Bromoform	75-25-2	MSD	20.30	0	20	101	70 - 123	RPD 2.99 (Max-16)	
Bromomethane	74-83-9	MS	22	0	20	110	45 - 148		
Bromomethane	74-83-9	MSD	20.30	0	20	101	45 - 148	RPD 8.30 (Max-26)	
Carbon Tetrachloride	56-23-5	MS	24.30	0	20	122	62 - 132		
Carbon Tetrachloride	56-23-5	MSD	23.70	0	20	118	62 - 132	RPD 2.77 (Max-17)	
Chlorobenzene	108-90-7	MS	22.20	0	20	111	85 - 117		
Chlorobenzene	108-90-7	MSD	21.70	0	20	109	85 - 117	RPD 2.31 (Max-15)	
Chlorodibromomethane	124-48-1	MS	21.50	0	20	108	77 - 122		
Chlorodibromomethane	124-48-1	MSD	21.50	0	20	107	77 - 122	RPD 0.26 (Max-15)	
Chloroethane	75-00-3	MS	13	0	20	64.8	51 - 142		
Chloroethane	75-00-3	MSD	10.90	0	20	54.6	51 - 142	RPD 17.10 (Max-24)	
Chloroform	67-66-3	MS	23.10	0	20	115	78 - 122		
Chloroform	67-66-3	MSD	22.50	0	20	112	78 - 122	RPD 2.63 (Max-16)	
Chloromethane	74-87-3	MS	16.50	0	20	82.5	38 - 156		
Chloromethane	74-87-3	MSD	16.50	0	20	82.4	38 - 156	RPD 0.07 (Max-27)	
cis-1,2-Dichloroethene	156-59-2	MS	25.30	0	20	126*	78 - 125		
cis-1,2-Dichloroethene	156-59-2	MSD	24.40	0	20	122	78 - 125	RPD 3.63 (Max-21)	
cis-1,3-Dichloropropene	10061-01-5	MS	21.80	0	20	109	81 - 121		
cis-1,3-Dichloropropene	10061-01-5	MSD	21.20	0	20	106	81 - 121	RPD 2.44 (Max-16)	
Dibromomethane	74-95-3	MS	23.50	0	20	117	81 - 125		

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
Dibromomethane	74-95-3	MSD	22.80	0	20	114	81 - 125	RPD 2.68 (Max-16)	
Dichlorodifluoromethane	75-71-8	MS	15.60	0	20	78.1	17 - 166		
Dichlorodifluoromethane	75-71-8	MSD	15	0	20	75.1	17 - 166	RPD 3.92 (Max-24)	
Diisopropyl ether	108-20-3	MS	24.70	0	20	123	74 - 131		
Diisopropyl ether	108-20-3	MSD	24.20	0	20	121	74 - 131	RPD 2.04 (Max-15)	
Ethylbenzene	100-41-4	MS	23.60	0	20	118	80 - 124		
Ethylbenzene	100-41-4	MSD	23.30	0	20	116	80 - 124	RPD 1.48 (Max-19)	
Hexachlorobutadiene	87-68-3	MS	23.40	0	20	117	55 - 128		
Hexachlorobutadiene	87-68-3	MSD	21.10	0	20	106	55 - 128	RPD 10.30 (Max-35)	
Methyl t-Butyl Ether	1634-04-4	MS	25	1.20	20	119*	69 - 115		
Methyl t-Butyl Ether	1634-04-4	MSD	24.70	1.20	20	117*	69 - 115	RPD 1.27 (Max-20)	
Methylene Chloride	75-09-2	MS	24	0	20	120	76 - 121		
Methylene Chloride	75-09-2	MSD	22.90	0	20	114	76 - 121	RPD 4.83 (Max-17)	
mp-Xylene	108383/106423	MS	47.30	0	40	118	79 - 125		
mp-Xylene	108383/106423	MSD	46.50	0	40	116	79 - 125	RPD 1.69 (Max-21)	
Naphthalene	91-20-3	MS	18.90	0	20	94.6	56 - 134		
Naphthalene	91-20-3	MSD	20.10	0	20	100	56 - 134	RPD 5.79 (Max-40)	
o-Chlorotoluene	95-49-8	MS	21.90	0	20	109	78 - 126		
o-Chlorotoluene	95-49-8	MSD	22.20	0	20	111	78 - 126	RPD 1.28 (Max-17)	
o-Xylene	95-47-6	MS	20.60	0	20	103	79 - 124		
o-Xylene	95-47-6	MSD	20.50	0	20	102	79 - 124	RPD 0.71 (Max-19)	
p-Chlorotoluene	106-43-4	MS	21.10	0	20	106	78 - 125		
p-Chlorotoluene	106-43-4	MSD	21.50	0	20	107	78 - 125	RPD 1.70 (Max-16)	
p-Isopropyltoluene	99-87-6	MS	20.90	0	20	105	72 - 123		
p-Isopropyltoluene	99-87-6	MSD	21	0	20	105	72 - 123	RPD 0.60 (Max-17)	
Styrene	100-42-5	MS	21.70	0	20	108	79 - 123		
Styrene	100-42-5	MSD	21.60	0	20	108	79 - 123	RPD 0.35 (Max-16)	
Tetrachloroethene	127-18-4	MS	21.10	0	20	106	72 - 124		
Tetrachloroethene	127-18-4	MSD	21.10	0	20	106	72 - 124	RPD 0.10 (Max-38)	
Toluene	108-88-3	MS	22	0	20	110	80 - 125		
Toluene	108-88-3	MSD	21.40	0	20	107	80 - 125	RPD 2.64 (Max-20)	
Total Xylenes	1330-20-7	MS	67.90	0	60	113	79 - 125		
Total Xylenes	1330-20-7	MSD	67	0	60	112	79 - 125	RPD 1.39 (Max-35)	
trans-1,2-Dichloroethene	156-60-5	MS	25.70	0	20	129*	71 - 122		
trans-1,2-Dichloroethene	156-60-5	MSD	23.90	0	20	120	71 - 122	RPD 7.25 (Max-22)	
trans-1,3-Dichloropropene	10061-02-6	MS	22.10	0	20	110	78 - 126		
trans-1,3-Dichloropropene	10061-02-6	MSD	21.90	0	20	109	78 - 126	RPD 0.92 (Max-18)	
Trichloroethene	79-01-6	MS	23.80	0	20	119	77 - 124		
Trichloroethene	79-01-6	MSD	22.70	0	20	113	77 - 124	RPD 5.09 (Max-18)	
Trichlorofluoromethane	75-69-4	MS	19.70	0	20	98.6	38 - 123		
Trichlorofluoromethane	75-69-4	MSD	17.40	0	20	87.2	38 - 123	RPD 12.30 (Max-23)	
Vinyl Acetate	108-05-4	MS	18.30	0	20	91.6	58 - 136		
Vinyl Acetate	108-05-4	MSD	18.50	0	20	92.4	58 - 136	RPD 0.89 (Max-17)	
Vinyl Chloride	75-01-4	MS	19.50	0	20	97.6	27 - 138		
Vinyl Chloride	75-01-4	MSD	17.60	0	20	87.9	27 - 138	RPD 10.50 (Max-40)	

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	MS	30.40	30	101	62 - 133	
1,2-Dichloroethane-d4	17060-07-0	MSD	31.90	30	106	62 - 133	
4-Bromofluorobenzene	460-00-4	MS	30.20	30	101	79 - 114	
4-Bromofluorobenzene	460-00-4	MSD	29.90	30	99.5	79 - 114	
Dibromofluoromethane	1868-53-7	MS	29.60	30	98.6	78 - 116	
Dibromofluoromethane	1868-53-7	MSD	29.70	30	99	78 - 116	
Toluene-d8	2037-26-5	MS	29.20	30	97.4	76 - 127	
Toluene-d8	2037-26-5	MSD	28.90	30	96.5	76 - 127	

QC Batch

QC Batch	1100336	Prep Method	N/A
Date	N/A	Analysis Method	SW846 8260D
Tech.			

Associated Samples

3335524013 3335524014 3335524015 3335524016 3335524017

Matrix Spike 3760897 (MS) 3335862010 (non-Project Sample) For QC Batch 1100336

****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 3760898 (MSD) 3335862010 (non-Project Sample) For QC Batch 1100336

RESULTS

Compound	CAS No		Result (ug/L)	Orig. Result (ug/L)	Spk Added (ug/L)	Rec. (%)	Limits (%)	RPD Limit (%)	Qualifiers
1,1,1,2-Tetrachloroethane	630-20-6	MS	20.70	0	20	104	78 - 121		
1,1,1,2-Tetrachloroethane	630-20-6	MSD	21.60	0	20	108	78 - 121	RPD 3.90 (Max-16)	
1,1,1-Trichloroethane	71-55-6	MS	23.60	0	20	118	66 - 130		
1,1,1-Trichloroethane	71-55-6	MSD	23	0	20	115	66 - 130	RPD 2.32 (Max-20)	
1,1,2,2-Tetrachloroethane	79-34-5	MS	19.80	0	20	98.8	74 - 135		
1,1,2,2-Tetrachloroethane	79-34-5	MSD	21.20	0	20	106	74 - 135	RPD 7.25 (Max-16)	
1,1,2-Trichloroethane	79-00-5	MS	20.50	0	20	102	82 - 126		
1,1,2-Trichloroethane	79-00-5	MSD	21.80	0	20	109	82 - 126	RPD 6.39 (Max-15)	
1,1-Dichloroethane	75-34-3	MS	23.10	0	20	116	78 - 124		
1,1-Dichloroethane	75-34-3	MSD	22.70	0	20	114	78 - 124	RPD 1.74 (Max-15)	
1,1-Dichloroethene	75-35-4	MS	27.50	0	20	137*	63 - 128		
1,1-Dichloroethene	75-35-4	MSD	27	0	20	135*	63 - 128	RPD 1.69 (Max-21)	
1,1-Dichloropropene	563-58-6	MS	23.30	0	20	117	76 - 126		
1,1-Dichloropropene	563-58-6	MSD	22.80	0	20	114	76 - 126	RPD 2.43 (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	20.10	0	20	100	61 - 126	RPD 7.38 (Max-36)	
1,2,3-Trichloropropane	96-18-4	MS	20.50	0	20	102	75 - 132		
1,2,3-Trichloropropane	96-18-4	MSD	22.40	0	20	112	75 - 132	RPD 8.77 (Max-19)	
1,2,4-Trichlorobenzene	120-82-1	MS	18.30	0	20	91.7	67 - 123		
1,2,4-Trichlorobenzene	120-82-1	MSD	19.40	0	20	97.1	67 - 123	RPD 5.73 (Max-22)	
1,2-Dibromo-3-chloropropane	96-12-8	MS	17.30	0	20	86.6	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-Dibromo-3-chloropropane	96-12-8	MSD	19.60	0	20	98.2	59 - 133	RPD 12.60 (Max-26)	
1,2-Dibromoethane	106-93-4	MS	19.70	0	20	98.5	80 - 124		
1,2-Dibromoethane	106-93-4	MSD	21.30	0	20	107	80 - 124	RPD 7.87 (Max-19)	
1,2-Dichlorobenzene	95-50-1	MS	19.10	0	20	95.6	82 - 118		
1,2-Dichlorobenzene	95-50-1	MSD	20.50	0	20	102	82 - 118	RPD 6.93 (Max-15)	
1,2-Dichloroethane	107-06-2	MS	21.80	0	20	109	70 - 133		
1,2-Dichloroethane	107-06-2	MSD	22	0	20	110	70 - 133	RPD 1.08 (Max-19)	
1,2-Dichloropropane	78-87-5	MS	21.90	0	20	109	81 - 127		
1,2-Dichloropropane	78-87-5	MSD	21.70	0	20	109	81 - 127	RPD 0.54 (Max-15)	
1,3-Dichlorobenzene	541-73-1	MS	19	0	20	94.9	81 - 118		
1,3-Dichlorobenzene	541-73-1	MSD	20.30	0	20	101	81 - 118	RPD 6.67 (Max-16)	
1,3-Dichloropropane	142-28-9	MS	20.50	0	20	103	82 - 126		
1,3-Dichloropropane	142-28-9	MSD	21.90	0	20	110	82 - 126	RPD 6.68 (Max-15)	
1,4-Dichlorobenzene	106-46-7	MS	19.30	0	20	96.4	81 - 116		
1,4-Dichlorobenzene	106-46-7	MSD	20.40	0	20	102	81 - 116	RPD 5.88 (Max-15)	
2,2-Dichloropropane	594-20-7	MS	20.80	0	20	104	64 - 129		
2,2-Dichloropropane	594-20-7	MSD	20	0	20	99.9	64 - 129	RPD 4.06 (Max-18)	
2-Butanone	78-93-3	MS	98.40	0	100	98.4	50 - 152		
2-Butanone	78-93-3	MSD	103	0	100	103	50 - 152	RPD 4.45 (Max-16)	
2-Hexanone	591-78-6	MS	99.20	0	100	99.2	65 - 154		
2-Hexanone	591-78-6	MSD	109	0	100	109	65 - 154	RPD 9.54 (Max-17)	
4-Methyl-2-Pentanone(MIBK)	108-10-1	MS	102	0	100	102	71 - 146		
4-Methyl-2-Pentanone(MIBK)	108-10-1	MSD	111	0	100	111	71 - 146	RPD 8.28 (Max-16)	
Acetone	67-64-1	MS	101	0	100	101	40 - 151		
Acetone	67-64-1	MSD	106	0	100	106	40 - 151	RPD 4.97 (Max-40)	
Benzene	71-43-2	MS	22.10	0	20	111	80 - 124		
Benzene	71-43-2	MSD	22	0	20	110	80 - 124	RPD 0.69 (Max-26)	
Bromobenzene	108-86-1	MS	19.50	0	20	97.6	81 - 119		
Bromobenzene	108-86-1	MSD	21	0	20	105	81 - 119	RPD 7.40 (Max-17)	
Bromochloromethane	74-97-5	MS	22.40	0	20	112	73 - 117		
Bromochloromethane	74-97-5	MSD	22.30	0	20	112	73 - 117	RPD 0.23 (Max-19)	
Bromodichloromethane	75-27-4	MS	21.30	0	20	107	79 - 126		
Bromodichloromethane	75-27-4	MSD	21.60	0	20	108	79 - 126	RPD 1.36 (Max-16)	
Bromoform	75-25-2	MS	18.50	0	20	92.6	70 - 123		
Bromoform	75-25-2	MSD	20.70	0	20	103	70 - 123	RPD 11 (Max-16)	
Bromomethane	74-83-9	MS	23.20	0	20	116	45 - 148		
Bromomethane	74-83-9	MSD	22.70	0	20	113	45 - 148	RPD 2.43 (Max-26)	
Carbon Tetrachloride	56-23-5	MS	26.90	0	20	134*	62 - 132		
Carbon Tetrachloride	56-23-5	MSD	26.30	0	20	132	62 - 132	RPD 1.99 (Max-17)	
Chlorobenzene	108-90-7	MS	20.10	0	20	100	85 - 117		
Chlorobenzene	108-90-7	MSD	20.70	0	20	104	85 - 117	RPD 3.24 (Max-15)	
Chlorodibromomethane	124-48-1	MS	20.10	0	20	100	77 - 122		
Chlorodibromomethane	124-48-1	MSD	21.20	0	20	106	77 - 122	RPD 5.48 (Max-15)	
Chloroethane	75-00-3	MS	22.80	0	20	114	51 - 142		
Chloroethane	75-00-3	MSD	22.20	0	20	111	51 - 142	RPD 2.75 (Max-24)	
Chloroform	67-66-3	MS	22.50	0	20	112	78 - 122		
Chloroform	67-66-3	MSD	21.50	0	20	108	78 - 122	RPD 4.22 (Max-16)	
Chloromethane	74-87-3	MS	18.50	0	20	92.4	38 - 156		
Chloromethane	74-87-3	MSD	17.70	0	20	88.7	38 - 156	RPD 4.16 (Max-27)	

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
cis-1,2-Dichloroethene	156-59-2	MS	23.10	0	20	115	78 - 125		
cis-1,2-Dichloroethene	156-59-2	MSD	22.50	0	20	113	78 - 125	RPD 2.20 (Max-21)	
cis-1,3-Dichloropropene	10061-01-5	MS	19.20	0	20	96	81 - 121		
cis-1,3-Dichloropropene	10061-01-5	MSD	20.70	0	20	103	81 - 121	RPD 7.31 (Max-16)	
Dibromomethane	74-95-3	MS	21.40	0	20	107	81 - 125		
Dibromomethane	74-95-3	MSD	21.50	0	20	108	81 - 125	RPD 0.66 (Max-16)	
Dichlorodifluoromethane	75-71-8	MS	18.60	0	20	92.8	17 - 166		
Dichlorodifluoromethane	75-71-8	MSD	18.10	0	20	90.3	17 - 166	RPD 2.82 (Max-24)	
Diisopropyl ether	108-20-3	MS	21.80	0	20	109	74 - 131		
Diisopropyl ether	108-20-3	MSD	21.60	0	20	108	74 - 131	RPD 0.96 (Max-15)	
Ethylbenzene	100-41-4	MS	20.50	0	20	102	80 - 124		
Ethylbenzene	100-41-4	MSD	21.50	0	20	107	80 - 124	RPD 4.57 (Max-19)	
Hexachlorobutadiene	87-68-3	MS	19.60	0	20	98.2	55 - 128		
Hexachlorobutadiene	87-68-3	MSD	20.70	0	20	103	55 - 128	RPD 5.08 (Max-35)	
Methyl t-Butyl Ether	1634-04-4	MS	21.40	0	20	107	69 - 115		
Methyl t-Butyl Ether	1634-04-4	MSD	22.10	0	20	111	69 - 115	RPD 3.22 (Max-20)	
Methylene Chloride	75-09-2	MS	22.70	0	20	113	76 - 121		
Methylene Chloride	75-09-2	MSD	22.50	0	20	112	76 - 121	RPD 0.74 (Max-17)	
mp-Xylene	108383/106423	MS	41.70	0	40	104	79 - 125		
mp-Xylene	108383/106423	MSD	42.60	0	40	107	79 - 125	RPD 2.26 (Max-21)	
Naphthalene	91-20-3	MS	18.40	0	20	92.2	56 - 134		
Naphthalene	91-20-3	MSD	20.20	0	20	101	56 - 134	RPD 9.26 (Max-40)	
o-Chlorotoluene	95-49-8	MS	20.80	0	20	104	78 - 126		
o-Chlorotoluene	95-49-8	MSD	21.70	0	20	109	78 - 126	RPD 4.48 (Max-17)	
o-Xylene	95-47-6	MS	20.20	0	20	101	79 - 124		
o-Xylene	95-47-6	MSD	20.80	0	20	104	79 - 124	RPD 2.82 (Max-19)	
p-Chlorotoluene	106-43-4	MS	20.10	0	20	100	78 - 125		
p-Chlorotoluene	106-43-4	MSD	21.10	0	20	106	78 - 125	RPD 5.09 (Max-16)	
p-Isopropyltoluene	99-87-6	MS	20.70	0	20	103	72 - 123		
p-Isopropyltoluene	99-87-6	MSD	22.30	0	20	112	72 - 123	RPD 7.55 (Max-17)	
Styrene	100-42-5	MS	20.20	0	20	101	79 - 123		
Styrene	100-42-5	MSD	21	0	20	105	79 - 123	RPD 4.04 (Max-16)	
Tetrachloroethene	127-18-4	MS	19	0	20	95	72 - 124		
Tetrachloroethene	127-18-4	MSD	19.80	0	20	98.9	72 - 124	RPD 4.06 (Max-38)	
Toluene	108-88-3	MS	21	0	20	105	80 - 125		
Toluene	108-88-3	MSD	21.60	0	20	108	80 - 125	RPD 2.70 (Max-20)	
Total Xylenes	1330-20-7	MS	61.90	0	60	103	79 - 125		
Total Xylenes	1330-20-7	MSD	63.40	0	60	106	79 - 125	RPD 2.44 (Max-35)	
trans-1,2-Dichloroethene	156-60-5	MS	23.90	0	20	120	71 - 122		
trans-1,2-Dichloroethene	156-60-5	MSD	23.60	0	20	118	71 - 122	RPD 1.66 (Max-22)	
trans-1,3-Dichloropropene	10061-02-6	MS	20.40	0	20	102	78 - 126		
trans-1,3-Dichloropropene	10061-02-6	MSD	21.50	0	20	108	78 - 126	RPD 5.47 (Max-18)	
Trichloroethene	79-01-6	MS	21.50	0	20	107	77 - 124		
Trichloroethene	79-01-6	MSD	21.20	0	20	106	77 - 124	RPD 1.42 (Max-18)	
Trichlorofluoromethane	75-69-4	MS	22.50	0	20	113	38 - 123		
Trichlorofluoromethane	75-69-4	MSD	22.20	0	20	111	38 - 123	RPD 1.24 (Max-23)	
Vinyl Acetate	108-05-4	MS	20	0	20	100	58 - 136		
Vinyl Acetate	108-05-4	MSD	20.20	0	20	101	58 - 136	RPD 0.92 (Max-17)	

QUALITY CONTROL SAMPLES

VOLATILE ORGANICS (cont.)

RESULTS

Compound	CAS No		Result (ug/L)	Orig. Result (ug/L)	Spk Added (ug/L)	Rec. (%)	Limits (%)	RPD Limit (%)	Qualifiers
Vinyl Chloride	75-01-4	MS	20.90	0	20	105	27 - 138		
Vinyl Chloride	75-01-4	MSD	20.30	0	20	101	27 - 138	RPD 3.19 (Max-40)	

SURROGATES

Compound	CAS No		Result (ug/L)	Expected (ug/L)	Rec. (%)	Limits (%)	Qualifiers
1,2-Dichloroethane-d4	17060-07-0	MS	31.60	30	105	62 - 133	
1,2-Dichloroethane-d4	17060-07-0	MSD	31.40	30	105	62 - 133	
4-Bromofluorobenzene	460-00-4	MS	28.10	30	93.6	79 - 114	
4-Bromofluorobenzene	460-00-4	MSD	28.20	30	93.9	79 - 114	
Dibromofluoromethane	1868-53-7	MS	30.40	30	101	78 - 116	
Dibromofluoromethane	1868-53-7	MSD	29.60	30	98.5	78 - 116	
Toluene-d8	2037-26-5	MS	29.20	30	97.3	76 - 127	
Toluene-d8	2037-26-5	MSD	27.70	30	92.3	76 - 127	

Method Blank 3760895 (MB) Created on 12/11/2023 11:09 For QC Batch 1100336

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

QUALITY CONTROL SAMPLES

VOLATILE ORGANICS (cont.)

RESULTS

Compound	CAS No		Result	Units	RDL	Qualifiers
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	28.30	30	94.5	62 - 133	
4-Bromofluorobenzene	460-00-4	BLK	26.50	30	88.3	79 - 114	
Dibromofluoromethane	1868-53-7	BLK	27.80	30	92.5	78 - 116	
Toluene-d8	2037-26-5	BLK	29	30	96.8	76 - 127	

QUALITY CONTROL SAMPLES

VOLATILE ORGANICS (cont.)

Lab Control Standard 3760896 (LCS) Created on 12/11/2023 11:09 For QC Batch 1100336

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	110	78 - 121		
1,1,1-Trichloroethane	71-55-6	LCS	20.50		20	102	66 - 130		
1,1,2,2-Tetrachloroethane	79-34-5	LCS	20		20	100	74 - 135		
1,1,2-Trichloroethane	79-00-5	LCS	20.80		20	104	82 - 126		
1,1-Dichloroethane	75-34-3	LCS	20.10		20	101	78 - 124		
1,1-Dichloroethene	75-35-4	LCS	22.70		20	114	63 - 128		
1,1-Dichloropropene	563-58-6	LCS	20.30		20	102	76 - 126		
1,2,3-Trichlorobenzene	87-61-6	LCS	21.40		20	107	61 - 126		
1,2,3-Trichloropropane	96-18-4	LCS	20.30		20	102	75 - 132		
1,2,4-Trichlorobenzene	120-82-1	LCS	21.30		20	107	67 - 123		
1,2-Dibromo-3-chloropropane	96-12-8	LCS	18.40		20	91.8	59 - 133		
1,2-Dibromoethane	106-93-4	LCS	21.30		20	107	80 - 124		
1,2-Dichlorobenzene	95-50-1	LCS	20.30		20	102	82 - 118		
1,2-Dichloroethane	107-06-2	LCS	18.90		20	94.3	70 - 133		
1,2-Dichloropropane	78-87-5	LCS	20		20	99.8	81 - 127		
1,3-Dichlorobenzene	541-73-1	LCS	20.30		20	101	81 - 118		
1,3-Dichloropropane	142-28-9	LCS	21		20	105	82 - 126		
1,4-Dichlorobenzene	106-46-7	LCS	20.70		20	103	81 - 116		
2,2-Dichloropropane	594-20-7	LCS	20.40		20	102	64 - 129		
2-Butanone	78-93-3	LCS	100		100	100	50 - 152		
2-Hexanone	591-78-6	LCS	108		100	108	65 - 154		
4-Methyl-2-Pentanone(MIBK)	108-10-1	LCS	103		100	103	71 - 146		
Acetone	67-64-1	LCS	119		100	119	40 - 151		
Benzene	71-43-2	LCS	20.40		20	102	80 - 124		
Bromobenzene	108-86-1	LCS	20		20	100	81 - 119		
Bromochloromethane	74-97-5	LCS	21.10		20	106	73 - 117		
Bromodichloromethane	75-27-4	LCS	20.20		20	101	79 - 126		
Bromoform	75-25-2	LCS	21.30		20	106	70 - 123		
Bromomethane	74-83-9	LCS	20.50		20	103	45 - 148		
Carbon Tetrachloride	56-23-5	LCS	20.40		20	102	62 - 132		
Chlorobenzene	108-90-7	LCS	20.90		20	104	85 - 117		
Chlorodibromomethane	124-48-1	LCS	21.20		20	106	77 - 122		
Chloroethane	75-00-3	LCS	15.70		20	78.5	51 - 142		
Chloroform	67-66-3	LCS	20.50		20	102	78 - 122		
Chloromethane	74-87-3	LCS	15.90		20	79.5	38 - 156		
cis-1,2-Dichloroethene	156-59-2	LCS	20.10		20	100	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	16.10		20	80.4	17 - 166		
Diisopropyl ether	108-20-3	LCS	19.30		20	96.5	74 - 131		
Ethylbenzene	100-41-4	LCS	20.80		20	104	80 - 124		
Hexachlorobutadiene	87-68-3	LCS	22.90		20	114	55 - 128		
Methyl t-Butyl Ether	1634-04-4	LCS	20.30		20	101	69 - 115		
Methylene Chloride	75-09-2	LCS	20.90		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	42.30		40	106	79 - 125		
Naphthalene	91-20-3	LCS	21.50		20	108	56 - 134		
o-Chlorotoluene	95-49-8	LCS	20		20	100	78 - 126		
o-Xylene	95-47-6	LCS	21.30		20	106	79 - 124		
p-Chlorotoluene	106-43-4	LCS	20.20		20	101	78 - 125		
p-Isopropyltoluene	99-87-6	LCS	21.80		20	109	72 - 123		
Styrene	100-42-5	LCS	21.30		20	106	79 - 123		
Tetrachloroethene	127-18-4	LCS	20.60		20	103	72 - 124		
Toluene	108-88-3	LCS	20.50		20	103	80 - 125		
Total Xylenes	1330-20-7	LCS	63.60		60	106	79 - 125		
trans-1,2-Dichloroethene	156-60-5	LCS	20.60		20	103	71 - 122		
trans-1,3-Dichloropropene	10061-02-6	LCS	21.20		20	106	78 - 126		
Trichloroethene	79-01-6	LCS	19.60		20	97.8	77 - 124		
Trichlorofluoromethane	75-69-4	LCS	17.60		20	88	38 - 123		
Vinyl Acetate	108-05-4	LCS	22.50		20	113	58 - 136		
Vinyl Chloride	75-01-4	LCS	15.30		20	76.3	27 - 138		

SURROGATES

Compound	CAS No		Result (ug/L)	Expected (ug/L)	Rec. (%)	Limits (%)	Qualifiers
1,2-Dichloroethane-d4	17060-07-0	LCS	28.70	30	95.7	62 - 133	
4-Bromofluorobenzene	460-00-4	LCS	27.20	30	90.6	79 - 114	
Dibromofluoromethane	1868-53-7	LCS	29.20	30	97.5	78 - 116	
Toluene-d8	2037-26-5	LCS	29.30	30	97.7	76 - 127	

QUALITY CONTROL DATA CROSS REFERENCE TABLE

Lab ID	Sample ID	Preparation Method	Prep Batch	Prep Date/Time	By	Analysis Method	Anly Batch
3335524001	MW-24D	SW846 3510C	1096958	12/06/2023 09:00	SRL	SW846 8270E SIM	1097498
		SW846 3510C	1096958	12/06/2023 09:00	SRL	SW846 8270E SIM	1100662
		N/A	N/A	N/A		SW846 8260D	1097850
3335524002	MW-25D-130	SW846 3510C	1096958	12/06/2023 09:00	SRL	SW846 8270E SIM	1097498
		N/A	N/A	N/A		SW846 8260D	1097850
3335524003	MW-25D-190	SW846 3510C	1096958	12/06/2023 09:00	SRL	SW846 8270E SIM	1097498
		N/A	N/A	N/A		SW846 8260D	1097850
3335524004	MW-28D	SW846 3510C	1096958	12/06/2023 09:00	SRL	SW846 8270E SIM	1097498
		N/A	N/A	N/A		SW846 8260D	1097850
3335524005	MW-29D	SW846 3510C	1096958	12/06/2023 09:00	SRL	SW846 8270E SIM	1097498
		N/A	N/A	N/A		SW846 8260D	1097850
3335524006	MW-30D-273	SW846 3510C	1096958	12/06/2023 09:00	SRL	SW846 8270E SIM	1097498
		N/A	N/A	N/A		SW846 8260D	1097850
3335524007	MW-30D-413	SW846 3510C	1096958	12/06/2023 09:00	SRL	SW846 8270E SIM	1097498
		N/A	N/A	N/A		SW846 8260D	1097850
3335524008	MW-31D	SW846 3510C	1096958	12/06/2023 09:00	SRL	SW846 8270E SIM	1097498
		N/A	N/A	N/A		SW846 8260D	1097850
3335524009	MW-32D	SW846 3510C	1096958	12/06/2023 09:00	SRL	SW846 8270E SIM	1097498
		N/A	N/A	N/A		SW846 8260D	1097850
3335524010	MW-33D-235	SW846 3510C	1096958	12/06/2023 09:00	SRL	SW846 8270E SIM	1097498
		N/A	N/A	N/A		SW846 8260D	1097850
3335524011	MW-33D-295	SW846 3510C	1096958	12/06/2023 09:00	SRL	SW846 8270E SIM	1097498
		N/A	N/A	N/A		SW846 8260D	1097850
3335524012	MW-34D	SW846 3510C	1096958	12/06/2023 09:00	SRL	SW846 8270E SIM	1097498
		N/A	N/A	N/A		SW846 8260D	1097850
3335524013	MW-35D	SW846 3510C	1096958	12/06/2023 09:00	SRL	SW846 8270E SIM	1097498
		N/A	N/A	N/A		SW846 8260D	1100336
3335524014	MW-36D	SW846 3510C	1096958	12/06/2023 09:00	SRL	SW846 8270E SIM	1097498
		N/A	N/A	N/A		SW846 8260D	1100336
3335524015	DUP-120423	SW846 3510C	1096958	12/06/2023 09:00	SRL	SW846 8270E SIM	1100662
		N/A	N/A	N/A		SW846 8260D	1100336
3335524016	Trip Blank A	N/A	N/A	N/A		SW846 8260D	1100336
3335524017	Trip Blank B	N/A	N/A	N/A		SW846 8260D	1100336

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.

3335524
Logged By: SLS
PM: SJB

3524 of

(Receiving Lab)

Client Name: WSP USA Inc

Address: 13530 Dulles Technology Dr
Suite 300
Herndon VA 20171

Contact: Eric Johnson
Phone#: (703) 709-6500
Project Name/#: Kop-Flex Offsite / 31405608.011
Bill To:
Purchase Order #:

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

Date Required: Approved?
Email? [ ]

	Container Type	Container Size	Preservative
	CG	AG	
	VOA	250mL	
	HCl	None	

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 8260	1,4 Dioxane 8270								
							Enter Number of Containers Per Sample or Field Results Below.									
1	MW-24D	12/04/23	1345		G	GW	2X	2X								
2	MW-25D-130	12/04/23	1200		G	GW	X	X								
3	MW-25D-190	12/04/23	1215		G	GW	X	X	+MS/MSD	See page 2						
4	MW-28D	12/04/23	1120		G	GW	X	X								
5	MW-29D	12/04/23	1045		G	GW	X	X								
6	MW-30D-273	12/04/23	1020		G	GW	X	X								
7	MW-30D-413	12/04/23	1030		G	GW	X	X								
8	MW-31D	12/04/23	1000		G	GW	X	X								
9	MW-32D	12/04/23	1110		G	GW	X	X								
10	MW-33D-235	12/04/23	0925		G	GW	X	X								

Temp Taken By: RW Therm ID: 570 WO Temp (°C) 2C
Receipt Info completed by: RW 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

Deviations? NO YES
If YES, list below:

NJ ≤ 4 days? Y N
Courier/Tracking #
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

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

Comments:

Date:	Time		Relinquished By / Company Name		Received By / Company Name
12/4/23	1605	1	[illegible] WSP	2	1610 ALS Evon P
12-4-23	1815	3	ALS Evon P	4	
		5		6	
		7		8	
		9		10	

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

EDDs: [X] 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 3335524 of

ALS Quote #:

Client Name: WSP USA Inc

Address: 13530 Dulles Technology Dr
Suite 300
Herndon VA 20171

Contact: Eric Johnson

Phone#: (703) 709-6500

Project Name/#: Kop-Flex offsite / 31405608.011

Bill To:

Purchase Order #:

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: VOA 250mL
Preservative: HCl None

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 8260	1,4 Dioxane 8270	
	Enter Number of Containers Per Sample or Field Results Below.								
BAAAAAAA	1 MW-33D-295	12/04/23	0930		G	GW	2X	2X	
	2 MW-34D	12/04/23	0905		G	GW	X	X	
	3 MW-35D	12/04/23	0845		G	GW	X	X	
	4 MW-36D	12/04/23	1145		G	GW	X	X	
	5 MW-25D-190 MS/MSD	12/04/23	1215		G	GW	X	X	
	6 MW-25D-190MSD	12/04/23	1215		G	GW	X	X	
	7 DUP-120423	12/04/23	0945		G	GW	X	X	
	8 Trip Blank A	—	—				X		
	9 Trip Blank B	—	—				X		
	10								

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

Comments:

Date:	Time		Relinquished By / Company Name		Received By / Company Name
12/4/23	1605	1	WSP	2	ALS Evon P
12-4-23	185	3	ALS Evon P	4	
		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; [X] Standard Lvl 2 [ ] DOD [ ] Landfill; [ ] Standard Lvl 3 [ ] NJ RED [ ] NJ GW; [ ] Standard Lvl 4 [ ] NJ Full [ ] ____

EDDs: [X] 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

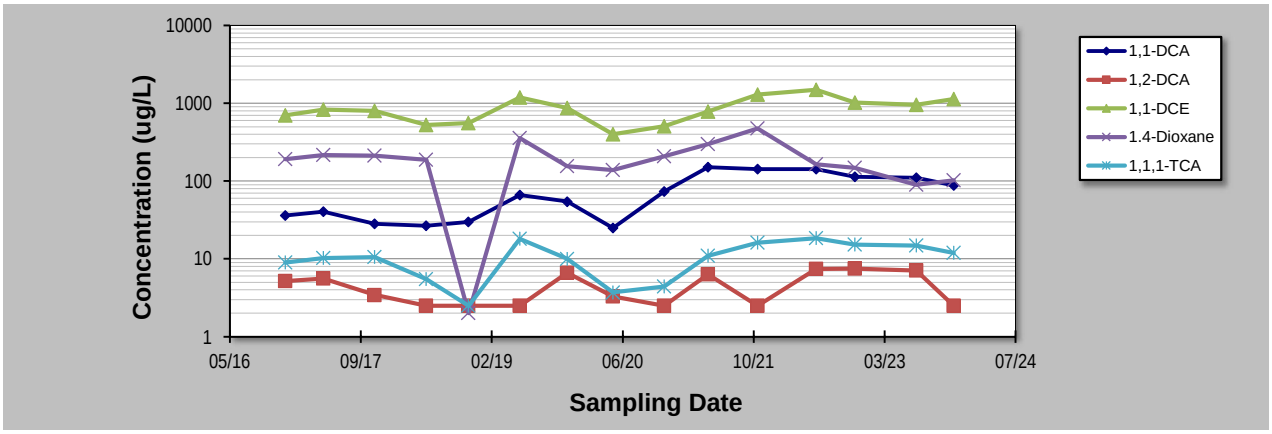
APPENDIX

B GSI MANN-KENDALL TOOLKIT OUTPUTS

GSI MANN-KENDALL TOOLKIT
for Constituent Trend Analysis

Evaluation Date: **11-Mar-24**
Facility Name: **Kop-Flex**
Conducted By: **AMR**
Job ID:
Constituent: **MW-24D**
Concentration Units: **ug/L**

Sampling Point ID:	1,1-DCA	1,2-DCA	1,1-DCE	1.4-Dioxane	1,1,1-TCA		
Sampling Event	Sampling Date	MW-24D CONCENTRATION (ug/L)						
1	8-Dec-16	36.1	5.2	701	192	9		
2	2-May-17	40.4	5.6	830	216	10.2		
3	14-Nov-17	28.1	3.43	803	212	10.5		
4	30-May-18	26.6	2.5	529	187	5.5		
5	7-Nov-18	29.8	2.5	560	2	2.5		
6	22-May-19	66.2	2.5	1190	359	18		
7	19-Nov-19	54.5	6.6	868	155	10		
8	12-May-20	25	3.3	402	139	3.7		
9	23-Nov-20	73.5	2.5	505	208	4.4		
10	10-May-21	151	6.3	788	299	10.9		
11	15-Nov-21	142	2.5	1300	475	16.1		
12	27-Jun-22	142	7.4	1490	165	18.5		
13	21-Nov-22	114	7.5	1020	148	15.3		
14	14-Jul-23	110	7.1	954	89.9	14.8		
15	4-Dec-23	88.1	2.5	1130	102	11.9		
16								
17								
18								
19								
20								
Coefficient of Variation:		0.62	0.46	0.36	0.58	0.48		
Mann-Kendall Statistic (S):		46	14	33	-25	33		
Confidence Factor:		98.8%	73.7%	94.3%	88.0%	94.3%		
Concentration Trend:		Increasing	No Trend	Prob. Increasing	Stable	Prob. Increasing		



Notes:

1. At least four independent sampling events per well are required for calculating the trend. *Methodology is valid for 4 to 40 samples.*
2. Confidence in Trend = Confidence (in percent) that constituent concentration is increasing (S>0) or decreasing (S<0): >95% = Increasing or Decreasing; ≥ 90% = Probably Increasing or Probably Decreasing; < 90% and S>0 = No Trend; < 90%, S≤0, and COV ≥ 1 = No Trend; < 90% and COV < 1 = Stable.
3. Methodology based on "MAROS: A Decision Support System for Optimizing Monitoring Plans", J.J. Aziz, M. Ling, H.S. Rifai, C.J. Newell, and J.R. Gonzales, *Ground Water* , 41(3):355-367, 2003.

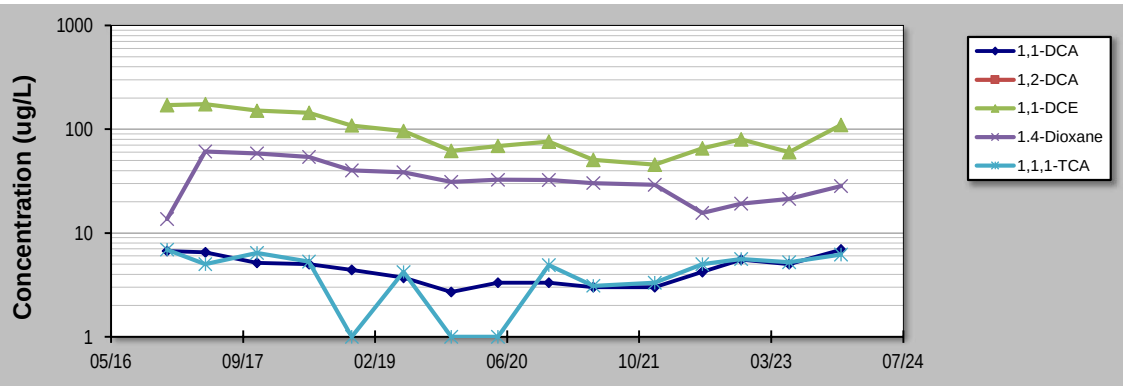
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GSI MANN-KENDALL TOOLKIT
for Constituent Trend Analysis

Evaluation Date: **11-Mar-24**
Facility Name: **Kop-Flex**
Conducted By: **AMR**

Job ID:
Constituent: **MW-25D-130**
Concentration Units: **ug/L**

Sampling Point ID:	1,1-DCA	1,2-DCA	1,1-DCE	1.4-Dioxane	1,1,1-TCA		
Sampling Event	Sampling Date	MW-25D-130 CONCENTRATION (ug/L)						
1	8-Dec-16	6.7		171	13.6	6.9		
2	2-May-17	6.5		174	61	5		
3	14-Nov-17	5.12		151	58.5	6.4		
4	30-May-18	5		144	53.9	5.3		
5	8-Nov-18	4.4		109	40.2	1		
6	22-May-19	3.7		96.2	38.4	4.2		
7	19-Nov-19	2.7		62.1	31	1		
8	14-May-20	3.3		69.1	32.6	1		
9	23-Nov-20	3.3		76	32.4	4.9		
10	10-May-21	3		50.8	30.2	3.1		
11	29-Dec-21	3		45.5	29.1	3.3		
12	27-Jun-22	4.2		65.6	15.6	5		
13	21-Nov-22	5.5		80.2	19.1	5.6		
14	22-May-23	5		60	21.3	5.2		
15	4-Dec-23	6.9		110	28.4	6.2		
16								
17								
18								
19								
20								
Coefficient of Variation:		**0.31**		**0.45**	**0.43**	**0.46**		
Mann-Kendall Statistic (S):		**-18**		**-55**	**-61**	**3**		
Confidence Factor:		**79.6%**		**99.7%**	**99.9%**	**53.9%**		
Concentration Trend:		Stable		Decreasing	Decreasing	No Trend		



Notes:

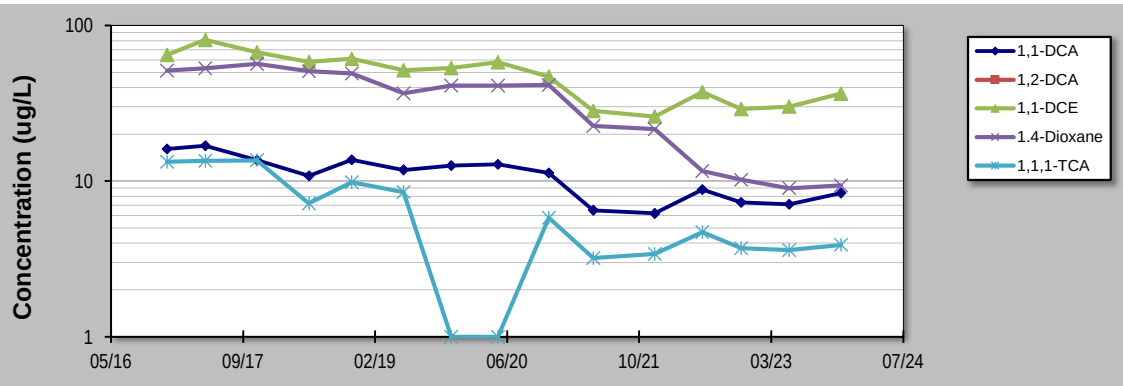
1. At least four independent sampling events per well are required for calculating the trend. *Methodology is valid for 4 to 40 samples.*
2. Confidence in Trend = Confidence (in percent) that constituent concentration is increasing (S>0) or decreasing (S<0): >95% = Increasing or Decreasing; ≥ 90% = Probably Increasing or Probably Decreasing; < 90% and S>0 = No Trend; < 90%, S≤0, and COV ≥ 1 = No Trend; < 90% and COV < 1 = Stable.
3. Methodology based on "MAROS: A Decision Support System for Optimizing Monitoring Plans", J.J. Aziz, M. Ling, H.S. Rifai, C.J. Newell, and J.R. Gonzales, *Ground Water* , 41(3):355-367, 2003.

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GSI MANN-KENDALL TOOLKIT
for Constituent Trend Analysis

Evaluation Date: **11-Mar-24**
Facility Name: **Kop-Flex**
Conducted By: **AMR**
Job ID:
Constituent: **MW-25D-192**
Concentration Units: **ug/L**

Sampling Point ID:	1,1-DCA	1,2-DCA	1,1-DCE	1.4-Dioxane	1,1,1-TCA		
Sampling Event	Sampling Date	MW-25D-192 CONCENTRATION (ug/L)						
1	8-Dec-16	16.1		64.6	51.3	13.3		
2	2-May-17	16.9		81	53.1	13.5		
3	14-Nov-17	13.6		67.2	56.7	13.6		
4	30-May-18	10.8		58.3	50.8	7.2		
5	8-Nov-18	13.7		61	49.3	9.8		
6	22-May-19	11.8		51.7	36.7	8.5		
7	19-Nov-19	12.6		53.2	41.1	1		
8	14-May-20	12.8		58	41.1	1		
9	23-Nov-20	11.3		46.9	41.5	5.8		
10	10-May-21	6.5		28.2	22.6	3.2		
11	29-Dec-21	6.2		26	21.6	3.4		
12	27-Jun-22	8.8		37.3	11.6	4.7		
13	21-Nov-22	7.3		29.1	10.2	3.7		
14	22-May-23	7.1		30.1	9	3.6		
15	4-Dec-23	8.4		36.5	9.4	3.9		
16								
17								
18								
19								
20								
Coefficient of Variation:		**0.31**		**0.35**	**0.53**	**0.68**		
Mann-Kendall Statistic (S):		**-65**		**-71**	**-86**	**-44**		
Confidence Factor:		**100.0%**		**>99.9%**	**>99.9%**	**98.4%**		
Concentration Trend:		Decreasing		Decreasing	Decreasing	Decreasing		



Notes:

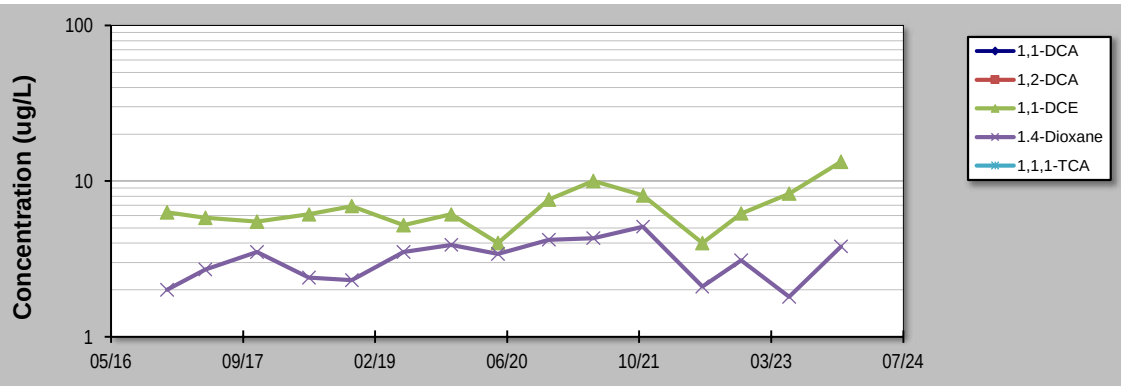
1. At least four independent sampling events per well are required for calculating the trend. *Methodology is valid for 4 to 40 samples.*
2. Confidence in Trend = Confidence (in percent) that constituent concentration is increasing (S>0) or decreasing (S<0): >95% = Increasing or Decreasing; ≥ 90% = Probably Increasing or Probably Decreasing; < 90% and S>0 = No Trend; < 90%, S≤0, and COV ≥ 1 = No Trend; < 90% and COV < 1 = Stable.
3. Methodology based on "MAROS: A Decision Support System for Optimizing Monitoring Plans", J.J. Aziz, M. Ling, H.S. Rifai, C.J. Newell, and J.R. Gonzales, *Ground Water* , 41(3):355-367, 2003.

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GSI MANN-KENDALL TOOLKIT
for Constituent Trend Analysis

Evaluation Date: **11-Mar-24**
Facility Name: **Kop-Flex**
Conducted By: **AMR**
Job ID:
Constituent: **MW-28D**
Concentration Units: **ug/L**

Sampling Point ID:	1,1-DCA	1,2-DCA	1,1-DCE	1.4-Dioxane	1,1,1-TCA		
Sampling Event	Sampling Date	MW-28D CONCENTRATION (ug/L)						
1	8-Dec-16			6.3	2			
2	2-May-17			5.8	2.7			
3	14-Nov-17			5.5	3.5			
4	30-May-18			6.1	2.4			
5	8-Nov-18			6.9	2.3			
6	22-May-19			5.2	3.5			
7	20-Nov-19			6.1	3.9			
8	14-May-20			4	3.4			
9	23-Nov-20			7.6	4.2			
10	10-May-21			10	4.3			
11	15-Nov-21			8.1	5.1			
12	27-Jun-22			4	2.1			
13	21-Nov-22			6.2	3.1			
14	22-May-23			8.3	1.8			
15	4-Dec-23			13.3	3.8			
16								
17								
18								
19								
20								
Coefficient of Variation:				**0.35**	**0.30**			
Mann-Kendall Statistic (S):				**33**	**20**			
Confidence Factor:				**94.3%**	**82.3%**			
Concentration Trend:				Prob. Increasing	No Trend			



Notes:

1. At least four independent sampling events per well are required for calculating the trend. *Methodology is valid for 4 to 40 samples.*
2. Confidence in Trend = Confidence (in percent) that constituent concentration is increasing (S>0) or decreasing (S<0): >95% = Increasing or Decreasing; ≥ 90% = Probably Increasing or Probably Decreasing; < 90% and S>0 = No Trend; < 90%, S≤0, and COV ≥ 1 = No Trend; < 90% and COV < 1 = Stable.
3. Methodology based on "MAROS: A Decision Support System for Optimizing Monitoring Plans", J.J. Aziz, M. Ling, H.S. Rifai, C.J. Newell, and J.R. Gonzales, *Ground Water* , 41(3):355-367, 2003.

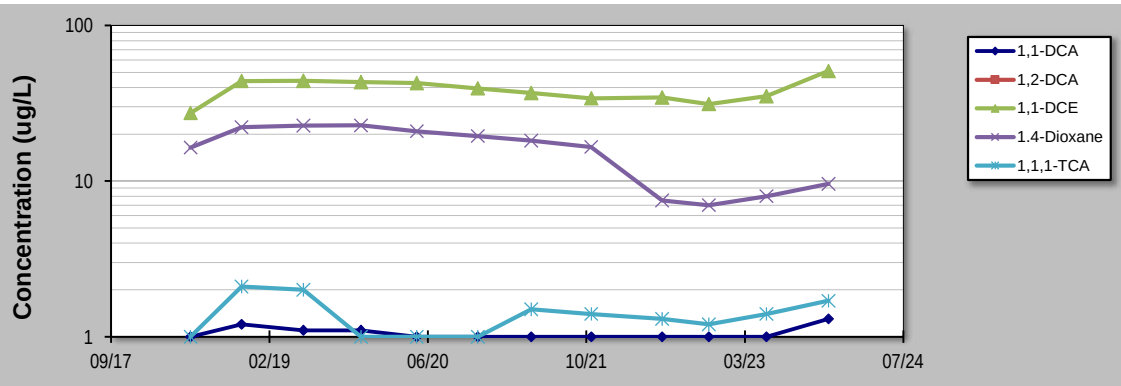
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GSI MANN-KENDALL TOOLKIT
for Constituent Trend Analysis

Evaluation Date: **11-Mar-24**
Facility Name: **Kop-Flex**
Conducted By: **AMR**

Job ID:
Constituent: **MW-30D-273**
Concentration Units: **ug/L**

Sampling Point ID:	1,1-DCA	1,2-DCA	1,1-DCE	1.4-Dioxane	1,1,1-TCA		
Sampling Event	Sampling Date	MW-30D-273 CONCENTRATION (ug/L)						
1	31-May-18	1		27.4	16.4	1		
2	8-Nov-18	1.2		44	22.2	2.1		
3	22-May-19	1.1		44.2	22.7	2		
4	20-Nov-19	1.1		43.3	22.8	1		
5	14-May-20	1		42.7	20.9	1		
6	23-Nov-20	1		39.5	19.5	1		
7	10-May-21	1		36.9	18.2	1.5		
8	15-Nov-21	1		34.1	16.6	1.4		
9	27-Jun-22	1		34.5	7.5	1.3		
10	21-Nov-22	1		31.3	7	1.2		
11	22-May-23	1		35.1	8	1.4		
12	4-Dec-23	1.3		51	9.6	1.7		
13								
14								
15								
16								
17								
18								
19								
20								
Coefficient of Variation:		**0.09**		**0.17**	**0.39**	**0.28**		
Mann-Kendall Statistic (S):		**-9**		**-14**	**-36**	**7**		
Confidence Factor:		**70.4%**		**81.0%**	**99.3%**	**65.6%**		
Concentration Trend:		Stable		Stable	Decreasing	No Trend		



Notes:

1. At least four independent sampling events per well are required for calculating the trend. *Methodology is valid for 4 to 40 samples.*
2. Confidence in Trend = Confidence (in percent) that constituent concentration is increasing (S>0) or decreasing (S<0): >95% = Increasing or Decreasing; ≥ 90% = Probably Increasing or Probably Decreasing; < 90% and S>0 = No Trend; < 90%, S≤0, and COV ≥ 1 = No Trend; < 90% and COV < 1 = Stable.
3. Methodology based on "MAROS: A Decision Support System for Optimizing Monitoring Plans", J.J. Aziz, M. Ling, H.S. Rifai, C.J. Newell, and J.R. Gonzales, *Ground Water* , 41(3):355-367, 2003.

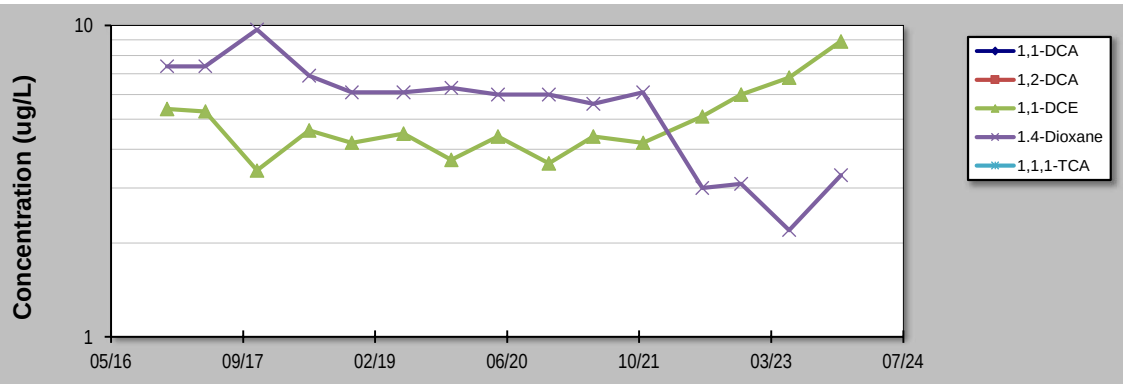
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GSI MANN-KENDALL TOOLKIT
for Constituent Trend Analysis

Evaluation Date: **11-Mar-24**
Facility Name: **Kop-Flex**
Conducted By: **AMR**

Job ID:
Constituent: **MW-33D-295**
Concentration Units: **ug/L**

Sampling Point ID:	1,1-DCA	1,2-DCA	1,1-DCE	1.4-Dioxane	1,1,1-TCA		
Sampling Event	Sampling Date	MW-33D-295 CONCENTRATION (ug/L)						
1	8-Dec-16			5.4	7.4			
2	2-May-17			5.3	7.4			
3	14-Nov-17			3.42	9.7			
4	31-May-18			4.6	6.9			
5	8-Nov-18			4.2	6.1			
6	22-May-19			4.5	6.1			
7	20-Nov-19			3.7	6.3			
8	14-May-20			4.4	6			
9	23-Nov-20			3.6	6			
10	10-May-21			4.4	5.6			
11	15-Nov-21			4.2	6.1			
12	27-Jun-22			5.1	3			
13	21-Nov-22			6	3.1			
14	22-May-23			6.8	2.2			
15	4-Dec-23			8.9	3.3			
16								
17								
18								
19								
20								
Coefficient of Variation:				**0.29**	**0.35**			
Mann-Kendall Statistic (S):				**25**	**-78**			
Confidence Factor:				**88.0%**	**>99.9%**			
Concentration Trend:				No Trend	Decreasing			



Notes:

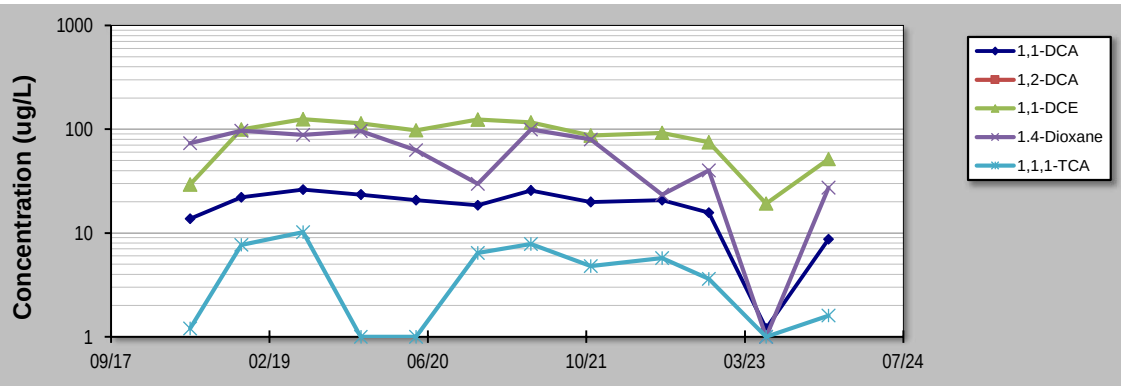
1. At least four independent sampling events per well are required for calculating the trend. *Methodology is valid for 4 to 40 samples.*
2. Confidence in Trend = Confidence (in percent) that constituent concentration is increasing (S>0) or decreasing (S<0): >95% = Increasing or Decreasing; ≥ 90% = Probably Increasing or Probably Decreasing; < 90% and S>0 = No Trend; < 90%, S≤0, and COV ≥ 1 = No Trend; < 90% and COV < 1 = Stable.
3. Methodology based on "MAROS: A Decision Support System for Optimizing Monitoring Plans", J.J. Aziz, M. Ling, H.S. Rifai, C.J. Newell, and J.R. Gonzales, *Ground Water* , 41(3):355-367, 2003.

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GSI MANN-KENDALL TOOLKIT
for Constituent Trend Analysis

Evaluation Date: **11-Mar-24**
Facility Name: **Kop-Flex**
Conducted By: **AMR**
Job ID:
Constituent: **MW-46D**
Concentration Units: **ug/L**

Sampling Point ID:	1,1-DCA	1,2-DCA	1,1-DCE	1.4-Dioxane	1,1,1-TCA		
Sampling Event	Sampling Date	MW-46D CONCENTRATION (ug/L)						
1	30-May-18	13.7		29.4	73.5	1.2		
2	7-Nov-18	22.1		99.6	96.7	7.7		
3	21-May-19	26.1		125	88	10.2		
4	19-Nov-19	23.4		114	96.3	1		
5	12-May-20	20.7		97.9	63	1		
6	23-Nov-20	18.4		124	29.8	6.4		
7	9-May-21	25.7		116	99.3	7.8		
8	14-Nov-21	19.9		86.9	79.8	4.8		
9	27-Jun-22	20.7		92.4	23.4	5.7		
10	21-Nov-22	15.7		74.9	40.1	3.6		
11	21-May-23	1.2		19.2	1	1		
12	4-Dec-23	8.7		51.5	27.3	1.6		
13								
14								
15								
16								
17								
18								
19								
20								
Coefficient of Variation:		**0.40**		**0.42**	**0.57**	**0.75**		
Mann-Kendall Statistic (S):		**-27**		**-26**	**-32**	**-13**		
Confidence Factor:		**96.3%**		**95.7%**	**98.4%**	**79.0%**		
Concentration Trend:		Decreasing		Decreasing	Decreasing	Stable		



Notes:

1. At least four independent sampling events per well are required for calculating the trend. *Methodology is valid for 4 to 40 samples.*
2. Confidence in Trend = Confidence (in percent) that constituent concentration is increasing (S>0) or decreasing (S<0): >95% = Increasing or Decreasing; ≥ 90% = Probably Increasing or Probably Decreasing; < 90% and S>0 = No Trend; < 90%, S≤0, and COV ≥ 1 = No Trend; < 90% and COV < 1 = Stable.
3. Methodology based on "MAROS: A Decision Support System for Optimizing Monitoring Plans", J.J. Aziz, M. Ling, H.S. Rifai, C.J. Newell, and J.R. Gonzales, *Ground Water* , 41(3):355-367, 2003.

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