VIA ELECTRONIC MAIL

February 2, 2022

John Hopkins
Remedial Project Manager
U.S. Environmental Protection Agency, Region III
1650 Arch Street
Mail Code – 3LD10
Philadelphia, PA 19103-2029

Subject: **Quarterly Progress Report No. 21**
Former Kop-Flex Facility Site, Hanover, Maryland
USEPA ID No. MDD043373935
Administrative Order on Consent, Docket No. RCRA-03-2016-0170 CA

Dear John:

On behalf of EMERSUB 16, LLC, a subsidiary of Emerson Electric Co., WSP USA, Inc. (WSP) is submitting this quarterly progress report describing the activities conducted in the fourth quarter of calendar year 2021 (October 1st through December 31st) as part of the corrective measures implementation at the former Kop-Flex, Inc. facility property located at 7555 Harmans Road (Site) in Hanover, Maryland. The Site is identical to the area described as the "Facility" in the Administrative Order on Consent, Docket No. RCRA-03-2016-0170 CA (Consent Order). The report also describes the activities planned for the first quarter of calendar year 2022 (January 1st through March 31st).

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

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

Kind regards,

Robert E. Johnson
Director, Geological Sciences – Earth & Environment

MML:SLB:REJ
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Encl.

cc: Mr. Stephen Clarke, EMERSUB 16 LLC
Ms. Richelle Hanson, Maryland Department of the Environment

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CERTIFICATION

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

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

Signature: 

Name: Stephen L. Clarke

Title: President of EMERSUB 16, LLC

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wsp.com

Site Name:	Former Kop-Flex Facility
Site Address:	7555 Harmans Road Hanover, Maryland 21077
Consultant:	WSP USA Inc.
Address:	13530 Dulles Technology Drive, Suite 300 Herndon, Virginia 20171
Phone No.:	(703) 709-6500
Project Coordinator:	Eric Johnson
Alternate:	Lisa Kelly

1.0 ACTIVITIES COMPLETED DURING OCTOBER 2021 – DECEMBER 2021 REPORTING PERIOD

1.1 HYDRAULIC CONTAINMENT SYSTEM OPERATION

- The hydraulic containment system (System) operated for 37 of the 92 days during the fourth quarter of 2021, which equates to a 40% run-time efficiency over this 3-month period. The system resumed normal operation on October 6th following a planned shutdown on September 21st to perform *ex-situ* cleaning of the specialty treatment resin. The system was manually shut down on November 8, 2021 and remained nonoperational for 7 weeks due to the discovery the pH of the blowdown water from the small boiler, which is used to generate steam for the onsite regeneration of the treatment resin, exceeded the upper limit specified in the Wastewater Discharge Permit recently issued by the Anne Arundel County (County) Pre-treatment Program. (Additional information regarding the monitoring of discharge to the sanitary sewer system is provided in Section 1.3 below.) With the approval of the County, normal operation of the System resumed on December 27, 2021.

- A total of approximately 3.61 million gallons of impacted groundwater were extracted by the recovery wells and treated by the System during the fourth quarter of 2021, with the combined average monthly withdrawal rate during full-scale operation ranging from 65 gallons per minute (GPM) to 70 GPM. To monitor and evaluate concentrations of volatile organic compounds (VOCs) and 1,4-dioxane in the untreated and treated water, samples of both the System influent and effluent were collected and analyzed during the reporting period. An influent water sample was collected for chemical analysis in November, while monthly effluent samples were collected in October, November, and December. The effluent samples were collected for chemical analysis in accordance with National Pollutant Discharge Elimination System (NPDES) Permit MD 0069094, which corresponds to Maryland State Discharge Permit Number 15-DP-3442, issued by the MDE (Discharge Permit).

    - The total concentration of chlorinated VOCs (CVOCs) and 1,4-dioxane in the influent sample was 349 micrograms per liter (µg/L), which is slightly higher than the previous (September 2021) sample results. As of the end of December 2021, an estimated total of 407.2 pounds of CVOCs and 172.1 pounds of 1,4-dioxane have been recovered from the affected portion of the Lower Patapsco aquifer.

    - Analysis of the effluent samples indicated non-detect concentrations of CVOCs and 1,4-dioxane. The analytical results for the other monitoring parameters complied with the effluent limitations specified in the Discharge Permit, with the exception of total nickel in the sample collected in early November.

- As mentioned above, an elevated concentration of total nickel (995 µg/L) that exceeded the effluent limit of 470 µg/L was detected in the discharge sample collected in early November 2021. WSP provided the appropriate verbal and written

notifications to the Compliance Program of the MDE Water Management Administration in accordance with the reporting requirements in the Discharge Permit. (A copy of the written notification of noncompliance submitted to MDE on November 22, 2021 is provided as Enclosure A.) WSP reviewed the certified analytical report provided by the laboratory, including the summary of the quality control results, and did not identify any issues with the nickel analysis in the aqueous samples. In addition, a thorough assessment of the System operational data did not identify any problems that would have resulted in the total nickel exceedance. Subsequent sampling of the effluent on November 19, 2021 detected a total nickel concentration of 24.4 µg/L, which is more than an order of magnitude below the level in the early November sample and consistent with the historical data for total nickel in the treated water. Based on evaluation of the System operation and subsequent effluent sample result, the elevated nickel concentration in the November 2021 sample is believed to have been caused by an isolated, transient "slug" of water with elevated nickel concentrations entering the treatment system, perhaps caused by ongoing site development activities performed by the current occupant of the Property. EMERSUB 16 and WSP plan to inform the occupant – Catalent Cell and Gene Therapy – of the occurrence of this slug of nickel-containing water so as to raise awareness that activities being conducted on the property could potentially have an impact on the System operation.

1.2 SPECIALTY RESIN CLEANING ACTIVITIES

- Following the completion of the specialty resin cleaning event, normal System operation resumed on October 6, 2021. Wastewater generated during the resin cleaning event was held onsite in a double-walled frac tank pending characterization. A sample of the wastewater was collected on October 7, 2021, and submitted to the Phase Separation Science, Inc. laboratory located in Catonsville, Maryland for analysis of the effluent parameters listed in the Wastewater Discharge Permit for the treatment system. Field parameters (pH and temperature) were measured onsite using a calibrated water quality meter at the time of the sampling activities.

- A discharge request was submitted to the County Pre-treatment Program on November 1, 2021 and is included as Enclosure B. Upon receipt of approval from the County, the resin cleaning wastewater contained in the frac tank was discharged to the sanitary sewer system between November 17 and November 21, 2021 under EMERSUB 16's Wastewater Discharge Permit.

1.3 WASTEWATER DISCHARGE MONITORING TO PUBLICLY OWNED TREATMENT WORKS

- A sample of the boiler blowdown discharge to the sanitary sewer was collected on November 3, 2021, to characterize this wastewater in accordance with the effluent limits specified in the Wastewater Discharge Permit issued to EMERSUB 16. Laboratory analysis was conducted by the Phase Separation Science, Inc. laboratory located in Catonsville, Maryland and field parameters were measured onsite using a calibrated water quality meter. The measured pH of the boiler blowdown water at the time of sample collection was 10.76 standard units (SU), which exceeded the upper pH limit of 10 SU specified in the Wastewater Discharge Permit. Verbal notification of the pH exceedance was provided to the County by phone on November 5, 2021. Based on the elevated pH measurement, WSP temporarily shut down operation of the System and disabled the automatic blowdown mechanism for the boiler on November 8, 2021 while evaluating a solution for maintaining the pH within the permitted range.

- On November 9, 2021, WSP contacted the County Pre-treatment Program to inquire about the possibility of obtaining a variance for the upper pH limit of 10 SU in the Wastewater Discharge Permit. In a December 1, 2021 email to WSP, the County indicated that a variance to the specified pH limit may be granted after completing a small study of the System. A Discharge Monitoring Report containing the results of the early November 2021 boiler blowdown sampling and recommendations for conducting the boiler blowdown pH study was submitted to the County on December 9, 2021 and is included as Enclosure C. The County approved performance of the pH study following the upgrade/replacement of the conductivity-based automatic surface blowdown assembly for the boiler. In addition, this communication also provided approval to restart the System while awaiting receipt and installation of the new assembly.

1.4 GROUNDWATER LEVEL MONITORING

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

  During the reporting period, water level measurements were collected from monitoring wells and recovery well piezometers the week of November 14, 2021, as part of the semi-annual groundwater monitoring event. The water level data for this and previous measurement rounds is provided in Table 1. Water levels collected during the November 2021 measurement event are representative of non-pumping conditions at the Site.

– Contour maps depicting the water table and hydraulic head in the lower portion of the shallow zone of the Lower Patapsco aquifer are provided in Figures 1 and 2, respectively. Evaluation of the groundwater elevations and gradients in the shallow zone are discussed separately below. Overall, the groundwater elevations in November 2021 were higher compared to the May 2021 elevations due to the recovery of the hydraulic heads to a pre-remedial pumping condition following shutdown of the System on November 8, 2021.

  The water table contour map (Figure 1) indicates the northwestward flow of groundwater in the uppermost portion of the shallow zone of the Lower Patapsco aquifer across the Site, with the presence of a slight lowering in the groundwater surface around wells MW-5R and MW-38R that is associated with the former pumping from recovery wells RW-1S and RW-2S. The finer grained sediment in the vicinity of these wells would result in the slower equilibration of the groundwater elevation to the non-pumping condition compared to the surrounding areas (*e.g.*, MW-42). In the eastern portion of the Site, a slight mounding, or rise, in the water table was present in the area of wells MW-04 and MW-09. The water table mounding reflects enhanced recharge to the groundwater system associated with the routing of surface water runoff to the small storm water management area (SWMA) located in the east-central portion of the Site. The enhanced infiltration of runoff in this SWMA, compared to the surrounding paved area, causes the localized increase in the water table elevation in the immediate area.

  The cessation of remedial pumping resulted in the disappearance of the pronounced head changes, or cone of depression, within the permeable sand deposits comprising the lower portion of the shallow zone in the eastern portion of the Site, with only minor residual drawdown effects present around the RW-2S location (Figure 2). Based on the head contours, groundwater in the eastern portion of the Site flows in a generally northwestward direction toward Stony Run. The northwestward flow of groundwater in the shallow zone differs from the southerly direction of groundwater movement in the deep confined zone.

– Figure 3 depicts the potentiometric surface for the deep, confined zone of the Lower Patapsco aquifer based the November 2021 water level measurements at the onsite deep wells and offsite wells MW-24D on the William-Scotsman property to the south and MW-46D on the Verizon property to the north. As with the shallow zone, the November 2021 data reflect the recovery of the hydraulic heads to a non-pumping condition following shutdown of the System. The hydraulic head contours generated from the data indicate south to south-southeast flow pathways for groundwater in this deep confined zone. The inferred southward groundwater flow direction is consistent with other potentiometric surface contour maps developed from water level data collected before the start of remedial pumping.

1.5 GROUNDWATER QUALITY MONITORING

– In accordance with the Groundwater Monitoring Plan, groundwater quality samples were collected in mid-November 2021 from the onsite monitoring wells identified for semi-annual sampling. The shallow and deep recovery wells were not sampled during the November sampling activities due to the System being temporarily shut down. However, as discussed below, samples of the recovery well discharge were collected in late December 2021, a few days after the re-start of the System.

Therefore, the samples collected from the monitoring wells are representative of the groundwater quality a short time (approximately one week) after the cessation of remedial pumping in the aquifer system.

– Samples from the shallow and deep monitoring wells were collected using HydraSleeve™ passive samplers, which were deployed to the same depths as previous monitoring events. Groundwater samples were obtained by carefully removing the HydraSleeve™ sampler from the well and decanting a representative portion of the collected water into the laboratory-supplied containers. If a sufficient amount of groundwater remained in the HydraSleeve™ sampler after sample collection, selected field parameters, including temperature, pH, specific conductivity, and turbidity, were measured using a calibrated water quality meter. All water samples were submitted to the Pace Analytical Services laboratory in Huntersville, North Carolina, and analyzed for VOCs using EPA SW-846 Test Method 8260D and 1,4-dioxane using modified EPA Test Method 8260D with selected ion monitoring.

– Analytical results for the site-related CVOCs and 1,4-dioxane are summarized in Table 2 for the monitoring well samples. A copy of the certified laboratory analytical report for the samples is included in Enclosure D. Historical (December 2016 to present) data for the monitoring well samples are provided in Table 3.

  The CVOC and 1,4-dioxane concentrations in the groundwater samples from the shallow zone monitoring wells are similar to levels detected in the May 2021 samples (Figure 4; Table 3). The only wells exhibiting discernable changes in COC levels between the May (pumping) and November (non-pumping) monitoring events were from wells MW-5R and MW-44, which are both located in the southwest portion of the Site. Groundwater samples from these wells had minor increases in 1,1-dichlorethane (1,1-DCA), 1,1-dichloroethene (1,1-DCE), and 1,4-dioxane concentrations, with the 1,1-DCA and 1,1-DCE levels in the MW-44 sample being slightly above the Site Groundwater Cleanup Standards. Changes in the CVOC (1,1-DCA and 1,1-DCE) and 1,4-dioxane concentrations in the samples from wells MW-04 and MW-16 appear to reflect inherent fluctuations in the water quality in the eastern portion of the Site.

  For the deep monitoring well samples, the CVOC and 1,4-dioxane concentrations for the November 2021 samples are generally similar to levels detected in the May 2021 samples (Figure 5: Table 3). The only exceptions were a slight increase in the CVOC (1,1-DCA and 1,1-DCE) and 1,4-dioxane concentrations in the samples from wells MW-1D and MW-21D, and a decrease in levels in the MW-16D sample. The increase in the CVOC and 1,4-dioxane concentrations in the MW-1D and MW-21D samples is not surprising due to the locations of these wells in proximity to the deep groundwater recovery wells (RW-1D and RW-2D). The reduction in the flow velocities around the recovery wells with cessation of pumping would cause the sample to ‘capture’ the presence of constituents diffusing from lower permeability layers into the groundwater seepage through the aquifer material. The concentration changes detected in these samples did result in 1 1-DCE exceeding the Site Groundwater Cleanup Standard at the MW-21D location, along with 1,1-DCA and 1,4-dioxane being above their respective cleanup standards at the MW-1D location. The presence of constituent concentrations at or below the applicable cleanup levels at the MW-22D and MW-40D locations indicates no apparent expansion in the width of the contaminant plumes in the deep confined zone of the Lower Patapsco aquifer shortly after the cessation of groundwater pumping from the deep recovery wells in the southern part of the Site.

– Upon the re-start of the System, samples of the groundwater discharge from the shallow and deep recovery wells were collected on December 29, 2021. The recovery well water samples were collected directly from an in-line sampling port located at each well-head. The samples were submitted to the Pace Analytical Services laboratory in Huntersville, North Carolina, and analyzed for VOCs using EPA SW-846 Test Method 8260D and 1,4-dioxane using modified EPA Test Method 8260D with selected ion monitoring.

  Analytical results for the site-related CVOCs and 1,4-dioxane in the December 2021 recovery well discharge samples are summarized in Table 4. A copy of the certified laboratory analytical report for these samples are included in Enclosure E.

Overall, the CVOC and 1,4-dioxane concentrations in the discharge from the shallow zone recovery wells are similar, albeit slightly lower, than the levels in the May 2021 samples. Total concentrations of detectable CVOCs and 1,4-dioxane in the samples from recovery wells RW-1S and RW-2S were 828 µg/l and 571 µg/l, respectively (Figure 6; Table 4). As with the historical data, the total CVOC and 1,4-dioxane concentration in the RW-3S sample (21.8 µg/l) remained noticeably lower relative to the other shallow recovery wells, with no detected concentrations above the Site Groundwater Cleanup Standards.

The COC concentrations in the deep recovery well samples were also comparable to the previous (May 2021) data, with 1,1-DCA, 1,1-DCE, and 1,4-dioxane detected at concentrations above the Site Groundwater Cleanup Standards (Table 4). As with previous sampling rounds, the sample results indicate higher levels of chlorinated CVOCs – primarily 1,1-DCA and 1,1-DCE – in the discharge from well RW-1D (264 µg/l) in the southwestern portion of the Site compared to RW-2D (145 µg/l) located near the southeastern corner. The 1,4-dioxane concentrations are very similar in the discharge samples from both deep recovery wells (Table 4).

2.0 PLANNED ONSITE ACTIVITIES FOR THE FIRST QUARTER OF 2022

- Replace the conductivity-based surface blowdown assembly for the boiler, and then perform of a short-term (2-week) study to monitor the pH of the boiler blowdown water being discharged to the sanitary sewer system to further evaluate compliance with the remediation system's Wastewater Discharge Permit.

- Following completion of the boiler blowdown pH study and review of the results by the County, continue with the full-scale System operation, including the collection and assessment of System data to evaluate operational performance and conduct regular and as needed maintenance activities to optimize System performance and run-time.

- Conduct the required effluent monitoring and monthly reporting pursuant to the State Discharge/NPDES Permit.

- Submit the Five-Year (2017 through 2021) Corrective Measures Assessment Report for the hydraulic containment system to EPA and MDE.

3.0 KEY PERSONNEL/FACILITY CHANGES

The entity holding title to the former Kop-Flex, Inc. property at 7555 Harmans Road in Hanover, MD changed its name from Harmans Road Associates, LLC to Catalent Harmans Road, LLC. Since this was only a name change, there was no transfer of fee interest in the property. EMERSUB 16's legal counsel informed the EPA of the change in the title holder name in a December 29, 2021, email communication.

FIGURES

STONY RUN

POND

WILLIAMS SCOTSMAN, INC.

NORTH WAREHOUSE

SOUTH WAREHOUSE

TREATMENT EQUIPMENT BUILDING

MW-03 107.74

MW-43

MW-09 114.25

MW-39

MW-38R 109.71

RW-1S

MW-42 110.26

MW-18

RW-2S

MW-5R 109.98

RW-3S

MW-16

MW-44

MW-01 114.45

MW-45 113.37

MW-20

MW-04 113.97

108 109 110 111 112 113 114 114 114

POND

LEGEND

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

NOTE:
THE NOVEMBER 2021 GROUNDWATER ELEVATIONS ARE REPRESENTATIVE OF NON-PUMPING CONDITIONS.

0 140 280
SCALE IN FEET

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B

Drawn By: EGC
Checked: MNL 12/8/2021
Approved: RGD 1/21/2022
DWG Name: 314V1545.010-085

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

FIGURE 1

WATER TABLE CONTOUR MAP, NON-PUMPING CONDITIONS (NOVEMBER 2021)

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

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STONY RUN

POND

WILLIAMS SCOTSMAN, INC.

NORTH WAREHOUSE

SOUTH WAREHOUSE

TREATMENT EQUIPMENT BUILDING

MW-03

MW-43
102.70

MW-39
103.31

MW-38R

RW-1S
109.62

MW-42

MW-18
103.68

RW-2S
107.48

MW-5R

RW-3S
109.71

MW-44
111.89

MW-09

MW-16
112.95

MW-04

MW-20
114.06

MW-01

104
106
108
110
112
114

POND

N

LEGEND

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

NOTE:
THE NOVEMBER 2021 GROUNDWATER ELEVATIONS ARE REPRESENTATIVE OF NON-PUMPING CONDITIONS.

0 140 280
SCALE IN FEET

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Drawn By: EGC
Checked: MML 12/1/2021
Approved: PGJ 1/21/2022
DWG Name: 314V1545.010-086

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

FIGURE 2

PIEZOMETRIC SURFACE CONTOUR MAP FOR THE LOWER PORTION OF THE SHALLOW ZONE OF THE LOWER PATASPCO AQUIFER (NOVEMBER 2021)

WSP USA Inc.
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STONY RUN

MW-46D
89.15

MW-27D
88.48

POND

MW-23D
88.45

88

WILLIAMS
SCOTSMAN, INC.

NORTH WAREHOUSE

TREATMENT
EQUIPMENT
BUILDING

MW-16D
87.04

MW-40D
86.64

SOUTH WAREHOUSE

MW-22D
85.49

MW-41D

MW-21D
84.80

RW-1D

RW-2D

MW-01D
84.20

86

84

82

80

MW-24D
79.70

POND

LEGEND

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

0 140 280
SCALE IN FEET

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Drawn By: EGC
Checked:
Approved: RGJ 1/21/2022
DWG Name: 314V1545.010-089

FORMER KOP-FLEX FACILITY SITE
HANOVER, MARYLAND

PREPARED FOR
EMERSUB 16 LLC
ST. LOUIS, MISSOURI

FIGURE 3

POTENTIOMETRIC SURFACE CONTOUR MAP FOR THE DEEP ZONE OF THE LOWER PATAPSCO AQUIFER, NON-PUMPING CONDITIONS (NOVEMBER 2021)

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VERIZON

POND

STONY RUN

WILLIAMS SCOTSMAN, INC.

TREATMENT EQUIPMENT BUILDING

NORTH WAREHOUSE

SOUTH WAREHOUSE

MW-27D
MW-46D
MW-23D
MW-03
MW-43
MW-09
MW-39
MW-38R
RW-1S
MW-16
MW-16D
MW-20
MW-45
MW-04
MW-42
MW-18
RW-2S
MW-5R
RW-3S
MW-40D
MW-22D
MW-41D
MW-44
MW-21D
RW-1D
RW-2D
MW-01D
MW-01
MW-24D

MW-43		
	5/9/21	11/14/21
1,1-DCA	2.7	2.6
1,2-DCA	ND	ND
1,1-DCE	***31.7***	***31.3***
1,4-Dioxane	***34.1***	***34.3***
1,1,1-TCA	ND	ND
TCE	ND	ND

MW-03		
	5/9/21	11/14/21
1,1-DCA	ND	ND
1,2-DCA	ND	ND
1,1-DCE	ND	ND
1,4-Dioxane	ND	ND
1,1,1-TCA	ND	ND
TCE	ND	ND

MW-39		
	5/9/21	11/14/21
1,1-DCA	ND	ND
1,2-DCA	ND	ND
1,1-DCE	ND	ND
1,4-Dioxane	ND	ND
1,1,1-TCA	ND	ND
TCE	ND	ND

MW-38R		
	5/9/21	11/14/21
1,1-DCA	***5.5***	***6.7***
1,2-DCA	ND	ND
1,1-DCE	ND	ND
1,4-Dioxane	***47***	***46.2***
1,1,1-TCA	ND	ND
TCE	ND	ND

MW-42		
	5/9/21	11/14/21
1,1-DCA	ND	ND
1,2-DCA	ND	ND
1,1-DCE	ND	ND
1,4-Dioxane	13.3	12.5
1,1,1-TCA	ND	ND
TCE	ND	ND

MW-18		
	5/9/21	11/14/21
1,1-DCA	ND	ND
1,2-DCA	ND	ND
1,1-DCE	ND	ND
1,4-Dioxane	ND	ND
1,1,1-TCA	ND	ND
TCE	ND	ND

MW-5R		
	5/9/21	11/14/21
1,1-DCA	NS	1.6
1,2-DCA	NS	ND
1,1-DCE	NS	1.4
1,4-Dioxane	NS	12
1,1,1-TCA	NS	2.4
TCE	NS	ND

MW-44		
	5/9/21	11/14/21
1,1-DCA	1.7	***3.8***
1,2-DCA	ND	ND
1,1-DCE	2.9	***7.2***
1,4-Dioxane	10.2	13.3
1,1,1-TCA	6.9	15.4
TCE	ND	ND

MW-09		
	5/9/21	11/14/21
1,1-DCA	***3***	2.5
1,2-DCA	ND	ND
1,1-DCE	***56.3***	***53.3***
1,4-Dioxane	***23.6***	***22.6***
1,1,1-TCA	ND	ND
TCE	ND	ND

MW-16		
	5/9/21	11/14/21
1,1-DCA	***169***	***1,350***
1,2-DCA	ND	12.5
1,1-DCE	***279***	***1,630***
1,4-Dioxane	***19.3***	***76.0***
1,1,1-TCA	123	***1,720***
TCE	***6.2***	ND

MW-20		
	5/9/21	11/14/21
1,1-DCA	***214***	***256***
1,2-DCA	***7.5***	***8.7***
1,1-DCE	***267***	***321***
1,4-Dioxane	***1,010***	***1,210***
1,1,1-TCA	ND	ND
TCE	ND	ND

MW-04		
	5/9/21	11/14/21
1,1-DCA	***130***	***82.7***
1,2-DCA	2.9	1.2
1,1-DCE	***361***	***175***
1,4-Dioxane	***303***	***134***
1,1,1-TCA	3.4	ND
TCE	ND	1.5

MW-01		
	5/9/21	11/14/21
1,1-DCA	ND	ND
1,2-DCA	ND	ND
1,1-DCE	ND	ND
1,4-Dioxane	ND	ND
1,1,1-TCA	ND	ND
TCE	ND	ND

LEGEND

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

MW-20		
	5/9/21	11/14/21
1,1-DCA	***214***	***256***
1,2-DCA	***7.5***	***8.7***
1,1-DCE	***267***	***321***
1,4-Dioxane	***1,010***	***1,210***
1,1,1-TCA	ND	ND
TCE	ND	ND

- WELL ID
- DATE
- CONCENTRATION (ug/l) (BOLD ITALIC EXCEEDS CLEANUP LEVELS)
- CONSTITUENT

ND	NON DETECT
NS	NOT SAMPLED
1,1-DCA	1,1–DICHLOROETHANE
1,2-DCA	1,2–DICHLOROETHANE
1,1-DCE	1,1–DICHLOROETHENE
1,1,1-TCA	1,1,1–TRICHLOROETHANE
TCE	TRICHLOROETHENE

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

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Checked: MML 12/3/2021
Approved: [illegible] 1/21/2022
DWG Name: 314V1545.010-088

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

FIGURE 4

SAMPLING RESULTS FOR THE MONITORING WELLS SCREENED IN THE SHALLOW ZONE OF THE LOWER PATAPSCO AQUIFER (2021)

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

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

FIGURE 5

SAMPLING RESULTS FOR THE MONITORING WELLS SCREENED IN THE DEEP ZONE OF THE LOWER PATAPSCO AQUIFER (2021)

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

VERIZON

STONY RUN

POND

WILLIAMS SCOTSMAN, INC.

NORTH WAREHOUSE

SOUTH WAREHOUSE

TREATMENT EQUIPMENT BUILDING

MW-27D

MW-27D	5/9/21	11/14/21
1,1-DCA	ND	ND
1,2-DCA	ND	ND
1,1-DCE	ND	ND
1,4-Dioxane	ND	ND
1,1,1-TCA	ND	ND
TCE	ND	ND

MW-46D

MW-23D

MW-23D	5/9/21	11/14/21
1,1-DCA	***31.8***	***28.5***
1,2-DCA	1.5	1.1
1,1-DCE	***126***	***110***
1,4-Dioxane	***99***	***92.4***
1,1,1-TCA	11.7	9.2
TCE	ND	ND

MW-03

MW-43

MW-09

MW-39

MW-38R

RW-1S

MW-42

MW-18

RW-2S

MW-5R

RW-3S

MW-40D

MW-40D	5/9/21	11/14/21
1,1-DCA	ND	ND
1,2-DCA	ND	ND
1,1-DCE	ND	ND
1,4-Dioxane	ND	ND
1,1,1-TCA	ND	ND
TCE	ND	ND

MW-44

MW-41D

MW-21D

RW-1D

RW-2D

MW-01D

MW-01

MW-16

MW-16D

MW-16D	5/9/21	11/14/21
1,1-DCA	***27.7***	***21.5***
1,2-DCA	1.7	1.1
1,1-DCE	***130***	***98.7***
1,4-Dioxane	***107***	***84.5***
1,1,1-TCA	9.5	6.9
TCE	ND	ND

MW-22D

MW-22D	5/9/21	11/14/21
1,1-DCA	ND	ND
1,2-DCA	ND	ND
1,1-DCE	5.9	6.2
1,4-Dioxane	4	5.2
1,1,1-TCA	ND	ND
TCE	ND	ND

MW-20

MW-04

MW-45

MW-24D

MW-21D	5/9/21	11/14/21
1,1-DCA	ND	ND
1,2-DCA	ND	ND
1,1-DCE	4.1	***18.7***
1,4-Dioxane	2.8	12.9
1,1,1-TCA	ND	ND
TCE	ND	ND

MW-41D	5/9/21	11/14/21
1,1-DCA	ND	ND
1,2-DCA	ND	ND
1,1-DCE	ND	ND
1,4-Dioxane	ND	ND
1,1,1-TCA	ND	ND
TCE	ND	ND

MW-1D	5/9/21	11/14/21
1,1-DCA	1.8	***3.8***
1,2-DCA	ND	ND
1,1-DCE	***12.2***	***22.4***
1,4-Dioxane	9	***16.5***
1,1,1-TCA	ND	1.5
TCE	ND	ND

LEGEND

- PROPERTY LINE
- STREAM/EDGE OF WATER
- FENCE LINE
- STORMWATER MANAGEMENT AREA
- SHALLOW MONITORING WELL
- DEEP MONITORING WELL
- SHALLOW EXTRACTION WELL
- DEEP EXTRACTION WELL
- WELL ID
- DATE
- CONCENTRATION (ug/l) (BOLD ITALIC EXCEEDS CLEANUP LEVELS)
- CONSTITUENT

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

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

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VERIZON

MW-46D

MW-27D

STONY RUN

POND

WILLIAMS SCOTSMAN, INC.

MW-23D

NORTH WAREHOUSE

MW-03

TREATMENT EQUIPMENT BUILDING

MW-43

MW-09

MW-39

MW-38R

RW-1S

MW-42

MW-18

MW-16

MW-16D

MW-20

MW-04

MW-45

RW-2S

MW-5R

MW-40D

SOUTH WAREHOUSE

RW-3S

MW-44

MW-41D

MW-22D

MW-21D

RW-1D

RW-2D

MW-01D

MW-01

MW-24D

RW-1S	5/9/21	12/29/21
1,1-DCA	***113***	***99.4***
1,2-DCA	ND	ND
1,1-DCE	***389***	***368***
1,4-Dioxane	***291***	***294***
1,1,1-TCA	72.5	49.2
TCE	2.9	ND

RW-2S	5/9/21	12/29/21
1,1-DCA	***32.4***	***32.7***
1,2-DCA	ND	ND
1,1-DCE	***184***	***184***
1,4-Dioxane	***153***	***207***
1,1,1-TCA	***221***	147
TCE	2.1	ND

RW-3S	5/9/21	12/29/21
1,1-DCA	***2.7***	2.3
1,2-DCA	ND	ND
1,1-DCE	4.2	3.2
1,4-Dioxane	***13.2***	11.1
1,1,1-TCA	8.1	5.2
TCE	ND	ND

RW-1D	5/9/21	12/29/21
1,1-DCA	***52.4***	***51.4***
1,2-DCA	ND	ND
1,1-DCE	***204***	***202***
1,4-Dioxane	***77.7***	***83.7***
1,1,1-TCA	5.5	4.5
TCE	ND	ND

RW-2D	5/9/21	12/29/21
1,1-DCA	***16.8***	***20.2***
1,2-DCA	1.1	1.1
1,1-DCE	***104***	***120***
1,4-Dioxane	***62.8***	***85.1***
1,1,1-TCA	4.2	4.0
TCE	ND	ND

LEGEND

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

RW-1S	5/9/21	12/29/21
1,1-DCA	***113***	***99.4***
1,2-DCA	ND	ND
1,1-DCE	***389***	***368***
1,4-Dioxane	***291***	***294***
1,1,1-TCA	72.5	49.2
TCE	2.9	ND

WELL ID

DATE

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

CONSTITUENT

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

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

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Drawn By: EGC
Checked: MML 12/3/2021
Approved: RJH 1/21/2022
DWG Name: 314V1545.010-087

FORMER KOP-FLEX FACILITY SITE
HANOVER, MARYLAND

PREPARED FOR
EMERSUB 16 LLC
ST. LOUIS, MISSOURI

FIGURE 6

GROUNDWATER RECOVERY WELL RESULTS (2021)

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

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TABLES

Table 1

Historical Water Level Measurements in
Onsite Monitoring Wells and Recovery Well Piezometers
Former Kop-Flex Facility Site
Hanover, Maryland
(December 2016 to November 2021) (a)

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

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

Table 1

Historical Water Level Measurements in
Onsite Monitoring Wells and Recovery Well Piezometers
Former Kop-Flex Facility Site
Hanover, Maryland
(December 2016 to November 2021) (a)

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

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

Table 1

Historical Water Level Measurements in
Onsite Monitoring Wells and Recovery Well Piezometers
Former Kop-Flex Facility Site
Hanover, Maryland
(December 2016 to November 2021) (a)

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

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

Table 1

Historical Water Level Measurements in
Onsite Monitoring Wells and Recovery Well Piezometers
Former Kop-Flex Facility Site
Hanover, Maryland
(December 2016 to November 2021) (a)

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

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

Table 2

November 2021 Monitoring Well Sampling Results
Former Kop-Flex Facility Site
Hanover, Maryland (a)

		Shallow Wells												Deep Wells								
Well ID:		**MW-01**	**MW-03**	**MW-04**	**MW-5R**	**MW-09**	**MW-16**	**MW-18**	**MW-20**	**MW-38R**	**MW-39**	**MW-42**	**MW-43**	**MW-44**	**MW-1D**	**MW-16D**	**Duplicate**	**MW-21D**	**MW-22D**	**MW-23D**	**MW-27D**	**MW-40D**	**MW-41D**
Parameters	**Groundwater Cleanup Standards (µg/L) (b)**																						
Chloroform	80	1 U	1 U	3.1	1 U	1 U	12.5 U	1 U	2 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
1,1-Dichloroethane	2.8	1 U	1 U	**82.7**	1.6	2.5	**1,350**	1 U	**256**	**6.7**	1 U	1 U	2.6	**3.8**	**3.8**	**21.5**	**17.0**	1 U	1 U	**28.5**	1 U	1 U	1 U
1,2-Dichloroethane	5	1 U	1 U	1.2	1 U	1 U	12.5 U	1 U	**8.7**	1 U	1 U	1 U	1 U	1 U	1 U	1.1	1 U	1 U	1 U	1.1	1 U	1 U	1 U
1,1-Dichloroethene	7	1 U	1 U	**175**	1.4	**53.3**	**1,630**	1 U	**321**	1 U	1 U	1 U	**31.3**	**7.2**	**22.4**	**98.7**	**67.2**	**18.7**	6.2	**110**	1 U	1 U	1 U
1,4-Dioxane	15 (c)	2 U	2 U	**134**	12.0	**22.6**	**76.0**	2 U	**1,210**	**46.2**	2 U	12.5	**34.3**	13.3	**16.5**	**84.5**	**84.2**	12.9	5.2	**92.4**	2 U	2 U	2 U
Methyl tert-butyl ether	20	1 U	1 U	1 U	1 U	1 U	12.5 U	1 U	2 U	1 U	1 U	1 U	2.8	1 U	1 U	1 U	1 U	3.6	1 U	1 U	1 U	1.7	1 U
1,1,1-Trichloroethane	200	1 U	1 U	1 U	2.4	1 U	**1,720**	1 U	2 U	1 U	1 U	1 U	1 U	15.4	1.5	6.9	5.3	1 U	1 U	9.2	1 U	1 U	1 U
Trichloroethene	5	1 U	1 U	1.5	1 U	1 U	12.5 U	1 U	2 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U

a/ U = not detected above the method detection limit; NS = not sampled; ID = identification
Bolded values indicate an exceedence of the Groundwater Quality Standards
All sample concentrations in micrograms per liter (µg/l
Collected samples representative of non-pumping conditions in the aquifer systen
b/ All cleanup standards, except for 1,4-dioxane, are equal to the Maryland Generic Numeric Cleanup Standards for Groundwater
Type I and II Aquifers, from the State of Maryland Interim Final Guidance (October 2018). Accessed May 27, 2020
https://mde.maryland.gov/programs/LAND/MarylandBrownfieldVCP/Documents/www.mde.state.md.us/assets/docur
c/ Numeric cleanup standards from WSP's October 2, 2015, Response Action Plan, Revision 2

Table 3

Historical Monitoring Well Sampling Results
Former Kop-Flex Facility Site
Hanover, Maryland
(December 2016 - November 2021) (a)

Well ID	Sample Date	Chloroethane	1,1-Dichloroethane	1,2-Dichloroethane	1,1-Dichloroethene	cis-1,2-Dichloroethene	1,4-Dioxane	Methylene Chloride	Tetrachloroethene	1,1,1-Trichloroethane	1,1,2-Trichloroethane	Trichloroethene	Vinyl chloride
Groundwater Cleanup Standards (b)		2,100	2.8	5	7	70	15 (c)	5	5	200	5	5	2
MW-01	5/14/2020	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	2.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
	5/9/2021	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	2.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
	11/14/2021	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	2.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
MW-03	12/8/2016	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	4.6	2.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
	5/1/2017	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	2.0 U	2.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
	5/30/2018	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	2.0 U	2.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
	5/21/2019	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	2.0 U	5.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
	5/12/2020	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	2.0 U	5.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
	5/9/2021	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	2.0 U	5.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
	11/14/2021	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	2.0 U	5.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
MW-04	12/7/2016	10.0 U	**259**	10.0 U	**1,020**	10.0 U	**576**	20.0 U	4.0 U	31.7	10.0 U	10.0 U	10.0 U
	5/2/2017	4.0 U	**103**	4.0 U	**459**	4.0 U	**252**	8.0 U	4.0 U	13.0	4.0 U	4.0 U	4.0 U
	11/15/2017	5.0 U	**29.2**	1.0 J	**151**	1.0 U	**121**	**10.5**	0.687 J	4.3	1.0 U	1.4	1.0 U
	5/30/2018	1.0 U	**33.3**	1.0 U	**153**	1.0 U	**92.7**	2.0 U	1.0 U	4.0	1.0 U	1.0 U	1.0 U
	11/7/2018	1.0 U	**23.3**	1.0 U	**89.9**	1.0 U	1.0 U	2.0 U	1.0 U	1.6	1.0 U	1.0 U	1.0 U
	5/21/2019	1.0 U	**57.7**	1.1	**142**	1.0 U	**111**	5.0 U	1.0 U	1.7	1.0 U	1.1	1.0 U
	11/19/2019	1.0 U	**45.1**	1.1	**126**	1.0 U	**94.2**	5.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
	5/13/2020	1.0 U	**58.6**	1.3	**149**	1.0 U	**84.6**	5.0 U	1.0 U	1.4	1.2	1.2	1.0 U
	11/22/2020	1.0 U	**62.0**	1.6	**141**	1.0 U	**151**	5.0 U	1.0 U	1.0 U	1.0 U	1.2	1.0 U
	5/9/2021	2.5 U	**130**	2.9	**361**	2.5 U	**303**	12.5 U	2.5 U	3.4	2.5 U	2.5 U	2.5 U
	11/14/2021	1.0 U	**82.7**	1.2	**175**	1.0 U	**134**	5.0 U	1.0 U	1.0 U	1.0 U	1.5	1.0 U
MW-5R	12/7/2016	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	**16.5**	2.0 U	1.0 U	1.4	1.0 U	1.0 U	1.0 U
	5/1/2017	1.0 U	1.4	1.0 U	1.4	1.0 U	**16.5**	2.0 U	1.0 U	2.7	1.0 U	1.0 U	1.0 U
	11/15/2017	5.0 U	1.6	1.0 U	2.5	1.0 U	11.0	**10.2**	1.0 U	1.7	1.0 U	1.0 U	1.0 U
	5/30/2018	1.0 U	1.8	1.0 U	2.7	1.0 U	11.5	2.0 U	1.0 U	1.4	1.0 U	1.0 U	1.0 U
	11/7/2018	1.0 U	1.0 U	1.0 U	1.3	1.0 U	2.0 U	2.0 U	1.0 U	1.5	1.0 U	1.0 U	1.0 U
	5/21/2019	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	7.6	5.0 U	1.0 U	1.9	1.0 U	1.0 U	1.0 U
	11/19/2019	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	6.8	5.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
	5/12/2020	1.0 U	1.8	1.0 U	1.7	1.0 U	13.4	5.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
	11/22/2020	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	2.2	5.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
	11/14/2021	1.0 U	1.6	1.0 U	1.4	1.0 U	12.0	5.0 U	1.0 U	2.4	1.0 U	1.0 U	1.0 U
MW-09	12/8/2016	1.0 U	**4.5**	1.0 U	**104**	1.0 U	**95.5**	2.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
	5/2/2017	1.0 U	**2.9**	1.0 U	**63.8**	1.0 U	**20.8**	2.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
	11/15/2017	5.0 U	**3.1**	0.4 J	**60.2**	1.0 U	**32.4**	5.0 U	1.0 U	0.7 J	1.0 U	1.0 U	1.0 U
	5/30/2018	1.0 U	2.2	1.0 U	**49.2**	1.0 U	**23.4**	2.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
	11/7/2018	1.0 U	**4.5**	1.0 U	**75.9**	1.0 U	**37.4**	2.0 U	1.0 U	1.1	1.0 U	1.0 U	1.0 U
	5/21/2019	1.0 U	**3.6**	1.0 U	**70.8**	1.0 U	**32.8**	5.0 U	1.0 U	1.2	1.0 U	1.0 U	1.0 U
	11/19/2019	1.0 U	2.6	1.0 U	**48.7**	1.0 U	**24.4**	5.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
	5/13/2020	1.0 U	2.6	1.0 U	**50.5**	1.0 U	**18.7**	5.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
	11/22/2020	1.0 U	2.5	1.0 U	**56.4**	1.0 U	**25.7**	5.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
	5/9/2021	1.0 U	**3.0**	1.0 U	**56.3**	1.0 U	**23.6**	5.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
	11/14/2021	1.0 U	2.5	1.0 U	**53.3**	1.0 U	**22.6**	5.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
MW-16	12/8/2016	200 U	**6,420**	200 U	**26,200**	200 U	**1,450**	400 U	100 U	**4,390**	200 U	200 U	200 U
	5/2/2017	225	**7,910**	100 U	**10,500**	100 U	**971**	200 U	100 U	**8,930**	100 U	100 U	100 U
	11/15/2017	732	**7,110**	**22**	**7,740**	46	**836**	**11**	**18.4**	**5,590**	1.0 U	**69**	**19**
	5/30/2018	249	**6,250**	50 U	**4,690**	50 U	**636**	100 U	50 U	**7,360**	50 U	50 U	50 U
	11/7/2018	275	**7,360**	50 U	**7,800**	50 U	**866**	100 U	50 U	**6,420**	50 U	**74.2**	50 U

Table 3

Historical Monitoring Well Sampling Results
Former Kop-Flex Facility Site
Hanover, Maryland
(December 2016 - November 2021) (a)

Well ID	Sample Date	Chloroethane	1,1-Dichloroethane	1,2-Dichloroethane	1,1-Dichloroethene	cis-1,2-Dichloroethene	1,4-Dioxane	Methylene Chloride	Tetrachloroethene	1,1,1-Trichloroethane	1,1,2-Trichloroethane	Trichloroethene	Vinyl chloride
Groundwater Cleanup Standards (b)		2,100	2.8	5	7	70	15 (c)	5	5	200	5	5	2
MW-16	5/22/2019	10 U	**343**	10 U	**1,160**	10 U	**1,230**	50 U	10 U	**216**	10 U	**13.7**	10 U
	11/19/2019	23.4	**608**	10 U	**1,440**	10 U	**81.9**	50 U	10 U	**314**	10 U	**18.3**	10 U
	5/13/2020	10.9	**394**	5 U	**571**	5 U	**39.2**	5 U	5 U	**487**	5 U	**10.7**	5 U
	11/22/2020	20.0 U	**1,560**	20 U	**1,130**	20 U	**84.2**	100 U	20 U	**2,060**	5 U	20.0 U	20 U
	5/9/2021	4.2	**169**	2 U	**276**	2.1	**19.3**	10 U	2.2	123	2 U	**6.2**	2 U
	11/14/2021	12.5 U	**1,350**	12.5 U	**1,630**	12.5 U	**76.0**	62.5 U	12.5 U	**1,720**	12.5 U	12.5 U	12.5 U
MW-18	12/7/2016	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	2.0 U	2.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
	5/1/2017	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	2.0 U	2.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
	11/15/2017	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	**24.9**	5.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
	5/30/2018	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	2.0 U	2.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
	11/7/2018	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	2.0 U	2.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
	5/21/2019	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	2.0 U	5.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
	11/19/2019	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	2.0 U	5.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
	5/12/2020	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	2.0 U	5.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
	11/22/2020	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	2.0 U	5.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
	5/9/2021	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	2.0 U	5.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
	11/14/2021	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	2.0 U	5.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
MW-20	12/9/2016	2.0 U	**99.7**	**5.1**	**173**	2.0 U	**767**	4.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U
	5/2/2017	2.0 U	**161**	**7.3**	**286**	2.0 U	**967**	4.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U
	11/15/2017	5.0 U	**136**	**5.7**	**223**	1.4	**969**	5.0 U	1.0 U	1.0 U	1.9	1.0 U	1.0 U
	5/30/2018	2.0 U	**115**	**5.5**	**205**	2.0 U	**966**	4.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U
	11/7/2018	2.5 U	**145**	**6.3**	**233**	2.5 U	**986**	5.0 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
	5/21/2019	2.0 U	**157**	**6.5**	**226**	2.0 U	**1,620**	10.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U
	11/19/2019	2.0 U	**175**	**7.5**	**244**	2.0 U	**1,220**	10.0 U	2.0 U	2.0 U	2.1	2.0 U	2.0 U
	5/13/2020	2.0 U	**188**	**7.7**	**232**	2.0 U	**1,000**	10.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U
	11/22/2020	2.0 U	**205**	**7.5**	**272**	2.0 U	**1,260**	4.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U
	5/9/2021	2.0 U	**214**	**7.5**	**267**	2.2	**1,010**	4.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U
	11/14/2021	2.0 U	**256**	**8.7**	**321**	2.0 U	**1,210**	4.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U
MW-38R	12/9/2016	1.0 U	**3.8**	1.0 U	1.0 U	1.0 U	**18.3**	2.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
	5/1/2017	1.0 U	**6.0**	1.0 U	1.0 U	1.0 U	**42.6**	2.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
	11/15/2017	5.0 U	**8.3**	1.0 U	1.0 U	1.0 U	**62.5**	**8.1**	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
	5/30/2018	1.0 U	**4.3**	1.0 U	1.0 U	1.0 U	**40.7**	2.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
	11/7/2018	1.0 U	**6.9**	1.0 U	1.0 U	1.0 U	**39.4**	2.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
	5/21/2019	1.0 U	**4.7**	1.0 U	1.0 U	1.0 U	**43.2**	5.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
	11/19/2019	1.0 U	**7.7**	1.0 U	1.0 U	1.0 U	**51.5**	5.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
	5/12/2020	1.0 U	**6.2**	1.0 U	1.0 U	1.0 U	**40.8**	5.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
	11/22/2020	1.0 U	**6.5**	1.0 U	1.0 U	1.0 U	**40.9**	5.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
	5/9/2021	1.0 U	**5.5**	1.0 U	1.0 U	1.0 U	**47.0**	5.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
	11/19/2021	1.0 U	**6.7**	1.0 U	1.0 U	1.0 U	**46.2**	5.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
MW-39	12/7/2016	1.0 U	1.0 U	1.0 U	1.7	1.0 U	2.5	2.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
	5/1/2017	1.0 U	1.0 U	1.0 U	1.1	1.0 U	3.0	2.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
	11/15/2017	5.0 U	1.0 U	1.0 U	0.6 J	1.0 U	2.2	5.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
	5/30/2018	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	2.0 U	2.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
	11/7/2018	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	2.0 U	2.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
	5/21/2019	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	2.0 U	5.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
	11/19/2019	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	2.0 U	5.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
	5/12/2020	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	2.0 U	5.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
	11/22/2020	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	2.0 U	5.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
	5/9/2021	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	2.0 U	5.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
	11/14/2021	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	2.0 U	5.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U

Table 3

Historical Monitoring Well Sampling Results
Former Kop-Flex Facility Site
Hanover, Maryland
(December 2016 - November 2021) (a)

Well ID	Sample Date	Chloroethane	1,1-Dichloroethane	1,2-Dichloroethane	1,1-Dichloroethene	cis-1,2-Dichloroethene	1,4-Dioxane	Methylene Chloride	Tetrachloroethene	1,1,1-Trichloroethane	1,1,2-Trichloroethane	Trichloroethene	Vinyl chloride
Groundwater Cleanup Standards (b)		2,100	2.8	5	7	70	15 (c)	5	5	200	5	5	2
MW-42	12/7/2016	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	4.8	2.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
	5/1/2017	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	8.0	2.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
	11/15/2017	5.0 U	1.0 U	1.0 U	1.0 U	1.0 U	**19.3**	5.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
	5/30/2018	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	7.4	2.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
	11/7/2018	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	10.3	2.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
	5/21/2019	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	10.6	5.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
	11/19/2019	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	5.6	5.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
	5/12/2020	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	11.2	5.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
	1/6/2021	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	13.2	5.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
	5/9/2021	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	13.3	5.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
	11/14/2021	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	12.5	5.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
MW-43	12/7/2016	2.0 U	**15.9**	2.1	**171**	2.0 U	**237**	4.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U
	5/1/2017	2.0 U	**21.3**	2.1	**177**	2.0 U	**206**	4.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U
	11/15/2017	5.0 U	**15.9**	1.3	**159**	1.0 U	**165**	5.0 U	1.0 U	1.2	1.0 U	1.0 U	1.0 U
	5/30/2018	2.0 U	**5.9**	1.0 U	**68**	1.0 U	**57.6**	2.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
	11/7/2018	1.0 U	**13.8**	1.2	**118**	1.0 U	**107**	2.0 U	1.0 U	1.0 U	1.0 U	1.3	1.0 U
	5/21/2019	1.0 U	**5.2**	1.0 U	**53.9**	1.0 U	**52.0**	5.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
	11/19/2019	1.0 U	**4.3**	1.0 U	**48.5**	1.0 U	**55.2**	5.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
	5/12/2020	1.0 U	**3.8**	1.0 U	**46.3**	1.0 U	**49.0**	5.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
	11/22/2020	1.0 U	**2.9**	1.0 U	**31.8**	1.0 U	**42.7**	5.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
	5/9/2021	1.0 U	2.7	1.0 U	**31.7**	1.0 U	**34.1**	5.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
	11/14/2021	1.0 U	2.6	1.0 U	**31.3**	1.0 U	**34.3**	5.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
MW-44	12/7/2016	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	2.0 U	2.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
	5/1/2017	1.0 U	**6.6**	1.0 U	5.9	1.0 U	**49.1**	2.0 U	1.0 U	27.7	1.0 U	1.0 U	1.0 U
	5/30/2018	1.0 U	1.4	1.0 U	1.4	1.0 U	8.4	2.0 U	1.0 U	4.9	1.0 U	1.0 U	1.0 U
	5/21/2019	1.0 U	**14.9**	1.0 U	**22.4**	1.0 U	**64.4**	5.0 U	1.0 U	74.3	1.0 U	1.0 U	1.0 U
	5/13/2020	1.0 U	**3.0**	1.0 U	4.1	1.0 U	**17.7**	5.0 U	1.0 U	11.9	1.0 U	1.0 U	1.0 U
	5/9/2021	1.0 U	1.7	1.0 U	2.9	1.0 U	10.2	5.0 U	1.0 U	6.9	1.0 U	1.0 U	1.0 U
	11/14/2021	1.0 U	**3.8**	1.0 U	**7.2**	1.0 U	13.3	5.0 U	1.0 U	15.4	1.0 U	1.0 U	1.0 U
MW-1D	1/2/2017	2.0 U	**72**	4.7	**375**	2.0 U	**236**	4.0 U	2.5 U	37.5	2.0 U	2.0 U	2.0 U
	5/3/2017	2.5 U	**105**	**5.7**	**407**	2.5 U	**329**	5.0 U	2.5 U	37.1	2.5 U	2.5 U	2.5 U
	11/15/2017	5.0 U	**80**	3.8	**277**	0.6 J	**243**	5.0 U	0.519 J	29.8	0.8 J	1.7	1 U
	5/30/2018	1.0 U	**14.9**	1.0 U	**71.4**	1.0 U	**64.4**	2.0 U	1.0 U	5.3	1.0 U	1.0 U	1.0 U
	11/7/2018	1.0 U	**7.1**	1.0 U	**38.8**	1.0 U	2.0 U	2.0 U	1.0 U	3.3	1.0 U	1.0 U	1.0 U
	5/21/2019	1.0 U	2.1	1.0 U	**13.7**	1.0 U	12.8	5.0 U	1.0 U	1.1	1.0 U	1.0 U	1.0 U
	11/19/2019	1.0 U	**3.4**	1.0 U	**17.7**	1.0 U	**17.9**	5.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
	5/18/2020	1.0 U	2.6	1.0 U	**16.5**	1.0 U	12.8	5.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
	11/22/2020	1.0 U	**3.1**	1.0 U	**17.6**	1.0 U	**16.9**	5.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
	5/9/2021	1.0 U	1.8	1.0 U	**12.2**	1.0 U	9.0	5.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
	11/14/2021	1.0 U	**3.8**	1.0 U	**22.4**	1.0 U	**16.5**	5.0 U	1.0 U	1.5	1.0 U	1.0 U	1.0 U
MW-16D	12/8/2016	2.0 U	**56.6**	2.9	**254**	2.0 U	**202**	4.0 U	2.0 U	21	2.0 U	2.0 U	2.0 U
	5/2/2017	2.0 U	**43.7**	2.9	**235**	2.0 U	**182**	4.0 U	2.0 U	16.4	2.0 U	2.0 U	2.0 U
	11/15/2017	5.0 U	**29.7**	1.9	**179**	0.3 J	**192**	**10.0**	1.0 U	15.1	0.5 J	0.9 J	1.0 U
	5/30/2018	1.0 U	**26.4**	1.6	**180**	1.0 U	**153**	2.0 U	1.0 U	10.3	1.0 U	1.0 U	1.0 U
	11/7/2018	1.0 U	**27.5**	1.8	**161**	1.0 U	**158**	2.0 U	1.0 U	12.5	1.0 U	1.0 U	1.0 U
	5/22/2019	1.0 U	**28.5**	2.1	**172**	1.0 U	**148**	5.0 U	1.0 U	14.5	1.0 U	1.0 U	1.0 U
	11/19/2019	1.0 U	**25.6**	1.7	**133**	1.0 U	**140**	5.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
	5/13/2020	1.0 U	**29.1**	1.9	**145**	1.0 U	**130**	5.0 U	1.0 U	11.7	1.0 U	1.0 U	1.0 U
	12/8/2020	1.0 U	**25.9**	1.6	**127**	1.0 U	**105**	5.0 U	1.0 U	10.1	1.0 U	1.0 U	1.0 U
	5/9/2021	1.0 U	**27.7**	1.7	**130**	1.0 U	**107**	5.0 U	1.0 U	9.5	1.0 U	1.0 U	1.0 U
	11/14/2021	1.0 U	**21.5**	1.1	**98.7**	1.0 U	**84.5**	5.0 U	1.0 U	6.9	1.0 U	1.0 U	1.0 U

Table 3

Historical Monitoring Well Sampling Results
Former Kop-Flex Facility Site
Hanover, Maryland
(December 2016 - November 2021) (a)

Well ID	Sample Date	Chloroethane	1,1-Dichloroethane	1,2-Dichloroethane	1,1-Dichloroethene	cis-1,2-Dichloroethene	1,4-Dioxane	Methylene Chloride	Tetrachloroethene	1,1,1-Trichloroethane	1,1,2-Trichloroethane	Trichloroethene	Vinyl chloride
Groundwater Cleanup Standards (b)		2,100	2.8	5	7	70	15 (c)	5	5	200	5	5	2
MW-21D	12/16/2016	1.0 U	2.6	1.0 U	**23.4**	1.0 U	**18.6**	2.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
	5/1/2017	1.0 U	**6.9**	1.4	**111**	1.0 U	**57.5**	2.0 U	1.0 U	2.3	1.0 U	1.0 U	1.0 U
	11/15/2017	5.0 U	2.0	1.0 U	**14.4**	1.0 U	**18.5**	5.0 U	1.0 U	0.7 J	1.0 U	1.0 U	1.0 U
	5/30/2018	1.0 U	1.0	1.0 U	**38.8**	1.0 U	**32.2**	2.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
	11/7/2018	1.0 U	1.0 U	1.0 U	**30.0**	1.0 U	**18.0**	2.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
	5/21/2019	1.0 U	1.0 U	1.0 U	**9.9**	1.0 U	8.4	5.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
	11/19/2019	1.0 U	1.0 U	1.0 U	4.1	1.0 U	4.1	5.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
	5/18/2020	1.0 U	1.0 U	1.0 U	**13.6**	1.0 U	7.6	5.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
	11/22/2020	1.0 U	1.0 U	1.0 U	**7.8**	1.0 U	5.1	5.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
	5/9/2021	1.0 U	1.0 U	1.0 U	4.1	1.0 U	2.8	5.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
	11/14/2021	1.0 U	1.0 U	1.0 U	**18.7**	1.0 U	12.9	5.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
MW-22D	12/7/2016	1.0 U	2.5	1.0 U	**31.5**	1.0 U	**24.5**	2.0 U	1.0 U	4.1	1.0 U	1.0 U	1.0 U
	5/2/2017	1.0 U	2.5	1.0 U	**36.9**	1.0 U	**24.6**	2.0 U	1.0 U	3.7	1.0 U	1.0 U	1.0 U
	11/15/2017	5.0 U	1.72	1.0 U	**24.4**	1.0 U	**19.6**	5.0 U	1.0 U	2.8	1.0 U	1.0 U	1.0 U
	5/30/2018	1.0 U	1.0 U	1.0 U	**13.1**	1.0 U	7.9	2.0 U	1.0 U	1.1	1.0 U	1.0 U	1.0 U
	11/7/2018	1.0 U	1.0 U	1.0 U	**9.7**	1.0 U	2.0 U	2.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
	5/21/2019	1.0 U	1.0 U	1.0 U	6.3	1.0 U	5.1	5.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
	11/19/2019	1.0 U	1.0 U	1.0 U	5.6	1.0 U	4.9	5.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
	5/18/2020	1.0 U	1.0 U	1.0 U	6.2	1.0 U	4.6	5.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
	11/22/2020	1.0 U	1.0 U	1.0 U	**7.1**	1.0 U	4.9	5.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
	5/9/2021	1.0 U	1.0 U	1.0 U	5.9	1.0 U	4.0	5.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
	11/14/2021	1.0 U	1.0 U	1.0 U	6.2	1.0 U	5.2	5.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
MW-23D	1/2/2017	2.0 U	**26.4**	2.0 U	**140**	2.0 U	**151**	**8.3**	1.0 U	17.0	2.0 U	2.0 U	2.0 U
	5/1/2017	2.0 U	**39.1**	2.4	**208**	2.0 U	**177**	4.0 U	2.0 U	19.9	2.0 U	2.0 U	2.0 U
	11/15/2017	5.0 U	**31.1**	1.9	**179**	0.3 J	**158**	5.0 U	0.417 J	19.3	0.4 J	0.9 J	1.0 U
	5/30/2018	1.0 U	**30.5**	1.6	**172**	1.0 U	**148**	2.0 U	1.0 U	14.8	1.0 U	1.0 U	1.0 U
	11/7/2018	1.0 U	**36.2**	1.9	**185**	1.0 U	**146**	2.0 U	1.0 U	17.0	1.0 U	1.0 U	1.0 U
	5/21/2019	1.0 U	**18.5**	1.2	**96.4**	1.0 U	**70.7**	5.0 U	1.0 U	8.6	1.0 U	1.0 U	1.0 U
	11/19/2019	1.0 U	**22.7**	1.4	**107**	1.0 U	**109**	5.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
	5/13/2020	1.0 U	**35.2**	1.8	**142**	1.0 U	**112**	5.0 U	1.0 U	13.6	1.0 U	1.0 U	1.0 U
	11/22/2020	1.0 U	**26.3**	1.2	**106**	1.0 U	**96.7**	5.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
	5/9/2021	1.0 U	**31.8**	1.5	**126**	1.0 U	**99.0**	5.0 U	1.0 U	11.7	1.0 U	1.0 U	1.0 U
	11/14/2021	1.0 U	**28.5**	1.1	**110**	1.0 U	**92.4**	5.0 U	1.0 U	9.2	1.0 U	1.0 U	1.0 U
MW-27D	12/7/2016	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	2.0 U	2.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
	5/1/2017	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	3.6	2.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
	5/30/2018	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	2.0 U	2.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
	5/21/2019	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	2.0 U	2.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
	5/13/2020	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	2.0 U	2.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
	5/9/2021	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	2.0 U	2.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
	11/14/2021	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	2.0 U	2.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
MW-40D	12/9/2016	1.0 U	**2.9**	1.0 U	**18.1**	1.0 U	9.4	2.0 U		1.0 U	1.0 U	1.0 U	1.0 U
	5/1/2017	1.0 U	**3.1**	1.0 U	**17.4**	1.0 U	8.5	2.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
	11/15/2017	5.0 U	0.9 J	1.0 U	5.2	1.0 U	5.2	**9.7**	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
	5/30/2018	1.0 U	1.0 U	1.0 U	2.9	1.0 U	2.0 U	2.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
	11/7/2018	1.0 U	1.0 U	1.0 U	4.4	1.0 U	2.7	2.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
	5/21/2019	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	2.0 U	5.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
	11/19/2019	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	2.0 U	5.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
	5/18/2020	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	2.0 U	5.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
	11/22/2020	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	2.0 U	5.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
	5/9/2021	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	2.0 U	5.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
	11/14/2021	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	2.0 U	5.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U

Table 3

Historical Monitoring Well Sampling Results
Former Kop-Flex Facility Site
Hanover, Maryland
(December 2016 - November 2021) (a)

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

a/ U = not detected above the method detection limit
Bolded values indicate an exceedence of the Groundwater Quality Standards
All sample concentrations in micrograms per liter (µg/l)
b/ All cleanup standards, except for 1,4-dioxane, are equal to the Maryland Generic Numeric Cleanup Standards for Groundwater, Type I and II Aquifers, from the State of Maryland Interim Final Guidance (October 2018). Accessed May 27, 2020: https://mde.maryland.gov/programs/LAND/MarylandBrownfieldVCP/Documents/www.mde.state.md.us/assets/document/
c/ Numeric cleanup standards from WSP's October 2, 2015, Response Action Plan, Revision 2.

Table 4

December 2021 Recovery Well Sampling Results
Former Kop-Flex Facility
Hanover, Maryland (a)

		Shallow Zone Wells			Deep Zone Wells	
Well ID:		**RW-1S**	**RW-2S**	**RW-3S**	**RW-1D**	**RW-2D**
Parameters	**Groundwater Cleanup Standards (µg/L) (b)**					
VOCs						
Chloroethane	2,100	13.2	2.0 U	1.0 U	5.8	1.0 U
1,1-Dichloroethane	2.8	**99.4**	**32.7**	2.3	**51.4**	**20.2**
1,2-Dichloroethane	5	2.5 U	2.0 U	1.0 U	2.0 U	1.1
1,1-Dichloroethene	7	**368**	**184**	3.2	**202**	**120**
cis-1,2-Dichloroethene	70	2.5 U	2.0 U	1.0 U	2.0 U	1.0 U
1,4-Dioxane	15 (c)	**294**	**207**	11.1	**83.7**	**85.1**
1,1,1-Trichloroethane	200	49.2	147	5.2	4.5	4.0
Trichloroethene	5	2.5 U	2.0 U	1.0 U	2.0 U	1.0 U
Vinyl chloride	2	**3.8**	2.0 U	1.0 U	2.0 U	1.0 U
Total Detected CVOCs + 1,4-Dioxane		*828*	*571*	*21.8*	*347*	*230*

a/ U = not detected above the method detection limit
Bolded values indicate an exceedence of the Groundwater Quality Standards
All sample concentrations in micrograms per liter (µg/l)

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

ENCLOSURE A - NOTIFICATION TO MDE OF NONCOMPLIANCE WITH NPDES PERMIT NICKEL DISCHARGE LIMIT

VIA ELECTRONIC MAIL

November 22, 2021

Maryland Department of the Environment
Water Management Administration – Compliance Program
1800 Washington Boulevard
Suite 425
Baltimore, Maryland 21230-1708

Subject: **Non-compliance with Effluent Limitation for Nickel**
State Discharge Permit No. 15DP3442/NPDES Permit MD0069094

Discharge Monitoring Reports:

On behalf of EMERSUB 16, LLC (EMERSUB 16), WSP USA Inc. (WSP) is submitting this letter to provide written notice to the Maryland Department of the Environment (MDE) of an exceedance of the effluent limitation for nickel set forth in National Pollutant Discharge Elimination System (NPDES) Permit MD0069094, which MDE tracks as State Discharge Permit No. 15DP3442 (Permit). The Permit is issued to EMERSUB 16 in connection with the operation of a groundwater extraction and treatment system (System) at 7565 Harmans Road in Hanover, Anne Arundel County, Maryland (the Site).

More specifically, this notice is being made under General Condition B.2 of the Permit. As required under this provision, WSP also notified the MDE Compliance Program of the situation by telephone the morning of November 18, 2021. This telephone notice was timely, since WSP received the analytical results indicating the nickel exceedance in the early afternoon of November 17, 2021. The following information is provided in accordance with General Conditions B.2.a through B.2.f of the Permit.

DESCRIPTION OF THE NON-COMPLYING DISCHARGE

Under the MDE Voluntary Cleanup Program, response actions have been developed for the Site, including the installation and operation of the System. The purpose of the System is to hydraulically contain groundwater impacted by volatile organic compounds (VOCs) and 1,4-Dioxane and prevent its discharge to Stony Run or migration off the property. Groundwater is extracted from five recovery wells equipped with electric submersible pumps. Sub-grade water conveyance piping routes the extracted groundwater to the treatment system located on the property. The groundwater is treated to meet the NPDES permit discharge limits by using bag filters for suspended solids removal, synthetic resin to adsorb the VOCs and 1,4-Dioxane, a metering pump for the addition of caustic soda for pH buffering, and in-line aerators to increase dissolved oxygen levels.

WSP began operating the System in March 2017. In accordance with the NPDES permit, the System effluent is sampled monthly for the set of parameters specified in the Permit. The results of the monthly sample collected on November 3, 2021, were received from the laboratory on November 17, 2021. The total nickel concentration in the discharge sample, 995 micrograms per liter (µg/L), exceeded the permit limit of 470 µg/L.

Monthly System effluent samples collected January through October 2021 had total nickel concentrations ranging from 3.4 µg/L (October 2021) to 21.3 µg/L (August 2021), well below the permit limit. Historically, the highest nickel concentration detected in the System effluent was 29.9 µg/L (March 2017), which is an order of magnitude below the effluent limitation.

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CAUSE OF NON-COMPLIANCE

Upon identifying the discharge of treated groundwater with total nickel above the effluent limitation, WSP initiated an evaluation of potential causes, including groundwater and System components. Based on this assessment, WSP does not believe System components caused the exceedance. Moreover, the anomalous nickel level is not representative of historical groundwater conditions. For lack of other ready explanations, WSP suspects the exceedance was most likely caused by an isolated, transient "slug" of water with elevated nickel concentrations entering the treatment system, perhaps caused by ongoing site development activities performed by the current occupant of the Property. WSP is currently investigating the incident and will (1) notify the MDE if it identifies the cause with greater certainty and (2) if necessary, implement practical and appropriate measures to prevent a recurrence.

ANTICIPATED TIME FOR CONTINUATION OF NON-COMPLY CONDITION

The System has been shut down from November 8, 2021, to the present for reasons unrelated to the exceedance of the nickel effluent limit. WSP resumed System operation for a few hours on November 19, 2021, to collect a discharge sample for analysis of total and dissolved nickel considering the data from the November 3rd sample. WSP submitted the sample to the laboratory for expedited analysis and expects to receive the analytical results on November 23, 2021. The sample results will be reviewed to confirm that the non-compliant condition no longer exists and that nickel concentrations are, once more, below Permit levels. WSP will provide further notification to MDE if an exceedance is once more detected.

STEPS TO REDUCE AND ELIMINATE THE NON-COMPLYING DISCHARGE

As indicated above, the System is currently shut down and will not resume operation until receipt of the analytical results for the November 19th re-sampling. In the meantime, WSP is continuing to gather information on possible causes for the nickel exceedance. To the extent necessary, WSP will take practical measures to eliminate and prevent a recurrence of the exceedance.

STEPS TO PREVENT RECURRENCE OF THE CONDITION OF NONCOMPLIANCE

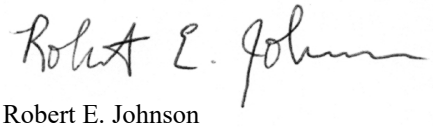
See the discussion provided in preceding section.

DESCRIPTION OF ACCELERATED OR ADDITIONAL MONITORING TO DETERMINE THE NATURE AND IMPACT OF THE NON-COMPLYING DISCHARGE

As discussed above, WSP collected a System effluent sample on November 19, 2021, for expedited analysis of total and dissolved nickel. WSP expects to receive the analytical results for this sample on November 23, 2021. The sample data will be provided in follow-up to this notification and included in the November Discharge Monitoring Report to MDE. Pending the results of the November 19, 2021, re-sampling, WSP believes that the non-compliant discharge represents a one-time anomaly.

Please do not hesitate to contact me with any questions.

Sincerely,



Robert E. Johnson
Director, Geological Sciences, Earth & Environment

SLB:REJ
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cc: Steve Clarke, EMERSUB 16, LLC
Amber Crouch, EMERSUB 16 LLC
Steve Kretschman, P.E., WSP USA Inc.

ENCLOSURE B – REQUEST TO ANNE ARUNDEL COUNTY PRE-TREATMENT PROGRAM FOR DISCHARGE OF RESIN CLEANING WATER

VIA ELECTRONIC MAIL

November 1, 2021

Chris Tait
Regulatory Compliance Program Manager
Pre-treatment Program
Department of Public Works
2662 Riva Road WWD MS 7408
Annapolis, MD 21401

Subject: **Request for New Wastewater Discharge**
EMERSUB 16 LLC Treatment Building, Harmans Road, Hanover, Maryland
Wastewater Discharge Permit No. 210020

Dear Mr. Tait:

On behalf of EMERSUB 16, LLC (EMERSUB 16), WSP USA Inc. (WSP) has prepared this letter requesting approval from the Anne Arundel County (County) Pre-treatment Program for the discharge of new wastewater to the sanitary sewer system on Harmans Road in Hanover, Maryland. This wastewater was generated during a recently completed maintenance activity conducted on the groundwater remediation system (System) on the property and consists of neutralized caustic solution used to remove natural organic foulants that have accumulated to treatment resins and other post-cleaning water containing the foulants. The discharge request is being submitted in accordance with the requirement specified in *Section 12. New Wastewater and Pollutants Discharge Request* of Wastewater Discharge Permit No. 210020, issued to EMERSUB 16. Information on the maintenance activity that generated the wastewater, chemical characterization of the wastewater, and the proposed plan for discharging the water to the sewer system is provided below.

GROUNDWATER REMEDIATION SYSTEM – DESCRIPTION AND MAINTENANCE ACTIVITY

Under the Maryland Department of the Environment (MDE) Voluntary Cleanup Program, and as required under Administrative Order on Consent (RCRA-03-2016-0170 CA) issued by the United States Environmental Protection Agency Region III, EMERSUB 16 has operated the System to control the migration of chlorinated volatile organic compounds (VOCs) and 1,4-dioxane present in the aquifer underlying the former facility property. The System involves the extraction of affected groundwater using recovery wells and treatment of the extracted groundwater using bag filters for suspended solids removal, synthetic resin for the removal of VOCs and 1,4-dioxane, caustic soda for pH buffering, and an in-line aerator to increase dissolved oxygen levels. The treated groundwater is routed and discharged to the reach of Stony Run on the property. The treated water is discharged to Stony Run under Maryland State Discharge Permit Number 15-DP-3442 and National Pollutant Discharge Elimination System Permit MD0069094. The resin media

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regularly undergoes steam regeneration onsite to desorb the volatile organic compounds (VOCs) and 1,4-dioxane removed from the groundwater.

Natural organic constituents present at very low concentrations in the extracted groundwater continually accumulate and foul the synthetic resin media, thus reducing its treatment performance and requiring more frequent steam regenerations. WSP has identified cleaning of the resin using a heated caustic solution as a periodic maintenance procedure to remove the natural organic foulants and restore the treatment capacity of the resin. After completing the cleaning process, the used caustic solution is transferred to a small frac tank and neutralized with acid for subsequent management. Additionally, high pH water containing residual natural organic constituents that is produced during post-cleaning regenerations of the resin media is combined with the neutralized water in the frac tank. WSP completed the most recent resin cleaning event and post-cleaning regenerations between September 25 and October 1, 2021. The total volume of water generated during this maintenance activity, and which WSP now proposes to discharge to the Anne Arundel County sewer system pursuant to this request, was approximately 8,900 gallons.

CHEMICAL CHARACTERIZATION OF RESIN CLEANING WATER

On October 7, 2021, WSP collected a sample of the wastewater contained in the frac tank for chemical characterization purposes. The sample was analyzed for the following parameters by Phase Separation Science, Inc., of Baltimore, Maryland.

- Target Analyte List Metals (including mercury),
- Total cyanide
- Organochlorine pesticides,
- Polychlorinated biphenyls,
- VOCs,
- Semi-volatile organic compounds,
- Oil & grease,
- Total suspended solids,
- Biochemical oxygen demand (BOD),
- Chemical oxygen demand (COD),
- Flash point

The temperature and pH of the wastewater was measured using a calibrated field meter at the time of sample collection.

A copy of the certified laboratory analytical report, dated October 14, 2021, is provided in Enclosure A. The laboratory data indicates the contained water from the resin cleaning activities meets the standards, including total toxic organics, specified in *Part 2 – Applicable Effluent Limitations* of EMERSUB 16's wastewater discharge permit. As noted in the Special Instructions portion of the chain of custody (COC) form that accompanied the sample shipment to the laboratory, the temperature and pH of the water on the day of sampling were 22.8° Celsius and 8.09 standard units, respectively. (A copy of the COC form is included on page 38 of the analytical report.) These field data are also in compliance with the effluent limitations in the wastewater discharge permit.

The COD concentration of the sample – 850 milligrams per liter (mg/L) – exceeds the level of 250 mg/L listed in Footnote 3 of the wastewater discharge standards. Based on the information provided in this footnote, a surcharge would be applicable for this COD level as specified in the County sewer ordinances.

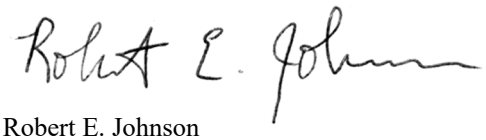
DISCHARGE TO SANITARY SEWER SYSTEM

Upon approval from the County Pre-treatment Program, WSP would coordinate with the System operation and maintenance contractor to discharge the contained wastewater to the sanitary sewer system via a drain located inside the treatment building. The wastewater would be discharged during normal business hours so that personnel can be onsite to monitor the process. It is anticipated the discharge of all water would occur over a 2 to 3-day period. Based on this schedule, the maximum daily volume of resin cleaning wastewater discharged to the sewer would be <4,500 gallons.

Once the wastewater is discharged, the frac tank will be cleaned and removed from the property. Water generated during the cleaning of the frac tank will be transported offsite for disposal and not be discharged to the sanitary sewer system.

If you have any questions or require additional information, please contact me at (703) 709-6500.

Kind regards,



Robert E. Johnson
Director of Geological Sciences – Earth & Environment

K:\Emerson\Kop-Flex_$ONSITE AREA\

Encl.

cc: Department of Public Works, Finance Division
Mr. Stephen Clarke, EMERSUB 16 LLC
Ms. Amber Crouch, EMERSUB 16 LLC

ENCLOSURE A – LABORATORY ANALYTICAL REPORT, RESIN CLEANING WATER

PHASE SEPARATION SCIENCE

6630 Baltimore National Pike
Baltimore, MD 21228
410-747-8770
800-932-9047
www.phaseonline.com

Certificate of Analysis

Project Name: Kop-Flex
PSS Project No.: 21100715

October 14, 2021

Eric Johnson
WSP USA - Herndon
13530 Dulles Technology Dr, Ste 300
Herndon, VA 20171

Reference: PSS Project No: **21100715**
Project Name: Kop-Flex
Project Location: Hanover, MD
Project ID.: 31401545.010/04

Dear Eric Johnson:

This report includes the analytical results from the analyses performed on the samples received under the project name referenced above and identified with the Phase Separation Science (PSS) Project number(s) **21100715**.

All work reported herein has been performed in accordance with current NELAP standards, referenced methodologies, PSS Standard Operating Procedures and the PSS Quality Assurance Manual unless otherwise noted in the Case Narrative Summary. PSS is limited in liability to the actual cost of the sample analysis done.

PSS reserves the right to return any unused samples, extracts or related solutions. Otherwise, the samples are scheduled for disposal, without any further notice, on November 11, 2021, with the exception of air canisters which are cleaned immediately following analysis. This includes any samples that were received with a request to be held but lacked a specific hold period. It is your responsibility to provide a written request defining a specific disposal date if additional storage is required. Upon receipt, the request will be acknowledged by PSS, thus extending the storage period.

This report shall not be reproduced except in full, without the written approval of an authorized PSS representative. A copy of this report will be retained by PSS for at least 5 years, after which time it will be disposed of without further notice, unless prior arrangements have been made.

We thank you for selecting Phase Separation Science, Inc. to serve your analytical needs. If you have any questions concerning this report, do not hesitate to contact us at 410-747-8770 or info@phaseonline.com.

Sincerely,

Dan Prucnal
Laboratory Manager

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Explanation of Qualifiers

Project Name: Kop-Flex
PSS Project No.: 21100715

Project ID: 31401545.010/04

The following samples were received under chain of custody by Phase Separation Science (PSS) on 10/07/2021 at 01:20 pm

PSS Sample ID	Sample ID	Matrix	Date/Time Collected
21100715-001	Resin Cleaning Water	WASTE WATER	10/07/21 12:10
21100715-002	TB-100721-RCW	WATER	10/07/21 13:20

Please reference the Chain of Custody and Sample Receipt Checklist for specific container counts and preservatives. Any sample conditions not in compliance with sample acceptance criteria are described in Case Narrative Summary.

Notes:

1. The presence of a common laboratory contaminant such as methylene chloride may be considered a possible laboratory artifact. Where observed, appropriate consideration of data should be taken.
2. Unless otherwise noted in the case narrative, results are reported on a dry weight basis with the exception of pH, flashpoint, moisture, and paint filter test.
3. Drinking water samples collected for the purpose of compliance with SDWA may not be suitable for their intended use unless collected by a certified sampler [COMAR 26.08.05.07.C.2].
4. The analyses of 1,2-dibromo-3-chloropropane (DBCP) and 1,2-dibromoethane (EDB) by EPA 524.2 and calcium, magnesium, sodium and iron by EPA 200.8 are not currently promulgated for use in testing to meet the Safe Drinking Water Act and as such cannot be used for compliance purposes. The listings of the current promulgated methods for testing in compliance with the Safe Drinking Water Act can be found in the 40 CFR part 141.1, for the primary drinking water contaminates, and part 141.3, for the secondary drinking water contaminates.
5. Sample prepared under EPA 3550C with concentrations greater than 20 mg/Kg should employ the microtip extraction procedure if required to meet data quality objectives.
6. The analysis of acrolein by EPA 624 must be analyzed within three days of sampling unless pH is adjusted to 4-5 units [40 CFR part 136.3(e)].
7. Method 180.1, The Determination of Turbidity by Nephelometry, recommends samples over 40 NTU be diluted until the turbidity falls below 40 units. Routine samples over 40 NTU may not be diluted as long as the data quality objectives are not affected.
8. Alkalinity results analyzed by EPA 310.2 that are reported by dilution are estimated and are not in compliance with method requirements.

Standard Flags/Abbreviations:

B	A target analyte or common laboratory contaminant was identified in the method blank. Its presence indicates possible field or laboratory contamination.
C	Results Pending Final Confirmation.
E	The data exceeds the upper calibration limit; therefore, the concentration is reported as estimated.
Fail	The result exceeds the regulatory level for Toxicity Characteristic (TCLP) as cited in 40 CFR 261.24 Table 1.
J	The target analyte was positively identified below the reporting limit but greater than the MDL.
MDL	This is the Laboratory Method Detection Limit which is equivalent to the Limit of Detection (LOD). The LOD is an estimate of the minimum amount of a substance that an analytical process can reliably detect. This value will remain constant across multiple similar instrumentation and among different analysts. An LOD is analyte and matrix specific.
ND	Not Detected at or above the reporting limit.
RL	PSS Reporting Limit.
U	Not detected.

Certifications:

NELAP Certifications: PA 68-03330, VA 460156
State Certifications: MD 179, WV 303
Regulated Soil Permit: P330-12-00268
NSWC USCG Accepted Laboratory
LDBE MWAA LD1997-0041-2015

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Certificate of Analysis

Project Name: Kop-Flex
PSS Project No.: 21100715

Sample ID: Resin Cleaning Water **Date/Time Sampled: 10/07/2021 12:10** **PSS Sample ID: 21100715-001**
Matrix: WASTE WATER **Date/Time Received: 10/07/2021 13:20**

Oil and Grease — Analytical Method: EPA 1664 B O&G

	Result	Units	RL	Flag	Dil	Prepared	Analyzed	Analyst
Oil & Grease, Total Recovered	ND	mg/L	2.2		1	10/08/21	10/08/21 13:00	1022

TAL Metals (w/o Hg) — Analytical Method: EPA 200.8 — Preparation Method: E200.8

	Result	Units	RL	Flag	Dil	Prepared	Analyzed	Analyst
Aluminum	**5,970**	ug/L	1,000		10	10/08/21	10/13/21 16:32	1064
Antimony	ND	ug/L	10		2	10/08/21	10/11/21 14:13	1064
Arsenic	**2.5**	ug/L	2.0		2	10/08/21	10/11/21 14:13	1064
Barium	**16.4**	ug/L	2.00		2	10/08/21	10/11/21 14:13	1064
Beryllium	**3.3**	ug/L	2.0		2	10/08/21	10/11/21 14:13	1064
Cadmium	ND	ug/L	2.0		2	10/08/21	10/11/21 14:13	1064
Calcium	**2,540**	ug/L	1,000		10	10/08/21	10/13/21 16:32	1064
Chromium	**17.8**	ug/L	2.00		2	10/08/21	10/11/21 14:13	1064
Cobalt	**5.1**	ug/L	2.0		2	10/08/21	10/11/21 14:13	1064
Copper	**221**	ug/L	2.00		2	10/08/21	10/11/21 14:13	1064
Iron	**218**	ug/L	200		2	10/08/21	10/11/21 14:13	1064
Lead	**4.4**	ug/L	2.0		2	10/08/21	10/11/21 14:13	1064
Magnesium	**558**	ug/L	200		2	10/08/21	10/11/21 14:13	1064
Manganese	**7.5**	ug/L	2.0		2	10/08/21	10/11/21 14:13	1064
Nickel	**5.7**	ug/L	2.0		2	10/08/21	10/11/21 14:13	1064
Potassium	**27,600**	ug/L	1,000		10	10/08/21	10/13/21 16:32	1064
Selenium	**3.4**	ug/L	2.0		2	10/08/21	10/11/21 14:13	1064
Silver	ND	ug/L	2.0		2	10/08/21	10/11/21 14:13	1064
Sodium	**10,600,000**	ug/L	1,000,000		10000	10/08/21	10/14/21 14:05	1064
Thallium	ND	ug/L	2.0		2	10/08/21	10/11/21 14:13	1064
Vanadium	**12.1**	ug/L	2.00		2	10/08/21	10/11/21 14:13	1064
Zinc	**67.3**	ug/L	40.0		2	10/08/21	10/11/21 14:13	1064

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Certificate of Analysis

Project Name: Kop-Flex
PSS Project No.: 21100715

Sample ID: Resin Cleaning Water **Date/Time Sampled: 10/07/2021 12:10** **PSS Sample ID: 21100715-001**
Matrix: WASTE WATER **Date/Time Received: 10/07/2021 13:20**

Mercury, Total — Analytical Method: EPA 245.1

	Result	Units	RL	Flag	Prepared	Analyzed	Analyst
Mercury	**0.7**	ug/L	0.2		10/13/21	10/13/21 14:15	4005

Organochlorine Pesticides — Analytical Method: EPA 608 .3 — Preparation Method: E608.3

	Result	Units	RL	Flag	Dil	Prepared	Analyzed	Analyst
4,4-DDD	ND	mg/L	0.000040		1	10/09/21	10/12/21 09:21	1029
4,4-DDE	ND	mg/L	0.000040		1	10/09/21	10/12/21 09:21	1029
4,4-DDT	ND	mg/L	0.000040		1	10/09/21	10/12/21 09:21	1029
Aldrin	ND	mg/L	0.000040		1	10/09/21	10/12/21 09:21	1029
alpha-BHC	ND	mg/L	0.000040		1	10/09/21	10/12/21 09:21	1029
alpha-Chlordane	ND	mg/L	0.000040		1	10/09/21	10/12/21 09:21	1029
beta-BHC	ND	mg/L	0.000040		1	10/09/21	10/12/21 09:21	1029
Chlordane	ND	mg/L	0.0010		1	10/09/21	10/12/21 09:21	1029
delta-BHC	ND	mg/L	0.000040		1	10/09/21	10/12/21 09:21	1029
Dieldrin	ND	mg/L	0.000040		1	10/09/21	10/12/21 09:21	1029
Endosulfan I	ND	mg/L	0.000040		1	10/09/21	10/12/21 09:21	1029
Endosulfan II	ND	mg/L	0.000040		1	10/09/21	10/12/21 09:21	1029
Endosulfan sulfate	ND	mg/L	0.000040		1	10/09/21	10/12/21 09:21	1029
Endrin	ND	mg/L	0.000040		1	10/09/21	10/12/21 09:21	1029
Endrin aldehyde	ND	mg/L	0.000040		1	10/09/21	10/12/21 09:21	1029
gamma-BHC (Lindane)	ND	mg/L	0.000040		1	10/09/21	10/12/21 09:21	1029
gamma-Chlordane	ND	mg/L	0.000040		1	10/09/21	10/12/21 09:21	1029
Heptachlor	ND	mg/L	0.000040		1	10/09/21	10/12/21 09:21	1029
Heptachlor epoxide	ND	mg/L	0.000040		1	10/09/21	10/12/21 09:21	1029
Toxaphene	ND	mg/L	0.0010		1	10/09/21	10/12/21 09:21	1029

Surrogate(s)	***Recovery***		***Limits***				
Tetrachloro-m-xylene	*76*	*%*	*23-136*		*1*	*10/09/21*	*10/12/21 09:21*	*1029*
Decachlorobiphenyl	*111*	*%*	*60-139*		*1*	*10/09/21*	*10/12/21 09:21*	*1029*

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Certificate of Analysis

Project Name: Kop-Flex
PSS Project No.: 21100715

Sample ID: Resin Cleaning Water **Date/Time Sampled: 10/07/2021 12:10** **PSS Sample ID: 21100715-001**
Matrix: WASTE WATER **Date/Time Received: 10/07/2021 13:20**

Polychlorinated Biphenyls (PCBs) Analytical Method: EPA 608 .3 Preparation Method: E608.3
Clean up Method: SW846 3665A

	Result	Units	RL	Flag	Dil	Prepared	Analyzed	Analyst
PCB-1016	ND	mg/L	0.00050		1	10/09/21	10/11/21 10:01	1029
PCB-1221	ND	mg/L	0.00050		1	10/09/21	10/11/21 10:01	1029
PCB-1232	ND	mg/L	0.00050		1	10/09/21	10/11/21 10:01	1029
PCB-1242	ND	mg/L	0.00050		1	10/09/21	10/11/21 10:01	1029
PCB-1248	ND	mg/L	0.00050		1	10/09/21	10/11/21 10:01	1029
PCB-1254	ND	mg/L	0.00050		1	10/09/21	10/11/21 10:01	1029
PCB-1260	ND	mg/L	0.00050		1	10/09/21	10/11/21 10:01	1029

Surrogate(s)	*Recovery*		*Limits*			
Tetrachloro-m-xylene	*76*	*%*	*23-136*	*1*	*10/09/21*	*10/11/21 10:01*	*1029*
Decachlorobiphenyl	*94*	*%*	*60-139*	*1*	*10/09/21*	*10/11/21 10:01*	*1029*

VOC (Full List) Analytical Method: EPA 624 .1 Preparation Method: E624.1

pH=6

	Result	Units	RL	Flag	Dil	Prepared	Analyzed	Analyst
Acrolein	ND	mg/L	0.0050		1	10/08/21	10/08/21 12:04	1011
Acrylonitrile	ND	mg/L	0.0050		1	10/08/21	10/08/21 12:04	1011
Dichlorodifluoromethane	ND	mg/L	0.0010		1	10/08/21	10/08/21 12:04	1011
Chloromethane	ND	mg/L	0.0010		1	10/08/21	10/08/21 12:04	1011
Vinyl Chloride	ND	mg/L	0.0010		1	10/08/21	10/08/21 12:04	1011
Bromomethane	ND	mg/L	0.0010		1	10/08/21	10/08/21 12:04	1011
Chloroethane	ND	mg/L	0.0010		1	10/08/21	10/08/21 12:04	1011
Trichlorofluoromethane	ND	mg/L	0.0010		1	10/08/21	10/08/21 12:04	1011
2-Chloroethyl Vinyl Ether	ND	mg/L	0.0010		1	10/08/21	10/08/21 12:04	1011
1,1-Dichloroethene	**0.0025**	mg/L	0.0010		1	10/08/21	10/08/21 12:04	1011
Methylene Chloride	ND	mg/L	0.0010		1	10/08/21	10/08/21 12:04	1011
trans-1,2-dichloroethene	ND	mg/L	0.0010		1	10/08/21	10/08/21 12:04	1011
1,1-Dichloroethane	**0.0012**	mg/L	0.0010		1	10/08/21	10/08/21 12:04	1011
Chloroform	ND	mg/L	0.0010		1	10/08/21	10/08/21 12:04	1011
1,1,1-Trichloroethane	ND	mg/L	0.0010		1	10/08/21	10/08/21 12:04	1011
Carbon Tetrachloride	ND	mg/L	0.0010		1	10/08/21	10/08/21 12:04	1011
Benzene	ND	mg/L	0.0010		1	10/08/21	10/08/21 12:04	1011
1,2-Dichloroethane	ND	mg/L	0.0010		1	10/08/21	10/08/21 12:04	1011
Trichloroethene	ND	mg/L	0.0010		1	10/08/21	10/08/21 12:04	1011
1,2-Dichloropropane	ND	mg/L	0.0010		1	10/08/21	10/08/21 12:04	1011

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Certificate of Analysis

Project Name: Kop-Flex
PSS Project No.: 21100715

Sample ID: Resin Cleaning Water **Date/Time Sampled: 10/07/2021 12:10** **PSS Sample ID: 21100715-001**
Matrix: WASTE WATER **Date/Time Received: 10/07/2021 13:20**

VOC (Full List) Analytical Method: EPA 624 .1 Preparation Method: E624.1

pH=6

	Result	Units	RL	Flag	Dil	Prepared	Analyzed	Analyst
Bromodichloromethane	ND	mg/L	0.0010		1	10/08/21	10/08/21 12:04	1011
cis-1,3-Dichloropropene	ND	mg/L	0.0010		1	10/08/21	10/08/21 12:04	1011
Toluene	ND	mg/L	0.0010		1	10/08/21	10/08/21 12:04	1011
trans-1,3-dichloropropene	ND	mg/L	0.0010		1	10/08/21	10/08/21 12:04	1011
1,1,2-Trichloroethane	ND	mg/L	0.0010		1	10/08/21	10/08/21 12:04	1011
Tetrachloroethylene	ND	mg/L	0.0010		1	10/08/21	10/08/21 12:04	1011
Dibromochloromethane	ND	mg/L	0.0010		1	10/08/21	10/08/21 12:04	1011
Chlorobenzene	ND	mg/L	0.0010		1	10/08/21	10/08/21 12:04	1011
Ethylbenzene	ND	mg/L	0.0010		1	10/08/21	10/08/21 12:04	1011
Bromoform	ND	mg/L	0.0010		1	10/08/21	10/08/21 12:04	1011
1,1,2,2-Tetrachloroethane	ND	mg/L	0.0010		1	10/08/21	10/08/21 12:04	1011
1,3-Dichlorobenzene	ND	mg/L	0.0010		1	10/08/21	10/08/21 12:04	1011
1,4-Dichlorobenzene	ND	mg/L	0.0010		1	10/08/21	10/08/21 12:04	1011
1,2-Dichlorobenzene	ND	mg/L	0.0010		1	10/08/21	10/08/21 12:04	1011

Surrogate(s)	***Recovery***		***Limits***					
Dibromofluoromethane	*106*	*%*	*87-120*		*1*	*10/08/21*	*10/08/21 12:04*	*1011*
4-Bromofluorobenzene	*84*	*%*	*85-147*	*	*1*	*10/08/21*	*10/08/21 12:04*	*1011*
Toluene-D8	*100*	*%*	*88-110*		*1*	*10/08/21*	*10/08/21 12:04*	*1011*

Extractable Priority Pollutants Analytical Method: EPA 625 .1 Preparation Method: E625.1

Qualifier(s): See Batch 188373 on Case Narrative.

	Result	Units	RL	Flag	Dil	Prepared	Analyzed	Analyst
1,2,4-Trichlorobenzene	ND	mg/L	0.0010		1	10/11/21	10/11/21 17:35	1059
1,2-Diphenylhydrazine	ND	mg/L	0.0050		1	10/11/21	10/11/21 17:35	1059
2,4,6-Trichlorophenol	ND	mg/L	0.0010		1	10/11/21	10/11/21 17:35	1059
2,4-Dichlorophenol	ND	mg/L	0.0010		1	10/11/21	10/11/21 17:35	1059
2,4-Dimethylphenol	ND	mg/L	0.0010		1	10/11/21	10/11/21 17:35	1059
2,4-Dinitrophenol	ND	mg/L	0.0050		1	10/11/21	10/11/21 17:35	1059
2,4-Dinitrotoluene	ND	mg/L	0.0020		1	10/11/21	10/11/21 17:35	1059
2,6-Dinitrotoluene	ND	mg/L	0.0020		1	10/11/21	10/11/21 17:35	1059
2-Chloronaphthalene	ND	mg/L	0.0010		1	10/11/21	10/11/21 17:35	1059
2-Chlorophenol	ND	mg/L	0.0010		1	10/11/21	10/11/21 17:35	1059
2-Nitrophenol	ND	mg/L	0.0010		1	10/11/21	10/11/21 17:35	1059
3,3-Dichlorobenzidine	ND	mg/L	0.0010		1	10/11/21	10/11/21 17:35	1059

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Certificate of Analysis

Project Name: Kop-Flex
PSS Project No.: 21100715

Sample ID: Resin Cleaning Water **Date/Time Sampled: 10/07/2021 12:10** **PSS Sample ID: 21100715-001**
Matrix: WASTE WATER **Date/Time Received: 10/07/2021 13:20**

Extractable Priority Pollutants Analytical Method: EPA 625 .1 Preparation Method: E625.1

Qualifier(s): See Batch 188373 on Case Narrative.

	Result	Units	RL	Flag	Dil	Prepared	Analyzed	Analyst
4,6-Dinitro-2-methyl phenol	ND	mg/L	0.0050		1	10/11/21	10/11/21 17:35	1059
4-Bromophenylphenyl ether	ND	mg/L	0.0010		1	10/11/21	10/11/21 17:35	1059
4-Chloro-3-methyl phenol	ND	mg/L	0.0010		1	10/11/21	10/11/21 17:35	1059
4-Chlorophenyl Phenyl ether	ND	mg/L	0.0010		1	10/11/21	10/11/21 17:35	1059
4-Nitrophenol	ND	mg/L	0.0050		1	10/11/21	10/11/21 17:35	1059
Acenaphthene	ND	mg/L	0.00025		1	10/11/21	10/11/21 17:35	1059
Acenaphthylene	ND	mg/L	0.00025		1	10/11/21	10/11/21 17:35	1059
Anthracene	ND	mg/L	0.00025		1	10/11/21	10/11/21 17:35	1059
Benzidine	ND	mg/L	0.0050		1	10/11/21	10/11/21 17:35	1059
Benzo(a)anthracene	ND	mg/L	0.00025		1	10/11/21	10/11/21 17:35	1059
Benzo(a)pyrene	ND	mg/L	0.00025		1	10/11/21	10/11/21 17:35	1059
Benzo(b)fluoranthene	ND	mg/L	0.00025		1	10/11/21	10/11/21 17:35	1059
Benzo(g,h,i)perylene	ND	mg/L	0.00025		1	10/11/21	10/11/21 17:35	1059
Benzo(k)fluoranthene	ND	mg/L	0.00025		1	10/11/21	10/11/21 17:35	1059
Butyl benzyl phthalate	ND	mg/L	0.0010		1	10/11/21	10/11/21 17:35	1059
bis(2-chloroethoxy) methane	ND	mg/L	0.0010		1	10/11/21	10/11/21 17:35	1059
bis(2-chloroethyl) ether	ND	mg/L	0.0010		1	10/11/21	10/11/21 17:35	1059
bis(2-chloroisopropyl) ether	ND	mg/L	0.0010		1	10/11/21	10/11/21 17:35	1059
bis(2-ethylhexyl) phthalate	ND	mg/L	0.0010		1	10/11/21	10/11/21 17:35	1059
Chrysene	ND	mg/L	0.00025		1	10/11/21	10/11/21 17:35	1059
Dibenz(a,h)Anthracene	ND	mg/L	0.00025		1	10/11/21	10/11/21 17:35	1059
Diethyl phthalate	ND	mg/L	0.0010		1	10/11/21	10/11/21 17:35	1059
Dimethyl phthalate	ND	mg/L	0.0010		1	10/11/21	10/11/21 17:35	1059
Di-n-butyl phthalate	ND	mg/L	0.0010		1	10/11/21	10/11/21 17:35	1059
Di-n-octyl phthalate	ND	mg/L	0.0020		1	10/11/21	10/11/21 17:35	1059
Fluoranthene	ND	mg/L	0.00025		1	10/11/21	10/11/21 17:35	1059
Fluorene	ND	mg/L	0.00025		1	10/11/21	10/11/21 17:35	1059
Hexachlorobenzene	ND	mg/L	0.0010		1	10/11/21	10/11/21 17:35	1059
Hexachlorobutadiene	ND	mg/L	0.0010		1	10/11/21	10/11/21 17:35	1059
Hexachlorocyclopentadiene	ND	mg/L	0.0020		1	10/11/21	10/11/21 17:35	1059
Hexachloroethane	ND	mg/L	0.0010		1	10/11/21	10/11/21 17:35	1059
Indeno(1,2,3-c,d)Pyrene	ND	mg/L	0.00025		1	10/11/21	10/11/21 17:35	1059
Isophorone	ND	mg/L	0.0010		1	10/11/21	10/11/21 17:35	1059
Naphthalene	ND	mg/L	0.00025		1	10/11/21	10/11/21 17:35	1059
Nitrobenzene	ND	mg/L	0.0010		1	10/11/21	10/11/21 17:35	1059

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Certificate of Analysis

Project Name: Kop-Flex
PSS Project No.: 21100715

Sample ID: Resin Cleaning Water **Date/Time Sampled: 10/07/2021 12:10** **PSS Sample ID: 21100715-001**
Matrix: WASTE WATER **Date/Time Received: 10/07/2021 13:20**

Extractable Priority Pollutants — Analytical Method: EPA 625 .1 — Preparation Method: E625.1

Qualifier(s): See Batch 188373 on Case Narrative.

	Result	Units	RL	Flag	Dil	Prepared	Analyzed	Analyst
N-Nitrosodimethylamine	ND	mg/L	0.0010		1	10/11/21	10/11/21 17:35	1059
N-Nitrosodi-n-propyl amine	ND	mg/L	0.0010		1	10/11/21	10/11/21 17:35	1059
N-Nitrosodiphenylamine	ND	mg/L	0.0010		1	10/11/21	10/11/21 17:35	1059
Pentachlorophenol	ND	mg/L	0.0020		1	10/11/21	10/11/21 17:35	1059
Phenanthrene	ND	mg/L	0.00025		1	10/11/21	10/11/21 17:35	1059
Phenol	ND	mg/L	0.0010		1	10/11/21	10/11/21 17:35	1059
Pyrene	ND	mg/L	0.00025		1	10/11/21	10/11/21 17:35	1059

Surrogate(s)	*Recovery*		*Limits*			
2-Fluorobiphenyl	*69*	*%*	*42-141*	*1*	*10/11/21*	*10/11/21 17:35*	*1059*
2-Fluorophenol	*64*	*%*	*35-131*	*1*	*10/11/21*	*10/11/21 17:35*	*1059*
Nitrobenzene-d5	*71*	*%*	*40-139*	*1*	*10/11/21*	*10/11/21 17:35*	*1059*
2,4,6-Tribromophenol	*79*	*%*	*35-156*	*1*	*10/11/21*	*10/11/21 17:35*	*1059*
Phenol-d6	*70*	*%*	*33-140*	*1*	*10/11/21*	*10/11/21 17:35*	*1059*
Terphenyl-D14	*88*	*%*	*54-138*	*1*	*10/11/21*	*10/11/21 17:35*	*1059*

Total Suspended Solids — Analytical Method: SM 2540D -2011

	Result	Units	RL	Flag	Dil	Prepared	Analyzed	Analyst
Suspended Solids	**28**	mg/L	6.1		1	10/07/21	10/07/21 14:30	1034

Total Cyanide — Analytical Method: SM 4500-CN C,E -2011 — Preparation Method: SM4500CN-C

	Result	Units	RL	Flag	Dil	Prepared	Analyzed	Analyst
Cyanide, Total	ND	mg/L	0.010		1	10/12/21	10/12/21 15:05	1053

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Certificate of Analysis

Project Name: Kop-Flex
PSS Project No.: 21100715

Sample ID: Resin Cleaning Water **Date/Time Sampled: 10/07/2021 12:10** **PSS Sample ID: 21100715-001**
Matrix: WASTE WATER **Date/Time Received: 10/07/2021 13:20**

Biochemical Oxygen Demand — Analytical Method: SM 5210B -2011

Start time: 07-Oct-21 17:10

	Result	Units	RL	Flag	Prepared	Analyzed	Analyst
Biochemical Oxygen Demand, 5 day	**46.8**	mg/L	20.0		10/12/21	10/12/21 16:00	4005

Chemical Oxygen Demand — Analytical Method: SM 5220D -2011

Qualifier(s): See Batch 188393 on Case Narrative.

	Result	Units	RL	Flag	Dil	Prepared	Analyzed	Analyst
Chemical Oxygen Demand	**850**	mg/L	200		10	10/12/21	10/12/21 16:22	1053

Flash Point — Analytical Method: SW-846 1020 A

	Result	Units	RL	Flag	Dil	Prepared	Analyzed	Analyst
Flash Point	**> 200**	Deg F	70.0		1	10/07/21	10/07/21 14:45	1022

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Certificate of Analysis

Project Name: Kop-Flex
PSS Project No.: 21100715

Sample ID: TB-100721-RCW **Date/Time Sampled: 10/07/2021 13:20** **PSS Sample ID: 21100715-002**
Matrix: WATER **Date/Time Received: 10/07/2021 13:20**

VOC (Full List) Analytical Method: EPA 624 .1 Preparation Method: E624.1

pH=2

	Result	Units	RL	Flag	Dil	Prepared	Analyzed	Analyst
Acrolein	ND	mg/L	0.0050		1	10/08/21	10/08/21 12:49	1011
Acrylonitrile	ND	mg/L	0.0050		1	10/08/21	10/08/21 12:49	1011
Dichlorodifluoromethane	ND	mg/L	0.0010		1	10/08/21	10/08/21 12:49	1011
Chloromethane	ND	mg/L	0.0010		1	10/08/21	10/08/21 12:49	1011
Vinyl Chloride	ND	mg/L	0.0010		1	10/08/21	10/08/21 12:49	1011
Bromomethane	ND	mg/L	0.0010		1	10/08/21	10/08/21 12:49	1011
Chloroethane	ND	mg/L	0.0010		1	10/08/21	10/08/21 12:49	1011
Trichlorofluoromethane	ND	mg/L	0.0010		1	10/08/21	10/08/21 12:49	1011
2-Chloroethyl Vinyl Ether	ND	mg/L	0.0010		1	10/08/21	10/08/21 12:49	1011
1,1-Dichloroethene	ND	mg/L	0.0010		1	10/08/21	10/08/21 12:49	1011
Methylene Chloride	ND	mg/L	0.0010		1	10/08/21	10/08/21 12:49	1011
trans-1,2-dichloroethene	ND	mg/L	0.0010		1	10/08/21	10/08/21 12:49	1011
1,1-Dichloroethane	ND	mg/L	0.0010		1	10/08/21	10/08/21 12:49	1011
Chloroform	ND	mg/L	0.0010		1	10/08/21	10/08/21 12:49	1011
1,1,1-Trichloroethane	ND	mg/L	0.0010		1	10/08/21	10/08/21 12:49	1011
Carbon Tetrachloride	ND	mg/L	0.0010		1	10/08/21	10/08/21 12:49	1011
Benzene	ND	mg/L	0.0010		1	10/08/21	10/08/21 12:49	1011
1,2-Dichloroethane	ND	mg/L	0.0010		1	10/08/21	10/08/21 12:49	1011
Trichloroethene	ND	mg/L	0.0010		1	10/08/21	10/08/21 12:49	1011
1,2-Dichloropropane	ND	mg/L	0.0010		1	10/08/21	10/08/21 12:49	1011
Bromodichloromethane	ND	mg/L	0.0010		1	10/08/21	10/08/21 12:49	1011
cis-1,3-Dichloropropene	ND	mg/L	0.0010		1	10/08/21	10/08/21 12:49	1011
Toluene	ND	mg/L	0.0010		1	10/08/21	10/08/21 12:49	1011
trans-1,3-dichloropropene	ND	mg/L	0.0010		1	10/08/21	10/08/21 12:49	1011
1,1,2-Trichloroethane	ND	mg/L	0.0010		1	10/08/21	10/08/21 12:49	1011
Tetrachloroethylene	ND	mg/L	0.0010		1	10/08/21	10/08/21 12:49	1011
Dibromochloromethane	ND	mg/L	0.0010		1	10/08/21	10/08/21 12:49	1011
Chlorobenzene	ND	mg/L	0.0010		1	10/08/21	10/08/21 12:49	1011
Ethylbenzene	ND	mg/L	0.0010		1	10/08/21	10/08/21 12:49	1011
Bromoform	ND	mg/L	0.0010		1	10/08/21	10/08/21 12:49	1011
1,1,2,2-Tetrachloroethane	ND	mg/L	0.0010		1	10/08/21	10/08/21 12:49	1011
1,3-Dichlorobenzene	ND	mg/L	0.0010		1	10/08/21	10/08/21 12:49	1011
1,4-Dichlorobenzene	ND	mg/L	0.0010		1	10/08/21	10/08/21 12:49	1011
1,2-Dichlorobenzene	ND	mg/L	0.0010		1	10/08/21	10/08/21 12:49	1011

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Certificate of Analysis

Project Name: Kop-Flex
PSS Project No.: 21100715

Sample ID: TB-100721-RCW **Date/Time Sampled: 10/07/2021 13:20** **PSS Sample ID: 21100715-002**
Matrix: WATER **Date/Time Received: 10/07/2021 13:20**

VOC (Full List) Analytical Method: EPA 624 .1 Preparation Method: E624.1

pH=2

Surrogate(s)	Recovery		Limits				
Dibromofluoromethane	*107*	*%*	*87-120*	*1*	*10/08/21*	*10/08/21 12:49*	*1011*
4-Bromofluorobenzene	*86*	*%*	*85-147*	*1*	*10/08/21*	*10/08/21 12:49*	*1011*
Toluene-D8	*100*	*%*	*88-110*	*1*	*10/08/21*	*10/08/21 12:49*	*1011*

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Project Name: Kop-Flex

PSS Project No.: 21100715

Any holding time exceedances, deviations from the method specifications, regulatory requirements or variations to the procedures outlined in the PSS Quality Assurance Manual are outlined below.

Matrix spike and matrix spike duplicate analyses may not be performed due to insufficient sample quantity. In these instances, a laboratory control sample and laboratory control sample duplicate are analyzed unless otherwise noted or specified in the method.

Sample Receipt:

Preservative not indicated on COC for metals, cyanide, COD, oil and grease, and VOC. Received containers preserved with HNO3, NaOH, H2SO4, and a 624 kit with two unpreserved vials and one preserved iwh HCl.

21100715: Analyses associated with analyst code 4005 were performed by
Enviro-Chem Laboratories, Inc., 47 Loveton Circle, Suite K, Sparks, MD 21152

Analytical:

Total Metals

Batch: 188363

Sample 001 was run at 2x dilution due to sample matrix interference on internal standards.

Method exceedance: Continuing Calibration Verification (CCV) #2 falls outside of acceptance limits (85% - 115%) for iron at 126% recovery. See QC summary form.

Analytical:

Extractable Priority Pollutants

Batch: 188373

Method exceedance: Laboratory control sample/laboratory control sample duplicate (LCS/LCSD) exceedances identified; see QC summary.

Analytical:

Chemical Oxygen Demand

Batch: 188393

Relative Percent Difference (RPD) for matrix spike/matrix spike duplicate (MS/MSD) exceedance identified; see QC summary.

NELAP accreditation was held for all analyses performed unless noted below. See www.phaseonline.com for complete PSS scope of accreditation.

EPA 245.1, SM 5210B -2011

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Lab Chronology

Project Name: Kop-Flex
PSS Project No.: 21100715

Method	Client Sample ID	Analysis Type	PSS Sample ID	Mtx	Prep Batch	Analytical Batch	Prepared	Analyzed
EPA 1664 B O&G	Resin Cleaning Water	Initial	21100715-001	W	188293	188293	10/08/2021 13:00	10/08/2021 13:00
	188293-1-BKS	BKS	188293-1-BKS	W	188293	188293	10/08/2021 13:00	10/08/2021 13:00
	188293-1-BLK	BLK	188293-1-BLK	W	188293	188293	10/08/2021 13:00	10/08/2021 13:00
	188293-1-BSD	BSD	188293-1-BSD	W	188293	188293	10/08/2021 13:00	10/08/2021 13:00
	MP401 S	MS	21100731-002 S	W	188293	188293	10/08/2021 13:00	10/08/2021 13:00
EPA 200.8	87988-1-BKS	BKS	87988-1-BKS	W	87988	188329	10/08/2021 08:29	10/08/2021 15:23
	87988-1-BLK	BLK	87988-1-BLK	W	87988	188329	10/08/2021 08:29	10/08/2021 15:19
	King St 100421 S	MS	21100603-001 S	W	87988	188329	10/08/2021 08:29	10/08/2021 15:33
	RW-08-10072021 S	MS	21100722-008 S	W	87988	188329	10/08/2021 08:29	10/08/2021 17:40
	King St 100421 SD	MSD	21100603-001 S	W	87988	188329	10/08/2021 08:29	10/08/2021 15:37
	87988-1-BKS	Reanalysis	87988-1-BKS	W	87988	188363	10/08/2021 08:29	10/11/2021 13:45
	87988-1-BLK	Reanalysis	87988-1-BLK	W	87988	188363	10/08/2021 08:29	10/11/2021 13:40
	Resin Cleaning Water	Reanalysis	21100715-001	W	87988	188363	10/08/2021 08:29	10/11/2021 14:13
	Resin Cleaning Water	Reanalysis	21100715-001	W	87988	188445	10/08/2021 08:29	10/13/2021 16:32
	Resin Cleaning Water	Reanalysis	21100715-001	W	87988	188453	10/08/2021 08:29	10/14/2021 14:05
EPA 245.1	Resin Cleaning Water	Initial	21100715-001	W	188434	188434	10/13/2021 14:15	10/13/2021 14:15
EPA 608 .3	Resin Cleaning Water	Initial	21100715-001	W	87999	188387	10/09/2021 11:43	10/11/2021 10:01
	87999-1-BKS	BKS	87999-1-BKS	W	87999	188387	10/09/2021 11:43	10/11/2021 09:05
	87999-1-BLK	BLK	87999-1-BLK	W	87999	188387	10/09/2021 11:43	10/11/2021 08:36
	87999-1-BSD	BSD	87999-1-BSD	W	87999	188387	10/09/2021 11:43	10/11/2021 09:33
EPA 608 .3	Resin Cleaning Water	Initial	21100715-001	W	87998	188389	10/09/2021 11:43	10/12/2021 09:21
	87998-1-BKS	BKS	87998-1-BKS	W	87998	188389	10/09/2021 11:43	10/12/2021 08:52
	87998-1-BLK	BLK	87998-1-BLK	W	87998	188389	10/09/2021 11:43	10/12/2021 08:37
	87998-1-BSD	BSD	87998-1-BSD	W	87998	188389	10/09/2021 11:43	10/12/2021 09:06
EPA 624 .1	Resin Cleaning Water	Initial	21100715-001	W	88004	188319	10/08/2021 08:34	10/08/2021 12:04
	TB-100721-RCW	Initial	21100715-002	W	88004	188319	10/08/2021 08:34	10/08/2021 12:49
	88004-1-BKS	BKS	88004-1-BKS	W	88004	188319	10/08/2021 08:34	10/08/2021 09:40
	88004-1-BLK	BLK	88004-1-BLK	W	88004	188319	10/08/2021 08:34	10/08/2021 11:19
	King St 100421 S	MS	21100603-001 S	W	88004	188319	10/08/2021 08:34	10/08/2021 14:43
	King St 100421 SD	MSD	21100603-001 S	W	88004	188319	10/08/2021 08:34	10/08/2021 15:06
EPA 625 .1	Resin Cleaning Water	Initial	21100715-001	W	88010	188373	10/11/2021 10:19	10/11/2021 17:35
	88010-1-BKS	BKS	88010-1-BKS	W	88010	188373	10/11/2021 10:19	10/11/2021 15:48
	88010-1-BLK	BLK	88010-1-BLK	W	88010	188373	10/11/2021 10:19	10/11/2021 14:55
	88010-1-BSD	BSD	88010-1-BSD	W	88010	188373	10/11/2021 10:19	10/11/2021 16:15
SM 2540D -2011	Resin Cleaning Water	Initial	21100715-001	W	188272	188272	10/07/2021 14:30	10/07/2021 14:30
	188272-1-BKS	BKS	188272-1-BKS	W	188272	188272	10/07/2021 14:30	10/07/2021 14:30
	188272-1-BLK	BLK	188272-1-BLK	W	188272	188272	10/07/2021 14:30	10/07/2021 14:30
	801 Monthly D	MD	21100704-001 D	W	188272	188272	10/07/2021 14:30	10/07/2021 14:30
SM 4500-CN C,E -2011	Resin Cleaning Water	Initial	21100715-001	W	88030	188380	10/12/2021 12:14	10/12/2021 15:05
	88030-1-BKS	BKS	88030-1-BKS	W	88030	188380	10/12/2021 13:02	10/12/2021 14:51
	88030-1-BLK	BLK	88030-1-BLK	W	88030	188380	10/12/2021 13:02	10/12/2021 14:49
	88030-1-BSD	BSD	88030-1-BSD	W	88030	188380	10/12/2021 12:14	10/12/2021 14:53

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Lab Chronology

Project Name: Kop-Flex
PSS Project No.: 21100715

Method	Client Sample ID	Analysis Type	PSS Sample ID	Mtx	Prep Batch	Analytical Batch	Prepared	Analyzed
SM 4500-CN C,E -2011	20211006g1&g2 S	MS	21100709-001 S	W	88030	188380	10/12/2021 12:14	10/12/2021 15:01
	20211006g1&g2 SD	MSD	21100709-001 S	W	88030	188380	10/12/2021 12:14	10/12/2021 15:03
SM 5210B -2011	Resin Cleaning Water	Initial	21100715-001	W	188433	188433	10/12/2021 16:00	10/12/2021 16:00
SM 5220D -2011	Resin Cleaning Water	Initial	21100715-001	W	188393	188393	10/12/2021 16:22	10/12/2021 16:22
	188393-1-BKS	BKS	188393-1-BKS	W	188393	188393	10/12/2021 16:22	10/12/2021 16:22
	188393-1-BLK	BLK	188393-1-BLK	W	188393	188393	10/12/2021 16:22	10/12/2021 16:22
	Resin Cleaning Water S	MS	21100715-001 S	W	188393	188393	10/12/2021 16:22	10/12/2021 16:22
	Resin Cleaning Water SD	MSD	21100715-001 S	W	188393	188393	10/12/2021 16:22	10/12/2021 16:22
SW-846 1020 A	Resin Cleaning Water	Initial	21100715-001	W	188275	188275	10/07/2021 14:45	10/07/2021 14:45
	188275-1-BKS	BKS	188275-1-BKS	W	188275	188275	10/07/2021 14:39	10/07/2021 14:39
	Resin Cleaning Water D	MD	21100715-001 D	W	188275	188275	10/07/2021 14:45	10/07/2021 14:45

Analytical Method: EPA 1664 B O&G

Seq Number: 188293 Matrix: Water
MB Sample Id: 188293-1-BLK LCS Sample Id: 188293-1-BKS LCSD Sample Id: 188293-1-BSD

Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	LCSD Result	LCSD %Rec	Limits	%RPD	RPD Limit	Units	Flag
Oil & Grease, Total Recovered	<2.000	40.00	38.50	96	38.60	97	78-114	1	11	mg/L	

Analytical Method: SM 2540D -2011

Seq Number: 188272 Matrix: Water
MB Sample Id: 188272-1-BLK LCS Sample Id: 188272-1-BKS

Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	Limits	Units	Flag
Suspended Solids	<1.000	110	105.6	96	80-120	mg/L	

Analytical Method: SM 4500-CN C,E -2011 Prep Method: SM4500CN-CPRE

Seq Number: 188380 Matrix: Water Date Prep: 10/12/21
MB Sample Id: 88030-1-BLK LCS Sample Id: 88030-1-BKS LCSD Sample Id: 88030-1-BSD

Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	LCSD Result	LCSD %Rec	Limits	%RPD	RPD Limit	Units	Flag
Cyanide, Total	<0.01000	0.1000	0.09558	96	0.09383	94	85-115	2	20	mg/L	

Analytical Method: SM 5220D -2011

Seq Number: 188393 Matrix: Water
MB Sample Id: 188393-1-BLK LCS Sample Id: 188393-1-BKS

Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	Limits	Units	Flag
Chemical Oxygen Demand	<20.00	483.5	514.4	106	80-120	mg/L	

Analytical Method: SM 5220D -2011

Seq Number: 188393 Matrix: Waste Water
Parent Sample Id: 21100715-001 MS Sample Id: 21100715-001 S MSD Sample Id: 21100715-001 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Flag
Chemical Oxygen Demand	852	483.5	1381	109	1273	87	83-149	22	20	mg/L	F

Analytical Method: SW-846 1020 A

Seq Number: 188275 Matrix: Waste Water
Parent Sample Id: 21100715-001 MD Sample Id: 21100715-001 D

Parameter	Parent Result	MD Result	%RPD	RPD Limit	Units	Flag
Flash Point	205	205	0	25	Deg F	

Analytical Method: EPA 200.8 Prep Method: E200.8_PREP
Seq Number: 188329 Matrix: Water Date Prep: 10/08/21
MB Sample Id: 87988-1-BLK LCS Sample Id: 87988-1-BKS

Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	Limits	Units	Flag
Aluminum	<100	200	201.8	101	85-115	ug/L	
Antimony	<5.000	40.00	40.12	100	85-115	ug/L	
Arsenic	<1.000	40.00	39.71	99	85-115	ug/L	
Barium	<1.000	40.00	38.85	97	85-115	ug/L	
Beryllium	<1.000	40.00	42.77	107	85-115	ug/L	
Cadmium	<1.000	40.00	40.32	101	85-115	ug/L	
Chromium	<1.000	40.00	40.42	101	85-115	ug/L	
Cobalt	<1.000	40.00	40.75	102	85-115	ug/L	
Copper	<1.000	40.00	40.66	102	85-115	ug/L	
Lead	<1.000	40.00	38.69	97	85-115	ug/L	
Magnesium	<100	400	399.9	100	85-115	ug/L	
Manganese	<1.000	40.00	41.22	103	85-115	ug/L	
Nickel	<1.000	40.00	39.60	99	85-115	ug/L	
Potassium	<100	400	391.4	98	85-115	ug/L	
Selenium	<1.000	40.00	37.70	94	85-115	ug/L	
Silver	<1.000	40.00	41.38	103	85-115	ug/L	
Sodium	<100	400	422.5	106	85-115	ug/L	
Thallium	<1.000	40.00	40.44	101	85-115	ug/L	
Vanadium	<1.000	40.00	40.08	100	85-115	ug/L	
Zinc	<20.00	200	202.6	101	85-115	ug/L	

Analytical Method: EPA 200.8 Prep Method: E200.8_PREP
Seq Number: 188363 Matrix: Water Date Prep: 10/08/21
MB Sample Id: 87988-1-BLK LCS Sample Id: 87988-1-BKS

Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	Limits	Units	Flag
Calcium	<100	400	448.5	112	85-115	ug/L	
Iron	<100	400	456	114	85-115	ug/L	

Analytical Method: EPA 608 .3 Prep Method: E608P
Seq Number: 188387 Matrix: Water Date Prep: 10/09/21
MB Sample Id: 87999-1-BLK LCS Sample Id: 87999-1-BKS LCSD Sample Id: 87999-1-BSD

Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	LCSD Result	LCSD %Rec	Limits	%RPD	RPD Limit	Units	Flag
PCB-1016	<0.0005	0.005000	0.004692	94	0.004783	96	50-140	2	20	mg/L	
PCB-1260	<0.0005	0.005000	0.005338	107	0.005404	108	8-140	1	20	mg/L	

Surrogate	MB %Rec	MB Flag	LCS Result	LCS Flag	LCSD Result	LCSD Flag	Limits	Units
Decachlorobiphenyl	68		98		98		60-139	%
Tetrachloro-m-xylene	91		100		102		23-136	%

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QC Summary

Project Name Kop-Flex
PSS Project No.: 21100715

Analytical Method: EPA 608 .3 Prep Method: E608P
Seq Number: 188389 Matrix: Water Date Prep: 10/09/21
MB Sample Id: 87998-1-BLK LCS Sample Id: 87998-1-BKS LCSD Sample Id: 87998-1-BSD

Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	LCSD Result	LCSD %Rec	Limits	%RPD	RPD Limit	Units	Flag
4,4-DDD	<0.00004	0.0002	0.0002043	102	0.000201	101	31-141	1	20	mg/L	
4,4-DDE	<0.00004	0.0002	0.0002156	108	0.0002121	106	30-145	2	20	mg/L	
4,4-DDT	<0.00004	0.0002	0.0002311	116	0.0002274	114	25-160	2	20	mg/L	
Aldrin	<0.00004	0.0002	0.000201	101	0.000196	98	42-140	3	20	mg/L	
alpha-BHC	<0.00004	0.0002	0.0002055	103	0.0002012	101	37-140	2	20	mg/L	
alpha-Chlordane	<0.00004	0.0002	0.000197	99	0.0001916	96	45-140	3	20	mg/L	
beta-BHC	<0.00004	0.0002	0.0001957	98	0.0001926	96	17-147	2	20	mg/L	
delta-BHC	<0.00004	0.0002	0.0002139	107	0.0002083	104	19-140	3	20	mg/L	
Dieldrin	<0.00004	0.0002	0.0002146	107	0.0002104	105	36-146	2	20	mg/L	
Endosulfan I	<0.00004	0.0002	0.0002102	105	0.0002054	103	45-153	2	20	mg/L	
Endosulfan II	<0.00004	0.0002	0.0002139	107	0.0002124	106	1-202	1	20	mg/L	
Endosulfan sulfate	<0.00004	0.0002	0.0002121	106	0.0002092	105	26-144	1	20	mg/L	
Endrin	<0.00004	0.0002	0.0002198	110	0.0002166	108	30-147	2	20	mg/L	
Endrin aldehyde	<0.00004	0.0002	0.0002009	100	0.0001967	98	62-140	2	20	mg/L	
gamma-BHC (Lindane)	<0.00004	0.0002	0.0002063	103	0.0002024	101	32-140	2	20	mg/L	
gamma-Chlordane	<0.00004	0.0002	0.0001996	100	0.0001948	97	45-140	3	20	mg/L	
Heptachlor	<0.00004	0.0002	0.0002157	108	0.0002035	102	34-140	6	20	mg/L	
Heptachlor epoxide	<0.00004	0.0002	0.0002084	104	0.0002045	102	37-142	2	20	mg/L	

Surrogate	MB %Rec	MB Flag	LCS Result	LCS Flag	LCSD Result	LCSD Flag	Limits	Units
Decachlorobiphenyl	102		85		86		60-139	%
Tetrachloro-m-xylene	89		98		93		23-136	%

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QC Summary

Project Name Kop-Flex
PSS Project No.: 21100715

Analytical Method: EPA 625 .1 Prep Method: E625P
Seq Number: 188373 Matrix: Water Date Prep: 10/11/21
MB Sample Id: 88010-1-BLK LCS Sample Id: 88010-1-BKS LCSD Sample Id: 88010-1-BSD

Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	LCSD Result	LCSD %Rec	Limits	%RPD	RPD Limit	Units	Flag
1,2,4-Trichlorobenzene	<0.001000	0.04000	0.03324	83	0.03211	80	57-130	4	20	mg/L	
1,2-Diphenylhydrazine	<0.005000	0.04000	0.04634	116	0.04583	115	67-122	1	20	mg/L	
2,4,6-Trichlorophenol	<0.001000	0.04000	0.03637	91	0.03526	88	61-122	3	20	mg/L	
2,4-Dichlorophenol	<0.001000	0.04000	0.03422	86	0.03357	84	53-122	2	20	mg/L	
2,4-Dimethylphenol	<0.001000	0.04000	0.03335	83	0.03235	81	42-120	2	20	mg/L	
2,4-Dinitrophenol	<0.005000	0.04000	0.02881	72	0.03098	77	1-173	7	20	mg/L	
2,4-Dinitrotoluene	<0.002000	0.04000	0.03306	83	0.03280	82	48-127	1	20	mg/L	
2,6-Dinitrotoluene	<0.002000	0.04000	0.03043	76	0.02934	73	68-137	4	20	mg/L	
2-Chloronaphthalene	<0.001000	0.04000	0.03772	94	0.03682	92	65-120	2	20	mg/L	
2-Chlorophenol	<0.001000	0.04000	0.03553	89	0.03436	86	36-120	3	20	mg/L	
2-Nitrophenol	<0.001000	0.04000	0.03055	76	0.02968	74	45-167	3	20	mg/L	
3,3-Dichlorobenzidine	<0.001000	0.04000	0.04524	113	0.04677	117	8-213	3	20	mg/L	
4,6-Dinitro-2-methyl phenol	<0.005000	0.04000	0.03803	95	0.03953	99	53-130	4	20	mg/L	
4-Bromophenylphenyl ether	<0.001000	0.04000	0.03773	94	0.03693	92	65-120	2	20	mg/L	
4-Chloro-3-methyl phenol	<0.001000	0.04000	0.04473	112	0.04311	108	41-128	4	20	mg/L	
4-Chlorophenyl Phenyl ether	<0.001000	0.04000	0.04397	110	0.04173	104	38-145	6	20	mg/L	
4-Nitrophenol	<0.005000	0.04000	0.04955	124	0.04789	120	13-129	3	20	mg/L	
Acenaphthene	<0.00025	0.04000	0.03711	93	0.03625	91	60-132	2	20	mg/L	
Acenaphthylene	<0.00025	0.04000	0.03573	89	0.03472	87	54-126	2	20	mg/L	
Anthracene	<0.00025	0.04000	0.03661	92	0.03582	90	43-120	2	20	mg/L	
Benzidine	<0.005000	0.04000	0.03072	77	0.03370	84	15-183	9	20	mg/L	
Benzo(a)anthracene	<0.00025	0.04000	0.03538	88	0.03651	91	42-133	3	20	mg/L	
Benzo(a)pyrene	<0.00025	0.04000	0.04149	104	0.04115	103	32-148	1	20	mg/L	
Benzo(b)fluoranthene	<0.00025	0.04000	0.04839	121	0.04553	114	42-140	6	20	mg/L	
Benzo(g,h,i)perylene	<0.00025	0.04000	0.03877	97	0.03898	97	1-195	0	20	mg/L	
Benzo(k)fluoranthene	<0.00025	0.04000	0.03529	88	0.03878	97	25-146	10	20	mg/L	
Butyl benzyl phthalate	<0.001000	0.04000	0.03972	99	0.04081	102	1-140	3	20	mg/L	
bis(2-chloroethoxy) methane	<0.001000	0.04000	0.02865	72	0.02757	69	49-165	4	20	mg/L	
bis(2-chloroethyl) ether	<0.001000	0.04000	0.03273	82	0.03150	79	43-126	4	20	mg/L	
bis(2-chloroisopropyl) ether	<0.001000	0.04000	0.02934	73	0.02822	71	63-139	3	20	mg/L	
bis(2-ethylhexyl) phthalate	<0.001000	0.04000	0.03929	98	0.04060	102	29-137	4	20	mg/L	
Chrysene	<0.00025	0.04000	0.04272	107	0.04331	108	44-140	1	20	mg/L	
Dibenz(a,h)Anthracene	<0.00025	0.04000	0.04162	104	0.04169	104	1-200	0	20	mg/L	
Diethyl phthalate	<0.001000	0.04000	0.05015	125	0.04863	122	1-120	2	20	mg/L	H
Dimethyl phthalate	<0.001000	0.04000	0.03930	98	0.03862	97	1-120	1	20	mg/L	
Di-n-butyl phthalate	<0.001000	0.04000	0.04346	109	0.04313	108	8-120	1	20	mg/L	
Di-n-octyl phthalate	<0.002000	0.04000	0.04794	120	0.04802	120	19-132	0	20	mg/L	
Fluoranthene	<0.00025	0.04000	0.03927	98	0.03949	99	43-121	1	20	mg/L	
Fluorene	<0.00025	0.04000	0.03876	97	0.03740	94	70-120	3	20	mg/L	
Hexachlorobenzene	<0.001000	0.04000	0.04626	116	0.04642	116	8-142	0	20	mg/L	
Hexachlorobutadiene	<0.001000	0.04000	0.03944	99	0.03695	92	38-120	7	20	mg/L	
Hexachlorocyclopentadiene	<0.002000	0.04000	0.03342	84	0.03216	80	40-127	5	20	mg/L	
Hexachloroethane	<0.001000	0.04000	0.03853	96	0.03641	91	55-120	5	20	mg/L	
Indeno(1,2,3-c,d)Pyrene	<0.00025	0.04000	0.03912	98	0.03875	97	1-151	1	20	mg/L	
Isophorone	<0.001000	0.04000	0.02791	70	0.02743	69	47-180	1	20	mg/L	
Naphthalene	<0.00025	0.04000	0.03360	84	0.03237	81	36-120	4	20	mg/L	
Nitrobenzene	<0.001000	0.04000	0.03097	77	0.03017	75	54-158	3	20	mg/L	
N-Nitrosodimethylamine	<0.001000	0.04000	0.02601	65	0.02470	62	45-120	5	20	mg/L	
N-Nitrosodi-n-propyl amine	<0.001000	0.04000	0.03250	81	0.03173	79	14-198	3	20	mg/L	
N-Nitrosodiphenylamine	<0.001000	0.04000	0.04040	101	0.03921	98	69-115	3	20	mg/L	
Pentachlorophenol	<0.002000	0.04000	0.03674	92	0.03712	93	38-152	1	20	mg/L	

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QC Summary

Project Name Kop-Flex
PSS Project No.: 21100715

Analytical Method: EPA 625 .1 Prep Method: E625P
Seq Number: 188373 Matrix: Water Date Prep: 10/11/21
MB Sample Id: 88010-1-BLK LCS Sample Id: 88010-1-BKS LCSD Sample Id: 88010-1-BSD

Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	LCSD Result	LCSD %Rec	Limits	%RPD	RPD Limit	Units	Flag
Phenanthrene	<0.00025	0.04000	0.04665	117	0.04670	117	65-120	0	20	mg/L	
Phenol	<0.001000	0.04000	0.03233	81	0.03187	80	17-120	1	20	mg/L	
Pyrene	<0.00025	0.04000	0.03937	98	0.04100	103	70-120	5	20	mg/L	

Surrogate	MB %Rec	MB Flag	LCS Result	LCS Flag	LCSD Result	LCSD Flag	Limits	Units
2-Fluorobiphenyl	70		80		77		42-141	%
2-Fluorophenol	69		63		61		35-131	%
Nitrobenzene-d5	73		78		75		40-139	%
2,4,6-Tribromophenol	80		87		85		35-156	%
Phenol-d6	72		79		79		33-140	%
Terphenyl-D14	94		84		85		54-138	%

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QC Summary

Project Name Kop-Flex
PSS Project No.: 21100715

Analytical Method: EPA 624 .1
Prep Method: E624PREP
Seq Number: 188319
Matrix: Water
Date Prep: 10/08/21
MB Sample Id: 88004-1-BLK
LCS Sample Id: 88004-1-BKS

Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	Limits	Units	Flag
Acrolein	<0.005000	0.05000	0.04927	99	60-140	mg/L	
Acrylonitrile	<0.005000	0.05000	0.04480	90	60-140	mg/L	
Dichlorodifluoromethane	<0.001000	0.05000	0.03978	80	54-148	mg/L	
Chloromethane	<0.001000	0.05000	0.03400	68	1-205	mg/L	
Vinyl Chloride	<0.001000	0.05000	0.04017	80	5-195	mg/L	
Bromomethane	<0.001000	0.05000	0.04625	93	15-185	mg/L	
Chloroethane	<0.001000	0.05000	0.04513	90	40-160	mg/L	
Trichlorofluoromethane	<0.001000	0.05000	0.05400	108	50-150	mg/L	
2-Chloroethyl Vinyl Ether	<0.001000	0.05000	0.03649	73	1-225	mg/L	
1,1-Dichloroethene	<0.001000	0.05000	0.05259	105	50-150	mg/L	
Methylene Chloride	<0.001000	0.05000	0.05117	102	60-140	mg/L	
trans-1,2-dichloroethene	<0.001000	0.05000	0.05249	105	70-130	mg/L	
1,1-Dichloroethane	<0.001000	0.05000	0.04495	90	70-130	mg/L	
Chloroform	<0.001000	0.05000	0.05157	103	70-135	mg/L	
1,1,1-Trichloroethane	<0.001000	0.05000	0.05255	105	70-130	mg/L	
Carbon Tetrachloride	<0.001000	0.05000	0.05808	116	70-130	mg/L	
Benzene	<0.001000	0.05000	0.05123	102	65-135	mg/L	
1,2-Dichloroethane	<0.001000	0.05000	0.04612	92	70-130	mg/L	
Trichloroethene	<0.001000	0.05000	0.05450	109	65-135	mg/L	
1,2-Dichloropropane	<0.001000	0.05000	0.04643	93	35-165	mg/L	
Bromodichloromethane	<0.001000	0.05000	0.05335	107	65-135	mg/L	
cis-1,3-Dichloropropene	<0.001000	0.05000	0.04819	96	25-175	mg/L	
Toluene	<0.001000	0.05000	0.05254	105	70-130	mg/L	
trans-1,3-dichloropropene	<0.001000	0.05000	0.04819	96	50-150	mg/L	
1,1,2-Trichloroethane	<0.001000	0.05000	0.05299	106	70-130	mg/L	
Tetrachloroethylene	<0.001000	0.05000	0.06337	127	70-130	mg/L	
Dibromochloromethane	<0.001000	0.05000	0.05863	117	70-135	mg/L	
Chlorobenzene	<0.001000	0.05000	0.05125	103	65-135	mg/L	
Ethylbenzene	<0.001000	0.05000	0.04956	99	60-140	mg/L	
Bromoform	<0.001000	0.05000	0.06093	122	70-130	mg/L	
1,1,2,2-Tetrachloroethane	<0.001000	0.05000	0.04504	90	60-140	mg/L	
1,3-Dichlorobenzene	<0.001000	0.05000	0.05076	102	70-130	mg/L	
1,4-Dichlorobenzene	<0.001000	0.05000	0.04927	99	65-135	mg/L	
1,2-Dichlorobenzene	<0.001000	0.05000	0.05185	104	65-135	mg/L	

Surrogate	MB %Rec	MB Flag	LCS Result	LCS Flag	Limits	Units
Dibromofluoromethane	106		105		87-120	%
4-Bromofluorobenzene	85		82	*	85-147	%
Toluene-D8	100		100		88-110	%

F = RPD exceeded the laboratory control limits
X = Recovery of MS, MSD or both outside of QC Criteria
H= Recovery of BS,BSD or both exceeded the laboratory control limits
L = Recovery of BS,BSD or both below the laboratory control limits

Analytical Method: SM 4500-CN C,E -2011
Seq Number: 188380 Matrix: Water
CCV Sample Id: CCV-01 Analyzed Date: 10/12/21 15:15

Parameter	Spike Amount	CCV Result	CCV %Rec	Limits	Units	Flag
Cyanide, Total	100	95.65	96	90-110	ug/L	

Analytical Method: SM 4500-CN C,E -2011
Seq Number: 188379 Matrix: Water
Parent Sample Id: ICV ICV Sample Id: ICV Analyzed Date: 10/12/21 14:45

Parameter	Spike Amount	ICV Result	ICV %Rec	Limits	Units	Flag
Cyanide, Total	100	93.34	93	90-110	ug/L	

Analytical Method: SM 4500-CN C,E -2011
Seq Number: 188380 Matrix: Water
Parent Sample Id: MRL MRL Sample Id: MRL Analyzed Date: 10/12/21 14:55

Parameter	Spike Amount	MRL Result	MRL %Rec	Limits	Units	Flag
Cyanide, Total	10.00	9.686	97	50-150	ug/L	

Analytical Method: SM 5220D -2011
Seq Number: 188393 Matrix: Water
CCV Sample Id: CCV-01 Analyzed Date: 10/12/21 16:22

Parameter	Spike Amount	CCV Result	CCV %Rec	Limits	Units	Flag
Chemical Oxygen Demand	483.5	516.7	107	90-110	mg/L	

Analytical Method: SM 5220D -2011
Seq Number: 188393 Matrix: Water
CCV Sample Id: CCV-02 Analyzed Date: 10/12/21 16:22

Parameter	Spike Amount	CCV Result	CCV %Rec	Limits	Units	Flag
Chemical Oxygen Demand	483.5	515.9	107	90-110	mg/L	

Analytical Method: SM 5220D -2011
Seq Number: 175113 Matrix: Water
Parent Sample Id: ICV-01 ICV Sample Id: ICV-01 Analyzed Date: 07/10/19 14:24

Parameter	Spike Amount	ICV Result	ICV %Rec	Limits	Units	Flag
Chemical Oxygen Demand	1004	1039	103	85-115	mg/L	

Analytical Method: SM 5220D -2011

Seq Number: 188393 Matrix: Water
Parent Sample Id: MRL-01 MRL Sample Id: MRL-01 Analyzed Date: 10/12/21 16:22

Parameter	Spike Amount	MRL Result	MRL %Rec	Limits	Units	Flag
Chemical Oxygen Demand	20.00	19.20	96	50-150	mg/L	

Analytical Method: EPA 200.8

Seq Number: 188329 Matrix: Water
CCV Sample Id: CCV 2 Analyzed Date: 10/08/21 14:55

Parameter	Spike Amount	CCV Result	CCV %Rec	Limits	Units	Flag
Aluminum	200	205	103	85-115	ug/L	
Calcium	400	457.5	114	85-115	ug/L	
Potassium	400	407.2	102	85-115	ug/L	
Sodium	400	397.5	99	85-115	ug/L	

Analytical Method: EPA 200.8

Seq Number: 188329 Matrix: Water
CCV Sample Id: CCV 3 Analyzed Date: 10/08/21 15:56

Parameter	Spike Amount	CCV Result	CCV %Rec	Limits	Units	Flag
Aluminum	200	200.1	100	85-115	ug/L	
Calcium	400	451.3	113	85-115	ug/L	
Potassium	400	393.4	98	85-115	ug/L	
Sodium	400	407.4	102	85-115	ug/L	

Analytical Method: EPA 200.8

Seq Number: 188329 Matrix: Water
CCV Sample Id: CCV 4 Analyzed Date: 10/08/21 16:58

Parameter	Spike Amount	CCV Result	CCV %Rec	Limits	Units	Flag
Aluminum	200	228.7	114	85-115	ug/L	
Calcium	400	453.4	113	85-115	ug/L	
Potassium	400	476.9	119	85-115	ug/L	X
Sodium	400	816.1	204	85-115	ug/L	X

Analytical Method: EPA 200.8
Seq Number: 188329 Matrix: Water
CCV Sample Id: CCV 5 Analyzed Date: 10/08/21 17:54

Parameter	Spike Amount	CCV Result	CCV %Rec	Limits	Units	Flag
Aluminum	200	199.4	100	85-115	ug/L	
Calcium	400	422.1	106	85-115	ug/L	
Potassium	400	386.8	97	85-115	ug/L	
Sodium	400	507.4	127	85-115	ug/L	X

Analytical Method: EPA 200.8
Seq Number: 188363 Matrix: Water
CCV Sample Id: CCV 1 Analyzed Date: 10/11/21 13:31

Parameter	Spike Amount	CCV Result	CCV %Rec	Limits	Units	Flag
Antimony	40.00	39.13	98	85-115	ug/L	
Arsenic	40.00	37.21	93	85-115	ug/L	
Barium	40.00	38.96	97	85-115	ug/L	
Beryllium	40.00	36.75	92	85-115	ug/L	
Cadmium	40.00	39.62	99	85-115	ug/L	
Calcium	400	420	105	85-115	ug/L	
Chromium	40.00	36.88	92	85-115	ug/L	
Cobalt	40.00	37.42	94	85-115	ug/L	
Copper	40.00	38.34	96	85-115	ug/L	
Iron	400	447.5	112	85-115	ug/L	
Lead	40.00	38.96	97	85-115	ug/L	
Magnesium	400	360.4	90	85-115	ug/L	
Manganese	40.00	39.62	99	85-115	ug/L	
Nickel	40.00	38.30	96	85-115	ug/L	
Selenium	40.00	38.47	96	85-115	ug/L	
Silver	40.00	40.64	102	85-115	ug/L	
Sodium	400	374	94	85-115	ug/L	
Thallium	40.00	39.83	100	85-115	ug/L	
Vanadium	40.00	38.78	97	85-115	ug/L	
Zinc	200	197.9	99	85-115	ug/L	

Analytical Method: EPA 200.8

Seq Number: 188363 Matrix: Water

CCV Sample Id: CCV 2 Analyzed Date: 10/11/21 14:32

Parameter	Spike Amount	CCV Result	CCV %Rec	Limits	Units	Flag
Antimony	40.00	39.28	98	85-115	ug/L	
Arsenic	40.00	39.09	98	85-115	ug/L	
Barium	40.00	38.95	97	85-115	ug/L	
Beryllium	40.00	44.33	111	85-115	ug/L	
Cadmium	40.00	39.73	99	85-115	ug/L	
Calcium	400	521.6	130	85-115	ug/L	X
Chromium	40.00	40.92	102	85-115	ug/L	
Cobalt	40.00	39.03	98	85-115	ug/L	
Copper	40.00	39.55	99	85-115	ug/L	
Iron	400	504.3	126	85-115	ug/L	X
Lead	40.00	39.65	99	85-115	ug/L	
Magnesium	400	419.7	105	85-115	ug/L	
Manganese	40.00	43.20	108	85-115	ug/L	
Nickel	40.00	39.78	99	85-115	ug/L	
Selenium	40.00	42.22	106	85-115	ug/L	
Silver	40.00	40.19	100	85-115	ug/L	
Sodium	400	1016	254	85-115	ug/L	X
Thallium	40.00	39.83	100	85-115	ug/L	
Vanadium	40.00	43.46	109	85-115	ug/L	
Zinc	200	206.6	103	85-115	ug/L	

Analytical Method: EPA 200.8

Seq Number: 188363 Matrix: Water

CCV Sample Id: CCV 3 Analyzed Date: 10/11/21 15:33

Parameter	Spike Amount	CCV Result	CCV %Rec	Limits	Units	Flag
Antimony	40.00	38.71	97	85-115	ug/L	
Arsenic	40.00	35.40	89	85-115	ug/L	
Barium	40.00	38.42	96	85-115	ug/L	
Beryllium	40.00	37.17	93	85-115	ug/L	
Cadmium	40.00	38.75	97	85-115	ug/L	
Calcium	400	460.8	115	85-115	ug/L	
Chromium	40.00	35.71	89	85-115	ug/L	
Cobalt	40.00	37.03	93	85-115	ug/L	
Copper	40.00	37.61	94	85-115	ug/L	
Iron	400	479	120	85-115	ug/L	X
Lead	40.00	39.85	100	85-115	ug/L	
Magnesium	400	362.4	91	85-115	ug/L	
Manganese	40.00	39.10	98	85-115	ug/L	
Nickel	40.00	37.91	95	85-115	ug/L	
Selenium	40.00	36.42	91	85-115	ug/L	
Silver	40.00	40.58	101	85-115	ug/L	
Sodium	400	527.1	132	85-115	ug/L	X
Thallium	40.00	39.83	100	85-115	ug/L	
Vanadium	40.00	37.23	93	85-115	ug/L	
Zinc	200	193.9	97	85-115	ug/L	

Analytical Method: EPA 200.8
Seq Number: 188445 Matrix: Water
CCV Sample Id: CCV 1 Analyzed Date: 10/13/21 17:00

Parameter	Spike Amount	CCV Result	CCV %Rec	Limits	Units	Flag
Aluminum	200	207.9	104	85-115	ug/L	
Calcium	400	401.9	100	85-115	ug/L	
Potassium	400	454.8	114	85-115	ug/L	
Sodium	400	434.3	109	85-115	ug/L	

Analytical Method: EPA 200.8
Seq Number: 188453 Matrix: Water
CCV Sample Id: CCV 1 Analyzed Date: 10/14/21 14:19

Parameter	Spike Amount	CCV Result	CCV %Rec	Limits	Units	Flag
Aluminum	200	206.6	103	85-115	ug/L	
Calcium	400	544.5	136	85-115	ug/L	X
Potassium	400	449.3	112	85-115	ug/L	
Sodium	400	406.1	102	85-115	ug/L	

Analytical Method: EPA 200.8
Seq Number: 188329 Matrix: Water
Parent Sample Id: ICV 1 ICV Sample Id: ICV 1 Analyzed Date: 10/08/21 12:23

Parameter	Spike Amount	ICV Result	ICV %Rec	Limits	Units	Flag
Aluminum	200	197.9	99	90-110	ug/L	
Calcium	400	401.4	100	90-110	ug/L	
Potassium	400	375.5	94	90-110	ug/L	
Sodium	400	371.5	93	90-110	ug/L	

Analytical Method: EPA 200.8

Seq Number: 188363 Matrix: Water
Parent Sample Id: ICV 1 ICV Sample Id: ICV 1 Analyzed Date: 10/11/21 12:11

Parameter	Spike Amount	ICV Result	ICV %Rec	Limits	Units	Flag
Antimony	40.00	39.54	99	90-110	ug/L	
Arsenic	40.00	37.35	93	90-110	ug/L	
Barium	40.00	39.07	98	90-110	ug/L	
Beryllium	40.00	40.05	100	90-110	ug/L	
Cadmium	40.00	40.05	100	90-110	ug/L	
Calcium	400	415.8	104	90-110	ug/L	
Chromium	40.00	37.00	93	90-110	ug/L	
Cobalt	40.00	37.65	94	90-110	ug/L	
Copper	40.00	38.46	96	90-110	ug/L	
Iron	400	435.5	109	90-110	ug/L	
Lead	40.00	39.54	99	90-110	ug/L	
Magnesium	400	368.9	92	90-110	ug/L	
Manganese	40.00	40.27	101	90-110	ug/L	
Nickel	40.00	38.63	97	90-110	ug/L	
Selenium	40.00	38.57	96	90-110	ug/L	
Silver	40.00	40.97	102	90-110	ug/L	
Sodium	400	383	96	90-110	ug/L	
Thallium	40.00	39.82	100	90-110	ug/L	
Vanadium	40.00	38.59	96	90-110	ug/L	
Zinc	200	202.9	101	90-110	ug/L	

Analytical Method: EPA 200.8

Seq Number: 188445 Matrix: Water
Parent Sample Id: ICV 1 ICV Sample Id: ICV 1 Analyzed Date: 10/13/21 15:39

Parameter	Spike Amount	ICV Result	ICV %Rec	Limits	Units	Flag
Aluminum	200	219.3	110	90-110	ug/L	
Calcium	400	397.9	99	90-110	ug/L	
Potassium	400	436.2	109	90-110	ug/L	
Sodium	400	422.1	106	90-110	ug/L	

Analytical Method: EPA 200.8

Seq Number: 188453 Matrix: Water
Parent Sample Id: ICV 1 ICV Sample Id: ICV 1 Analyzed Date: 10/14/21 13:12

Parameter	Spike Amount	ICV Result	ICV %Rec	Limits	Units	Flag
Aluminum	200	199	100	90-110	ug/L	
Calcium	400	409.3	102	90-110	ug/L	
Potassium	400	391.7	98	90-110	ug/L	
Sodium	400	388.9	97	90-110	ug/L	

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Project Name Kop-Flex
PSS Project No.: 21100715

Analytical Method: EPA 608 .3
Seq Number: 188387 Matrix: Water
CCV Sample Id: CCV-01 Analyzed Date: 10/11/21 07:56

Parameter	Spike Amount	CCV Result	CCV %Rec	Limits	Units	Flag
PCB-1016	0.1000	0.09725	97	75-125	mg/L	
PCB-1016	0.1000	0.09470	95	75-125	mg/L	
PCB-1016	0.1000	0.09782	98	75-125	mg/L	
PCB-1016	0.1000	0.09642	96	75-125	mg/L	
PCB-1016	0.1000	0.1025	103	75-125	mg/L	
PCB-1260	0.1000	0.1055	106	75-125	mg/L	
PCB-1260	0.1000	0.1041	104	75-125	mg/L	
PCB-1260	0.1000	0.09973	100	75-125	mg/L	
PCB-1260	0.1000	0.09899	99	75-125	mg/L	
PCB-1260	0.1000	0.09335	93	75-125	mg/L	

Surrogate	CCV Result	Limits	Units	Flag
Decachlorobiphenyl	104	60-139	%	
Tetrachloro-m-xylene	99	23-136	%	

Analytical Method: EPA 608 .3
Seq Number: 188387 Matrix: Water
CCV Sample Id: CCV-02 Analyzed Date: 10/11/21 12:22

Parameter	Spike Amount	CCV Result	CCV %Rec	Limits	Units	Flag
PCB-1016	0.1000	0.1021	102	75-125	mg/L	
PCB-1016	0.1000	0.09903	99	75-125	mg/L	
PCB-1016	0.1000	0.1038	104	75-125	mg/L	
PCB-1016	0.1000	0.1012	101	75-125	mg/L	
PCB-1016	0.1000	0.1064	106	75-125	mg/L	
PCB-1260	0.1000	0.1102	110	75-125	mg/L	
PCB-1260	0.1000	0.1094	109	75-125	mg/L	
PCB-1260	0.1000	0.1041	104	75-125	mg/L	
PCB-1260	0.1000	0.1043	104	75-125	mg/L	
PCB-1260	0.1000	0.09800	98	75-125	mg/L	

Surrogate	CCV Result	Limits	Units	Flag
Decachlorobiphenyl	99	60-139	%	
Tetrachloro-m-xylene	102	23-136	%	

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Project Name Kop-Flex
PSS Project No.: 21100715

Analytical Method: EPA 608 .3
Seq Number: 188389 Matrix: Water
CCV Sample Id: CCV-01 Analyzed Date: 10/12/21 07:52

Parameter	Spike Amount	CCV Result	CCV %Rec	Limits	Units	Flag
4,4-DDD	0.02000	0.02043	102	75-125	mg/L	
4,4-DDE	0.02000	0.02211	111	75-125	mg/L	
4,4-DDT	0.02000	0.02320	116	75-125	mg/L	
Aldrin	0.02000	0.02180	109	75-125	mg/L	
alpha-BHC	0.02000	0.02182	109	69-125	mg/L	
alpha-Chlordane	0.02000	0.01976	99	73-125	mg/L	
beta-BHC	0.02000	0.02039	102	75-125	mg/L	
delta-BHC	0.02000	0.02141	107	75-125	mg/L	
Dieldrin	0.02000	0.02132	107	48-125	mg/L	
Endosulfan I	0.02000	0.02109	105	75-125	mg/L	
Endosulfan II	0.02000	0.02137	107	75-125	mg/L	
Endosulfan sulfate	0.02000	0.02116	106	70-125	mg/L	
Endrin	0.02000	0.02122	106	5-125	mg/L	
Endrin aldehyde	0.02000	0.01909	95	75-125	mg/L	
gamma-BHC (Lindane)	0.02000	0.02141	107	75-125	mg/L	
gamma-Chlordane	0.02000	0.02139	107	75-125	mg/L	
Heptachlor	0.02000	0.02158	108	75-125	mg/L	
Heptachlor epoxide	0.02000	0.02132	107	75-125	mg/L	

Surrogate	CCV Result	Limits	Units	Flag
Decachlorobiphenyl	114	60-139	%	
Tetrachloro-m-xylene	102	23-136	%	

Analytical Method: EPA 608 .3
Seq Number: 188389 Matrix: Water
CCV Sample Id: TOX Analyzed Date: 10/12/21 08:06

Parameter	Spike Amount	CCV Result	CCV %Rec	Limits	Units	Flag
Toxaphene	0.3000	0.2760	92	68-134	mg/L	
Toxaphene	0.3000	0.2901	97	68-134	mg/L	
Toxaphene	0.3000	0.3186	106	68-134	mg/L	
Toxaphene	0.3000	0.3296	110	68-134	mg/L	
Toxaphene	0.3000	0.3141	105	68-134	mg/L	

Surrogate	CCV Result	Limits	Units	Flag

Analytical Method: EPA 608 .3
Seq Number: 188389 Matrix: Water
CCV Sample Id: CHLOR Analyzed Date: 10/12/21 08:21

Parameter	Spike Amount	CCV Result	CCV %Rec	Limits	Units	Flag
Chlordane	0.3000	0.2908	97	75-125	mg/L	
Chlordane	0.3000	0.2815	94	75-125	mg/L	
Chlordane	0.3000	0.2821	94	75-125	mg/L	
Chlordane	0.3000	0.2852	95	75-125	mg/L	
Chlordane	0.3000	0.2908	97	75-125	mg/L	

Surrogate	CCV Result	Limits	Units	Flag

Analytical Method: EPA 608 .3
Seq Number: 188389 Matrix: Water
CCV Sample Id: CCV-02 Analyzed Date: 10/12/21 11:02

Parameter	Spike Amount	CCV Result	CCV %Rec	Limits	Units	Flag
4,4-DDD	0.02000	0.02035	102	75-125	mg/L	
4,4-DDE	0.02000	0.02168	108	75-125	mg/L	
4,4-DDT	0.02000	0.02314	116	75-125	mg/L	
Aldrin	0.02000	0.02168	108	75-125	mg/L	
alpha-BHC	0.02000	0.02173	109	69-125	mg/L	
alpha-Chlordane	0.02000	0.01962	98	73-125	mg/L	
beta-BHC	0.02000	0.02086	104	75-125	mg/L	
delta-BHC	0.02000	0.02144	107	75-125	mg/L	
Dieldrin	0.02000	0.02106	105	48-125	mg/L	
Endosulfan I	0.02000	0.02115	106	75-125	mg/L	
Endosulfan II	0.02000	0.02142	107	75-125	mg/L	
Endosulfan sulfate	0.02000	0.02134	107	70-125	mg/L	
Endrin	0.02000	0.02188	109	5-125	mg/L	
Endrin aldehyde	0.02000	0.01972	99	75-125	mg/L	
gamma-BHC (Lindane)	0.02000	0.02142	107	75-125	mg/L	
gamma-Chlordane	0.02000	0.02131	107	75-125	mg/L	
Heptachlor	0.02000	0.02226	111	75-125	mg/L	
Heptachlor epoxide	0.02000	0.02138	107	75-125	mg/L	

Surrogate	CCV Result	Limits	Units	Flag
Decachlorobiphenyl	115	60-139	%	
Tetrachloro-m-xylene	102	23-136	%	

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QC Summary

Project Name Kop-Flex
PSS Project No.: 21100715

Analytical Method: EPA 608 .3
Seq Number: 188389 Matrix: Water
CCV Sample Id: TOX Analyzed Date: 10/12/21 11:16

Parameter	Spike Amount	CCV Result	CCV %Rec	Limits	Units	Flag
Toxaphene	0.3000	0.2655	89	68-134	mg/L	
Toxaphene	0.3000	0.2753	92	68-134	mg/L	
Toxaphene	0.3000	0.3022	101	68-134	mg/L	
Toxaphene	0.3000	0.3131	104	68-134	mg/L	
Toxaphene	0.3000	0.2993	100	68-134	mg/L	

Surrogate	CCV Result	Limits	Units	Flag

Analytical Method: EPA 608 .3
Seq Number: 188389 Matrix: Water
CCV Sample Id: CHLOR Analyzed Date: 10/12/21 11:30

Parameter	Spike Amount	CCV Result	CCV %Rec	Limits	Units	Flag
Chlordane	0.3000	0.2900	97	75-125	mg/L	
Chlordane	0.3000	0.2829	94	75-125	mg/L	
Chlordane	0.3000	0.2831	94	75-125	mg/L	
Chlordane	0.3000	0.2874	96	75-125	mg/L	
Chlordane	0.3000	0.2946	98	75-125	mg/L	

Surrogate	CCV Result	Limits	Units	Flag

Analytical Method: EPA 608 .3

Seq Number: 186619 Matrix: Water
Parent Sample Id: ICV-01 ICV Sample Id: ICV-01 Analyzed Date: 08/09/21 10:17

Parameter	Spike Amount	ICV Result	ICV %Rec	Limits	Units	Flag
4,4-DDD	0.02000	0.02045	102	75-125	mg/L	
4,4-DDE	0.02000	0.02071	104	75-125	mg/L	
4,4-DDT	0.02000	0.02078	104	75-125	mg/L	
Aldrin	0.02000	0.02069	103	75-125	mg/L	
alpha-BHC	0.02000	0.02089	104	69-125	mg/L	
alpha-Chlordane	0.02000	0.02042	102	73-125	mg/L	
beta-BHC	0.02000	0.02031	102	75-125	mg/L	
delta-BHC	0.02000	0.02083	104	75-125	mg/L	
Dieldrin	0.02000	0.02056	103	48-125	mg/L	
Endosulfan I	0.02000	0.02036	102	75-125	mg/L	
Endosulfan II	0.02000	0.02059	103	75-125	mg/L	
Endosulfan sulfate	0.02000	0.02018	101	70-125	mg/L	
Endrin	0.02000	0.02044	102	5-125	mg/L	
Endrin aldehyde	0.02000	0.02049	102	75-125	mg/L	
gamma-BHC (Lindane)	0.02000	0.02075	104	75-125	mg/L	
gamma-Chlordane	0.02000	0.02049	102	75-125	mg/L	
Heptachlor	0.02000	0.02052	103	75-125	mg/L	
Heptachlor epoxide	0.02000	0.02035	102	75-125	mg/L	

Surrogate	ICV Result	Limits	Units	Flag
Decachlorobiphenyl	99	60-139	%	
Tetrachloro-m-xylene	102	23-136	%	

Analytical Method: EPA 608 .3

Seq Number: 186619 Matrix: Water
Parent Sample Id: ICV-02 ICV Sample Id: ICV-02 Analyzed Date: 08/09/21 11:58

Parameter	Spike Amount	ICV Result	ICV %Rec	Limits	Units	Flag
Toxaphene	0.3000	0.2953	98	68-134	mg/L	
Toxaphene	0.3000	0.2999	100	68-134	mg/L	
Toxaphene	0.3000	0.3028	101	68-134	mg/L	
Toxaphene	0.3000	0.2960	99	68-134	mg/L	
Toxaphene	0.3000	0.3037	101	68-134	mg/L	

Surrogate	ICV Result	Limits	Units	Flag

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QC Summary

Project Name Kop-Flex
PSS Project No.: 21100715

Analytical Method: EPA 608 .3

Seq Number: 186619 Matrix: Water
Parent Sample Id: ICV-03 ICV Sample Id: ICV-03 Analyzed Date: 08/09/21 13:39

Parameter	Spike Amount	ICV Result	ICV %Rec	Limits	Units	Flag
Chlordane	0.3000	0.2964	99	75-125	mg/L	
Chlordane	0.3000	0.2960	99	75-125	mg/L	
Chlordane	0.3000	0.2973	99	75-125	mg/L	
Chlordane	0.3000	0.2960	99	75-125	mg/L	
Chlordane	0.3000	0.2918	97	75-125	mg/L	

Surrogate	ICV Result	Limits	Units	Flag

Analytical Method: EPA 625 .1

Seq Number: 188373 Matrix: Water

CCV Sample Id: CCV-01 Analyzed Date: 10/11/21 14:25

Parameter	Spike Amount	CCV Result	CCV %Rec	Limits	Units	Flag
1,2,4-Trichlorobenzene	40.00	37.08	93	61-130	mg/L	
1,2-Diphenylhydrazine	40.00	48.71	122	60-140	mg/L	
2,4,6-Trichlorophenol	40.00	36.01	90	69-130	mg/L	
2,4-Dichlorophenol	40.00	35.16	88	64-130	mg/L	
2,4-Dimethylphenol	40.00	33.91	85	58-130	mg/L	
2,4-Dinitrophenol	40.00	31.10	78	39-173	mg/L	
2,4-Dinitrotoluene	40.00	33.31	83	53-130	mg/L	
2,6-Dinitrotoluene	40.00	33.93	85	68-137	mg/L	
2-Chloronaphthalene	40.00	40.73	102	70-130	mg/L	
2-Chlorophenol	40.00	39.70	99	55-130	mg/L	
2-Nitrophenol	40.00	32.63	82	61-163	mg/L	
3,3-Dichlorobenzidine	40.00	40.28	101	18-213	mg/L	
4,6-Dinitro-2-methyl phenol	40.00	36.68	92	56-130	mg/L	
4-Bromophenylphenyl ether	40.00	37.71	94	70-130	mg/L	
4-Chloro-3-methyl phenol	40.00	43.69	109	68-130	mg/L	
4-Chlorophenyl Phenyl ether	40.00	43.66	109	57-145	mg/L	
4-Nitrophenol	40.00	44.48	111	35-130	mg/L	
Acenaphthene	40.00	39.90	100	70-130	mg/L	
Acenaphthylene	40.00	37.35	93	60-130	mg/L	
Anthracene	40.00	34.33	86	58-130	mg/L	
Benzidine	40.00	34.51	86	60-140	mg/L	
Benzo(a)anthracene	40.00	33.72	84	42-133	mg/L	
Benzo(a)pyrene	40.00	36.46	91	32-138	mg/L	
Benzo(b)fluoranthene	40.00	37.87	95	42-140	mg/L	
Benzo(g,h,i)perylene	40.00	35.20	88	13-195	mg/L	
Benzo(k)fluoranthene	40.00	35.00	88	25-146	mg/L	
Butyl benzyl phthalate	40.00	36.77	92	43-140	mg/L	
bis(2-chloroethoxy) methane	40.00	31.47	79	52-164	mg/L	
bis(2-chloroethyl) ether	40.00	37.11	93	52-130	mg/L	
bis(2-chloroisopropyl) ether	40.00	33.85	85	63-139	mg/L	
bis(2-ethylhexyl) phthalate	40.00	36.44	91	43-137	mg/L	
Chrysene	40.00	41.51	104	44-140	mg/L	
Dibenz(a,h)Anthracene	40.00	37.36	93	13-200	mg/L	
Diethyl phthalate	40.00	41.58	104	47-130	mg/L	
Dimethyl phthalate	40.00	37.58	94	50-130	mg/L	
Di-n-butyl phthalate	40.00	38.04	95	52-130	mg/L	
Di-n-octyl phthalate	40.00	39.97	100	21-132	mg/L	
Fluoranthene	40.00	37.11	93	47-130	mg/L	
Fluorene	40.00	38.48	96	70-130	mg/L	
Hexachlorobenzene	40.00	47.15	118	38-142	mg/L	
Hexachlorobutadiene	40.00	43.80	110	68-130	mg/L	
Hexachlorocyclopentadiene	40.00	39.90	100	60-140	mg/L	
Hexachloroethane	40.00	46.31	116	55-130	mg/L	
Indeno(1,2,3-c,d)Pyrene	40.00	35.52	89	13-151	mg/L	
Isophorone	40.00	32.77	82	52-180	mg/L	
Naphthalene	40.00	37.95	95	70-130	mg/L	
Nitrobenzene	40.00	37.07	93	54-158	mg/L	
N-Nitrosodimethylamine	40.00	32.77	82	60-140	mg/L	
N-Nitrosodi-n-propyl amine	40.00	35.66	89	59-170	mg/L	
N-Nitrosodiphenylamine	40.00	40.10	100	60-140	mg/L	
Pentachlorophenol	40.00	34.47	86	42-152	mg/L	

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QC Summary

Project Name Kop-Flex
PSS Project No.: 21100715

Analytical Method: EPA 625 .1

Seq Number: 188373 Matrix: Water

CCV Sample Id: CCV-01 Analyzed Date: 10/11/21 14:25

Parameter	Spike Amount	CCV Result	CCV %Rec	Limits	Units	Flag
Phenanthrene	40.00	46.16	115	67-130	mg/L	
Phenol	40.00	37.67	94	48-130	mg/L	
Pyrene	40.00	38.33	96	70-130	mg/L	

Surrogate	CCV Result	Limits	Units	Flag
2-Fluorobiphenyl	100	60-140	%	
2-Fluorophenol	94	60-140	%	
Nitrobenzene-d5	98	46-219	%	
2,4,6-Tribromophenol	112	60-140	%	
Phenol-d6	103	48-208	%	
Terphenyl-D14	94	60-140	%	

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QC Summary

Project Name Kop-Flex
PSS Project No.: 21100715

Analytical Method: EPA 625 .1

Seq Number: 185838 Matrix: Water
Parent Sample Id: ICV-01 ICV Sample Id: ICV-01 Analyzed Date: 07/09/21 17:07

Parameter	Spike Amount	ICV Result	ICV %Rec	Limits	Units	Flag
1,2,4-Trichlorobenzene	40.00	37.90	95	61-130	mg/L	
1,2-Diphenylhydrazine	40.00	40.88	102	60-140	mg/L	
2,4,6-Trichlorophenol	40.00	39.60	99	69-130	mg/L	
2,4-Dichlorophenol	40.00	39.17	98	64-130	mg/L	
2,4-Dimethylphenol	40.00	37.45	94	58-130	mg/L	
2,4-Dinitrophenol	40.00	41.76	104	39-173	mg/L	
2,4-Dinitrotoluene	40.00	36.79	92	53-130	mg/L	
2,6-Dinitrotoluene	40.00	37.65	94	68-137	mg/L	
2-Chloronaphthalene	40.00	36.66	92	70-130	mg/L	
2-Chlorophenol	40.00	39.41	99	55-130	mg/L	
2-Nitrophenol	40.00	39.43	99	61-163	mg/L	
3,3-Dichlorobenzidine	40.00	36.63	92	18-213	mg/L	
4,6-Dinitro-2-methyl phenol	40.00	42.24	106	56-130	mg/L	
4-Bromophenylphenyl ether	40.00	39.21	98	70-130	mg/L	
4-Chloro-3-methyl phenol	40.00	38.96	97	68-130	mg/L	
4-Chlorophenyl Phenyl ether	40.00	39.20	98	57-145	mg/L	
4-Nitrophenol	40.00	38.27	96	35-130	mg/L	
Acenaphthene	40.00	36.44	91	70-130	mg/L	
Acenaphthylene	40.00	36.75	92	60-130	mg/L	
Anthracene	40.00	36.77	92	58-130	mg/L	
Benzidine	40.00	32.74	82	60-140	mg/L	
Benzo(a)anthracene	40.00	35.28	88	42-133	mg/L	
Benzo(a)pyrene	40.00	38.33	96	32-138	mg/L	
Benzo(b)fluoranthene	40.00	36.70	92	42-140	mg/L	
Benzo(g,h,i)perylene	40.00	40.44	101	13-195	mg/L	
Benzo(k)fluoranthene	40.00	39.85	100	25-146	mg/L	
Butyl benzyl phthalate	40.00	37.94	95	43-140	mg/L	
bis(2-chloroethoxy) methane	40.00	38.13	95	52-164	mg/L	
bis(2-chloroethyl) ether	40.00	38.11	95	52-130	mg/L	
bis(2-chloroisopropyl) ether	40.00	37.33	93	63-139	mg/L	
bis(2-ethylhexyl) phthalate	40.00	36.47	91	43-137	mg/L	
Chrysene	40.00	36.84	92	44-140	mg/L	
Dibenz(a,h)Anthracene	40.00	39.09	98	13-200	mg/L	
Diethyl phthalate	40.00	38.20	96	47-130	mg/L	
Dimethyl phthalate	40.00	37.66	94	50-130	mg/L	
Di-n-butyl phthalate	40.00	37.45	94	52-130	mg/L	
Di-n-octyl phthalate	40.00	37.82	95	21-132	mg/L	
Fluoranthene	40.00	36.93	92	47-130	mg/L	
Fluorene	40.00	37.04	93	70-130	mg/L	
Hexachlorobenzene	40.00	37.74	94	38-142	mg/L	
Hexachlorobutadiene	40.00	38.19	95	68-130	mg/L	
Hexachlorocyclopentadiene	40.00	36.62	92	60-140	mg/L	
Hexachloroethane	40.00	37.52	94	55-130	mg/L	
Indeno(1,2,3-c,d)Pyrene	40.00	39.63	99	13-151	mg/L	
Isophorone	40.00	36.24	91	52-180	mg/L	
Naphthalene	40.00	36.70	92	70-130	mg/L	
Nitrobenzene	40.00	36.41	91	54-158	mg/L	
N-Nitrosodimethylamine	40.00	39.01	98	60-140	mg/L	
N-Nitrosodi-n-propyl amine	40.00	37.40	94	59-170	mg/L	
N-Nitrosodiphenylamine	40.00	36.81	92	60-140	mg/L	
Pentachlorophenol	40.00	41.86	105	42-152	mg/L	

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QC Summary

Project Name Kop-Flex
PSS Project No.: 21100715

Analytical Method: EPA 625 .1

Seq Number: 185838 Matrix: Water
Parent Sample Id: ICV-01 ICV Sample Id: ICV-01 Analyzed Date: 07/09/21 17:07

Parameter	Spike Amount	ICV Result	ICV %Rec	Limits	Units	Flag
Phenanthrene	40.00	35.60	89	67-130	mg/L	
Phenol	40.00	38.54	96	48-130	mg/L	
Pyrene	40.00	37.16	93	70-130	mg/L	

Surrogate	ICV Result	Limits	Units	Flag
2-Fluorobiphenyl	95	80-120	%	
2-Fluorophenol	97	80-120	%	
Nitrobenzene-d5	96	46-219	%	
2,4,6-Tribromophenol	100	80-120	%	
Phenol-d6	95	48-208	%	
Terphenyl-D14	95	80-120	%	

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QC Summary

Project Name Kop-Flex
PSS Project No.: 21100715

Analytical Method: EPA 624 .1

Seq Number: 186298 Matrix: Water
Parent Sample Id: ICV-01 ICV Sample Id: ICV-01 Analyzed Date: 07/27/21 13:25

Parameter	Spike Amount	ICV Result	ICV %Rec	Limits	Units	Flag
Acrolein	0.05000	0.05190	104	60-139	mg/L	
Acrylonitrile	0.05000	0.05150	103	60-137	mg/L	
Dichlorodifluoromethane	0.05000	0.05535	111	54-148	mg/L	
Chloromethane	0.05000	0.05663	113	57-135	mg/L	
Vinyl Chloride	0.05000	0.05400	108	64-129	mg/L	
Bromomethane	0.05000	0.05306	106	67-132	mg/L	
Chloroethane	0.05000	0.05149	103	62-133	mg/L	
Trichlorofluoromethane	0.05000	0.05188	104	71-137	mg/L	
2-Chloroethyl Vinyl ether	0.05000	0.04802	96	15-141	mg/L	
1,1-Dichloroethene	0.05000	0.05120	102	67-126	mg/L	
Methylene Chloride	0.05000	0.05415	108	73-120	mg/L	
trans-1,2-dichloroethene	0.05000	0.05096	102	75-127	mg/L	
1,1-Dichloroethane	0.05000	0.05104	102	76-127	mg/L	
Chloroform	0.05000	0.05139	103	79-125	mg/L	
1,1,1-Trichloroethane	0.05000	0.05311	106	73-130	mg/L	
Carbon Tetrachloride	0.05000	0.05391	108	73-130	mg/L	
Benzene	0.05000	0.05427	109	73-132	mg/L	
1,2-Dichloroethane	0.05000	0.05128	103	77-129	mg/L	
Trichloroethene	0.05000	0.05270	105	79-126	mg/L	
1,2-Dichloropropane	0.05000	0.05327	107	74-129	mg/L	
Bromodichloromethane	0.05000	0.05345	107	81-125	mg/L	
cis-1,3-Dichloropropene	0.05000	0.05109	102	76-116	mg/L	
Toluene	0.05000	0.05592	112	77-127	mg/L	
trans-1,3-dichloropropene	0.05000	0.05220	104	78-114	mg/L	
1,1,2-Trichloroethane	0.05000	0.05300	106	78-127	mg/L	
Tetrachloroethylene	0.05000	0.05617	112	78-128	mg/L	
Dibromochloromethane	0.05000	0.05438	109	70-132	mg/L	
Chlorobenzene	0.05000	0.05458	109	72-128	mg/L	
Ethylbenzene	0.05000	0.05670	113	69-131	mg/L	
Bromoform	0.05000	0.05224	104	70-130	mg/L	
1,1,2,2-Tetrachloroethane	0.05000	0.05336	107	62-134	mg/L	
1,3-Dichlorobenzene	0.05000	0.05386	108	70-129	mg/L	
1,4-Dichlorobenzene	0.05000	0.05275	106	69-127	mg/L	
1,2-Dichlorobenzene	0.05000	0.05418	108	65-133	mg/L	

Surrogate	ICV Result	Limits	Units	Flag
Dibromofluoromethane	93	87-120	%	
4-Bromofluorobenzene	98	85-147	%	
Toluene-D8	102	88-110	%	

X = Recovery outside of QC Criteria

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CHAIN OF CUSTODY FORM

All fields must be completed accurately. Shaded sections for lab use only.

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① PSS CLIENT: WSP USA | OFFICE LOCATION: Herndon, VA | PSS Work Order #: 21100705 (10/7/21) 21100715 | PAGE 1 OF 1

BILL TO (If different): | PHONE #: 703-709-6500

CONTACT: Eric Johnson | EMAIL: eric.johnson@wsp.com

PROJECT NAME: Kop-Flex | PROJECT #: 31401545.010/04

SITE LOCATION: Hanover, MD | P.O. #:

SAMPLER(S): Shannon Burke | DW CERT #:

Matrix Codes: SW=Surface Water | DW=Drinking Water | GW=Ground Water | WW=Waste Water | O=Oil | S=Soil | SOL=Solid | A=Air | WI=Wipe

② ③

PSS ID	SAMPLE IDENTIFICATION	DATE SAMPLED	TIME SAMPLED	MATRIX Use Codes	# OF CONTAINERS	SAMPLE TYPE: C=COMPOSITE G=GRAB	TAL Metals (200.8)	Total Cyanide (SM 4500-CN-E-2011)	Mercury, Total (245.1)	Pesticides (608.3)	PCBs (608.3)	SVOCs (625.1)	VOCs (624.1)	BOD	COD	TSS	Oil & Grease	Flashpoint
1	Resin Cleaning Water	10/7/21	1210	WW	14	G	X	X	X	X	X	X	X	X	X	X	X	X
2	TB-100721-RCW	—	—	TB	2	—							X					

Preservative Codes: 1 - HCL | 2 - H_2SO_4 | 3 - HNO_3 | 4 - NaOH | 5 - E624KIT | 6 - ICE | 7 - Sodium Thiosulfate | 8 - Ascorbic Acid | 9 - TerraCore Kit

⑤

Relinquished By:	Date	Time	Received By:
(1)	10/7/21	1320	
(2)			
(3)			
(4)			

④

Requested TAT (One TAT per COC): ☒ 5-Day ☐ 3-Day ☐ 2-Day ☐ Next Day ☐ Emergency ☒ Other

STATE RESULTS REPORTED TO: ☐ MD ☐ DE ☐ PA ☐ VA ☐ WV ☐ OTHER

COMPLIANCE? ☐ DW ☐ WW

EDD FORMAT TYPE

Ice Present: PRES

Custody Seal: COOLER-INTACT

Coolers: 1 Temp: 22.4-22.9°C

Shipping Carrier: CLIENT

Special Instructions: TEMP BLANK = 21.9°C

5-day TAT

pH = 8.09 SU, Temp = 22.8°C at time of sample collection

This chain of custody is a legal document. The client (PSS Client), by signing, or having client's agent sign, this "Chain of Custody Form", agrees to pay for the above requested services per the latest version of the Service Brochure of PSS-provided quotation including any and all attorney's or other reasonable fees if collection becomes necessary.

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Sample Receipt Checklist

Project Name: Kop-Flex
PSS Project No.: 21100715

Client Name WSP USA - Herndon
Disposal Date 11/11/2021

Received By Brad Crozier
Date Received 10/07/2021 01:20:00 PM
Delivered By Client
Tracking No Not Applicable
Logged In By Brad Crozier

Shipping Container(s)
No. of Coolers 1

		Ice	Present
Custody Seal(s) Intact?	Yes	Temp (deg C)	22.9
Seal(s) Signed / Dated?	Yes	Temp Blank Present	Yes

Documentation

		Sampler Name	Shannon Burke
COC agrees with sample labels?	Yes	MD DW Cert. No.	N/A
Chain of Custody	Yes		

Sample Container

		Custody Seal(s) Intact?	Not Applicable
Appropriate for Specified Analysis?	Yes	Seal(s) Signed / Dated	Not Applicable
Intact?	Yes		
Labeled and Labels Legible?	Yes		

Holding Time

		Total No. of Samples Received	2
All Samples Received Within Holding Time(s)?	Yes	Total No. of Containers Received	16

Preservation

Total Metals	(pH<2)	Yes
Dissolved Metals, filtered within 15 minutes of collection	(pH<2)	N/A
Orthophosphorus, filtered within 15 minutes of collection		N/A
Cyanides	(pH>12)	Yes
Sulfide	(pH>9)	N/A
TOC, DOC (field filtered), COD, Phenols	(pH<2)	Yes
TOX, TKN, NH3, Total Phos	(pH<2)	N/A
VOC, BTEX (VOA Vials Rcvd Preserved)	(pH<2)	Yes
Do VOA vials have zero headspace?		Yes
624 VOC (Rcvd at least one unpreserved VOA vial)		Yes
524 VOC (Rcvd with trip blanks)	(pH<2)	N/A

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Sample Receipt Checklist

Project Name: Kop-Flex
PSS Project No.: 21100715

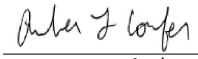
Client Name	WSP USA - Herndon	**Received By**	Brad Crozier
Disposal Date	11/11/2021	**Date Received**	10/07/2021 01:20:00 PM
		Delivered By	Client
		Tracking No	Not Applicable
		Logged In By	Brad Crozier

Comments: (Any "No" response must be detailed in the comments section below.)

For any improper preservation conditions, list sample ID, preservative added (reagent ID number) below as well as documentation of any client notification as well as client instructions. Samples for pH, chlorine and dissolved oxygen should be analyzed as soon as possible, preferably in the field at the time of sampling. Samples which require thermal preservation shall be considered acceptable when received at a temperature above freezing to 6°C. Samples that are hand delivered on the day that they are collected may not meet these criteria but shall be considered acceptable if there is evidence that the chilling process has begun such as arrival on ice.

Preservative not indicated on COC for metals, cyanide, COD, oil and grease, and VOC. Received containers preserved with HNO3, NaOH, H2SO4, and a 624 kit with two unpreserved vials and one preserved iwh HCl.

Samples Inspected/Checklist Completed By:  Brad Crozier Date: 10/07/2021

PM Review and Approval:  Amber Confer Date: 10/07/2021

ENCLOSURE C – SUBMITTAL TO ANNE ARUNDEL COUNTY PRE-TREATMENT PROGRAM OF NOVEMBER 2021 WASTEWATER DISCHARGE MONITORING RESULTS

VIA ELECTRONIC MAIL

December 9, 2021

Chris Tait
Regulatory Compliance Program Manager
Pre-treatment Program
Department of Public Works
2662 Riva Road WWD MS 7408
Annapolis, MD 21401

Subject: **Summary of Wastewater Discharge Monitoring Results**
EMERSUB 16 LLC Treatment Building, Harmans Road, Hanover, Maryland
Wastewater Discharge Permit No. 210020

Dear Mr. Tait:

On behalf of EMERSUB 16, LLC (EMERSUB 16), WSP USA Inc. (WSP) has prepared this letter summarizing the results of a recent wastewater discharge monitoring event completed with respect to the Effluent Limitations specified in the Wastewater Discharge Permit No. 210020 (Permit) issued to EMERSUB 16 by the Anne Arundel County (County) Pre-treatment Program. The collected sample is representative of the boiler blowdown water, which discharges to the sanitary sewer system on the property at Harmans Road in Hanover, Maryland. The boiler is a component of the groundwater remediation system (System) on the property, and the blowdown water consists of softened city water with an added water treatment chemical (CHEM-AQUA 16890) that prevents corrosion and deposition of materials inside the boiler. The discharge monitoring results are being submitted in accordance with Part 1, Section 6 of the Permit. Information on the System operations that generate the wastewater and chemical characterization of the wastewater is provided below.

GROUNDWATER REMEDIATION SYSTEM – DESCRIPTION AND OPERATIONS

Under the Maryland Department of the Environment (MDE) Voluntary Cleanup Program, and as required under Administrative Order on Consent (RCRA-03-2016-0170 CA) issued by the United States Environmental Protection Agency Region III, EMERSUB 16 has operated the System to control the migration of chlorinated volatile organic compounds (VOCs) and 1,4-dioxane present in the aquifer underlying the property. The System involves the extraction of affected groundwater using recovery wells and treatment of the extracted groundwater using bag filters for suspended solids removal, synthetic resin for the removal of VOCs and 1,4-dioxane, caustic soda for pH buffering, and in-line aerators to increase dissolved oxygen levels. The treated groundwater is routed and discharged to the reach of Stony Run on the property under Maryland State Discharge Permit Number 15-DP-3442 and National Pollutant Discharge Elimination System Permit MD0069094.

The synthetic resin regularly undergoes regeneration onsite to desorb the VOCs and 1,4-dioxane removed from the groundwater. A steam boiler and steam superheater system are used to produce superheated steam for the regeneration of the resin. During normal

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Herndon, VA 20171

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Fax: +1 703 709-8505
wsp.com

System operation, regenerations are initiated three times per week on Monday, Wednesday, and Friday, and the boiler operates for about 20 hours during each regeneration. A manual bottom blowdown of the boiler is completed by a System operator prior to initiating each regeneration. A conductivity monitor for the boiler controls an automatic blowdown valve that discharges boiler water as necessary to maintain the boiler water conductivity within the optimal operating range. The boiler blowdown comprises the vast majority (>99%) of the water discharged to the sewer system during a typical month of System operation.

CHEMICAL CHARACTERIZATION OF BOILER BLOWDOWN WATER

On November 3, 2021, WSP collected a grab sample of the boiler blowdown water for chemical characterization purposes. The sample was analyzed for the following parameters by Phase Separation Science, Inc., of Baltimore, Maryland.

- Target analyte list metals (including mercury)
- Total cyanide
- Organochlorine pesticides
- Polychlorinated biphenyls
- VOCs
- Semi-volatile organic compounds
- Oil & grease
- Total suspended solids
- Biochemical oxygen demand (BOD)
- Chemical oxygen demand (COD)
- Flash point

The temperature and pH of the blowdown water were measured using a calibrated field meter at the time of sample collection.

A copy of the certified laboratory analytical report, dated November 17, 2021, is provided in Enclosure A. The laboratory data indicates the boiler blowdown water meets most of the standards, including total toxic organics, specified in Part 2 – Applicable Effluent Limitations of the Permit. As noted in the Special Instructions portion of the chain of custody (COC) form that accompanied the sample shipment to the laboratory, the temperature and pH of the water on the day of sampling were 30.4° Celsius and 10.76 standard units (SU), respectively. (A copy of the COC form is included on page 35 of the laboratory analytical report.)

The pH of the blowdown water (10.76 SU) was above the range of 6-10 SU specified in the Permit. Based on the elevated pH measurement, WSP temporarily shut down operation of the System and disabled the automatic blowdown mechanism for the boiler while evaluating a solution for maintaining the pH within the permitted range.

The COD concentration of the sample – 400 milligrams per liter (mg/L) – exceeds the level of 250 mg/L listed in Footnote 3 of the pre-treatment standards specified in Part 2 of the Permit. Based on the information provided in this footnote, a surcharge would be applicable for this COD level as specified in the County sewer ordinance.

BOILER BLOWDOWN DISCHARGE STUDY

Based on the pH reading for the boiler blowdown water, WSP contacted the County Pre-treatment Program to inquire about the possibility of obtaining a variance for the upper pH limit of 10 SU in the Permit. In a December 1, 2021 email to WSP, the County indicated that a variance to the specified pH limit may be granted after completing a small study of the System. Given our knowledge of the System operation, we think it would be best for us to conduct the blowdown discharge study. We are willing to coordinate with

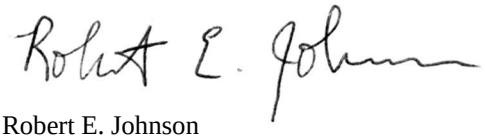
the County to schedule the monitoring/data collection activities on days when a representative(s) from the Pre-treatment Program could be onsite. The following provides our thoughts on the approach for the proposed study.

Prior to initiating the study, WSP will replace the boiler blowdown assembly. It is anticipated that the new blowdown assembly will result in more frequent and consistent automatic blowdowns to maintain the boiler water conductivity within the operating range. WSP believes the new assembly may also help to maintain the boiler blowdown water at a lower pH. Upon approval from the County Pre-treatment Program, WSP would coordinate with the System operation and maintenance contractor to resume operation of the System and monitor the pH of the boiler blowdown water over a two-week period. For one day during each of the two weeks, personnel onsite to initiate regeneration of the synthetic resin would monitor the pH of the blowdown water discharged to the sanitary sewer during an approximately 8-hour period. The water would be sampled each time a manual or automatic blowdown occurred and analyzed onsite for pH using a calibrated field meter. During the study, potable water usage will be monitored using an onsite meter to calculate the approximate volume of boiler blowdown water discharged to the sanitary sewer during System operation. If the pH of the boiler blowdown water remains elevated, WSP will shut down operation of the System and disable automatic blowdown of the boiler, following completion of the study, pending the County's review of the pH and flow information and issuance of a final decision on a variance to the upper pH limit in the Permit.

The study will be scheduled to start after installation of the new boiler blowdown assembly. Based on the lead time for the new assembly, it is anticipated that the study will be completed during January 2022.

If you have any questions or require additional information, please contact me at (703) 709-6500.

Kind regards,



Robert E. Johnson
Director of Geological Sciences – Earth & Environment

K:\Emerson\Kop-Flex_$ONSITE AREA\Wastewater Discharge Permit - County\Discharge sampling\Boiler blowdown water\2021 - 11 November

Encl.

cc: Department of Public Works, Finance Division
Mr. Stephen Clarke, EMERSUB 16 LLC
Ms. Amber Crouch, EMERSUB 16 LLC

ENCLOSURE A – LABORATORY ANALYTICAL REPORT, BOILER BLOWDOWN WATER

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Certificate of Analysis

Project Name: Kop-Flex
PSS Project No.: 21110311

November 17, 2021

Eric Johnson
WSP USA - Herndon
13530 Dulles Technology Dr, Ste 300
Herndon, VA 20171

Reference: PSS Project No: **21110311**
Project Name: Kop-Flex
Project Location: Hanover, MD
Project ID.: 31401545.010/04

Dear Eric Johnson:

This report includes the analytical results from the analyses performed on the samples received under the project name referenced above and identified with the Phase Separation Science (PSS) Project number(s) **21110311**.

All work reported herein has been performed in accordance with current NELAP standards, referenced methodologies, PSS Standard Operating Procedures and the PSS Quality Assurance Manual unless otherwise noted in the Case Narrative Summary. PSS is limited in liability to the actual cost of the sample analysis done.

PSS reserves the right to return any unused samples, extracts or related solutions. Otherwise, the samples are scheduled for disposal, without any further notice, on December 8, 2021, with the exception of air canisters which are cleaned immediately following analysis. This includes any samples that were received with a request to be held but lacked a specific hold period. It is your responsibility to provide a written request defining a specific disposal date if additional storage is required. Upon receipt, the request will be acknowledged by PSS, thus extending the storage period.

This report shall not be reproduced except in full, without the written approval of an authorized PSS representative. A copy of this report will be retained by PSS for at least 5 years, after which time it will be disposed of without further notice, unless prior arrangements have been made.

We thank you for selecting Phase Separation Science, Inc. to serve your analytical needs. If you have any questions concerning this report, do not hesitate to contact us at 410-747-8770 or info@phaseonline.com.

Sincerely,

Dan Prucnal
Laboratory Manager

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Explanation of Qualifiers

Project Name: Kop-Flex
PSS Project No.: 21110311

Project ID: 31401545.010/04

The following samples were received under chain of custody by Phase Separation Science (PSS) on 11/03/2021 at 12:15 pm

PSS Sample ID	Sample ID	Matrix	Date/Time Collected
21110311-001	Boiler blowdown water	WASTE WATER	11/03/21 11:10
21110311-002	TB-110321-BBW	WATER	11/03/21 12:15

Please reference the Chain of Custody and Sample Receipt Checklist for specific container counts and preservatives. Any sample conditions not in compliance with sample acceptance criteria are described in Case Narrative Summary.

Notes:

1. The presence of a common laboratory contaminant such as methylene chloride may be considered a possible laboratory artifact. Where observed, appropriate consideration of data should be taken.
2. Unless otherwise noted in the case narrative, results are reported on a dry weight basis with the exception of pH, flashpoint, moisture, and paint filter test.
3. Drinking water samples collected for the purpose of compliance with SDWA may not be suitable for their intended use unless collected by a certified sampler [COMAR 26.08.05.07.C.2].
4. The analyses of 1,2-dibromo-3-chloropropane (DBCP) and 1,2-dibromoethane (EDB) by EPA 524.2 and calcium, magnesium, sodium and iron by EPA 200.8 are not currently promulgated for use in testing to meet the Safe Drinking Water Act and as such cannot be used for compliance purposes. The listings of the current promulgated methods for testing in compliance with the Safe Drinking Water Act can be found in the 40 CFR part 141.1, for the primary drinking water contaminates, and part 141.3, for the secondary drinking water contaminates.
5. Sample prepared under EPA 3550C with concentrations greater than 20 mg/Kg should employ the microtip extraction procedure if required to meet data quality objectives.
6. The analysis of acrolein by EPA 624 must be analyzed within three days of sampling unless pH is adjusted to 4-5 units [40 CFR part 136.3(e)].
7. Method 180.1, The Determination of Turbidity by Nephelometry, recommends samples over 40 NTU be diluted until the turbidity falls below 40 units. Routine samples over 40 NTU may not be diluted as long as the data quality objectives are not affected.
8. Alkalinity results analyzed by EPA 310.2 that are reported by dilution are estimated and are not in compliance with method requirements.

Standard Flags/Abbreviations:

B	A target analyte or common laboratory contaminant was identified in the method blank. Its presence indicates possible field or laboratory contamination.
C	Results Pending Final Confirmation.
E	The data exceeds the upper calibration limit; therefore, the concentration is reported as estimated.
Fail	The result exceeds the regulatory level for Toxicity Characteristic (TCLP) as cited in 40 CFR 261.24 Table 1.
J	The target analyte was positively identified below the reporting limit but greater than the MDL.
MDL	This is the Laboratory Method Detection Limit which is equivalent to the Limit of Detection (LOD). The LOD is an estimate of the minimum amount of a substance that an analytical process can reliably detect. This value will remain constant across multiple similar instrumentation and among different analysts. An LOD is analyte and matrix specific.
ND	Not Detected at or above the reporting limit.
RL	PSS Reporting Limit.
U	Not detected.

Certifications:

NELAP Certifications: PA 68-03330, VA 460156
State Certifications: MD 179, WV 303
Regulated Soil Permit: P330-12-00268
NSWC USCG Accepted Laboratory
LDBE MWAA LD1997-0041-2015

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Certificate of Analysis

Project Name: Kop-Flex
PSS Project No.: 21110311

Sample ID: Boiler blowdown water **Date/Time Sampled: 11/03/2021 11:10** **PSS Sample ID: 21110311-001**
Matrix: WASTE WATER **Date/Time Received: 11/03/2021 12:15**

Oil and Grease — Analytical Method: EPA 1664 B O&G

	Result	Units	RL	Flag	Dil	Prepared	Analyzed	Analyst
Oil & Grease, Total Recovered	ND	mg/L	2.2		1	11/11/21	11/11/21 09:30	1022

TAL Metals (w/o Hg) — Analytical Method: EPA 200.8 — Preparation Method: E200.8

	Result	Units	RL	Flag	Dil	Prepared	Analyzed	Analyst
Aluminum	**732**	ug/L	100		1	11/04/21	11/04/21 13:24	1064
Antimony	ND	ug/L	5.0		1	11/04/21	11/04/21 13:24	1064
Arsenic	**7.4**	ug/L	1.0		1	11/04/21	11/04/21 13:24	1064
Barium	**4.6**	ug/L	1.0		1	11/04/21	11/04/21 13:24	1064
Beryllium	ND	ug/L	1.0		1	11/04/21	11/04/21 13:24	1064
Cadmium	ND	ug/L	1.0		1	11/04/21	11/04/21 13:24	1064
Calcium	**2,820**	ug/L	100		1	11/04/21	11/04/21 13:24	1064
Chromium	**15.3**	ug/L	1.00		1	11/04/21	11/04/21 13:24	1064
Cobalt	**168**	ug/L	1.00		1	11/04/21	11/04/21 13:24	1064
Copper	**123**	ug/L	1.00		1	11/04/21	11/04/21 13:24	1064
Iron	**1,840**	ug/L	100		1	11/04/21	11/04/21 13:24	1064
Lead	**1.8**	ug/L	1.0		1	11/04/21	11/04/21 13:24	1064
Magnesium	**173**	ug/L	100		1	11/04/21	11/04/21 13:24	1064
Manganese	**51.3**	ug/L	1.00		1	11/04/21	11/04/21 13:24	1064
Nickel	**36.4**	ug/L	1.00		1	11/04/21	11/04/21 13:24	1064
Potassium	**233,000**	ug/L	10,000		100	11/04/21	11/05/21 00:11	1064
Selenium	**1.7**	ug/L	1.0		1	11/04/21	11/04/21 13:24	1064
Silver	ND	ug/L	1.0		1	11/04/21	11/04/21 13:24	1064
Sodium	**1,110,000**	ug/L	100,000		1000	11/04/21	11/05/21 14:19	1064
Thallium	ND	ug/L	1.0		1	11/04/21	11/04/21 13:24	1064
Vanadium	**3.8**	ug/L	1.0		1	11/04/21	11/04/21 13:24	1064
Zinc	**176**	ug/L	20.0		1	11/04/21	11/04/21 13:24	1064

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Certificate of Analysis

Project Name: Kop-Flex
PSS Project No.: 21110311

Sample ID: Boiler blowdown water **Date/Time Sampled: 11/03/2021 11:10** **PSS Sample ID: 21110311-001**
Matrix: WASTE WATER **Date/Time Received: 11/03/2021 12:15**

Mercury, Total — Analytical Method: EPA 245.1

	Result	Units	RL	Flag	Prepared	Analyzed	Analyst
Mercury	ND	ug/L	0.2		11/04/21	11/04/21 12:21	4005

Organochlorine Pesticides — Analytical Method: EPA 608 .3 — Preparation Method: E608.3

	Result	Units	RL	Flag	Dil	Prepared	Analyzed	Analyst
4,4-DDD	ND	mg/L	0.000040		1	11/04/21	11/05/21 16:02	1029
4,4-DDE	ND	mg/L	0.000040		1	11/04/21	11/05/21 16:02	1029
4,4-DDT	ND	mg/L	0.000040		1	11/04/21	11/05/21 16:02	1029
Aldrin	ND	mg/L	0.000040		1	11/04/21	11/05/21 16:02	1029
alpha-BHC	ND	mg/L	0.000040		1	11/04/21	11/05/21 16:02	1029
alpha-Chlordane	ND	mg/L	0.000040		1	11/04/21	11/05/21 16:02	1029
beta-BHC	ND	mg/L	0.000040		1	11/04/21	11/05/21 16:02	1029
Chlordane	ND	mg/L	0.0010		1	11/04/21	11/05/21 16:02	1029
delta-BHC	ND	mg/L	0.000040		1	11/04/21	11/05/21 16:02	1029
Dieldrin	ND	mg/L	0.000040		1	11/04/21	11/05/21 16:02	1029
Endosulfan I	ND	mg/L	0.000040		1	11/04/21	11/05/21 16:02	1029
Endosulfan II	ND	mg/L	0.000040		1	11/04/21	11/05/21 16:02	1029
Endosulfan sulfate	ND	mg/L	0.000040		1	11/04/21	11/05/21 16:02	1029
Endrin	ND	mg/L	0.000040		1	11/04/21	11/05/21 16:02	1029
Endrin aldehyde	ND	mg/L	0.000040		1	11/04/21	11/05/21 16:02	1029
gamma-BHC (Lindane)	ND	mg/L	0.000040		1	11/04/21	11/05/21 16:02	1029
gamma-Chlordane	ND	mg/L	0.000040		1	11/04/21	11/05/21 16:02	1029
Heptachlor	ND	mg/L	0.000040		1	11/04/21	11/05/21 16:02	1029
Heptachlor epoxide	ND	mg/L	0.000040		1	11/04/21	11/05/21 16:02	1029
Toxaphene	ND	mg/L	0.0010		1	11/04/21	11/05/21 16:02	1029

Surrogate(s)	***Recovery***		***Limits***				
Tetrachloro-m-xylene	*73*	*%*	*23-136*		*1*	*11/04/21*	*11/05/21 16:02*	*1029*
Decachlorobiphenyl	*96*	*%*	*60-139*		*1*	*11/04/21*	*11/05/21 16:02*	*1029*

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Certificate of Analysis

Project Name: Kop-Flex
PSS Project No.: 21110311

Sample ID: Boiler blowdown water **Date/Time Sampled: 11/03/2021 11:10** **PSS Sample ID: 21110311-001**
Matrix: WASTE WATER **Date/Time Received: 11/03/2021 12:15**

Polychlorinated Biphenyls (PCBs) Analytical Method: EPA 608 .3 Preparation Method: E608.3
Clean up Method: SW846 3665A

	Result	Units	RL	Flag	Dil	Prepared	Analyzed	Analyst
PCB-1016	ND	mg/L	0.00050		1	11/04/21	11/05/21 09:48	1029
PCB-1221	ND	mg/L	0.00050		1	11/04/21	11/05/21 09:48	1029
PCB-1232	ND	mg/L	0.00050		1	11/04/21	11/05/21 09:48	1029
PCB-1242	ND	mg/L	0.00050		1	11/04/21	11/05/21 09:48	1029
PCB-1248	ND	mg/L	0.00050		1	11/04/21	11/05/21 09:48	1029
PCB-1254	ND	mg/L	0.00050		1	11/04/21	11/05/21 09:48	1029
PCB-1260	ND	mg/L	0.00050		1	11/04/21	11/05/21 09:48	1029

Surrogate(s)	*Recovery*		*Limits*			
Decachlorobiphenyl	*91*	*%*	*60-139*	*1*	*11/04/21*	*11/05/21 09:48*	*1029*
Tetrachloro-m-xylene	*87*	*%*	*23-136*	*1*	*11/04/21*	*11/05/21 09:48*	*1029*

VOC (Full List) Analytical Method: EPA 624 .1 Preparation Method: E624.1

pH=12

	Result	Units	RL	Flag	Dil	Prepared	Analyzed	Analyst
Acrolein	ND	ug/L	5.0		1	11/03/21	11/03/21 18:14	1011
Acrylonitrile	ND	ug/L	5.0		1	11/03/21	11/03/21 18:14	1011
Benzene	ND	ug/L	1.0		1	11/03/21	11/03/21 18:14	1011
Bromodichloromethane	ND	ug/L	1.0		1	11/03/21	11/03/21 18:14	1011
Bromoform	ND	ug/L	1.0		1	11/03/21	11/03/21 18:14	1011
Bromomethane	ND	ug/L	1.0		1	11/03/21	11/03/21 18:14	1011
Carbon Tetrachloride	ND	ug/L	1.0		1	11/03/21	11/03/21 18:14	1011
Chlorobenzene	ND	ug/L	1.0		1	11/03/21	11/03/21 18:14	1011
Chloroethane	ND	ug/L	1.0		1	11/03/21	11/03/21 18:14	1011
2-Chloroethyl Vinyl Ether	ND	ug/L	1.0		1	11/03/21	11/03/21 18:14	1011
Chloroform	**2.0**	ug/L	1.0		1	11/03/21	11/03/21 18:14	1011
Chloromethane	ND	ug/L	1.0		1	11/03/21	11/03/21 18:14	1011
Dibromochloromethane	ND	ug/L	1.0		1	11/03/21	11/03/21 18:14	1011
1,2-Dichlorobenzene	ND	ug/L	1.0		1	11/03/21	11/03/21 18:14	1011
1,3-Dichlorobenzene	ND	ug/L	1.0		1	11/03/21	11/03/21 18:14	1011
1,4-Dichlorobenzene	ND	ug/L	1.0		1	11/03/21	11/03/21 18:14	1011
Dichlorodifluoromethane	ND	ug/L	1.0		1	11/03/21	11/03/21 18:14	1011
1,1-Dichloroethane	ND	ug/L	1.0		1	11/03/21	11/03/21 18:14	1011
1,2-Dichloroethane	ND	ug/L	1.0		1	11/03/21	11/03/21 18:14	1011
1,1-Dichloroethene	ND	ug/L	1.0		1	11/03/21	11/03/21 18:14	1011

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Certificate of Analysis

Project Name: Kop-Flex
PSS Project No.: 21110311

Sample ID: Boiler blowdown water **Date/Time Sampled: 11/03/2021 11:10** **PSS Sample ID: 21110311-001**
Matrix: WASTE WATER **Date/Time Received: 11/03/2021 12:15**

VOC (Full List) Analytical Method: EPA 624 .1 Preparation Method: E624.1

pH=12

	Result	Units	RL	Flag	Dil	Prepared	Analyzed	Analyst
1,2-Dichloropropane	ND	ug/L	1.0		1	11/03/21	11/03/21 18:14	1011
cis-1,3-Dichloropropene	ND	ug/L	1.0		1	11/03/21	11/03/21 18:14	1011
trans-1,3-dichloropropene	ND	ug/L	1.0		1	11/03/21	11/03/21 18:14	1011
trans-1,2-dichloroethene	ND	ug/L	1.0		1	11/03/21	11/03/21 18:14	1011
Ethylbenzene	ND	ug/L	1.0		1	11/03/21	11/03/21 18:14	1011
Methylene Chloride	ND	ug/L	1.0		1	11/03/21	11/03/21 18:14	1011
1,1,2,2-Tetrachloroethane	ND	ug/L	1.0		1	11/03/21	11/03/21 18:14	1011
Tetrachloroethene	ND	ug/L	1.0		1	11/03/21	11/03/21 18:14	1011
Toluene	ND	ug/L	1.0		1	11/03/21	11/03/21 18:14	1011
1,1,1-Trichloroethane	ND	ug/L	1.0		1	11/03/21	11/03/21 18:14	1011
1,1,2-Trichloroethane	ND	ug/L	1.0		1	11/03/21	11/03/21 18:14	1011
Trichloroethene	ND	ug/L	1.0		1	11/03/21	11/03/21 18:14	1011
Trichlorofluoromethane	ND	ug/L	1.0		1	11/03/21	11/03/21 18:14	1011
Vinyl Chloride	ND	ug/L	1.0		1	11/03/21	11/03/21 18:14	1011

Surrogate(s)	***Recovery***		***Limits***				
Dibromofluoromethane	*96*	*%*	*87-120*		*1*	*11/03/21*	*11/03/21 18:14*	*1011*
4-Bromofluorobenzene	*97*	*%*	*85-147*		*1*	*11/03/21*	*11/03/21 18:14*	*1011*
Toluene-D8	*99*	*%*	*88-110*		*1*	*11/03/21*	*11/03/21 18:14*	*1011*

Extractable Priority Pollutants Analytical Method: EPA 625 .1 Preparation Method: E625.1

	Result	Units	RL	Flag	Dil	Prepared	Analyzed	Analyst
1,2,4-Trichlorobenzene	ND	mg/L	0.0010		1	11/04/21	11/04/21 20:40	1070
1,2-Diphenylhydrazine	ND	mg/L	0.0050		1	11/04/21	11/04/21 20:40	1070
2,4,6-Trichlorophenol	ND	mg/L	0.0020		1	11/04/21	11/04/21 20:40	1070
2,4-Dichlorophenol	ND	mg/L	0.0010		1	11/04/21	11/04/21 20:40	1070
2,4-Dimethylphenol	ND	mg/L	0.0010		1	11/04/21	11/04/21 20:40	1070
2,4-Dinitrophenol	ND	mg/L	0.0050		1	11/04/21	11/04/21 20:40	1070
2,4-Dinitrotoluene	ND	mg/L	0.0020		1	11/04/21	11/04/21 20:40	1070
2,6-Dinitrotoluene	ND	mg/L	0.0020		1	11/04/21	11/04/21 20:40	1070
2-Chloronaphthalene	ND	mg/L	0.0010		1	11/04/21	11/04/21 20:40	1070
2-Chlorophenol	ND	mg/L	0.0010		1	11/04/21	11/04/21 20:40	1070
2-Nitrophenol	ND	mg/L	0.0010		1	11/04/21	11/04/21 20:40	1070
3,3-Dichlorobenzidine	ND	mg/L	0.0010		1	11/04/21	11/04/21 20:40	1070

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Certificate of Analysis

Project Name: Kop-Flex
PSS Project No.: 21110311

Sample ID: Boiler blowdown water **Date/Time Sampled: 11/03/2021 11:10** **PSS Sample ID: 21110311-001**
Matrix: WASTE WATER **Date/Time Received: 11/03/2021 12:15**

Extractable Priority Pollutants | Analytical Method: EPA 625 .1 | Preparation Method: E625.1

	Result	Units	RL	Flag	Dil	Prepared	Analyzed	Analyst
4,6-Dinitro-2-methyl phenol	ND	mg/L	0.0050		1	11/04/21	11/04/21 20:40	1070
4-Bromophenylphenyl ether	ND	mg/L	0.0010		1	11/04/21	11/04/21 20:40	1070
4-Chloro-3-methyl phenol	ND	mg/L	0.0010		1	11/04/21	11/04/21 20:40	1070
4-Chlorophenyl Phenyl ether	ND	mg/L	0.0010		1	11/04/21	11/04/21 20:40	1070
4-Nitrophenol	ND	mg/L	0.0050		1	11/04/21	11/04/21 20:40	1070
Acenaphthene	ND	mg/L	0.00025		1	11/04/21	11/04/21 20:40	1070
Acenaphthylene	ND	mg/L	0.00025		1	11/04/21	11/04/21 20:40	1070
Anthracene	ND	mg/L	0.00025		1	11/04/21	11/04/21 20:40	1070
Benzidine	ND	mg/L	0.0050		1	11/04/21	11/04/21 20:40	1070
Benzo(a)anthracene	ND	mg/L	0.00025		1	11/04/21	11/04/21 20:40	1070
Benzo(a)pyrene	ND	mg/L	0.00025		1	11/04/21	11/04/21 20:40	1070
Benzo(b)fluoranthene	ND	mg/L	0.00025		1	11/04/21	11/04/21 20:40	1070
Benzo(g,h,i)perylene	ND	mg/L	0.00025		1	11/04/21	11/04/21 20:40	1070
Benzo(k)fluoranthene	ND	mg/L	0.00025		1	11/04/21	11/04/21 20:40	1070
Butyl benzyl phthalate	ND	mg/L	0.0010		1	11/04/21	11/04/21 20:40	1070
bis(2-chloroethoxy) methane	ND	mg/L	0.0010		1	11/04/21	11/04/21 20:40	1070
bis(2-chloroethyl) ether	ND	mg/L	0.0010		1	11/04/21	11/04/21 20:40	1070
bis(2-chloroisopropyl) ether	ND	mg/L	0.0010		1	11/04/21	11/04/21 20:40	1070
bis(2-ethylhexyl) phthalate	ND	mg/L	0.0010		1	11/04/21	11/04/21 20:40	1070
Chrysene	ND	mg/L	0.00025		1	11/04/21	11/04/21 20:40	1070
Dibenz(a,h)Anthracene	ND	mg/L	0.00025		1	11/04/21	11/04/21 20:40	1070
Diethyl phthalate	ND	mg/L	0.0010		1	11/04/21	11/04/21 20:40	1070
Dimethyl phthalate	ND	mg/L	0.0010		1	11/04/21	11/04/21 20:40	1070
Di-n-butyl phthalate	ND	mg/L	0.0010		1	11/04/21	11/04/21 20:40	1070
Di-n-octyl phthalate	ND	mg/L	0.0020		1	11/04/21	11/04/21 20:40	1070
Fluoranthene	ND	mg/L	0.00025		1	11/04/21	11/04/21 20:40	1070
Fluorene	ND	mg/L	0.00025		1	11/04/21	11/04/21 20:40	1070
Hexachlorobenzene	ND	mg/L	0.0010		1	11/04/21	11/04/21 20:40	1070
Hexachlorobutadiene	ND	mg/L	0.0010		1	11/04/21	11/04/21 20:40	1070
Hexachlorocyclopentadiene	ND	mg/L	0.0020		1	11/04/21	11/04/21 20:40	1070
Hexachloroethane	ND	mg/L	0.0010		1	11/04/21	11/04/21 20:40	1070
Indeno(1,2,3-c,d)Pyrene	ND	mg/L	0.00025		1	11/04/21	11/04/21 20:40	1070
Isophorone	ND	mg/L	0.0010		1	11/04/21	11/04/21 20:40	1070
Naphthalene	ND	mg/L	0.00025		1	11/04/21	11/04/21 20:40	1070
Nitrobenzene	ND	mg/L	0.0010		1	11/04/21	11/04/21 20:40	1070

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Certificate of Analysis

Project Name: Kop-Flex
PSS Project No.: 21110311

Sample ID: Boiler blowdown water **Date/Time Sampled: 11/03/2021 11:10** **PSS Sample ID: 21110311-001**
Matrix: WASTE WATER **Date/Time Received: 11/03/2021 12:15**

Extractable Priority Pollutants — Analytical Method: EPA 625 .1 — Preparation Method: E625.1

	Result	Units	RL	Flag	Dil	Prepared	Analyzed	Analyst
N-Nitrosodimethylamine	ND	mg/L	0.0010		1	11/04/21	11/04/21 20:40	1070
N-Nitrosodi-n-propyl amine	ND	mg/L	0.0010		1	11/04/21	11/04/21 20:40	1070
N-Nitrosodiphenylamine	ND	mg/L	0.0010		1	11/04/21	11/04/21 20:40	1070
Pentachlorophenol	ND	mg/L	0.0020		1	11/04/21	11/04/21 20:40	1070
Phenanthrene	ND	mg/L	0.00025		1	11/04/21	11/04/21 20:40	1070
Phenol	ND	mg/L	0.0010		1	11/04/21	11/04/21 20:40	1070
Pyrene	ND	mg/L	0.00025		1	11/04/21	11/04/21 20:40	1070

Surrogate(s)	*Recovery*		*Limits*			
2-Fluorobiphenyl	*77*	*%*	*42-141*	*1*	*11/04/21*	*11/04/21 20:40*	*1070*
2-Fluorophenol	*66*	*%*	*35-131*	*1*	*11/04/21*	*11/04/21 20:40*	*1070*
Nitrobenzene-d5	*72*	*%*	*40-139*	*1*	*11/04/21*	*11/04/21 20:40*	*1070*
2,4,6-Tribromophenol	*84*	*%*	*35-156*	*1*	*11/04/21*	*11/04/21 20:40*	*1070*
Phenol-d6	*68*	*%*	*33-140*	*1*	*11/04/21*	*11/04/21 20:40*	*1070*
Terphenyl-D14	*95*	*%*	*54-138*	*1*	*11/04/21*	*11/04/21 20:40*	*1070*

Total Suspended Solids — Analytical Method: SM 2540D -2011

	Result	Units	RL	Flag	Dil	Prepared	Analyzed	Analyst
Suspended Solids	ND	mg/L	1.0		1	11/04/21	11/04/21 09:17	1034

Total Cyanide — Analytical Method: SM 4500-CN C,E -2011 — Preparation Method: SM4500CN-C

Qualifier(s): See Batch 188979 on Case Narrative.

	Result	Units	RL	Flag	Dil	Prepared	Analyzed	Analyst
Cyanide, Total	ND	mg/L	0.010		1	11/03/21	11/03/21 16:57	1053

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Certificate of Analysis

Project Name: Kop-Flex
PSS Project No.: 21110311

Sample ID: Boiler blowdown water **Date/Time Sampled: 11/03/2021 11:10** **PSS Sample ID: 21110311-001**
Matrix: WASTE WATER **Date/Time Received: 11/03/2021 12:15**

Biochemical Oxygen Demand — Analytical Method: SM 5210B -2011

Start time: 03-Nov-21 15:40

	Result	Units	RL	Flag	Prepared	Analyzed	Analyst
Biochemical Oxygen Demand, 5 day	ND	mg/L	5.0		11/08/21	11/08/21 16:00	4005

Chemical Oxygen Demand — Analytical Method: SM 5220D -2011

	Result	Units	RL	Flag	Dil	Prepared	Analyzed	Analyst
Chemical Oxygen Demand	**400**	mg/L	20		1	11/04/21	11/04/21 14:45	1053

Flash Point — Analytical Method: SW-846 1020 A

	Result	Units	RL	Flag	Dil	Prepared	Analyzed	Analyst
Flash Point	**> 200**	Deg F	70.0		1	11/11/21	11/11/21 13:25	1022

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Certificate of Analysis

Project Name: Kop-Flex
PSS Project No.: 21110311

Sample ID: TB-110321-BBW **Date/Time Sampled: 11/03/2021 12:15** **PSS Sample ID: 21110311-002**
Matrix: WATER **Date/Time Received: 11/03/2021 12:15**

VOC (Full List) Analytical Method: EPA 624 .1 Preparation Method: E624.1

pH=2

	Result	Units	RL	Flag	Dil	Prepared	Analyzed	Analyst
Acrolein	ND	ug/L	5.0		1	11/03/21	11/03/21 17:06	1011
Acrylonitrile	ND	ug/L	5.0		1	11/03/21	11/03/21 17:06	1011
Benzene	ND	ug/L	1.0		1	11/03/21	11/03/21 17:06	1011
Bromodichloromethane	ND	ug/L	1.0		1	11/03/21	11/03/21 17:06	1011
Bromoform	ND	ug/L	1.0		1	11/03/21	11/03/21 17:06	1011
Bromomethane	ND	ug/L	1.0		1	11/03/21	11/03/21 17:06	1011
Carbon Tetrachloride	ND	ug/L	1.0		1	11/03/21	11/03/21 17:06	1011
Chlorobenzene	ND	ug/L	1.0		1	11/03/21	11/03/21 17:06	1011
Chloroethane	ND	ug/L	1.0		1	11/03/21	11/03/21 17:06	1011
2-Chloroethyl Vinyl Ether	ND	ug/L	1.0		1	11/03/21	11/03/21 17:06	1011
Chloroform	ND	ug/L	1.0		1	11/03/21	11/03/21 17:06	1011
Chloromethane	ND	ug/L	1.0		1	11/03/21	11/03/21 17:06	1011
Dibromochloromethane	ND	ug/L	1.0		1	11/03/21	11/03/21 17:06	1011
1,2-Dichlorobenzene	ND	ug/L	1.0		1	11/03/21	11/03/21 17:06	1011
1,3-Dichlorobenzene	ND	ug/L	1.0		1	11/03/21	11/03/21 17:06	1011
1,4-Dichlorobenzene	ND	ug/L	1.0		1	11/03/21	11/03/21 17:06	1011
Dichlorodifluoromethane	ND	ug/L	1.0		1	11/03/21	11/03/21 17:06	1011
1,1-Dichloroethane	ND	ug/L	1.0		1	11/03/21	11/03/21 17:06	1011
1,2-Dichloroethane	ND	ug/L	1.0		1	11/03/21	11/03/21 17:06	1011
1,1-Dichloroethene	ND	ug/L	1.0		1	11/03/21	11/03/21 17:06	1011
1,2-Dichloropropane	ND	ug/L	1.0		1	11/03/21	11/03/21 17:06	1011
cis-1,3-Dichloropropene	ND	ug/L	1.0		1	11/03/21	11/03/21 17:06	1011
trans-1,3-dichloropropene	ND	ug/L	1.0		1	11/03/21	11/03/21 17:06	1011
trans-1,2-dichloroethene	ND	ug/L	1.0		1	11/03/21	11/03/21 17:06	1011
Ethylbenzene	ND	ug/L	1.0		1	11/03/21	11/03/21 17:06	1011
Methylene Chloride	ND	ug/L	1.0		1	11/03/21	11/03/21 17:06	1011
1,1,2,2-Tetrachloroethane	ND	ug/L	1.0		1	11/03/21	11/03/21 17:06	1011
Tetrachloroethene	ND	ug/L	1.0		1	11/03/21	11/03/21 17:06	1011
Toluene	ND	ug/L	1.0		1	11/03/21	11/03/21 17:06	1011
1,1,1-Trichloroethane	ND	ug/L	1.0		1	11/03/21	11/03/21 17:06	1011
1,1,2-Trichloroethane	ND	ug/L	1.0		1	11/03/21	11/03/21 17:06	1011
Trichloroethene	ND	ug/L	1.0		1	11/03/21	11/03/21 17:06	1011
Trichlorofluoromethane	ND	ug/L	1.0		1	11/03/21	11/03/21 17:06	1011
Vinyl Chloride	ND	ug/L	1.0		1	11/03/21	11/03/21 17:06	1011

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Certificate of Analysis

Project Name: Kop-Flex
PSS Project No.: 21110311

Sample ID: TB-110321-BBW **Date/Time Sampled: 11/03/2021 12:15** **PSS Sample ID: 21110311-002**
Matrix: WATER **Date/Time Received: 11/03/2021 12:15**

VOC (Full List) Analytical Method: EPA 624 .1 Preparation Method: E624.1

pH=2

Surrogate(s)	*Recovery*		*Limits*				
Dibromofluoromethane	*101*	*%*	*87-120*	*1*	*11/03/21*	*11/03/21 17:06*	*1011*
4-Bromofluorobenzene	*99*	*%*	*85-147*	*1*	*11/03/21*	*11/03/21 17:06*	*1011*
Toluene-D8	*98*	*%*	*88-110*	*1*	*11/03/21*	*11/03/21 17:06*	*1011*

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Project Name: Kop-Flex

PSS Project No.: 21110311

Any holding time exceedances, deviations from the method specifications, regulatory requirements or variations to the procedures outlined in the PSS Quality Assurance Manual are outlined below.

Matrix spike and matrix spike duplicate analyses may not be performed due to insufficient sample quantity. In these instances, a laboratory control sample and laboratory control sample duplicate are analyzed unless otherwise noted or specified in the method.

Sample Receipt:

All sample receipt conditions were acceptable.

21110311: Analyses associated with analyst code 4005 were performed by
Enviro-Chem Laboratories, Inc., 47 Loveton Circle, Suite K, Sparks, MD 21152

Analytical:

Total Cyanide

Batch: 188979

The ICB, MB, and CCB1 through CCB3 were all above 1/2 of the reporting limit at 59, 59, 65, and 59% respectively. The sample was not detected for cyanide.

NELAP accreditation was held for all analyses performed unless noted below. See www.phaseonline.com for complete PSS scope of accreditation.

EPA 245.1, SM 5210B -2011

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Lab Chronology

Project Name: Kop-Flex
PSS Project No.: 21110311

Method	Client Sample ID	Analysis Type	PSS Sample ID	Mtx	Prep Batch	Analytical Batch	Prepared	Analyzed
EPA 1664 B O&G	Boiler blowdown water	Initial	21110311-001	W	189158	189158	11/11/2021 09:30	11/11/2021 09:30
	189158-1-BKS	BKS	189158-1-BKS	W	189158	189158	11/11/2021 09:30	11/11/2021 09:30
	189158-1-BLK	BLK	189158-1-BLK	W	189158	189158	11/11/2021 09:30	11/11/2021 09:30
	189158-1-BSD	BSD	189158-1-BSD	W	189158	189158	11/11/2021 09:30	11/11/2021 09:30
	601 S	MS	21110802-001 S	W	189158	189158	11/11/2021 09:30	11/11/2021 09:30
EPA 200.8	Boiler blowdown water	Initial	21110311-001	W	88313	188985	11/04/2021 07:33	11/04/2021 13:24
	88313-1-BKS	BKS	88313-1-BKS	W	88313	188985	11/04/2021 07:33	11/04/2021 13:15
	88313-1-BLK	BLK	88313-1-BLK	W	88313	188985	11/04/2021 07:33	11/04/2021 13:10
	20211103HRP001 S	MS	21110309-001 S	W	88313	188985	11/04/2021 07:33	11/04/2021 13:01
	20211103HRP001 SD	MSD	21110309-001 S	W	88313	188985	11/04/2021 07:33	11/04/2021 13:06
	Boiler blowdown water	Reanalysis	21110311-001	W	88313	189019	11/04/2021 07:33	11/05/2021 00:11
	Boiler blowdown water	Reanalysis	21110311-001	W	88313	189027	11/04/2021 07:33	11/05/2021 14:19
EPA 245.1	Boiler blowdown water	Initial	21110311-001	W	189310	189310	11/04/2021 12:21	11/04/2021 12:21
EPA 608 .3	Boiler blowdown water	Initial	21110311-001	W	88316	189038	11/04/2021 08:42	11/05/2021 09:48
	88316-1-BKS	BKS	88316-1-BKS	W	88316	189038	11/04/2021 08:42	11/05/2021 08:25
	88316-1-BLK	BLK	88316-1-BLK	W	88316	189038	11/04/2021 08:42	11/05/2021 07:57
	88316-1-BSD	BSD	88316-1-BSD	W	88316	189038	11/04/2021 08:42	11/05/2021 08:53
EPA 608 .3	Boiler blowdown water	Initial	21110311-001	W	88315	189037	11/04/2021 08:39	11/05/2021 16:02
	88315-1-BKS	BKS	88315-1-BKS	W	88315	189037	11/04/2021 08:39	11/05/2021 15:05
	88315-1-BLK	BLK	88315-1-BLK	W	88315	189037	11/04/2021 08:39	11/05/2021 14:50
	88315-1-BSD	BSD	88315-1-BSD	W	88315	189037	11/04/2021 08:39	11/05/2021 15:19
EPA 624 .1	Boiler blowdown water	Initial	21110311-001	W	88318	188958	11/03/2021 15:00	11/03/2021 18:14
	TB-110321-BBW	Initial	21110311-002	W	88318	188958	11/03/2021 15:00	11/03/2021 17:06
	88318-1-BKS	BKS	88318-1-BKS	W	88318	188958	11/03/2021 09:52	11/03/2021 10:57
	88318-1-BLK	BLK	88318-1-BLK	W	88318	188958	11/03/2021 09:52	11/03/2021 13:59
	Effluent VSP-4 S	MS	21110310-001 S	W	88318	188958	11/03/2021 15:00	11/03/2021 18:59
	Effluent VSP-4 SD	MSD	21110310-001 S	W	88318	188958	11/03/2021 15:00	11/03/2021 19:22
EPA 625 .1	Boiler blowdown water	Initial	21110311-001	W	88320	189013	11/04/2021 09:13	11/04/2021 20:40
	88320-1-BKS	BKS	88320-1-BKS	W	88320	189013	11/04/2021 09:13	11/04/2021 18:00
	88320-1-BLK	BLK	88320-1-BLK	W	88320	189013	11/04/2021 09:13	11/04/2021 17:33
	88320-1-BSD	BSD	88320-1-BSD	W	88320	189013	11/04/2021 09:13	11/04/2021 18:26
SM 2540D -2011	Boiler blowdown water	Initial	21110311-001	W	188956	188956	11/04/2021 09:17	11/04/2021 09:17
	188956-1-BKS	BKS	188956-1-BKS	W	188956	188956	11/04/2021 09:17	11/04/2021 09:17
	188956-1-BLK	BLK	188956-1-BLK	W	188956	188956	11/04/2021 09:17	11/04/2021 09:17
	B3-2021-Q4-01-001 D	MD	21110204-001 D	W	188956	188956	11/04/2021 09:17	11/04/2021 09:17
	Discharge - 103021 D	MD	21110315-001 D	W	188956	188956	11/04/2021 09:17	11/04/2021 09:17
SM 4500-CN C,E -2011	Boiler blowdown water	Initial	21110311-001	W	88305	188979	11/03/2021 13:34	11/03/2021 16:57
	88305-1-BKS	BKS	88305-1-BKS	W	88305	188979	11/03/2021 13:20	11/03/2021 16:25
	88305-1-BLK	BLK	88305-1-BLK	W	88305	188979	11/03/2021 13:20	11/03/2021 16:23
	88305-1-BSD	BSD	88305-1-BSD	W	88305	188979	11/03/2021 13:20	11/03/2021 16:27
	WSSC-Bldg 503 - Day 1 S	MS	21102828-001 S	W	88305	188979	11/03/2021 13:20	11/03/2021 16:33
	WSSC-Bldg 503 - Day	MSD	21102828-001 S	W	88305	188979	11/03/2021 13:20	11/03/2021 16:35

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Lab Chronology

Project Name: Kop-Flex
PSS Project No.: 21110311

Method	Client Sample ID	Analysis Type	PSS Sample ID	Mtx	Prep Batch	Analytical Batch	Prepared	Analyzed
SM 4500-CN C,E - 2011	1 SD							
SM 5210B -2011	Boiler blowdown water	Initial	21110311-001	W	189309	189309	11/08/2021 16:00	11/08/2021 16:00
SM 5220D -2011	Boiler blowdown water	Initial	21110311-001	W	188991	188991	11/04/2021 14:45	11/04/2021 14:45
	188991-1-BKS	BKS	188991-1-BKS	W	188991	188991	11/04/2021 14:44	11/04/2021 14:44
	188991-1-BLK	BLK	188991-1-BLK	W	188991	188991	11/04/2021 14:44	11/04/2021 14:44
	Parking Lot Bioretention Area S	MS	21102901-001 S	W	188991	188991	11/04/2021 14:44	11/04/2021 14:44
	Parking Lot Bioretention Area SD	MSD	21102901-001 S	W	188991	188991	11/04/2021 14:44	11/04/2021 14:44
SW-846 1020 A	Boiler blowdown water	Initial	21110311-001	W	189176	189176	11/11/2021 13:25	11/11/2021 13:25
	189176-1-BKS	BKS	189176-1-BKS	W	189176	189176	11/11/2021 13:20	11/11/2021 13:20
	Boiler blowdown water D	MD	21110311-001 D	W	189176	189176	11/11/2021 13:25	11/11/2021 13:25

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QC Summary

Project Name Kop-Flex
PSS Project No.: 21110311

Analytical Method: EPA 1664 B O&G
Seq Number: 189158 Matrix: Water
MB Sample Id: 189158-1-BLK LCS Sample Id: 189158-1-BKS LCSD Sample Id: 189158-1-BSD

Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	LCSD Result	LCSD %Rec	Limits	%RPD	RPD Limit	Units	Flag
Oil & Grease, Total Recovered	<2.000	40.00	38.80	97	38.80	97	78-114	0	11	mg/L	

Analytical Method: SM 2540D -2011
Seq Number: 188956 Matrix: Water
MB Sample Id: 188956-1-BLK LCS Sample Id: 188956-1-BKS

Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	Limits	Units	Flag
Suspended Solids	<1.000	104.2	99.80	96	80-120	mg/L	

Analytical Method: SM 4500-CN C,E -2011 Prep Method: SM4500CN-CPRE
Seq Number: 188979 Matrix: Water Date Prep: 11/03/21
MB Sample Id: 88305-1-BLK LCS Sample Id: 88305-1-BKS LCSD Sample Id: 88305-1-BSD

Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	LCSD Result	LCSD %Rec	Limits	%RPD	RPD Limit	Units	Flag
Cyanide, Total	<0.01000	0.1000	0.09531	95	0.09128	91	85-115	4	20	mg/L	

Analytical Method: SM 5220D -2011
Seq Number: 188991 Matrix: Water
MB Sample Id: 188991-1-BLK LCS Sample Id: 188991-1-BKS

Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	Limits	Units	Flag
Chemical Oxygen Demand	<20.00	483.5	518.9	107	80-120	mg/L	

Analytical Method: SW-846 1020 A
Seq Number: 189176 Matrix: Waste Water
Parent Sample Id: 21110311-001 MD Sample Id: 21110311-001 D

Parameter	Parent Result	MD Result	%RPD	RPD Limit	Units	Flag
Flash Point	205	205	0	25	Deg F	

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QC Summary

Project Name Kop-Flex
PSS Project No.: 21110311

Analytical Method: EPA 200.8
Prep Method: E200.8_PREP
Seq Number: 188985
Matrix: Water
Date Prep: 11/04/21
MB Sample Id: 88313-1-BLK
LCS Sample Id: 88313-1-BKS

Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	Limits	Units	Flag
Aluminum	<100	200	191.2	96	85-115	ug/L	
Antimony	<5.000	40.00	37.82	95	85-115	ug/L	
Arsenic	<1.000	40.00	37.57	94	85-115	ug/L	
Barium	<1.000	40.00	37.52	94	85-115	ug/L	
Beryllium	<1.000	40.00	37.83	95	85-115	ug/L	
Cadmium	<1.000	40.00	39.38	98	85-115	ug/L	
Calcium	<100	400	388.1	97	85-115	ug/L	
Chromium	<1.000	40.00	38.73	97	85-115	ug/L	
Cobalt	<1.000	40.00	38.34	96	85-115	ug/L	
Copper	<1.000	40.00	39.39	98	85-115	ug/L	
Iron	<100	400	370	93	85-115	ug/L	
Lead	<1.000	40.00	36.89	92	85-115	ug/L	
Magnesium	<100	400	368.4	92	85-115	ug/L	
Manganese	<1.000	40.00	38.15	95	85-115	ug/L	
Nickel	<1.000	40.00	39.34	98	85-115	ug/L	
Potassium	<100	400	386.6	97	85-115	ug/L	
Selenium	<1.000	40.00	36.38	91	85-115	ug/L	
Silver	<1.000	40.00	39.11	98	85-115	ug/L	
Sodium	<100	400	392.2	98	85-115	ug/L	
Thallium	<1.000	40.00	37.80	95	85-115	ug/L	
Vanadium	<1.000	40.00	37.99	95	85-115	ug/L	
Zinc	<20.00	200	187.6	94	85-115	ug/L	

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QC Summary

Project Name Kop-Flex
PSS Project No.: 21110311

Analytical Method: EPA 608 .3 Prep Method: E608P
Seq Number: 189037 Matrix: Water Date Prep: 11/04/21
MB Sample Id: 88315-1-BLK LCS Sample Id: 88315-1-BKS LCSD Sample Id: 88315-1-BSD

Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	LCSD Result	LCSD %Rec	Limits	%RPD	RPD Limit	Units	Flag
4,4-DDD	<0.00004	0.0002	0.0001747	87	0.0001734	87	31-141	0	20	mg/L	
4,4-DDE	<0.00004	0.0002	0.0001788	89	0.0001772	89	30-145	0	20	mg/L	
4,4-DDT	<0.00004	0.0002	0.0001909	95	0.0001889	94	25-160	1	20	mg/L	
Aldrin	<0.00004	0.0002	0.0001612	81	0.0001576	79	42-140	3	20	mg/L	
alpha-BHC	<0.00004	0.0002	0.0001775	89	0.0001758	88	37-140	1	20	mg/L	
alpha-Chlordane	<0.00004	0.0002	0.0001681	84	0.0001671	84	45-140	0	20	mg/L	
beta-BHC	<0.00004	0.0002	0.0001698	85	0.0001687	84	17-147	1	20	mg/L	
delta-BHC	<0.00004	0.0002	0.0001778	89	0.000175	88	19-140	1	20	mg/L	
Dieldrin	<0.00004	0.0002	0.0001806	90	0.00018	90	36-146	0	20	mg/L	
Endosulfan I	<0.00004	0.0002	0.0001791	90	0.0001782	89	45-153	1	20	mg/L	
Endosulfan II	<0.00004	0.0002	0.0001829	91	0.0001826	91	1-202	0	20	mg/L	
Endosulfan sulfate	<0.00004	0.0002	0.0001827	91	0.0001829	91	26-144	0	20	mg/L	
Endrin	<0.00004	0.0002	0.0001873	94	0.0001853	93	30-147	1	20	mg/L	
Endrin aldehyde	<0.00004	0.0002	0.0001736	87	0.0001736	87	62-140	0	20	mg/L	
gamma-BHC (Lindane)	<0.00004	0.0002	0.0001786	89	0.0001769	88	32-140	1	20	mg/L	
gamma-Chlordane	<0.00004	0.0002	0.00017	85	0.0001689	84	45-140	1	20	mg/L	
Heptachlor	<0.00004	0.0002	0.0001802	90	0.0001744	87	34-140	3	20	mg/L	
Heptachlor epoxide	<0.00004	0.0002	0.000179	90	0.0001779	89	37-142	1	20	mg/L	

Surrogate	MB %Rec	MB Flag	LCS Result	LCS Flag	LCSD Result	LCSD Flag	Limits	Units
Decachlorobiphenyl	98		100		100		60-139	%
Tetrachloro-m-xylene	89		90		89		23-136	%

Analytical Method: EPA 608 .3 Prep Method: E608P
Seq Number: 189038 Matrix: Water Date Prep: 11/04/21
MB Sample Id: 88316-1-BLK LCS Sample Id: 88316-1-BKS LCSD Sample Id: 88316-1-BSD

Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	LCSD Result	LCSD %Rec	Limits	%RPD	RPD Limit	Units	Flag
PCB-1016	<0.0005	0.005000	0.004475	90	0.004392	88	50-140	2	20	mg/L	
PCB-1260	<0.0005	0.005000	0.005010	100	0.004889	98	8-140	2	20	mg/L	

Surrogate	MB %Rec	MB Flag	LCS Result	LCS Flag	LCSD Result	LCSD Flag	Limits	Units
Decachlorobiphenyl	82		95		91		60-139	%
Tetrachloro-m-xylene	85		96		93		23-136	%

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QC Summary

Project Name Kop-Flex
PSS Project No.: 21110311

Analytical Method: EPA 625 .1 Prep Method: E625P
Seq Number: 189013 Matrix: Water Date Prep: 11/04/21
MB Sample Id: 88320-1-BLK LCS Sample Id: 88320-1-BKS LCSD Sample Id: 88320-1-BSD

Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	LCSD Result	LCSD %Rec	Limits	%RPD	RPD Limit	Units	Flag
1,2,4-Trichlorobenzene	<0.001000	0.04000	0.03788	95	0.03719	93	57-130	2	20	mg/L	
1,2-Diphenylhydrazine	<0.005000	0.04000	0.03229	81	0.03161	79	67-122	3	20	mg/L	
2,4,6-Trichlorophenol	<0.001000	0.04000	0.03955	99	0.03887	97	61-122	2	20	mg/L	
2,4-Dichlorophenol	<0.001000	0.04000	0.04096	102	0.04047	101	53-122	1	20	mg/L	
2,4-Dimethylphenol	<0.001000	0.04000	0.03854	96	0.03801	95	42-120	1	20	mg/L	
2,4-Dinitrophenol	<0.005000	0.04000	0.02942	74	0.02937	73	1-173	1	20	mg/L	
2,4-Dinitrotoluene	<0.002000	0.04000	0.03669	92	0.03550	89	48-127	3	20	mg/L	
2,6-Dinitrotoluene	<0.002000	0.04000	0.03669	92	0.03550	89	68-137	3	20	mg/L	
2-Chloronaphthalene	<0.001000	0.04000	0.03538	88	0.03486	87	65-120	1	20	mg/L	
2-Chlorophenol	<0.001000	0.04000	0.03525	88	0.03407	85	36-120	3	20	mg/L	
2-Nitrophenol	<0.001000	0.04000	0.03862	97	0.03889	97	45-167	0	20	mg/L	
3,3-Dichlorobenzidine	<0.001000	0.04000	0.04179	104	0.04159	104	8-213	0	20	mg/L	
4,6-Dinitro-2-methyl phenol	<0.005000	0.04000	0.02961	74	0.02962	74	53-130	0	20	mg/L	
4-Bromophenylphenyl ether	<0.001000	0.04000	0.04141	104	0.04024	101	65-120	3	20	mg/L	
4-Chloro-3-methyl phenol	<0.001000	0.04000	0.03812	95	0.03674	92	41-128	3	20	mg/L	
4-Chlorophenyl Phenyl ether	<0.001000	0.04000	0.03941	99	0.03864	97	38-145	2	20	mg/L	
4-Nitrophenol	<0.005000	0.04000	0.03628	91	0.03586	90	13-129	1	20	mg/L	
Acenaphthene	<0.00025	0.04000	0.03392	85	0.03310	83	60-132	2	20	mg/L	
Acenaphthylene	<0.00025	0.04000	0.03533	88	0.03467	87	54-126	1	20	mg/L	
Anthracene	<0.00025	0.04000	0.03421	86	0.03447	86	43-120	0	20	mg/L	
Benzidine	<0.005000	0.04000	0.02488	62	0.02536	63	15-183	2	20	mg/L	
Benzo(a)anthracene	<0.00025	0.04000	0.03846	96	0.03732	93	42-133	3	20	mg/L	
Benzo(a)pyrene	<0.00025	0.04000	0.04260	107	0.04127	103	32-148	4	20	mg/L	
Benzo(b)fluoranthene	<0.00025	0.04000	0.04571	114	0.04224	106	42-140	7	20	mg/L	
Benzo(g,h,i)perylene	<0.00025	0.04000	0.03464	87	0.03458	86	1-195	1	20	mg/L	
Benzo(k)fluoranthene	<0.00025	0.04000	0.03504	88	0.03743	94	25-146	7	20	mg/L	
Butyl benzyl phthalate	<0.001000	0.04000	0.03658	91	0.03525	88	1-140	3	20	mg/L	
bis(2-chloroethoxy) methane	<0.001000	0.04000	0.03516	88	0.03480	87	49-165	1	20	mg/L	
bis(2-chloroethyl) ether	<0.001000	0.04000	0.03404	85	0.03298	82	43-126	4	20	mg/L	
bis(2-chloroisopropyl) ether	<0.001000	0.04000	0.02668	67	0.02629	66	63-139	2	20	mg/L	
bis(2-ethylhexyl) phthalate	<0.001000	0.04000	0.03782	95	0.03628	91	29-137	4	20	mg/L	
Chrysene	<0.00025	0.04000	0.03483	87	0.03338	83	44-140	5	20	mg/L	
Dibenz(a,h)Anthracene	<0.00025	0.04000	0.03942	99	0.03900	98	1-200	1	20	mg/L	
Diethyl phthalate	<0.001000	0.04000	0.03625	91	0.03542	89	1-120	2	20	mg/L	
Dimethyl phthalate	<0.001000	0.04000	0.03677	92	0.03579	89	1-120	3	20	mg/L	
Di-n-butyl phthalate	<0.001000	0.04000	0.03692	92	0.03595	90	8-120	2	20	mg/L	
Di-n-octyl phthalate	<0.002000	0.04000	0.04035	101	0.04034	101	19-132	0	20	mg/L	
Fluoranthene	<0.00025	0.04000	0.03902	98	0.03838	96	43-121	2	20	mg/L	
Fluorene	<0.00025	0.04000	0.03699	92	0.03629	91	70-120	1	20	mg/L	
Hexachlorobenzene	<0.001000	0.04000	0.03557	89	0.03439	86	8-142	3	20	mg/L	
Hexachlorobutadiene	<0.001000	0.04000	0.03979	99	0.03836	96	38-120	3	20	mg/L	
Hexachlorocyclopentadiene	<0.002000	0.04000	0.02492	62	0.02580	65	40-127	5	20	mg/L	
Hexachloroethane	<0.001000	0.04000	0.03050	76	0.03031	76	55-120	0	20	mg/L	
Indeno(1,2,3-c,d)Pyrene	<0.00025	0.04000	0.03966	99	0.03927	98	1-151	1	20	mg/L	
Isophorone	<0.001000	0.04000	0.03032	76	0.03027	76	47-180	0	20	mg/L	
Naphthalene	<0.00025	0.04000	0.03327	83	0.03256	81	36-120	2	20	mg/L	
Nitrobenzene	<0.001000	0.04000	0.03086	77	0.03062	77	54-158	0	20	mg/L	
N-Nitrosodimethylamine	<0.001000	0.04000	0.02785	70	0.02750	69	45-120	1	20	mg/L	
N-Nitrosodi-n-propyl amine	<0.001000	0.04000	0.02993	75	0.02954	74	14-198	1	20	mg/L	
N-Nitrosodiphenylamine	<0.001000	0.04000	0.03600	90	0.03529	88	69-115	2	20	mg/L	
Pentachlorophenol	<0.002000	0.04000	0.03852	96	0.03823	96	38-152	0	20	mg/L	

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QC Summary

Project Name Kop-Flex
PSS Project No.: 21110311

Analytical Method: EPA 625 .1 Prep Method: E625P
Seq Number: 189013 Matrix: Water Date Prep: 11/04/21
MB Sample Id: 88320-1-BLK LCS Sample Id: 88320-1-BKS LCSD Sample Id: 88320-1-BSD

Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	LCSD Result	LCSD %Rec	Limits	%RPD	RPD Limit	Units	Flag
Phenanthrene	<0.00025	0.04000	0.03850	96	0.03655	91	65-120	5	20	mg/L	
Phenol	<0.001000	0.04000	0.03230	81	0.03187	80	17-120	1	20	mg/L	
Pyrene	<0.00025	0.04000	0.03644	91	0.03511	88	70-120	3	20	mg/L	

Surrogate	MB %Rec	MB Flag	LCS Result	LCS Flag	LCSD Result	LCSD Flag	Limits	Units
2-Fluorobiphenyl	93		85		84		42-141	%
2-Fluorophenol	86		75		75		35-131	%
Nitrobenzene-d5	89		79		79		40-139	%
2,4,6-Tribromophenol	96		96		95		35-156	%
Phenol-d6	82		76		76		33-140	%
Terphenyl-D14	100		91		89		54-138	%

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QC Summary

Project Name Kop-Flex
PSS Project No.: 21110311

Analytical Method: EPA 624 .1
Prep Method: E624PREP
Seq Number: 188958
Matrix: Water
Date Prep: 11/03/21
MB Sample Id: 88318-1-BLK
LCS Sample Id: 88318-1-BKS

Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	Limits	Units	Flag
Acrolein	<5.000	50.00	50.20	100	60-140	ug/L	
Acrylonitrile	<5.000	50.00	47.48	95	60-140	ug/L	
Benzene	<1.000	50.00	48.74	97	65-135	ug/L	
Bromodichloromethane	<1.000	50.00	49.95	100	65-135	ug/L	
Bromoform	<1.000	50.00	52.63	105	70-130	ug/L	
Bromomethane	<1.000	50.00	52.13	104	15-185	ug/L	
Carbon Tetrachloride	<1.000	50.00	50.79	102	70-130	ug/L	
Chlorobenzene	<1.000	50.00	48.58	97	65-135	ug/L	
Chloroethane	<1.000	50.00	45.89	92	40-160	ug/L	
2-Chloroethyl Vinyl Ether	<1.000	50.00	65.97	132	1-225	ug/L	
Chloroform	<1.000	50.00	48.12	96	70-135	ug/L	
Chloromethane	<1.000	50.00	46.14	92	1-205	ug/L	
Dibromochloromethane	<1.000	50.00	52.71	105	70-135	ug/L	
1,2-Dichlorobenzene	<1.000	50.00	51.07	102	65-135	ug/L	
1,3-Dichlorobenzene	<1.000	50.00	49.58	99	70-130	ug/L	
1,4-Dichlorobenzene	<1.000	50.00	48.19	96	65-135	ug/L	
Dichlorodifluoromethane	<1.000	50.00	51.10	102	54-148	ug/L	
1,1-Dichloroethane	<1.000	50.00	48.71	97	70-130	ug/L	
1,2-Dichloroethane	<1.000	50.00	47.32	95	70-130	ug/L	
1,1-Dichloroethene	<1.000	50.00	52.05	104	50-150	ug/L	
1,2-Dichloropropane	<1.000	50.00	48.89	98	35-165	ug/L	
cis-1,3-Dichloropropene	<1.000	50.00	53.93	108	25-175	ug/L	
trans-1,3-dichloropropene	<1.000	50.00	54.26	109	50-150	ug/L	
trans-1,2-dichloroethene	<1.000	50.00	49.87	100	70-130	ug/L	
Ethylbenzene	<1.000	50.00	49.34	99	60-140	ug/L	
Methylene Chloride	<1.000	50.00	48.50	97	60-140	ug/L	
1,1,2,2-Tetrachloroethane	<1.000	50.00	48.88	98	60-140	ug/L	
Tetrachloroethene	<1.000	50.00	53.72	107	70-130	ug/L	
Toluene	<1.000	50.00	48.91	98	70-130	ug/L	
1,1,1-Trichloroethane	<1.000	50.00	52.40	105	70-130	ug/L	
1,1,2-Trichloroethane	<1.000	50.00	49.30	99	70-130	ug/L	
Trichloroethene	<1.000	50.00	48.83	98	65-135	ug/L	
Trichlorofluoromethane	<1.000	50.00	52.97	106	50-150	ug/L	
Vinyl Chloride	<1.000	50.00	49.85	100	5-195	ug/L	

Surrogate	MB %Rec	MB Flag	LCS Result	LCS Flag	Limits	Units
Dibromofluoromethane	101		98		87-120	%
4-Bromofluorobenzene	98		94		85-147	%
Toluene-D8	98		100		88-110	%

F = RPD exceeded the laboratory control limits
X = Recovery of MS, MSD or both outside of QC Criteria
H= Recovery of BS,BSD or both exceeded the laboratory control limits
L = Recovery of BS,BSD or both below the laboratory control limits

Analytical Method: SM 4500-CN C,E -2011
Seq Number: 188979 Matrix: Water
CCV Sample Id: CCV-01 Analyzed Date: 11/03/21 16:45

Parameter	Spike Amount	CCV Result	CCV %Rec	Limits	Units	Flag
Cyanide, Total	100	96.77	97	90-110	ug/L	

Analytical Method: SM 4500-CN C,E -2011
Seq Number: 188979 Matrix: Water
CCV Sample Id: CCV-02 Analyzed Date: 11/03/21 16:59

Parameter	Spike Amount	CCV Result	CCV %Rec	Limits	Units	Flag
Cyanide, Total	100	92.32	92	90-110	ug/L	

Analytical Method: SM 4500-CN C,E -2011
Seq Number: 188979 Matrix: Water
CCV Sample Id: CCV-03 Analyzed Date: 11/03/21 17:07

Parameter	Spike Amount	CCV Result	CCV %Rec	Limits	Units	Flag
Cyanide, Total	100	97.06	97	90-110	ug/L	

Analytical Method: SM 4500-CN C,E -2011
Seq Number: 188979 Matrix: Water
CCV Sample Id: CCV-04 Analyzed Date: 11/03/21 17:35

Parameter	Spike Amount	CCV Result	CCV %Rec	Limits	Units	Flag
Cyanide, Total	100	93.22	93	90-110	ug/L	

Analytical Method: SM 4500-CN C,E -2011
Seq Number: 188979 Matrix: Water
CCV Sample Id: CCV-05 Analyzed Date: 11/03/21 17:45

Parameter	Spike Amount	CCV Result	CCV %Rec	Limits	Units	Flag
Cyanide, Total	100	92.68	93	90-110	ug/L	

Analytical Method: SM 4500-CN C,E -2011
Seq Number: 188979 Matrix: Water
CCV Sample Id: CCV-06 Analyzed Date: 11/03/21 18:01

Parameter	Spike Amount	CCV Result	CCV %Rec	Limits	Units	Flag
Cyanide, Total	100	91.84	92	90-110	ug/L	

Analytical Method: SM 4500-CN C,E -2011
Seq Number: 188979 Matrix: Water
CCV Sample Id: CCV-07 Analyzed Date: 11/03/21 18:07

Parameter	Spike Amount	CCV Result	CCV %Rec	Limits	Units	Flag
Cyanide, Total	100	92.13	92	90-110	ug/L	

Analytical Method: SM 4500-CN C,E -2011
Seq Number: 188977 Matrix: Water
Parent Sample Id: ICV ICV Sample Id: ICV Analyzed Date: 11/03/21 16:19

Parameter	Spike Amount	ICV Result	ICV %Rec	Limits	Units	Flag
Cyanide, Total	100	92.46	92	90-110	ug/L	

Analytical Method: SM 4500-CN C,E -2011
Seq Number: 188979 Matrix: Water
Parent Sample Id: MRL MRL Sample Id: MRL Analyzed Date: 11/03/21 16:29

Parameter	Spike Amount	MRL Result	MRL %Rec	Limits	Units	Flag
Cyanide, Total	10.00	14.52	145	50-150	ug/L	

Analytical Method: SM 5220D -2011
Seq Number: 188991 Matrix: Water
CCV Sample Id: CCV-01 Analyzed Date: 11/04/21 14:44

Parameter	Spike Amount	CCV Result	CCV %Rec	Limits	Units	Flag
Chemical Oxygen Demand	483.5	529.2	109	90-110	mg/L	

Analytical Method: SM 5220D -2011
Seq Number: 188991 Matrix: Water
CCV Sample Id: CCV-02 Analyzed Date: 11/04/21 14:44

Parameter	Spike Amount	CCV Result	CCV %Rec	Limits	Units	Flag
Chemical Oxygen Demand	483.5	527.4	109	90-110	mg/L	

Analytical Method: SM 5220D -2011
Seq Number: 188991 Matrix: Water
CCV Sample Id: CCV-03 Analyzed Date: 11/04/21 14:45

Parameter	Spike Amount	CCV Result	CCV %Rec	Limits	Units	Flag
Chemical Oxygen Demand	483.5	527.3	109	90-110	mg/L	

Analytical Method: SM 5220D -2011

Seq Number: 175113 Matrix: Water
Parent Sample Id: ICV-01 ICV Sample Id: ICV-01 Analyzed Date: 07/10/19 14:24

Parameter	Spike Amount	ICV Result	ICV %Rec	Limits	Units	Flag
Chemical Oxygen Demand	1004	1039	103	85-115	mg/L	

Analytical Method: SM 5220D -2011

Seq Number: 188991 Matrix: Water
Parent Sample Id: MRL-01 MRL Sample Id: MRL-01 Analyzed Date: 11/04/21 14:44

Parameter	Spike Amount	MRL Result	MRL %Rec	Limits	Units	Flag
Chemical Oxygen Demand	20.00	14.90	75	50-150	mg/L	

Analytical Method: EPA 200.8

Seq Number: 188985 Matrix: Water
CCV Sample Id: CCV 1 Analyzed Date: 11/04/21 13:38

Parameter	Spike Amount	CCV Result	CCV %Rec	Limits	Units	Flag
Aluminum	200	201.6	101	85-115	ug/L	
Antimony	40.00	37.77	94	85-115	ug/L	
Arsenic	40.00	38.60	97	85-115	ug/L	
Barium	40.00	37.88	95	85-115	ug/L	
Beryllium	40.00	41.31	103	85-115	ug/L	
Cadmium	40.00	39.59	99	85-115	ug/L	
Calcium	400	406.6	102	85-115	ug/L	
Chromium	40.00	39.54	99	85-115	ug/L	
Cobalt	40.00	39.28	98	85-115	ug/L	
Copper	40.00	40.26	101	85-115	ug/L	
Iron	400	368	92	85-115	ug/L	
Lead	40.00	36.01	90	85-115	ug/L	
Magnesium	400	384.6	96	85-115	ug/L	
Manganese	40.00	38.92	97	85-115	ug/L	
Nickel	40.00	39.30	98	85-115	ug/L	
Potassium	400	414.5	104	85-115	ug/L	
Selenium	40.00	36.57	91	85-115	ug/L	
Silver	40.00	40.44	101	85-115	ug/L	
Sodium	400	463.2	116	85-115	ug/L	X
Thallium	40.00	36.91	92	85-115	ug/L	
Vanadium	40.00	39.20	98	85-115	ug/L	
Zinc	200	193.4	97	85-115	ug/L	

Analytical Method: EPA 200.8
Seq Number: 188985 Matrix: Water
CCV Sample Id: CCV 2 Analyzed Date: 11/04/21 14:39

Parameter	Spike Amount	CCV Result	CCV %Rec	Limits	Units	Flag
Aluminum	200	205.2	103	85-115	ug/L	
Antimony	40.00	37.95	95	85-115	ug/L	
Arsenic	40.00	39.63	99	85-115	ug/L	
Barium	40.00	38.51	96	85-115	ug/L	
Beryllium	40.00	39.70	99	85-115	ug/L	
Cadmium	40.00	39.38	98	85-115	ug/L	
Calcium	400	395	99	85-115	ug/L	
Chromium	40.00	39.39	98	85-115	ug/L	
Cobalt	40.00	38.95	97	85-115	ug/L	
Copper	40.00	39.42	99	85-115	ug/L	
Iron	400	376.2	94	85-115	ug/L	
Lead	40.00	35.52	89	85-115	ug/L	
Magnesium	400	383.6	96	85-115	ug/L	
Manganese	40.00	39.02	98	85-115	ug/L	
Nickel	40.00	38.85	97	85-115	ug/L	
Potassium	400	421.7	105	85-115	ug/L	
Selenium	40.00	36.78	92	85-115	ug/L	
Silver	40.00	40.02	100	85-115	ug/L	
Sodium	400	465.7	116	85-115	ug/L	X
Thallium	40.00	36.45	91	85-115	ug/L	
Vanadium	40.00	39.34	98	85-115	ug/L	
Zinc	200	194	97	85-115	ug/L	

Analytical Method: EPA 200.8
Seq Number: 189019 Matrix: Water
CCV Sample Id: CCV 8 Analyzed Date: 11/05/21 00:25

Parameter	Spike Amount	CCV Result	CCV %Rec	Limits	Units	Flag
Potassium	400	377.2	94	85-115	ug/L	
Sodium	400	363.7	91	85-115	ug/L	

Analytical Method: EPA 200.8
Seq Number: 189027 Matrix: Water
CCV Sample Id: CCV 1 Analyzed Date: 11/05/21 14:03

Parameter	Spike Amount	CCV Result	CCV %Rec	Limits	Units	Flag
Potassium	400	372.5	93	85-115	ug/L	
Sodium	400	382.8	96	85-115	ug/L	

Analytical Method: EPA 200.8
Seq Number: 189027 Matrix: Water
CCV Sample Id: CCV 2 Analyzed Date: 11/05/21 14:33

Parameter	Spike Amount	CCV Result	CCV %Rec	Limits	Units	Flag
Potassium	400	381.8	95	85-115	ug/L	
Sodium	400	383.2	96	85-115	ug/L	

Analytical Method: EPA 200.8
Seq Number: 188985 Matrix: Water
Parent Sample Id: ICV 1 ICV Sample Id: ICV 1 Analyzed Date: 11/04/21 12:14

Parameter	Spike Amount	ICV Result	ICV %Rec	Limits	Units	Flag
Aluminum	200	181.8	91	90-110	ug/L	
Antimony	40.00	38.44	96	90-110	ug/L	
Arsenic	40.00	36.76	92	90-110	ug/L	
Barium	40.00	36.58	91	90-110	ug/L	
Beryllium	40.00	36.63	92	90-110	ug/L	
Cadmium	40.00	40.10	100	90-110	ug/L	
Calcium	400	364.8	91	90-110	ug/L	
Chromium	40.00	38.24	96	90-110	ug/L	
Cobalt	40.00	38.07	95	90-110	ug/L	
Copper	40.00	39.53	99	90-110	ug/L	
Iron	400	361.7	90	90-110	ug/L	
Lead	40.00	38.18	95	90-110	ug/L	
Magnesium	400	367.5	92	90-110	ug/L	
Manganese	40.00	37.90	95	90-110	ug/L	
Nickel	40.00	38.36	96	90-110	ug/L	
Potassium	400	374.7	94	90-110	ug/L	
Selenium	40.00	36.20	91	90-110	ug/L	
Silver	40.00	37.69	94	90-110	ug/L	
Sodium	400	373.8	93	90-110	ug/L	
Thallium	40.00	39.58	99	90-110	ug/L	
Vanadium	40.00	37.49	94	90-110	ug/L	
Zinc	200	181.1	91	90-110	ug/L	

Analytical Method: EPA 200.8
Seq Number: 189019 Matrix: Water
Parent Sample Id: ICV 1 ICV Sample Id: ICV 1 Analyzed Date: 11/04/21 16:26

Parameter	Spike Amount	ICV Result	ICV %Rec	Limits	Units	Flag
Potassium	400	379.4	95	90-110	ug/L	
Sodium	400	383.7	96	90-110	ug/L	

Analytical Method: EPA 200.8

Seq Number: 189027 Matrix: Water

Parent Sample Id: ICV 1 ICV Sample Id: ICV 1 Analyzed Date: 11/05/21 12:43

Parameter	Spike Amount	ICV Result	ICV %Rec	Limits	Units	Flag
Potassium	400	367.6	92	90-110	ug/L	
Sodium	400	365.6	91	90-110	ug/L	

Analytical Method: EPA 608 .3

Seq Number: 189038 Matrix: Water

CCV Sample Id: CCV-01 Analyzed Date: 11/05/21 07:21

Parameter	Spike Amount	CCV Result	CCV %Rec	Limits	Units	Flag
PCB-1016	0.1000	0.09873	99	75-125	mg/L	
PCB-1016	0.1000	0.1059	106	75-125	mg/L	
PCB-1016	0.1000	0.1051	105	75-125	mg/L	
PCB-1016	0.1000	0.1024	102	75-125	mg/L	
PCB-1016	0.1000	0.1099	110	75-125	mg/L	
PCB-1260	0.1000	0.1128	113	75-125	mg/L	
PCB-1260	0.1000	0.1121	112	75-125	mg/L	
PCB-1260	0.1000	0.1064	106	75-125	mg/L	
PCB-1260	0.1000	0.1049	105	75-125	mg/L	
PCB-1260	0.1000	0.09906	99	75-125	mg/L	

Surrogate	CCV Result	Limits	Units	Flag
Decachlorobiphenyl	91	60-139	%	
Tetrachloro-m-xylene	99	23-136	%	

Analytical Method: EPA 608 .3

Seq Number: 189038 Matrix: Water

CCV Sample Id: CCV-02 Analyzed Date: 11/05/21 10:17

Parameter	Spike Amount	CCV Result	CCV %Rec	Limits	Units	Flag
PCB-1016	0.1000	0.1029	103	75-125	mg/L	
PCB-1016	0.1000	0.1092	109	75-125	mg/L	
PCB-1016	0.1000	0.1082	108	75-125	mg/L	
PCB-1016	0.1000	0.1049	105	75-125	mg/L	
PCB-1016	0.1000	0.1125	113	75-125	mg/L	
PCB-1260	0.1000	0.1161	116	75-125	mg/L	
PCB-1260	0.1000	0.1150	115	75-125	mg/L	
PCB-1260	0.1000	0.1087	109	75-125	mg/L	
PCB-1260	0.1000	0.1071	107	75-125	mg/L	
PCB-1260	0.1000	0.1010	101	75-125	mg/L	

Surrogate	CCV Result	Limits	Units	Flag
Decachlorobiphenyl	94	60-139	%	
Tetrachloro-m-xylene	103	23-136	%	

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Project Name Kop-Flex
PSS Project No.: 21110311

Analytical Method: EPA 608 .3
Seq Number: 189037 Matrix: Water
CCV Sample Id: CCV-01 Analyzed Date: 11/05/21 13:59

Parameter	Spike Amount	CCV Result	CCV %Rec	Limits	Units	Flag
4,4-DDD	0.02000	0.01708	85	75-125	mg/L	
4,4-DDE	0.02000	0.01901	95	75-125	mg/L	
4,4-DDT	0.02000	0.01984	99	75-125	mg/L	
Aldrin	0.02000	0.01939	97	75-125	mg/L	
alpha-BHC	0.02000	0.01938	97	69-125	mg/L	
alpha-Chlordane	0.02000	0.01755	88	73-125	mg/L	
beta-BHC	0.02000	0.01805	90	75-125	mg/L	
delta-BHC	0.02000	0.01909	95	75-125	mg/L	
Dieldrin	0.02000	0.01875	94	48-125	mg/L	
Endosulfan I	0.02000	0.01887	94	75-125	mg/L	
Endosulfan II	0.02000	0.01886	94	75-125	mg/L	
Endosulfan sulfate	0.02000	0.01872	94	70-125	mg/L	
Endrin	0.02000	0.01899	95	5-125	mg/L	
Endrin aldehyde	0.02000	0.01762	88	75-125	mg/L	
gamma-BHC (Lindane)	0.02000	0.01912	96	75-125	mg/L	
gamma-Chlordane	0.02000	0.01889	94	75-125	mg/L	
Heptachlor	0.02000	0.01950	98	75-125	mg/L	
Heptachlor epoxide	0.02000	0.01904	95	75-125	mg/L	

Surrogate	CCV Result	Limits	Units	Flag
Decachlorobiphenyl	94	60-139	%	
Tetrachloro-m-xylene	89	23-136	%	

Analytical Method: EPA 608 .3
Seq Number: 189037 Matrix: Water
CCV Sample Id: TOX Analyzed Date: 11/05/21 14:21

Parameter	Spike Amount	CCV Result	CCV %Rec	Limits	Units	Flag
Toxaphene	0.3000	0.2808	94	68-134	mg/L	
Toxaphene	0.3000	0.2998	100	68-134	mg/L	
Toxaphene	0.3000	0.3234	108	68-134	mg/L	
Toxaphene	0.3000	0.3479	116	68-134	mg/L	
Toxaphene	0.3000	0.3173	106	68-134	mg/L	

Surrogate	CCV Result	Limits	Units	Flag

Analytical Method: EPA 608 .3
Seq Number: 189037 Matrix: Water
CCV Sample Id: CHLOR Analyzed Date: 11/05/21 14:36

Parameter	Spike Amount	CCV Result	CCV %Rec	Limits	Units	Flag
Chlordane	0.3000	0.2826	94	75-125	mg/L	
Chlordane	0.3000	0.2781	93	75-125	mg/L	
Chlordane	0.3000	0.2758	92	75-125	mg/L	
Chlordane	0.3000	0.2792	93	75-125	mg/L	
Chlordane	0.3000	0.2856	95	75-125	mg/L	

Surrogate	CCV Result	Limits	Units	Flag

Analytical Method: EPA 608 .3
Seq Number: 189037 Matrix: Water
CCV Sample Id: CCV-02 Analyzed Date: 11/05/21 16:31

Parameter	Spike Amount	CCV Result	CCV %Rec	Limits	Units	Flag
4,4-DDD	0.02000	0.01754	88	75-125	mg/L	
4,4-DDE	0.02000	0.01956	98	75-125	mg/L	
4,4-DDT	0.02000	0.02087	104	75-125	mg/L	
Aldrin	0.02000	0.01995	100	75-125	mg/L	
alpha-BHC	0.02000	0.02030	102	69-125	mg/L	
alpha-Chlordane	0.02000	0.01809	90	73-125	mg/L	
beta-BHC	0.02000	0.01881	94	75-125	mg/L	
delta-BHC	0.02000	0.01967	98	75-125	mg/L	
Dieldrin	0.02000	0.01940	97	48-125	mg/L	
Endosulfan I	0.02000	0.01943	97	75-125	mg/L	
Endosulfan II	0.02000	0.01955	98	75-125	mg/L	
Endosulfan sulfate	0.02000	0.01962	98	70-125	mg/L	
Endrin	0.02000	0.01992	100	5-125	mg/L	
Endrin aldehyde	0.02000	0.01854	93	75-125	mg/L	
gamma-BHC (Lindane)	0.02000	0.01983	99	75-125	mg/L	
gamma-Chlordane	0.02000	0.01955	98	75-125	mg/L	
Heptachlor	0.02000	0.02025	101	75-125	mg/L	
Heptachlor epoxide	0.02000	0.01968	98	75-125	mg/L	

Surrogate	CCV Result	Limits	Units	Flag
Decachlorobiphenyl	99	60-139	%	
Tetrachloro-m-xylene	93	23-136	%	

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QC Summary

Project Name Kop-Flex
PSS Project No.: 21110311

Analytical Method: EPA 608 .3
Seq Number: 189037 Matrix: Water
CCV Sample Id: TOX Analyzed Date: 11/05/21 16:46

Parameter	Spike Amount	CCV Result	CCV %Rec	Limits	Units	Flag
Toxaphene	0.3000	0.2877	96	68-134	mg/L	
Toxaphene	0.3000	0.3008	100	68-134	mg/L	
Toxaphene	0.3000	0.3315	111	68-134	mg/L	
Toxaphene	0.3000	0.3535	118	68-134	mg/L	
Toxaphene	0.3000	0.3271	109	68-134	mg/L	

Surrogate	CCV Result	Limits	Units	Flag

Analytical Method: EPA 608 .3
Seq Number: 189037 Matrix: Water
CCV Sample Id: CHLOR Analyzed Date: 11/05/21 17:00

Parameter	Spike Amount	CCV Result	CCV %Rec	Limits	Units	Flag
Chlordane	0.3000	0.2861	95	75-125	mg/L	
Chlordane	0.3000	0.2831	94	75-125	mg/L	
Chlordane	0.3000	0.2799	93	75-125	mg/L	
Chlordane	0.3000	0.2836	95	75-125	mg/L	
Chlordane	0.3000	0.2894	96	75-125	mg/L	

Surrogate	CCV Result	Limits	Units	Flag

Analytical Method: EPA 608 .3

Seq Number: 186619 Matrix: Water
Parent Sample Id: ICV-01 ICV Sample Id: ICV-01 Analyzed Date: 08/09/21 10:17

Parameter	Spike Amount	ICV Result	ICV %Rec	Limits	Units	Flag
4,4-DDD	0.02000	0.02045	102	75-125	mg/L	
4,4-DDE	0.02000	0.02071	104	75-125	mg/L	
4,4-DDT	0.02000	0.02078	104	75-125	mg/L	
Aldrin	0.02000	0.02069	103	75-125	mg/L	
alpha-BHC	0.02000	0.02089	104	69-125	mg/L	
alpha-Chlordane	0.02000	0.02042	102	73-125	mg/L	
beta-BHC	0.02000	0.02031	102	75-125	mg/L	
delta-BHC	0.02000	0.02083	104	75-125	mg/L	
Dieldrin	0.02000	0.02056	103	48-125	mg/L	
Endosulfan I	0.02000	0.02036	102	75-125	mg/L	
Endosulfan II	0.02000	0.02059	103	75-125	mg/L	
Endosulfan sulfate	0.02000	0.02018	101	70-125	mg/L	
Endrin	0.02000	0.02044	102	5-125	mg/L	
Endrin aldehyde	0.02000	0.02049	102	75-125	mg/L	
gamma-BHC (Lindane)	0.02000	0.02075	104	75-125	mg/L	
gamma-Chlordane	0.02000	0.02049	102	75-125	mg/L	
Heptachlor	0.02000	0.02052	103	75-125	mg/L	
Heptachlor epoxide	0.02000	0.02035	102	75-125	mg/L	

Surrogate	ICV Result	Limits	Units	Flag
Decachlorobiphenyl	99	60-139	%	
Tetrachloro-m-xylene	102	23-136	%	

Analytical Method: EPA 608 .3

Seq Number: 186619 Matrix: Water
Parent Sample Id: ICV-02 ICV Sample Id: ICV-02 Analyzed Date: 08/09/21 11:58

Parameter	Spike Amount	ICV Result	ICV %Rec	Limits	Units	Flag
Toxaphene	0.3000	0.2953	98	68-134	mg/L	
Toxaphene	0.3000	0.2999	100	68-134	mg/L	
Toxaphene	0.3000	0.3028	101	68-134	mg/L	
Toxaphene	0.3000	0.2960	99	68-134	mg/L	
Toxaphene	0.3000	0.3037	101	68-134	mg/L	

Surrogate	ICV Result	Limits	Units	Flag

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QC Summary

Project Name Kop-Flex
PSS Project No.: 21110311

Analytical Method: EPA 608 .3

Seq Number: 186619 Matrix: Water
Parent Sample Id: ICV-03 ICV Sample Id: ICV-03 Analyzed Date: 08/09/21 13:39

Parameter	Spike Amount	ICV Result	ICV %Rec	Limits	Units	Flag
Chlordane	0.3000	0.2964	99	75-125	mg/L	
Chlordane	0.3000	0.2960	99	75-125	mg/L	
Chlordane	0.3000	0.2973	99	75-125	mg/L	
Chlordane	0.3000	0.2960	99	75-125	mg/L	
Chlordane	0.3000	0.2918	97	75-125	mg/L	

Surrogate	ICV Result	Limits	Units	Flag

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QC Summary

Project Name Kop-Flex
PSS Project No.: 21110311

Analytical Method: EPA 625 .1

Seq Number: 189013 Matrix: Water

CCV Sample Id: SVOC_CCV Analyzed Date: 11/04/21 07:47

Parameter	Spike Amount	CCV Result	CCV %Rec	Limits	Units	Flag
1,2,4-Trichlorobenzene	40.00	41.50	104	61-130	mg/L	
1,2-Diphenylhydrazine	40.00	37.78	94	60-140	mg/L	
2,4,6-Trichlorophenol	40.00	42.99	107	69-130	mg/L	
2,4-Dichlorophenol	40.00	45.44	114	64-130	mg/L	
2,4-Dimethylphenol	40.00	40.50	101	58-130	mg/L	
2,4-Dinitrophenol	40.00	49.21	123	39-173	mg/L	
2,4-Dinitrotoluene	40.00	42.74	107	53-130	mg/L	
2,6-Dinitrotoluene	40.00	42.74	107	68-137	mg/L	
2-Chloronaphthalene	40.00	38.56	96	70-130	mg/L	
2-Chlorophenol	40.00	41.33	103	55-130	mg/L	
2-Nitrophenol	40.00	48.03	120	61-163	mg/L	
3,3-Dichlorobenzidine	40.00	39.89	100	18-213	mg/L	
4,6-Dinitro-2-methyl phenol	40.00	45.04	113	56-130	mg/L	
4-Bromophenylphenyl ether	40.00	43.32	108	70-130	mg/L	
4-Chloro-3-methyl phenol	40.00	41.33	103	68-130	mg/L	
4-Chlorophenyl Phenyl ether	40.00	41.11	103	57-145	mg/L	
4-Nitrophenol	40.00	44.43	111	35-130	mg/L	
Acenaphthene	40.00	37.82	95	70-130	mg/L	
Acenaphthylene	40.00	39.70	99	60-130	mg/L	
Anthracene	40.00	38.76	97	58-130	mg/L	
Benzidine	40.00	28.99	72	60-140	mg/L	
Benzo(a)anthracene	40.00	39.29	98	42-133	mg/L	
Benzo(a)pyrene	40.00	42.74	107	32-138	mg/L	
Benzo(b)fluoranthene	40.00	44.27	111	42-140	mg/L	
Benzo(g,h,i)perylene	40.00	43.29	108	13-195	mg/L	
Benzo(k)fluoranthene	40.00	37.53	94	25-146	mg/L	
Butyl benzyl phthalate	40.00	40.89	102	43-140	mg/L	
bis(2-chloroethoxy) methane	40.00	40.03	100	52-164	mg/L	
bis(2-chloroethyl) ether	40.00	37.78	94	52-130	mg/L	
bis(2-chloroisopropyl) ether	40.00	32.22	81	63-139	mg/L	
bis(2-ethylhexyl) phthalate	40.00	41.71	104	43-137	mg/L	
Chrysene	40.00	38.84	97	44-140	mg/L	
Dibenz(a,h)Anthracene	40.00	43.64	109	13-200	mg/L	
Diethyl phthalate	40.00	39.16	98	47-130	mg/L	
Dimethyl phthalate	40.00	41.03	103	50-130	mg/L	
Di-n-butyl phthalate	40.00	39.56	99	52-130	mg/L	
Di-n-octyl phthalate	40.00	40.36	101	21-132	mg/L	
Fluoranthene	40.00	41.03	103	47-130	mg/L	
Fluorene	40.00	39.04	98	70-130	mg/L	
Hexachlorobenzene	40.00	38.34	96	38-142	mg/L	
Hexachlorobutadiene	40.00	43.15	108	68-130	mg/L	
Hexachlorocyclopentadiene	40.00	49.11	123	60-140	mg/L	
Hexachloroethane	40.00	38.13	95	55-130	mg/L	
Indeno(1,2,3-c,d)Pyrene	40.00	39.24	98	13-151	mg/L	
Isophorone	40.00	38.84	97	52-180	mg/L	
Naphthalene	40.00	37.73	94	70-130	mg/L	
Nitrobenzene	40.00	37.84	95	54-158	mg/L	
N-Nitrosodimethylamine	40.00	37.05	93	60-140	mg/L	
N-Nitrosodi-n-propyl amine	40.00	35.52	89	59-170	mg/L	
N-Nitrosodiphenylamine	40.00	39.93	100	60-140	mg/L	
Pentachlorophenol	40.00	42.84	107	42-152	mg/L	

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QC Summary

Project Name Kop-Flex
PSS Project No.: 21110311

Analytical Method: EPA 625 .1

Seq Number: 189013 Matrix: Water

CCV Sample Id: SVOC_CCV Analyzed Date: 11/04/21 07:47

Parameter	Spike Amount	CCV Result	CCV %Rec	Limits	Units	Flag
Phenanthrene	40.00	38.47	96	67-130	mg/L	
Phenol	40.00	37.91	95	48-130	mg/L	
Pyrene	40.00	39.29	98	70-130	mg/L	

Surrogate	CCV Result	Limits	Units	Flag
2-Fluorobiphenyl	102	60-140	%	
2-Fluorophenol	99	60-140	%	
Nitrobenzene-d5	98	46-219	%	
2,4,6-Tribromophenol	120	60-140	%	
Phenol-d6	97	48-208	%	
Terphenyl-D14	104	60-140	%	

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QC Summary

Project Name Kop-Flex
PSS Project No.: 21110311

Analytical Method: EPA 624 .1

Seq Number: 188440 Matrix: Water
Parent Sample Id: ICV-01 ICV Sample Id: ICV-01 Analyzed Date: 10/13/21 18:11

Parameter	Spike Amount	ICV Result	ICV %Rec	Limits	Units	Flag
Acrolein	0.05000	0.05223	104	60-139	mg/L	
Acrylonitrile	0.05000	0.05125	103	60-137	mg/L	
Dichlorodifluoromethane	0.05000	0.04586	92	54-148	mg/L	
Chloromethane	0.05000	0.04808	96	57-135	mg/L	
Vinyl Chloride	0.05000	0.04691	94	64-129	mg/L	
Bromomethane	0.05000	0.04849	97	67-132	mg/L	
Chloroethane	0.05000	0.04703	94	62-133	mg/L	
Trichlorofluoromethane	0.05000	0.05028	101	71-137	mg/L	
2-Chloroethyl Vinyl Ether	0.05000	0.05211	104	15-141	mg/L	
1,1-Dichloroethene	0.05000	0.05073	101	67-126	mg/L	
Methylene Chloride	0.05000	0.05035	101	73-120	mg/L	
trans-1,2-dichloroethene	0.05000	0.04984	100	75-127	mg/L	
1,1-Dichloroethane	0.05000	0.05129	103	76-127	mg/L	
Chloroform	0.05000	0.05106	102	79-125	mg/L	
1,1,1-Trichloroethane	0.05000	0.05294	106	73-130	mg/L	
Carbon Tetrachloride	0.05000	0.05261	105	73-130	mg/L	
Benzene	0.05000	0.05173	103	73-132	mg/L	
1,2-Dichloroethane	0.05000	0.05078	102	77-129	mg/L	
Trichloroethene	0.05000	0.05073	101	79-126	mg/L	
1,2-Dichloropropane	0.05000	0.05160	103	74-129	mg/L	
Bromodichloromethane	0.05000	0.05282	106	81-125	mg/L	
cis-1,3-Dichloropropene	0.05000	0.05446	109	76-116	mg/L	
Toluene	0.05000	0.05094	102	77-127	mg/L	
trans-1,3-dichloropropene	0.05000	0.05518	110	78-114	mg/L	
1,1,2-Trichloroethane	0.05000	0.05094	102	78-127	mg/L	
Tetrachloroethylene	0.05000	0.05058	101	78-128	mg/L	
Dibromochloromethane	0.05000	0.05374	107	70-132	mg/L	
Chlorobenzene	0.05000	0.05013	100	72-128	mg/L	
Ethylbenzene	0.05000	0.05229	105	69-131	mg/L	
Bromoform	0.05000	0.05086	102	70-130	mg/L	
1,1,2,2-Tetrachloroethane	0.05000	0.05095	102	62-134	mg/L	
1,3-Dichlorobenzene	0.05000	0.04895	98	70-129	mg/L	
1,4-Dichlorobenzene	0.05000	0.04796	96	69-127	mg/L	
1,2-Dichlorobenzene	0.05000	0.05019	100	65-133	mg/L	

Surrogate	ICV Result	Limits	Units	Flag
Dibromofluoromethane	99	87-120	%	
4-Bromofluorobenzene	98	85-147	%	
Toluene-D8	99	88-110	%	

X = Recovery outside of QC Criteria

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① PSS CLIENT: WSP USA | OFFICE LOCATION: Herndon, VA

BILL TO (if different): | PHONE #: 703-709-6500

CONTACT: Eric Johnson | EMAIL: eric.johnsone wsp.com

PROJECT NAME: Kop-Flex | PROJECT #: 31401545.010/04

SITE LOCATION: Hanover, MD | P.O. #:

SAMPLER(S): Shannon Burke | DW CERT #:

PSS Work Order #: 21110311 | PAGE 1 OF 1

Matrix Codes: SW=Surface Water, DW=Drinking Water, GW=Ground Water, WW=Waste Water, O=Oil, S=Soil, SOL=Solid, A=Air, WI=Wipe

② ③

PSS ID	SAMPLE IDENTIFICATION	DATE SAMPLED	TIME SAMPLED	MATRIX Use Codes	# OF CONTAINERS	SAMPLE TYPE: C=COMPOSITE G=GRAB	TAL Metals	Total cyanide	Mercury, total	Pesticides	PCBs	SVOCs (625)	VOCs (624)	BOD	COD	TSS	Oil & grease	Flashpoint
Preservatives Use Codes							3	4	3	6	6	6	1,6	6	2	6	2	6
1	Boiler blowdown water	11/3/21	1110	WW	14	G	X	X	X	X	X	X	X	X	X	X	X	X
2	TB-110321-BBW	—	—	TB	2	—							X					

Preservative Codes: 1 - HCL; 2 - H_2SO_4; 3 - HNO_3; 4 - NaOH; 5 - E624KIT; 6 - ICE; 7 - Sodium Thiosulfate; 8 - Ascorbic Acid; 9 - TerraCore Kit

⑤

Relinquished By: (1)	Date	Time	Received By:
Shannon Burke	11/3/21	1215	
Relinquished By: (2)	Date	Time	Received By:
Relinquished By: (3)	Date	Time	Received By:
Relinquished By: (4)	Date	Time	Received By:

④

Requested TAT (One TAT per COC): ☐ 5-Day ☐ 3-Day ☐ 2-Day ☐ Next Day ☐ Emergency ☒ Other

STATE RESULTS REPORTED TO: ☐ MD ☐ DE ☐ PA ☐ VA ☐ WV ☐ OTHER

COMPLIANCE? ☐ DW ☐ WW

EDD FORMAT TYPE

Ice Present: PRES TB: 2.1°C

Custody Seal: Cooler Front

Coolers: 1 Temp: 11.3°C - 13.8°C

Shipping Carrier: Client

Special Instructions: Standard 10-day TAT pH = 10.76 T = 30.4 °C @ time of sample collection

This chain of custody is a legal document. The client (PSS Client), by signing, or having client's agent sign, this "Chain of Custody Form", agrees to pay for the above requested services per the latest version of the Service Brochure of PSS-provided quotation including any and all attorney's or other reasonable fees if collection becomes necessary.

PHASE SEPARATION SCIENCE

6630 Baltimore National Pike
Baltimore, MD 21228
410-747-8770
800-932-9047
www.phaseonline.com

Sample Receipt Checklist

Project Name: Kop-Flex
PSS Project No.: 21110311

Client Name WSP USA - Herndon
Disposal Date 12/08/2021

Received By Thomas Wingate
Date Received 11/03/2021 12:15:00 PM
Delivered By Client
Tracking No Not Applicable
Logged In By Thomas Wingate

Shipping Container(s)
No. of Coolers 1

		Ice	Present
Custody Seal(s) Intact?	Yes	Temp (deg C)	13.2
Seal(s) Signed / Dated?	Yes	Temp Blank Present	Yes

Documentation

		Sampler Name	Shannon Burke
COC agrees with sample labels?	Yes	MD DW Cert. No.	N/A
Chain of Custody	Yes		

Sample Container

		Custody Seal(s) Intact?	Not Applicable
Appropriate for Specified Analysis?	Yes	Seal(s) Signed / Dated	Not Applicable
Intact?	Yes		
Labeled and Labels Legible?	Yes		

Holding Time

		Total No. of Samples Received	2
All Samples Received Within Holding Time(s)?	Yes	Total No. of Containers Received	16

Preservation

Total Metals	(pH<2)	Yes
Dissolved Metals, filtered within 15 minutes of collection	(pH<2)	N/A
Orthophosphorus, filtered within 15 minutes of collection		N/A
Cyanides	(pH>12)	Yes
Sulfide	(pH>9)	N/A
TOC, DOC (field filtered), COD, Phenols	(pH<2)	Yes
TOX, TKN, NH3, Total Phos	(pH<2)	N/A
VOC, BTEX (VOA Vials Rcvd Preserved)	(pH<2)	Yes
Do VOA vials have zero headspace?		Yes
624 VOC (Rcvd at least one unpreserved VOA vial)		Yes
524 VOC (Rcvd with trip blanks)	(pH<2)	N/A

Comments: (Any "No" response must be detailed in the comments section below.)

For any improper preservation conditions, list sample ID, preservative added (reagent ID number) below as well as documentation of any client notification as well as client instructions. Samples for pH, chlorine and dissolved oxygen should be analyzed as soon as possible, preferably in the field at the time of sampling. Samples which require thermal preservation shall be considered acceptable when received at a temperature above freezing to 6°C. Samples that are hand delivered on the day that they are collected may not meet these criteria but shall be considered acceptable if there is evidence that the chilling process has begun such as arrival on ice.

Samples Inspected/Checklist Completed By: Thomas Wingate Date: 11/03/2021

PM Review and Approval: Amber Confer Date: 11/03/2021

ENCLOSURE D – CERTIFIED LABORATORY ANALYTICAL REPORT FOR ONSITE GROUNDWATER MONITORING WELL SAMPLES (NOVEMBER 2021)

Pace Analytical Services, LLC
9800 Kincey Ave. Suite 100
Huntersville, NC 28078
(704)875-9092

November 29, 2021

Eric Johnson
WSP USA
13530 Dulles Technology Drive
Suite 300
Herndon, VA 20171

RE: Project: KOP FLEX OFFSITE 31401545.010
Pace Project No.: 92572915

Dear Eric Johnson:

Enclosed are the analytical results for sample(s) received by the laboratory on November 17, 2021. The results relate only to the samples included in this report. Results reported herein conform to the applicable TNI/NELAC Standards and the laboratory's Quality Manual, where applicable, unless otherwise noted in the body of the report.

The test results provided in this final report were generated by each of the following laboratories within the Pace Network:

- Pace Analytical Services - Charlotte

If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Bonnie Vang
bonnie.vang@pacelabs.com
(704)875-9092
Project Manager

Enclosures

cc: Molly Long, WSP

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Huntersville, NC 28078
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CERTIFICATIONS

Project: KOP FLEX OFFSITE 31401545.010
Pace Project No.: 92572915

Pace Analytical Services Charlotte

South Carolina Laboratory ID: 99006
9800 Kincey Ave. Ste 100, Huntersville, NC 28078
North Carolina Drinking Water Certification #: 37706
North Carolina Field Services Certification #: 5342
North Carolina Wastewater Certification #: 12
South Carolina Laboratory ID: 99006
South Carolina Certification #: 99006001
South Carolina Drinking Water Cert. #: 99006003
Florida/NELAP Certification #: E87627
Kentucky UST Certification #: 84
Louisiana DoH Drinking Water #: LA029
Virginia/VELAP Certification #: 460221

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Huntersville, NC 28078
(704)875-9092

SAMPLE SUMMARY

Project: KOP FLEX OFFSITE 31401545.010
Pace Project No.: 92572915

Lab ID	Sample ID	Matrix	Date Collected	Date Received
92572915001	**MW-3**	Water	11/14/21 09:35	11/17/21 10:15
92572915002	**MW-27D**	Water	11/14/21 10:00	11/17/21 10:15
92572915003	**MW-43**	Water	11/14/21 10:10	11/17/21 10:15
92572915004	**MW-39**	Water	11/14/21 10:25	11/17/21 10:15
92572915005	**MW-38R**	Water	11/14/21 10:35	11/17/21 10:15
92572915006	**MW-42**	Water	11/14/21 10:50	11/17/21 10:15
92572915007	**MW-18**	Water	11/14/21 11:00	11/17/21 10:15
92572915008	**MW-40D**	Water	11/14/21 11:15	11/17/21 10:15
92572915009	**MW-5R**	Water	11/14/21 11:25	11/17/21 10:15
92572915010	**MW-44**	Water	11/14/21 11:40	11/17/21 10:15
92572915011	**MW-21D**	Water	11/14/21 11:55	11/17/21 10:15
92572915012	**MW-41D**	Water	11/14/21 13:00	11/17/21 10:15
92572915013	**MW-1**	Water	11/14/21 13:15	11/17/21 10:15
92572915014	**MW-1D**	Water	11/14/21 13:25	11/17/21 10:15
92572915015	**MW-22D**	Water	11/14/21 13:40	11/17/21 10:15
92572915016	**MW-4**	Water	11/14/21 13:50	11/17/21 10:15
92572915017	**MW-20**	Water	11/14/21 14:00	11/17/21 10:15
92572915018	**MW-9**	Water	11/14/21 14:15	11/17/21 10:15
92572915019	**MW-23D**	Water	11/14/21 14:45	11/17/21 10:15
92572915020	**DUP-111421**	Water	11/14/21 12:00	11/17/21 10:15
92572915021	**MW-16**	Water	11/14/21 15:00	11/17/21 10:15
92572915022	**MW-16D**	Water	11/14/21 15:10	11/17/21 10:15
92572915023	**TRIP BLANK**	Water	11/14/21 00:00	11/17/21 10:15

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SAMPLE ANALYTE COUNT

Project: KOP FLEX OFFSITE 31401545.010
Pace Project No.: 92572915

Lab ID	Sample ID	Method	Analysts	Analytes Reported	Laboratory
92572915001	MW-3	EPA 8260D	SAS	63	PASI-C
		EPA 8260D Mod.	LMB	3	PASI-C
92572915002	MW-27D	EPA 8260D	SAS	63	PASI-C
		EPA 8260D Mod.	LMB	3	PASI-C
92572915003	MW-43	EPA 8260D	SAS	63	PASI-C
		EPA 8260D Mod.	LMB	3	PASI-C
92572915004	MW-39	EPA 8260D	SAS	63	PASI-C
		EPA 8260D Mod.	LMB	3	PASI-C
92572915005	MW-38R	EPA 8260D	SAS	63	PASI-C
		EPA 8260D Mod.	LMB	3	PASI-C
92572915006	MW-42	EPA 8260D	SAS	63	PASI-C
		EPA 8260D Mod.	LMB	3	PASI-C
92572915007	MW-18	EPA 8260D	SAS	63	PASI-C
		EPA 8260D Mod.	LMB	3	PASI-C
92572915008	MW-40D	EPA 8260D	SAS	63	PASI-C
		EPA 8260D Mod.	LMB	3	PASI-C
92572915009	MW-5R	EPA 8260D	SAS	63	PASI-C
		EPA 8260D Mod.	LMB	3	PASI-C
92572915010	MW-44	EPA 8260D	SAS	63	PASI-C
		EPA 8260D Mod.	LMB	3	PASI-C
92572915011	MW-21D	EPA 8260D	SAS	63	PASI-C
		EPA 8260D Mod.	LMB	3	PASI-C
92572915012	MW-41D	EPA 8260D	SAS	63	PASI-C
		EPA 8260D Mod.	LMB	3	PASI-C
92572915013	MW-1	EPA 8260D	SAS	63	PASI-C
		EPA 8260D Mod.	LMB	3	PASI-C
92572915014	MW-1D	EPA 8260D	SAS	63	PASI-C
		EPA 8260D Mod.	LMB	3	PASI-C
92572915015	MW-22D	EPA 8260D	SAS	63	PASI-C
		EPA 8260D Mod.	LMB	3	PASI-C
92572915016	MW-4	EPA 8260D	CL	63	PASI-C
		EPA 8260D Mod.	LMB	3	PASI-C
92572915017	MW-20	EPA 8260D	SAS	63	PASI-C
		EPA 8260D Mod.	LMB	3	PASI-C
92572915018	MW-9	EPA 8260D	SAS	63	PASI-C
		EPA 8260D Mod.	LMB	3	PASI-C
92572915019	MW-23D	EPA 8260D	CL	63	PASI-C

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SAMPLE ANALYTE COUNT

Project: KOP FLEX OFFSITE 31401545.010
Pace Project No.: 92572915

Lab ID	Sample ID	Method	Analysts	Analytes Reported	Laboratory
		EPA 8260D Mod.	LMB	3	PASI-C
92572915020	**DUP-111421**	EPA 8260D	CL	63	PASI-C
		EPA 8260D Mod.	LMB	3	PASI-C
92572915021	**MW-16**	EPA 8260D	SAS	63	PASI-C
		EPA 8260D Mod.	LMB	3	PASI-C
92572915022	**MW-16D**	EPA 8260D	CL	63	PASI-C
		EPA 8260D Mod.	LMB	3	PASI-C
92572915023	**TRIP BLANK**	EPA 8260D	SAS	63	PASI-C
		EPA 8260D Mod.	LMB	3	PASI-C

PASI-C = Pace Analytical Services - Charlotte

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ANALYTICAL RESULTS

Project: KOP FLEX OFFSITE 31401545.010
Pace Project No.: 92572915

Sample: MW-3 **Lab ID: 92572915001** Collected: 11/14/21 09:35 Received: 11/17/21 10:15 Matrix: Water

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8260D MSV Low Level	Analytical Method: EPA 8260D Pace Analytical Services - Charlotte							
Acetone	ND	ug/L	25.0	1		11/18/21 16:49	67-64-1	
Benzene	ND	ug/L	1.0	1		11/18/21 16:49	71-43-2	
Bromobenzene	ND	ug/L	1.0	1		11/18/21 16:49	108-86-1	
Bromochloromethane	ND	ug/L	1.0	1		11/18/21 16:49	74-97-5	
Bromodichloromethane	ND	ug/L	1.0	1		11/18/21 16:49	75-27-4	
Bromoform	ND	ug/L	1.0	1		11/18/21 16:49	75-25-2	IK
Bromomethane	ND	ug/L	2.0	1		11/18/21 16:49	74-83-9	
2-Butanone (MEK)	ND	ug/L	5.0	1		11/18/21 16:49	78-93-3	
Carbon tetrachloride	ND	ug/L	1.0	1		11/18/21 16:49	56-23-5	
Chlorobenzene	ND	ug/L	1.0	1		11/18/21 16:49	108-90-7	
Chloroethane	ND	ug/L	1.0	1		11/18/21 16:49	75-00-3	IK,v1
Chloroform	ND	ug/L	1.0	1		11/18/21 16:49	67-66-3	
Chloromethane	ND	ug/L	1.0	1		11/18/21 16:49	74-87-3	
2-Chlorotoluene	ND	ug/L	1.0	1		11/18/21 16:49	95-49-8	
4-Chlorotoluene	ND	ug/L	1.0	1		11/18/21 16:49	106-43-4	
1,2-Dibromo-3-chloropropane	ND	ug/L	2.0	1		11/18/21 16:49	96-12-8	
Dibromochloromethane	ND	ug/L	1.0	1		11/18/21 16:49	124-48-1	
1,2-Dibromoethane (EDB)	ND	ug/L	1.0	1		11/18/21 16:49	106-93-4	
Dibromomethane	ND	ug/L	1.0	1		11/18/21 16:49	74-95-3	
1,2-Dichlorobenzene	ND	ug/L	1.0	1		11/18/21 16:49	95-50-1	
1,3-Dichlorobenzene	ND	ug/L	1.0	1		11/18/21 16:49	541-73-1	
1,4-Dichlorobenzene	ND	ug/L	1.0	1		11/18/21 16:49	106-46-7	
Dichlorodifluoromethane	ND	ug/L	1.0	1		11/18/21 16:49	75-71-8	
1,1-Dichloroethane	ND	ug/L	1.0	1		11/18/21 16:49	75-34-3	
1,2-Dichloroethane	ND	ug/L	1.0	1		11/18/21 16:49	107-06-2	
1,1-Dichloroethene	ND	ug/L	1.0	1		11/18/21 16:49	75-35-4	
cis-1,2-Dichloroethene	ND	ug/L	1.0	1		11/18/21 16:49	156-59-2	
trans-1,2-Dichloroethene	ND	ug/L	1.0	1		11/18/21 16:49	156-60-5	
1,2-Dichloropropane	ND	ug/L	1.0	1		11/18/21 16:49	78-87-5	
1,3-Dichloropropane	ND	ug/L	1.0	1		11/18/21 16:49	142-28-9	
2,2-Dichloropropane	ND	ug/L	1.0	1		11/18/21 16:49	594-20-7	
1,1-Dichloropropene	ND	ug/L	1.0	1		11/18/21 16:49	563-58-6	
cis-1,3-Dichloropropene	ND	ug/L	1.0	1		11/18/21 16:49	10061-01-5	
trans-1,3-Dichloropropene	ND	ug/L	1.0	1		11/18/21 16:49	10061-02-6	
Diisopropyl ether	ND	ug/L	1.0	1		11/18/21 16:49	108-20-3	
Ethylbenzene	ND	ug/L	1.0	1		11/18/21 16:49	100-41-4	
Hexachloro-1,3-butadiene	ND	ug/L	2.0	1		11/18/21 16:49	87-68-3	
2-Hexanone	ND	ug/L	5.0	1		11/18/21 16:49	591-78-6	
p-Isopropyltoluene	ND	ug/L	1.0	1		11/18/21 16:49	99-87-6	
Methylene Chloride	ND	ug/L	5.0	1		11/18/21 16:49	75-09-2	
4-Methyl-2-pentanone (MIBK)	ND	ug/L	5.0	1		11/18/21 16:49	108-10-1	
Methyl-tert-butyl ether	ND	ug/L	1.0	1		11/18/21 16:49	1634-04-4	
Naphthalene	ND	ug/L	1.0	1		11/18/21 16:49	91-20-3	
Styrene	ND	ug/L	1.0	1		11/18/21 16:49	100-42-5	
1,1,1,2-Tetrachloroethane	ND	ug/L	1.0	1		11/18/21 16:49	630-20-6	
1,1,2,2-Tetrachloroethane	ND	ug/L	1.0	1		11/18/21 16:49	79-34-5	

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS

Project: KOP FLEX OFFSITE 31401545.010
Pace Project No.: 92572915

Sample: MW-3 **Lab ID: 92572915001** Collected: 11/14/21 09:35 Received: 11/17/21 10:15 Matrix: Water

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8260D MSV Low Level	Analytical Method: EPA 8260D Pace Analytical Services - Charlotte							
Tetrachloroethene	ND	ug/L	1.0	1		11/18/21 16:49	127-18-4	
Toluene	ND	ug/L	1.0	1		11/18/21 16:49	108-88-3	
1,2,3-Trichlorobenzene	ND	ug/L	1.0	1		11/18/21 16:49	87-61-6	
1,2,4-Trichlorobenzene	ND	ug/L	1.0	1		11/18/21 16:49	120-82-1	
1,1,1-Trichloroethane	ND	ug/L	1.0	1		11/18/21 16:49	71-55-6	
1,1,2-Trichloroethane	ND	ug/L	1.0	1		11/18/21 16:49	79-00-5	
Trichloroethene	ND	ug/L	1.0	1		11/18/21 16:49	79-01-6	
Trichlorofluoromethane	ND	ug/L	1.0	1		11/18/21 16:49	75-69-4	
1,2,3-Trichloropropane	ND	ug/L	1.0	1		11/18/21 16:49	96-18-4	
Vinyl acetate	ND	ug/L	2.0	1		11/18/21 16:49	108-05-4	
Vinyl chloride	ND	ug/L	1.0	1		11/18/21 16:49	75-01-4	
Xylene (Total)	ND	ug/L	1.0	1		11/18/21 16:49	1330-20-7	
m&p-Xylene	ND	ug/L	2.0	1		11/18/21 16:49	179601-23-1	
o-Xylene	ND	ug/L	1.0	1		11/18/21 16:49	95-47-6	
Surrogates								
4-Bromofluorobenzene (S)	96	%	70-130	1		11/18/21 16:49	460-00-4	
1,2-Dichloroethane-d4 (S)	108	%	70-130	1		11/18/21 16:49	17060-07-0	
Toluene-d8 (S)	102	%	70-130	1		11/18/21 16:49	2037-26-5	
8260D MSV SIM	Analytical Method: EPA 8260D Mod. Pace Analytical Services - Charlotte							
1,4-Dioxane (p-Dioxane)	ND	ug/L	2.0	1		11/17/21 16:51	123-91-1	
Surrogates								
1,2-Dichloroethane-d4 (S)	104	%	70-130	1		11/17/21 16:51	17060-07-0	
Toluene-d8 (S)	103	%	66-133	1		11/17/21 16:51	2037-26-5	

REPORT OF LABORATORY ANALYSIS

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Huntersville, NC 28078
(704)875-9092

ANALYTICAL RESULTS

Project: KOP FLEX OFFSITE 31401545.010
Pace Project No.: 92572915

Sample: MW-27D **Lab ID: 92572915002** Collected: 11/14/21 10:00 Received: 11/17/21 10:15 Matrix: Water

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8260D MSV Low Level	Analytical Method: EPA 8260D Pace Analytical Services - Charlotte							
Acetone	ND	ug/L	25.0	1		11/18/21 17:07	67-64-1	
Benzene	ND	ug/L	1.0	1		11/18/21 17:07	71-43-2	
Bromobenzene	ND	ug/L	1.0	1		11/18/21 17:07	108-86-1	
Bromochloromethane	ND	ug/L	1.0	1		11/18/21 17:07	74-97-5	
Bromodichloromethane	ND	ug/L	1.0	1		11/18/21 17:07	75-27-4	
Bromoform	ND	ug/L	1.0	1		11/18/21 17:07	75-25-2	IK
Bromomethane	ND	ug/L	2.0	1		11/18/21 17:07	74-83-9	
2-Butanone (MEK)	ND	ug/L	5.0	1		11/18/21 17:07	78-93-3	
Carbon tetrachloride	ND	ug/L	1.0	1		11/18/21 17:07	56-23-5	
Chlorobenzene	ND	ug/L	1.0	1		11/18/21 17:07	108-90-7	
Chloroethane	ND	ug/L	1.0	1		11/18/21 17:07	75-00-3	IK,v1
Chloroform	ND	ug/L	1.0	1		11/18/21 17:07	67-66-3	
Chloromethane	ND	ug/L	1.0	1		11/18/21 17:07	74-87-3	
2-Chlorotoluene	ND	ug/L	1.0	1		11/18/21 17:07	95-49-8	
4-Chlorotoluene	ND	ug/L	1.0	1		11/18/21 17:07	106-43-4	
1,2-Dibromo-3-chloropropane	ND	ug/L	2.0	1		11/18/21 17:07	96-12-8	
Dibromochloromethane	ND	ug/L	1.0	1		11/18/21 17:07	124-48-1	
1,2-Dibromoethane (EDB)	ND	ug/L	1.0	1		11/18/21 17:07	106-93-4	
Dibromomethane	ND	ug/L	1.0	1		11/18/21 17:07	74-95-3	
1,2-Dichlorobenzene	ND	ug/L	1.0	1		11/18/21 17:07	95-50-1	
1,3-Dichlorobenzene	ND	ug/L	1.0	1		11/18/21 17:07	541-73-1	
1,4-Dichlorobenzene	ND	ug/L	1.0	1		11/18/21 17:07	106-46-7	
Dichlorodifluoromethane	ND	ug/L	1.0	1		11/18/21 17:07	75-71-8	
1,1-Dichloroethane	ND	ug/L	1.0	1		11/18/21 17:07	75-34-3	
1,2-Dichloroethane	ND	ug/L	1.0	1		11/18/21 17:07	107-06-2	
1,1-Dichloroethene	ND	ug/L	1.0	1		11/18/21 17:07	75-35-4	
cis-1,2-Dichloroethene	ND	ug/L	1.0	1		11/18/21 17:07	156-59-2	
trans-1,2-Dichloroethene	ND	ug/L	1.0	1		11/18/21 17:07	156-60-5	
1,2-Dichloropropane	ND	ug/L	1.0	1		11/18/21 17:07	78-87-5	
1,3-Dichloropropane	ND	ug/L	1.0	1		11/18/21 17:07	142-28-9	
2,2-Dichloropropane	ND	ug/L	1.0	1		11/18/21 17:07	594-20-7	
1,1-Dichloropropene	ND	ug/L	1.0	1		11/18/21 17:07	563-58-6	
cis-1,3-Dichloropropene	ND	ug/L	1.0	1		11/18/21 17:07	10061-01-5	
trans-1,3-Dichloropropene	ND	ug/L	1.0	1		11/18/21 17:07	10061-02-6	
Diisopropyl ether	ND	ug/L	1.0	1		11/18/21 17:07	108-20-3	
Ethylbenzene	ND	ug/L	1.0	1		11/18/21 17:07	100-41-4	
Hexachloro-1,3-butadiene	ND	ug/L	2.0	1		11/18/21 17:07	87-68-3	
2-Hexanone	ND	ug/L	5.0	1		11/18/21 17:07	591-78-6	
p-Isopropyltoluene	ND	ug/L	1.0	1		11/18/21 17:07	99-87-6	
Methylene Chloride	ND	ug/L	5.0	1		11/18/21 17:07	75-09-2	
4-Methyl-2-pentanone (MIBK)	ND	ug/L	5.0	1		11/18/21 17:07	108-10-1	
Methyl-tert-butyl ether	ND	ug/L	1.0	1		11/18/21 17:07	1634-04-4	
Naphthalene	ND	ug/L	1.0	1		11/18/21 17:07	91-20-3	
Styrene	ND	ug/L	1.0	1		11/18/21 17:07	100-42-5	
1,1,1,2-Tetrachloroethane	ND	ug/L	1.0	1		11/18/21 17:07	630-20-6	
1,1,2,2-Tetrachloroethane	ND	ug/L	1.0	1		11/18/21 17:07	79-34-5	

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ANALYTICAL RESULTS

Project: KOP FLEX OFFSITE 31401545.010
Pace Project No.: 92572915

Sample: MW-27D **Lab ID: 92572915002** Collected: 11/14/21 10:00 Received: 11/17/21 10:15 Matrix: Water

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8260D MSV Low Level	Analytical Method: EPA 8260D Pace Analytical Services - Charlotte							
Tetrachloroethene	ND	ug/L	1.0	1		11/18/21 17:07	127-18-4	
Toluene	ND	ug/L	1.0	1		11/18/21 17:07	108-88-3	
1,2,3-Trichlorobenzene	ND	ug/L	1.0	1		11/18/21 17:07	87-61-6	
1,2,4-Trichlorobenzene	ND	ug/L	1.0	1		11/18/21 17:07	120-82-1	
1,1,1-Trichloroethane	ND	ug/L	1.0	1		11/18/21 17:07	71-55-6	
1,1,2-Trichloroethane	ND	ug/L	1.0	1		11/18/21 17:07	79-00-5	
Trichloroethene	ND	ug/L	1.0	1		11/18/21 17:07	79-01-6	
Trichlorofluoromethane	ND	ug/L	1.0	1		11/18/21 17:07	75-69-4	
1,2,3-Trichloropropane	ND	ug/L	1.0	1		11/18/21 17:07	96-18-4	
Vinyl acetate	ND	ug/L	2.0	1		11/18/21 17:07	108-05-4	
Vinyl chloride	ND	ug/L	1.0	1		11/18/21 17:07	75-01-4	
Xylene (Total)	ND	ug/L	1.0	1		11/18/21 17:07	1330-20-7	
m&p-Xylene	ND	ug/L	2.0	1		11/18/21 17:07	179601-23-1	
o-Xylene	ND	ug/L	1.0	1		11/18/21 17:07	95-47-6	
Surrogates								
4-Bromofluorobenzene (S)	99	%	70-130	1		11/18/21 17:07	460-00-4	
1,2-Dichloroethane-d4 (S)	106	%	70-130	1		11/18/21 17:07	17060-07-0	
Toluene-d8 (S)	102	%	70-130	1		11/18/21 17:07	2037-26-5	
8260D MSV SIM	Analytical Method: EPA 8260D Mod. Pace Analytical Services - Charlotte							
1,4-Dioxane (p-Dioxane)	ND	ug/L	2.0	1		11/17/21 17:10	123-91-1	
Surrogates								
1,2-Dichloroethane-d4 (S)	103	%	70-130	1		11/17/21 17:10	17060-07-0	
Toluene-d8 (S)	102	%	66-133	1		11/17/21 17:10	2037-26-5	

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ANALYTICAL RESULTS

Project: KOP FLEX OFFSITE 31401545.010
Pace Project No.: 92572915

Sample: MW-43 **Lab ID: 92572915003** Collected: 11/14/21 10:10 Received: 11/17/21 10:15 Matrix: Water

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8260D MSV Low Level	Analytical Method: EPA 8260D Pace Analytical Services - Charlotte							
Acetone	ND	ug/L	25.0	1		11/18/21 17:25	67-64-1	
Benzene	ND	ug/L	1.0	1		11/18/21 17:25	71-43-2	
Bromobenzene	ND	ug/L	1.0	1		11/18/21 17:25	108-86-1	
Bromochloromethane	ND	ug/L	1.0	1		11/18/21 17:25	74-97-5	
Bromodichloromethane	ND	ug/L	1.0	1		11/18/21 17:25	75-27-4	
Bromoform	ND	ug/L	1.0	1		11/18/21 17:25	75-25-2	IK
Bromomethane	ND	ug/L	2.0	1		11/18/21 17:25	74-83-9	
2-Butanone (MEK)	ND	ug/L	5.0	1		11/18/21 17:25	78-93-3	
Carbon tetrachloride	ND	ug/L	1.0	1		11/18/21 17:25	56-23-5	
Chlorobenzene	ND	ug/L	1.0	1		11/18/21 17:25	108-90-7	
Chloroethane	ND	ug/L	1.0	1		11/18/21 17:25	75-00-3	IK,v1
Chloroform	ND	ug/L	1.0	1		11/18/21 17:25	67-66-3	
Chloromethane	ND	ug/L	1.0	1		11/18/21 17:25	74-87-3	
2-Chlorotoluene	ND	ug/L	1.0	1		11/18/21 17:25	95-49-8	
4-Chlorotoluene	ND	ug/L	1.0	1		11/18/21 17:25	106-43-4	
1,2-Dibromo-3-chloropropane	ND	ug/L	2.0	1		11/18/21 17:25	96-12-8	
Dibromochloromethane	ND	ug/L	1.0	1		11/18/21 17:25	124-48-1	
1,2-Dibromoethane (EDB)	ND	ug/L	1.0	1		11/18/21 17:25	106-93-4	
Dibromomethane	ND	ug/L	1.0	1		11/18/21 17:25	74-95-3	
1,2-Dichlorobenzene	ND	ug/L	1.0	1		11/18/21 17:25	95-50-1	
1,3-Dichlorobenzene	ND	ug/L	1.0	1		11/18/21 17:25	541-73-1	
1,4-Dichlorobenzene	ND	ug/L	1.0	1		11/18/21 17:25	106-46-7	
Dichlorodifluoromethane	ND	ug/L	1.0	1		11/18/21 17:25	75-71-8	
1,1-Dichloroethane	**2.6**	ug/L	1.0	1		11/18/21 17:25	75-34-3	
1,2-Dichloroethane	ND	ug/L	1.0	1		11/18/21 17:25	107-06-2	
1,1-Dichloroethene	**31.3**	ug/L	1.0	1		11/18/21 17:25	75-35-4	
cis-1,2-Dichloroethene	ND	ug/L	1.0	1		11/18/21 17:25	156-59-2	
trans-1,2-Dichloroethene	ND	ug/L	1.0	1		11/18/21 17:25	156-60-5	
1,2-Dichloropropane	ND	ug/L	1.0	1		11/18/21 17:25	78-87-5	
1,3-Dichloropropane	ND	ug/L	1.0	1		11/18/21 17:25	142-28-9	
2,2-Dichloropropane	ND	ug/L	1.0	1		11/18/21 17:25	594-20-7	
1,1-Dichloropropene	ND	ug/L	1.0	1		11/18/21 17:25	563-58-6	
cis-1,3-Dichloropropene	ND	ug/L	1.0	1		11/18/21 17:25	10061-01-5	
trans-1,3-Dichloropropene	ND	ug/L	1.0	1		11/18/21 17:25	10061-02-6	
Diisopropyl ether	ND	ug/L	1.0	1		11/18/21 17:25	108-20-3	
Ethylbenzene	ND	ug/L	1.0	1		11/18/21 17:25	100-41-4	
Hexachloro-1,3-butadiene	ND	ug/L	2.0	1		11/18/21 17:25	87-68-3	
2-Hexanone	ND	ug/L	5.0	1		11/18/21 17:25	591-78-6	
p-Isopropyltoluene	ND	ug/L	1.0	1		11/18/21 17:25	99-87-6	
Methylene Chloride	ND	ug/L	5.0	1		11/18/21 17:25	75-09-2	
4-Methyl-2-pentanone (MIBK)	ND	ug/L	5.0	1		11/18/21 17:25	108-10-1	
Methyl-tert-butyl ether	**2.8**	ug/L	1.0	1		11/18/21 17:25	1634-04-4	
Naphthalene	ND	ug/L	1.0	1		11/18/21 17:25	91-20-3	
Styrene	ND	ug/L	1.0	1		11/18/21 17:25	100-42-5	
1,1,1,2-Tetrachloroethane	ND	ug/L	1.0	1		11/18/21 17:25	630-20-6	
1,1,2,2-Tetrachloroethane	ND	ug/L	1.0	1		11/18/21 17:25	79-34-5	

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ANALYTICAL RESULTS

Project: KOP FLEX OFFSITE 31401545.010
Pace Project No.: 92572915

Sample: MW-43 **Lab ID: 92572915003** Collected: 11/14/21 10:10 Received: 11/17/21 10:15 Matrix: Water

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8260D MSV Low Level	Analytical Method: EPA 8260D Pace Analytical Services - Charlotte							
Tetrachloroethene	ND	ug/L	1.0	1		11/18/21 17:25	127-18-4	
Toluene	ND	ug/L	1.0	1		11/18/21 17:25	108-88-3	
1,2,3-Trichlorobenzene	ND	ug/L	1.0	1		11/18/21 17:25	87-61-6	
1,2,4-Trichlorobenzene	ND	ug/L	1.0	1		11/18/21 17:25	120-82-1	
1,1,1-Trichloroethane	ND	ug/L	1.0	1		11/18/21 17:25	71-55-6	
1,1,2-Trichloroethane	ND	ug/L	1.0	1		11/18/21 17:25	79-00-5	
Trichloroethene	ND	ug/L	1.0	1		11/18/21 17:25	79-01-6	
Trichlorofluoromethane	ND	ug/L	1.0	1		11/18/21 17:25	75-69-4	
1,2,3-Trichloropropane	ND	ug/L	1.0	1		11/18/21 17:25	96-18-4	
Vinyl acetate	ND	ug/L	2.0	1		11/18/21 17:25	108-05-4	
Vinyl chloride	ND	ug/L	1.0	1		11/18/21 17:25	75-01-4	
Xylene (Total)	ND	ug/L	1.0	1		11/18/21 17:25	1330-20-7	
m&p-Xylene	ND	ug/L	2.0	1		11/18/21 17:25	179601-23-1	
o-Xylene	ND	ug/L	1.0	1		11/18/21 17:25	95-47-6	
Surrogates								
4-Bromofluorobenzene (S)	97	%	70-130	1		11/18/21 17:25	460-00-4	
1,2-Dichloroethane-d4 (S)	108	%	70-130	1		11/18/21 17:25	17060-07-0	
Toluene-d8 (S)	103	%	70-130	1		11/18/21 17:25	2037-26-5	
8260D MSV SIM	Analytical Method: EPA 8260D Mod. Pace Analytical Services - Charlotte							
1,4-Dioxane (p-Dioxane)	**34.3**	ug/L	2.0	1		11/17/21 20:04	123-91-1	
Surrogates								
1,2-Dichloroethane-d4 (S)	101	%	70-130	1		11/17/21 20:04	17060-07-0	
Toluene-d8 (S)	101	%	66-133	1		11/17/21 20:04	2037-26-5	

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ANALYTICAL RESULTS

Project: KOP FLEX OFFSITE 31401545.010
Pace Project No.: 92572915

Sample: MW-39 **Lab ID: 92572915004** Collected: 11/14/21 10:25 Received: 11/17/21 10:15 Matrix: Water

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8260D MSV Low Level	Analytical Method: EPA 8260D Pace Analytical Services - Charlotte							
Acetone	ND	ug/L	25.0	1		11/18/21 17:43	67-64-1	
Benzene	ND	ug/L	1.0	1		11/18/21 17:43	71-43-2	
Bromobenzene	ND	ug/L	1.0	1		11/18/21 17:43	108-86-1	
Bromochloromethane	ND	ug/L	1.0	1		11/18/21 17:43	74-97-5	
Bromodichloromethane	ND	ug/L	1.0	1		11/18/21 17:43	75-27-4	
Bromoform	ND	ug/L	1.0	1		11/18/21 17:43	75-25-2	IK
Bromomethane	ND	ug/L	2.0	1		11/18/21 17:43	74-83-9	
2-Butanone (MEK)	ND	ug/L	5.0	1		11/18/21 17:43	78-93-3	
Carbon tetrachloride	ND	ug/L	1.0	1		11/18/21 17:43	56-23-5	
Chlorobenzene	ND	ug/L	1.0	1		11/18/21 17:43	108-90-7	
Chloroethane	ND	ug/L	1.0	1		11/18/21 17:43	75-00-3	IK,v1
Chloroform	ND	ug/L	1.0	1		11/18/21 17:43	67-66-3	
Chloromethane	ND	ug/L	1.0	1		11/18/21 17:43	74-87-3	
2-Chlorotoluene	ND	ug/L	1.0	1		11/18/21 17:43	95-49-8	
4-Chlorotoluene	ND	ug/L	1.0	1		11/18/21 17:43	106-43-4	
1,2-Dibromo-3-chloropropane	ND	ug/L	2.0	1		11/18/21 17:43	96-12-8	
Dibromochloromethane	ND	ug/L	1.0	1		11/18/21 17:43	124-48-1	
1,2-Dibromoethane (EDB)	ND	ug/L	1.0	1		11/18/21 17:43	106-93-4	
Dibromomethane	ND	ug/L	1.0	1		11/18/21 17:43	74-95-3	
1,2-Dichlorobenzene	ND	ug/L	1.0	1		11/18/21 17:43	95-50-1	
1,3-Dichlorobenzene	ND	ug/L	1.0	1		11/18/21 17:43	541-73-1	
1,4-Dichlorobenzene	ND	ug/L	1.0	1		11/18/21 17:43	106-46-7	
Dichlorodifluoromethane	ND	ug/L	1.0	1		11/18/21 17:43	75-71-8	
1,1-Dichloroethane	ND	ug/L	1.0	1		11/18/21 17:43	75-34-3	
1,2-Dichloroethane	ND	ug/L	1.0	1		11/18/21 17:43	107-06-2	
1,1-Dichloroethene	ND	ug/L	1.0	1		11/18/21 17:43	75-35-4	
cis-1,2-Dichloroethene	ND	ug/L	1.0	1		11/18/21 17:43	156-59-2	
trans-1,2-Dichloroethene	ND	ug/L	1.0	1		11/18/21 17:43	156-60-5	
1,2-Dichloropropane	ND	ug/L	1.0	1		11/18/21 17:43	78-87-5	
1,3-Dichloropropane	ND	ug/L	1.0	1		11/18/21 17:43	142-28-9	
2,2-Dichloropropane	ND	ug/L	1.0	1		11/18/21 17:43	594-20-7	
1,1-Dichloropropene	ND	ug/L	1.0	1		11/18/21 17:43	563-58-6	
cis-1,3-Dichloropropene	ND	ug/L	1.0	1		11/18/21 17:43	10061-01-5	
trans-1,3-Dichloropropene	ND	ug/L	1.0	1		11/18/21 17:43	10061-02-6	
Diisopropyl ether	ND	ug/L	1.0	1		11/18/21 17:43	108-20-3	
Ethylbenzene	ND	ug/L	1.0	1		11/18/21 17:43	100-41-4	
Hexachloro-1,3-butadiene	ND	ug/L	2.0	1		11/18/21 17:43	87-68-3	
2-Hexanone	ND	ug/L	5.0	1		11/18/21 17:43	591-78-6	
p-Isopropyltoluene	ND	ug/L	1.0	1		11/18/21 17:43	99-87-6	
Methylene Chloride	ND	ug/L	5.0	1		11/18/21 17:43	75-09-2	
4-Methyl-2-pentanone (MIBK)	ND	ug/L	5.0	1		11/18/21 17:43	108-10-1	
Methyl-tert-butyl ether	ND	ug/L	1.0	1		11/18/21 17:43	1634-04-4	
Naphthalene	ND	ug/L	1.0	1		11/18/21 17:43	91-20-3	
Styrene	ND	ug/L	1.0	1		11/18/21 17:43	100-42-5	
1,1,1,2-Tetrachloroethane	ND	ug/L	1.0	1		11/18/21 17:43	630-20-6	
1,1,2,2-Tetrachloroethane	ND	ug/L	1.0	1		11/18/21 17:43	79-34-5	

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ANALYTICAL RESULTS

Project: KOP FLEX OFFSITE 31401545.010
Pace Project No.: 92572915

Sample: MW-39 **Lab ID: 92572915004** Collected: 11/14/21 10:25 Received: 11/17/21 10:15 Matrix: Water

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8260D MSV Low Level	Analytical Method: EPA 8260D Pace Analytical Services - Charlotte							
Tetrachloroethene	ND	ug/L	1.0	1		11/18/21 17:43	127-18-4	
Toluene	ND	ug/L	1.0	1		11/18/21 17:43	108-88-3	
1,2,3-Trichlorobenzene	ND	ug/L	1.0	1		11/18/21 17:43	87-61-6	
1,2,4-Trichlorobenzene	ND	ug/L	1.0	1		11/18/21 17:43	120-82-1	
1,1,1-Trichloroethane	ND	ug/L	1.0	1		11/18/21 17:43	71-55-6	
1,1,2-Trichloroethane	ND	ug/L	1.0	1		11/18/21 17:43	79-00-5	
Trichloroethene	ND	ug/L	1.0	1		11/18/21 17:43	79-01-6	
Trichlorofluoromethane	ND	ug/L	1.0	1		11/18/21 17:43	75-69-4	
1,2,3-Trichloropropane	ND	ug/L	1.0	1		11/18/21 17:43	96-18-4	
Vinyl acetate	ND	ug/L	2.0	1		11/18/21 17:43	108-05-4	
Vinyl chloride	ND	ug/L	1.0	1		11/18/21 17:43	75-01-4	
Xylene (Total)	ND	ug/L	1.0	1		11/18/21 17:43	1330-20-7	
m&p-Xylene	ND	ug/L	2.0	1		11/18/21 17:43	179601-23-1	
o-Xylene	ND	ug/L	1.0	1		11/18/21 17:43	95-47-6	
Surrogates								
4-Bromofluorobenzene (S)	95	%	70-130	1		11/18/21 17:43	460-00-4	
1,2-Dichloroethane-d4 (S)	104	%	70-130	1		11/18/21 17:43	17060-07-0	
Toluene-d8 (S)	103	%	70-130	1		11/18/21 17:43	2037-26-5	
8260D MSV SIM	Analytical Method: EPA 8260D Mod. Pace Analytical Services - Charlotte							
1,4-Dioxane (p-Dioxane)	ND	ug/L	2.0	1		11/17/21 20:39	123-91-1	
Surrogates								
1,2-Dichloroethane-d4 (S)	94	%	70-130	1		11/17/21 20:39	17060-07-0	
Toluene-d8 (S)	89	%	66-133	1		11/17/21 20:39	2037-26-5	

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Pace Analytical Services, LLC
9800 Kincey Ave. Suite 100
Huntersville, NC 28078
(704)875-9092

ANALYTICAL RESULTS

Project: KOP FLEX OFFSITE 31401545.010
Pace Project No.: 92572915

Sample: MW-38R **Lab ID: 92572915005** Collected: 11/14/21 10:35 Received: 11/17/21 10:15 Matrix: Water

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8260D MSV Low Level	Analytical Method: EPA 8260D Pace Analytical Services - Charlotte							
Acetone	ND	ug/L	25.0	1		11/18/21 18:01	67-64-1	
Benzene	ND	ug/L	1.0	1		11/18/21 18:01	71-43-2	
Bromobenzene	ND	ug/L	1.0	1		11/18/21 18:01	108-86-1	
Bromochloromethane	ND	ug/L	1.0	1		11/18/21 18:01	74-97-5	
Bromodichloromethane	ND	ug/L	1.0	1		11/18/21 18:01	75-27-4	
Bromoform	ND	ug/L	1.0	1		11/18/21 18:01	75-25-2	IK
Bromomethane	ND	ug/L	2.0	1		11/18/21 18:01	74-83-9	
2-Butanone (MEK)	ND	ug/L	5.0	1		11/18/21 18:01	78-93-3	
Carbon tetrachloride	ND	ug/L	1.0	1		11/18/21 18:01	56-23-5	
Chlorobenzene	ND	ug/L	1.0	1		11/18/21 18:01	108-90-7	
Chloroethane	ND	ug/L	1.0	1		11/18/21 18:01	75-00-3	IK,v1
Chloroform	ND	ug/L	1.0	1		11/18/21 18:01	67-66-3	
Chloromethane	ND	ug/L	1.0	1		11/18/21 18:01	74-87-3	
2-Chlorotoluene	ND	ug/L	1.0	1		11/18/21 18:01	95-49-8	
4-Chlorotoluene	ND	ug/L	1.0	1		11/18/21 18:01	106-43-4	
1,2-Dibromo-3-chloropropane	ND	ug/L	2.0	1		11/18/21 18:01	96-12-8	
Dibromochloromethane	ND	ug/L	1.0	1		11/18/21 18:01	124-48-1	
1,2-Dibromoethane (EDB)	ND	ug/L	1.0	1		11/18/21 18:01	106-93-4	
Dibromomethane	ND	ug/L	1.0	1		11/18/21 18:01	74-95-3	
1,2-Dichlorobenzene	ND	ug/L	1.0	1		11/18/21 18:01	95-50-1	
1,3-Dichlorobenzene	ND	ug/L	1.0	1		11/18/21 18:01	541-73-1	
1,4-Dichlorobenzene	ND	ug/L	1.0	1		11/18/21 18:01	106-46-7	
Dichlorodifluoromethane	ND	ug/L	1.0	1		11/18/21 18:01	75-71-8	
1,1-Dichloroethane	**6.7**	ug/L	1.0	1		11/18/21 18:01	75-34-3	
1,2-Dichloroethane	ND	ug/L	1.0	1		11/18/21 18:01	107-06-2	
1,1-Dichloroethene	ND	ug/L	1.0	1		11/18/21 18:01	75-35-4	
cis-1,2-Dichloroethene	ND	ug/L	1.0	1		11/18/21 18:01	156-59-2	
trans-1,2-Dichloroethene	ND	ug/L	1.0	1		11/18/21 18:01	156-60-5	
1,2-Dichloropropane	ND	ug/L	1.0	1		11/18/21 18:01	78-87-5	
1,3-Dichloropropane	ND	ug/L	1.0	1		11/18/21 18:01	142-28-9	
2,2-Dichloropropane	ND	ug/L	1.0	1		11/18/21 18:01	594-20-7	
1,1-Dichloropropene	ND	ug/L	1.0	1		11/18/21 18:01	563-58-6	
cis-1,3-Dichloropropene	ND	ug/L	1.0	1		11/18/21 18:01	10061-01-5	
trans-1,3-Dichloropropene	ND	ug/L	1.0	1		11/18/21 18:01	10061-02-6	
Diisopropyl ether	ND	ug/L	1.0	1		11/18/21 18:01	108-20-3	
Ethylbenzene	ND	ug/L	1.0	1		11/18/21 18:01	100-41-4	
Hexachloro-1,3-butadiene	ND	ug/L	2.0	1		11/18/21 18:01	87-68-3	
2-Hexanone	ND	ug/L	5.0	1		11/18/21 18:01	591-78-6	
p-Isopropyltoluene	ND	ug/L	1.0	1		11/18/21 18:01	99-87-6	
Methylene Chloride	ND	ug/L	5.0	1		11/18/21 18:01	75-09-2	
4-Methyl-2-pentanone (MIBK)	ND	ug/L	5.0	1		11/18/21 18:01	108-10-1	
Methyl-tert-butyl ether	ND	ug/L	1.0	1		11/18/21 18:01	1634-04-4	
Naphthalene	ND	ug/L	1.0	1		11/18/21 18:01	91-20-3	
Styrene	ND	ug/L	1.0	1		11/18/21 18:01	100-42-5	
1,1,1,2-Tetrachloroethane	ND	ug/L	1.0	1		11/18/21 18:01	630-20-6	
1,1,2,2-Tetrachloroethane	ND	ug/L	1.0	1		11/18/21 18:01	79-34-5	

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ANALYTICAL RESULTS

Project: KOP FLEX OFFSITE 31401545.010
Pace Project No.: 92572915

Sample: MW-38R **Lab ID: 92572915005** Collected: 11/14/21 10:35 Received: 11/17/21 10:15 Matrix: Water

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8260D MSV Low Level	Analytical Method: EPA 8260D Pace Analytical Services - Charlotte							
Tetrachloroethene	ND	ug/L	1.0	1		11/18/21 18:01	127-18-4	
Toluene	ND	ug/L	1.0	1		11/18/21 18:01	108-88-3	
1,2,3-Trichlorobenzene	ND	ug/L	1.0	1		11/18/21 18:01	87-61-6	
1,2,4-Trichlorobenzene	ND	ug/L	1.0	1		11/18/21 18:01	120-82-1	
1,1,1-Trichloroethane	ND	ug/L	1.0	1		11/18/21 18:01	71-55-6	
1,1,2-Trichloroethane	ND	ug/L	1.0	1		11/18/21 18:01	79-00-5	
Trichloroethene	ND	ug/L	1.0	1		11/18/21 18:01	79-01-6	
Trichlorofluoromethane	ND	ug/L	1.0	1		11/18/21 18:01	75-69-4	
1,2,3-Trichloropropane	ND	ug/L	1.0	1		11/18/21 18:01	96-18-4	
Vinyl acetate	ND	ug/L	2.0	1		11/18/21 18:01	108-05-4	
Vinyl chloride	ND	ug/L	1.0	1		11/18/21 18:01	75-01-4	
Xylene (Total)	ND	ug/L	1.0	1		11/18/21 18:01	1330-20-7	
m&p-Xylene	ND	ug/L	2.0	1		11/18/21 18:01	179601-23-1	
o-Xylene	ND	ug/L	1.0	1		11/18/21 18:01	95-47-6	
Surrogates								
4-Bromofluorobenzene (S)	96	%	70-130	1		11/18/21 18:01	460-00-4	
1,2-Dichloroethane-d4 (S)	109	%	70-130	1		11/18/21 18:01	17060-07-0	
Toluene-d8 (S)	101	%	70-130	1		11/18/21 18:01	2037-26-5	
8260D MSV SIM	Analytical Method: EPA 8260D Mod. Pace Analytical Services - Charlotte							
1,4-Dioxane (p-Dioxane)	**46.2**	ug/L	2.0	1		11/17/21 20:23	123-91-1	
Surrogates								
1,2-Dichloroethane-d4 (S)	103	%	70-130	1		11/17/21 20:23	17060-07-0	
Toluene-d8 (S)	101	%	66-133	1		11/17/21 20:23	2037-26-5	

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ANALYTICAL RESULTS

Project: KOP FLEX OFFSITE 31401545.010
Pace Project No.: 92572915

Sample: MW-42 **Lab ID: 92572915006** Collected: 11/14/21 10:50 Received: 11/17/21 10:15 Matrix: Water

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8260D MSV Low Level	Analytical Method: EPA 8260D Pace Analytical Services - Charlotte							
Acetone	ND	ug/L	25.0	1		11/18/21 18:19	67-64-1	
Benzene	ND	ug/L	1.0	1		11/18/21 18:19	71-43-2	
Bromobenzene	ND	ug/L	1.0	1		11/18/21 18:19	108-86-1	
Bromochloromethane	ND	ug/L	1.0	1		11/18/21 18:19	74-97-5	
Bromodichloromethane	ND	ug/L	1.0	1		11/18/21 18:19	75-27-4	
Bromoform	ND	ug/L	1.0	1		11/18/21 18:19	75-25-2	IK
Bromomethane	ND	ug/L	2.0	1		11/18/21 18:19	74-83-9	
2-Butanone (MEK)	ND	ug/L	5.0	1		11/18/21 18:19	78-93-3	
Carbon tetrachloride	ND	ug/L	1.0	1		11/18/21 18:19	56-23-5	
Chlorobenzene	ND	ug/L	1.0	1		11/18/21 18:19	108-90-7	
Chloroethane	ND	ug/L	1.0	1		11/18/21 18:19	75-00-3	IK,v1
Chloroform	ND	ug/L	1.0	1		11/18/21 18:19	67-66-3	
Chloromethane	ND	ug/L	1.0	1		11/18/21 18:19	74-87-3	
2-Chlorotoluene	ND	ug/L	1.0	1		11/18/21 18:19	95-49-8	
4-Chlorotoluene	ND	ug/L	1.0	1		11/18/21 18:19	106-43-4	
1,2-Dibromo-3-chloropropane	ND	ug/L	2.0	1		11/18/21 18:19	96-12-8	
Dibromochloromethane	ND	ug/L	1.0	1		11/18/21 18:19	124-48-1	
1,2-Dibromoethane (EDB)	ND	ug/L	1.0	1		11/18/21 18:19	106-93-4	
Dibromomethane	ND	ug/L	1.0	1		11/18/21 18:19	74-95-3	
1,2-Dichlorobenzene	ND	ug/L	1.0	1		11/18/21 18:19	95-50-1	
1,3-Dichlorobenzene	ND	ug/L	1.0	1		11/18/21 18:19	541-73-1	
1,4-Dichlorobenzene	ND	ug/L	1.0	1		11/18/21 18:19	106-46-7	
Dichlorodifluoromethane	ND	ug/L	1.0	1		11/18/21 18:19	75-71-8	
1,1-Dichloroethane	ND	ug/L	1.0	1		11/18/21 18:19	75-34-3	
1,2-Dichloroethane	ND	ug/L	1.0	1		11/18/21 18:19	107-06-2	
1,1-Dichloroethene	ND	ug/L	1.0	1		11/18/21 18:19	75-35-4	
cis-1,2-Dichloroethene	ND	ug/L	1.0	1		11/18/21 18:19	156-59-2	
trans-1,2-Dichloroethene	ND	ug/L	1.0	1		11/18/21 18:19	156-60-5	
1,2-Dichloropropane	ND	ug/L	1.0	1		11/18/21 18:19	78-87-5	
1,3-Dichloropropane	ND	ug/L	1.0	1		11/18/21 18:19	142-28-9	
2,2-Dichloropropane	ND	ug/L	1.0	1		11/18/21 18:19	594-20-7	
1,1-Dichloropropene	ND	ug/L	1.0	1		11/18/21 18:19	563-58-6	
cis-1,3-Dichloropropene	ND	ug/L	1.0	1		11/18/21 18:19	10061-01-5	
trans-1,3-Dichloropropene	ND	ug/L	1.0	1		11/18/21 18:19	10061-02-6	
Diisopropyl ether	ND	ug/L	1.0	1		11/18/21 18:19	108-20-3	
Ethylbenzene	ND	ug/L	1.0	1		11/18/21 18:19	100-41-4	
Hexachloro-1,3-butadiene	ND	ug/L	2.0	1		11/18/21 18:19	87-68-3	
2-Hexanone	ND	ug/L	5.0	1		11/18/21 18:19	591-78-6	
p-Isopropyltoluene	ND	ug/L	1.0	1		11/18/21 18:19	99-87-6	
Methylene Chloride	ND	ug/L	5.0	1		11/18/21 18:19	75-09-2	
4-Methyl-2-pentanone (MIBK)	ND	ug/L	5.0	1		11/18/21 18:19	108-10-1	
Methyl-tert-butyl ether	ND	ug/L	1.0	1		11/18/21 18:19	1634-04-4	
Naphthalene	ND	ug/L	1.0	1		11/18/21 18:19	91-20-3	
Styrene	ND	ug/L	1.0	1		11/18/21 18:19	100-42-5	
1,1,1,2-Tetrachloroethane	ND	ug/L	1.0	1		11/18/21 18:19	630-20-6	
1,1,2,2-Tetrachloroethane	ND	ug/L	1.0	1		11/18/21 18:19	79-34-5	

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ANALYTICAL RESULTS

Project: KOP FLEX OFFSITE 31401545.010
Pace Project No.: 92572915

Sample: MW-42 **Lab ID: 92572915006** Collected: 11/14/21 10:50 Received: 11/17/21 10:15 Matrix: Water

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8260D MSV Low Level	Analytical Method: EPA 8260D Pace Analytical Services - Charlotte							
Tetrachloroethene	ND	ug/L	1.0	1		11/18/21 18:19	127-18-4	
Toluene	ND	ug/L	1.0	1		11/18/21 18:19	108-88-3	
1,2,3-Trichlorobenzene	ND	ug/L	1.0	1		11/18/21 18:19	87-61-6	
1,2,4-Trichlorobenzene	ND	ug/L	1.0	1		11/18/21 18:19	120-82-1	
1,1,1-Trichloroethane	ND	ug/L	1.0	1		11/18/21 18:19	71-55-6	
1,1,2-Trichloroethane	ND	ug/L	1.0	1		11/18/21 18:19	79-00-5	
Trichloroethene	ND	ug/L	1.0	1		11/18/21 18:19	79-01-6	
Trichlorofluoromethane	ND	ug/L	1.0	1		11/18/21 18:19	75-69-4	
1,2,3-Trichloropropane	ND	ug/L	1.0	1		11/18/21 18:19	96-18-4	
Vinyl acetate	ND	ug/L	2.0	1		11/18/21 18:19	108-05-4	
Vinyl chloride	ND	ug/L	1.0	1		11/18/21 18:19	75-01-4	
Xylene (Total)	ND	ug/L	1.0	1		11/18/21 18:19	1330-20-7	
m&p-Xylene	ND	ug/L	2.0	1		11/18/21 18:19	179601-23-1	
o-Xylene	ND	ug/L	1.0	1		11/18/21 18:19	95-47-6	
Surrogates								
4-Bromofluorobenzene (S)	95	%	70-130	1		11/18/21 18:19	460-00-4	
1,2-Dichloroethane-d4 (S)	107	%	70-130	1		11/18/21 18:19	17060-07-0	
Toluene-d8 (S)	103	%	70-130	1		11/18/21 18:19	2037-26-5	
8260D MSV SIM	Analytical Method: EPA 8260D Mod. Pace Analytical Services - Charlotte							
1,4-Dioxane (p-Dioxane)	**12.5**	ug/L	2.0	1		11/17/21 20:58	123-91-1	
Surrogates								
1,2-Dichloroethane-d4 (S)	93	%	70-130	1		11/17/21 20:58	17060-07-0	
Toluene-d8 (S)	89	%	66-133	1		11/17/21 20:58	2037-26-5	

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ANALYTICAL RESULTS

Project: KOP FLEX OFFSITE 31401545.010
Pace Project No.: 92572915

Sample: MW-18 **Lab ID: 92572915007** Collected: 11/14/21 11:00 Received: 11/17/21 10:15 Matrix: Water

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8260D MSV Low Level	Analytical Method: EPA 8260D Pace Analytical Services - Charlotte							
Acetone	ND	ug/L	25.0	1		11/18/21 18:37	67-64-1	
Benzene	ND	ug/L	1.0	1		11/18/21 18:37	71-43-2	
Bromobenzene	ND	ug/L	1.0	1		11/18/21 18:37	108-86-1	
Bromochloromethane	ND	ug/L	1.0	1		11/18/21 18:37	74-97-5	
Bromodichloromethane	ND	ug/L	1.0	1		11/18/21 18:37	75-27-4	
Bromoform	ND	ug/L	1.0	1		11/18/21 18:37	75-25-2	IK
Bromomethane	ND	ug/L	2.0	1		11/18/21 18:37	74-83-9	
2-Butanone (MEK)	ND	ug/L	5.0	1		11/18/21 18:37	78-93-3	
Carbon tetrachloride	ND	ug/L	1.0	1		11/18/21 18:37	56-23-5	
Chlorobenzene	ND	ug/L	1.0	1		11/18/21 18:37	108-90-7	
Chloroethane	ND	ug/L	1.0	1		11/18/21 18:37	75-00-3	IK,v1
Chloroform	ND	ug/L	1.0	1		11/18/21 18:37	67-66-3	
Chloromethane	ND	ug/L	1.0	1		11/18/21 18:37	74-87-3	
2-Chlorotoluene	ND	ug/L	1.0	1		11/18/21 18:37	95-49-8	
4-Chlorotoluene	ND	ug/L	1.0	1		11/18/21 18:37	106-43-4	
1,2-Dibromo-3-chloropropane	ND	ug/L	2.0	1		11/18/21 18:37	96-12-8	
Dibromochloromethane	ND	ug/L	1.0	1		11/18/21 18:37	124-48-1	
1,2-Dibromoethane (EDB)	ND	ug/L	1.0	1		11/18/21 18:37	106-93-4	
Dibromomethane	ND	ug/L	1.0	1		11/18/21 18:37	74-95-3	
1,2-Dichlorobenzene	ND	ug/L	1.0	1		11/18/21 18:37	95-50-1	
1,3-Dichlorobenzene	ND	ug/L	1.0	1		11/18/21 18:37	541-73-1	
1,4-Dichlorobenzene	ND	ug/L	1.0	1		11/18/21 18:37	106-46-7	
Dichlorodifluoromethane	ND	ug/L	1.0	1		11/18/21 18:37	75-71-8	
1,1-Dichloroethane	ND	ug/L	1.0	1		11/18/21 18:37	75-34-3	
1,2-Dichloroethane	ND	ug/L	1.0	1		11/18/21 18:37	107-06-2	
1,1-Dichloroethene	ND	ug/L	1.0	1		11/18/21 18:37	75-35-4	
cis-1,2-Dichloroethene	ND	ug/L	1.0	1		11/18/21 18:37	156-59-2	
trans-1,2-Dichloroethene	ND	ug/L	1.0	1		11/18/21 18:37	156-60-5	
1,2-Dichloropropane	ND	ug/L	1.0	1		11/18/21 18:37	78-87-5	
1,3-Dichloropropane	ND	ug/L	1.0	1		11/18/21 18:37	142-28-9	
2,2-Dichloropropane	ND	ug/L	1.0	1		11/18/21 18:37	594-20-7	
1,1-Dichloropropene	ND	ug/L	1.0	1		11/18/21 18:37	563-58-6	
cis-1,3-Dichloropropene	ND	ug/L	1.0	1		11/18/21 18:37	10061-01-5	
trans-1,3-Dichloropropene	ND	ug/L	1.0	1		11/18/21 18:37	10061-02-6	
Diisopropyl ether	ND	ug/L	1.0	1		11/18/21 18:37	108-20-3	
Ethylbenzene	ND	ug/L	1.0	1		11/18/21 18:37	100-41-4	
Hexachloro-1,3-butadiene	ND	ug/L	2.0	1		11/18/21 18:37	87-68-3	
2-Hexanone	ND	ug/L	5.0	1		11/18/21 18:37	591-78-6	
p-Isopropyltoluene	ND	ug/L	1.0	1		11/18/21 18:37	99-87-6	
Methylene Chloride	ND	ug/L	5.0	1		11/18/21 18:37	75-09-2	
4-Methyl-2-pentanone (MIBK)	ND	ug/L	5.0	1		11/18/21 18:37	108-10-1	
Methyl-tert-butyl ether	ND	ug/L	1.0	1		11/18/21 18:37	1634-04-4	
Naphthalene	ND	ug/L	1.0	1		11/18/21 18:37	91-20-3	
Styrene	ND	ug/L	1.0	1		11/18/21 18:37	100-42-5	
1,1,1,2-Tetrachloroethane	ND	ug/L	1.0	1		11/18/21 18:37	630-20-6	
1,1,2,2-Tetrachloroethane	ND	ug/L	1.0	1		11/18/21 18:37	79-34-5	

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ANALYTICAL RESULTS

Project: KOP FLEX OFFSITE 31401545.010
Pace Project No.: 92572915

Sample: MW-18 **Lab ID: 92572915007** Collected: 11/14/21 11:00 Received: 11/17/21 10:15 Matrix: Water

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8260D MSV Low Level	Analytical Method: EPA 8260D Pace Analytical Services - Charlotte							
Tetrachloroethene	ND	ug/L	1.0	1		11/18/21 18:37	127-18-4	
Toluene	ND	ug/L	1.0	1		11/18/21 18:37	108-88-3	
1,2,3-Trichlorobenzene	ND	ug/L	1.0	1		11/18/21 18:37	87-61-6	
1,2,4-Trichlorobenzene	ND	ug/L	1.0	1		11/18/21 18:37	120-82-1	
1,1,1-Trichloroethane	ND	ug/L	1.0	1		11/18/21 18:37	71-55-6	
1,1,2-Trichloroethane	ND	ug/L	1.0	1		11/18/21 18:37	79-00-5	
Trichloroethene	ND	ug/L	1.0	1		11/18/21 18:37	79-01-6	
Trichlorofluoromethane	ND	ug/L	1.0	1		11/18/21 18:37	75-69-4	
1,2,3-Trichloropropane	ND	ug/L	1.0	1		11/18/21 18:37	96-18-4	
Vinyl acetate	ND	ug/L	2.0	1		11/18/21 18:37	108-05-4	
Vinyl chloride	ND	ug/L	1.0	1		11/18/21 18:37	75-01-4	
Xylene (Total)	ND	ug/L	1.0	1		11/18/21 18:37	1330-20-7	
m&p-Xylene	ND	ug/L	2.0	1		11/18/21 18:37	179601-23-1	
o-Xylene	ND	ug/L	1.0	1		11/18/21 18:37	95-47-6	
Surrogates								
4-Bromofluorobenzene (S)	95	%	70-130	1		11/18/21 18:37	460-00-4	
1,2-Dichloroethane-d4 (S)	105	%	70-130	1		11/18/21 18:37	17060-07-0	
Toluene-d8 (S)	99	%	70-130	1		11/18/21 18:37	2037-26-5	
8260D MSV SIM	Analytical Method: EPA 8260D Mod. Pace Analytical Services - Charlotte							
1,4-Dioxane (p-Dioxane)	ND	ug/L	2.0	1		11/17/21 21:17	123-91-1	
Surrogates								
1,2-Dichloroethane-d4 (S)	95	%	70-130	1		11/17/21 21:17	17060-07-0	
Toluene-d8 (S)	88	%	66-133	1		11/17/21 21:17	2037-26-5	

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS

Project: KOP FLEX OFFSITE 31401545.010
Pace Project No.: 92572915

Sample: MW-40D **Lab ID: 92572915008** Collected: 11/14/21 11:15 Received: 11/17/21 10:15 Matrix: Water

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8260D MSV Low Level	Analytical Method: EPA 8260D Pace Analytical Services - Charlotte							
Acetone	ND	ug/L	25.0	1		11/18/21 18:55	67-64-1	
Benzene	ND	ug/L	1.0	1		11/18/21 18:55	71-43-2	
Bromobenzene	ND	ug/L	1.0	1		11/18/21 18:55	108-86-1	
Bromochloromethane	ND	ug/L	1.0	1		11/18/21 18:55	74-97-5	
Bromodichloromethane	ND	ug/L	1.0	1		11/18/21 18:55	75-27-4	
Bromoform	ND	ug/L	1.0	1		11/18/21 18:55	75-25-2	IK
Bromomethane	ND	ug/L	2.0	1		11/18/21 18:55	74-83-9	
2-Butanone (MEK)	ND	ug/L	5.0	1		11/18/21 18:55	78-93-3	
Carbon tetrachloride	ND	ug/L	1.0	1		11/18/21 18:55	56-23-5	
Chlorobenzene	ND	ug/L	1.0	1		11/18/21 18:55	108-90-7	
Chloroethane	ND	ug/L	1.0	1		11/18/21 18:55	75-00-3	IK,v1
Chloroform	ND	ug/L	1.0	1		11/18/21 18:55	67-66-3	
Chloromethane	ND	ug/L	1.0	1		11/18/21 18:55	74-87-3	
2-Chlorotoluene	ND	ug/L	1.0	1		11/18/21 18:55	95-49-8	
4-Chlorotoluene	ND	ug/L	1.0	1		11/18/21 18:55	106-43-4	
1,2-Dibromo-3-chloropropane	ND	ug/L	2.0	1		11/18/21 18:55	96-12-8	
Dibromochloromethane	ND	ug/L	1.0	1		11/18/21 18:55	124-48-1	
1,2-Dibromoethane (EDB)	ND	ug/L	1.0	1		11/18/21 18:55	106-93-4	
Dibromomethane	ND	ug/L	1.0	1		11/18/21 18:55	74-95-3	
1,2-Dichlorobenzene	ND	ug/L	1.0	1		11/18/21 18:55	95-50-1	
1,3-Dichlorobenzene	ND	ug/L	1.0	1		11/18/21 18:55	541-73-1	
1,4-Dichlorobenzene	ND	ug/L	1.0	1		11/18/21 18:55	106-46-7	
Dichlorodifluoromethane	ND	ug/L	1.0	1		11/18/21 18:55	75-71-8	
1,1-Dichloroethane	ND	ug/L	1.0	1		11/18/21 18:55	75-34-3	
1,2-Dichloroethane	ND	ug/L	1.0	1		11/18/21 18:55	107-06-2	
1,1-Dichloroethene	ND	ug/L	1.0	1		11/18/21 18:55	75-35-4	
cis-1,2-Dichloroethene	ND	ug/L	1.0	1		11/18/21 18:55	156-59-2	
trans-1,2-Dichloroethene	ND	ug/L	1.0	1		11/18/21 18:55	156-60-5	
1,2-Dichloropropane	ND	ug/L	1.0	1		11/18/21 18:55	78-87-5	
1,3-Dichloropropane	ND	ug/L	1.0	1		11/18/21 18:55	142-28-9	
2,2-Dichloropropane	ND	ug/L	1.0	1		11/18/21 18:55	594-20-7	
1,1-Dichloropropene	ND	ug/L	1.0	1		11/18/21 18:55	563-58-6	
cis-1,3-Dichloropropene	ND	ug/L	1.0	1		11/18/21 18:55	10061-01-5	
trans-1,3-Dichloropropene	ND	ug/L	1.0	1		11/18/21 18:55	10061-02-6	
Diisopropyl ether	ND	ug/L	1.0	1		11/18/21 18:55	108-20-3	
Ethylbenzene	ND	ug/L	1.0	1		11/18/21 18:55	100-41-4	
Hexachloro-1,3-butadiene	ND	ug/L	2.0	1		11/18/21 18:55	87-68-3	
2-Hexanone	ND	ug/L	5.0	1		11/18/21 18:55	591-78-6	
p-Isopropyltoluene	ND	ug/L	1.0	1		11/18/21 18:55	99-87-6	
Methylene Chloride	ND	ug/L	5.0	1		11/18/21 18:55	75-09-2	
4-Methyl-2-pentanone (MIBK)	ND	ug/L	5.0	1		11/18/21 18:55	108-10-1	
Methyl-tert-butyl ether	**1.7**	ug/L	1.0	1		11/18/21 18:55	1634-04-4	
Naphthalene	ND	ug/L	1.0	1		11/18/21 18:55	91-20-3	
Styrene	ND	ug/L	1.0	1		11/18/21 18:55	100-42-5	
1,1,1,2-Tetrachloroethane	ND	ug/L	1.0	1		11/18/21 18:55	630-20-6	
1,1,2,2-Tetrachloroethane	ND	ug/L	1.0	1		11/18/21 18:55	79-34-5	

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ANALYTICAL RESULTS

Project: KOP FLEX OFFSITE 31401545.010
Pace Project No.: 92572915

Sample: MW-40D **Lab ID: 92572915008** Collected: 11/14/21 11:15 Received: 11/17/21 10:15 Matrix: Water

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8260D MSV Low Level	Analytical Method: EPA 8260D Pace Analytical Services - Charlotte							
Tetrachloroethene	ND	ug/L	1.0	1		11/18/21 18:55	127-18-4	
Toluene	ND	ug/L	1.0	1		11/18/21 18:55	108-88-3	
1,2,3-Trichlorobenzene	ND	ug/L	1.0	1		11/18/21 18:55	87-61-6	
1,2,4-Trichlorobenzene	ND	ug/L	1.0	1		11/18/21 18:55	120-82-1	
1,1,1-Trichloroethane	ND	ug/L	1.0	1		11/18/21 18:55	71-55-6	
1,1,2-Trichloroethane	ND	ug/L	1.0	1		11/18/21 18:55	79-00-5	
Trichloroethene	ND	ug/L	1.0	1		11/18/21 18:55	79-01-6	
Trichlorofluoromethane	ND	ug/L	1.0	1		11/18/21 18:55	75-69-4	
1,2,3-Trichloropropane	ND	ug/L	1.0	1		11/18/21 18:55	96-18-4	
Vinyl acetate	ND	ug/L	2.0	1		11/18/21 18:55	108-05-4	
Vinyl chloride	ND	ug/L	1.0	1		11/18/21 18:55	75-01-4	
Xylene (Total)	ND	ug/L	1.0	1		11/18/21 18:55	1330-20-7	
m&p-Xylene	ND	ug/L	2.0	1		11/18/21 18:55	179601-23-1	
o-Xylene	ND	ug/L	1.0	1		11/18/21 18:55	95-47-6	
Surrogates								
4-Bromofluorobenzene (S)	94	%	70-130	1		11/18/21 18:55	460-00-4	
1,2-Dichloroethane-d4 (S)	107	%	70-130	1		11/18/21 18:55	17060-07-0	
Toluene-d8 (S)	103	%	70-130	1		11/18/21 18:55	2037-26-5	
8260D MSV SIM	Analytical Method: EPA 8260D Mod. Pace Analytical Services - Charlotte							
1,4-Dioxane (p-Dioxane)	ND	ug/L	2.0	1		11/17/21 21:36	123-91-1	
Surrogates								
1,2-Dichloroethane-d4 (S)	96	%	70-130	1		11/17/21 21:36	17060-07-0	
Toluene-d8 (S)	88	%	66-133	1		11/17/21 21:36	2037-26-5	

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ANALYTICAL RESULTS

Project: KOP FLEX OFFSITE 31401545.010
Pace Project No.: 92572915

Sample: MW-5R **Lab ID: 92572915009** Collected: 11/14/21 11:25 Received: 11/17/21 10:15 Matrix: Water

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8260D MSV Low Level	Analytical Method: EPA 8260D Pace Analytical Services - Charlotte							
Acetone	ND	ug/L	25.0	1		11/18/21 19:13	67-64-1	
Benzene	ND	ug/L	1.0	1		11/18/21 19:13	71-43-2	
Bromobenzene	ND	ug/L	1.0	1		11/18/21 19:13	108-86-1	
Bromochloromethane	ND	ug/L	1.0	1		11/18/21 19:13	74-97-5	
Bromodichloromethane	ND	ug/L	1.0	1		11/18/21 19:13	75-27-4	
Bromoform	ND	ug/L	1.0	1		11/18/21 19:13	75-25-2	IK
Bromomethane	ND	ug/L	2.0	1		11/18/21 19:13	74-83-9	
2-Butanone (MEK)	ND	ug/L	5.0	1		11/18/21 19:13	78-93-3	
Carbon tetrachloride	ND	ug/L	1.0	1		11/18/21 19:13	56-23-5	
Chlorobenzene	ND	ug/L	1.0	1		11/18/21 19:13	108-90-7	
Chloroethane	ND	ug/L	1.0	1		11/18/21 19:13	75-00-3	IK,v1
Chloroform	ND	ug/L	1.0	1		11/18/21 19:13	67-66-3	
Chloromethane	ND	ug/L	1.0	1		11/18/21 19:13	74-87-3	
2-Chlorotoluene	ND	ug/L	1.0	1		11/18/21 19:13	95-49-8	
4-Chlorotoluene	ND	ug/L	1.0	1		11/18/21 19:13	106-43-4	
1,2-Dibromo-3-chloropropane	ND	ug/L	2.0	1		11/18/21 19:13	96-12-8	
Dibromochloromethane	ND	ug/L	1.0	1		11/18/21 19:13	124-48-1	
1,2-Dibromoethane (EDB)	ND	ug/L	1.0	1		11/18/21 19:13	106-93-4	
Dibromomethane	ND	ug/L	1.0	1		11/18/21 19:13	74-95-3	
1,2-Dichlorobenzene	ND	ug/L	1.0	1		11/18/21 19:13	95-50-1	
1,3-Dichlorobenzene	ND	ug/L	1.0	1		11/18/21 19:13	541-73-1	
1,4-Dichlorobenzene	ND	ug/L	1.0	1		11/18/21 19:13	106-46-7	
Dichlorodifluoromethane	ND	ug/L	1.0	1		11/18/21 19:13	75-71-8	
1,1-Dichloroethane	**1.6**	ug/L	1.0	1		11/18/21 19:13	75-34-3	
1,2-Dichloroethane	ND	ug/L	1.0	1		11/18/21 19:13	107-06-2	
1,1-Dichloroethene	**1.4**	ug/L	1.0	1		11/18/21 19:13	75-35-4	
cis-1,2-Dichloroethene	ND	ug/L	1.0	1		11/18/21 19:13	156-59-2	
trans-1,2-Dichloroethene	ND	ug/L	1.0	1		11/18/21 19:13	156-60-5	
1,2-Dichloropropane	ND	ug/L	1.0	1		11/18/21 19:13	78-87-5	
1,3-Dichloropropane	ND	ug/L	1.0	1		11/18/21 19:13	142-28-9	
2,2-Dichloropropane	ND	ug/L	1.0	1		11/18/21 19:13	594-20-7	
1,1-Dichloropropene	ND	ug/L	1.0	1		11/18/21 19:13	563-58-6	
cis-1,3-Dichloropropene	ND	ug/L	1.0	1		11/18/21 19:13	10061-01-5	
trans-1,3-Dichloropropene	ND	ug/L	1.0	1		11/18/21 19:13	10061-02-6	
Diisopropyl ether	ND	ug/L	1.0	1		11/18/21 19:13	108-20-3	
Ethylbenzene	ND	ug/L	1.0	1		11/18/21 19:13	100-41-4	
Hexachloro-1,3-butadiene	ND	ug/L	2.0	1		11/18/21 19:13	87-68-3	
2-Hexanone	ND	ug/L	5.0	1		11/18/21 19:13	591-78-6	
p-Isopropyltoluene	ND	ug/L	1.0	1		11/18/21 19:13	99-87-6	
Methylene Chloride	ND	ug/L	5.0	1		11/18/21 19:13	75-09-2	
4-Methyl-2-pentanone (MIBK)	ND	ug/L	5.0	1		11/18/21 19:13	108-10-1	
Methyl-tert-butyl ether	ND	ug/L	1.0	1		11/18/21 19:13	1634-04-4	
Naphthalene	ND	ug/L	1.0	1		11/18/21 19:13	91-20-3	
Styrene	ND	ug/L	1.0	1		11/18/21 19:13	100-42-5	
1,1,1,2-Tetrachloroethane	ND	ug/L	1.0	1		11/18/21 19:13	630-20-6	
1,1,2,2-Tetrachloroethane	ND	ug/L	1.0	1		11/18/21 19:13	79-34-5	

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ANALYTICAL RESULTS

Project: KOP FLEX OFFSITE 31401545.010
Pace Project No.: 92572915

Sample: MW-5R **Lab ID: 92572915009** Collected: 11/14/21 11:25 Received: 11/17/21 10:15 Matrix: Water

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8260D MSV Low Level	Analytical Method: EPA 8260D Pace Analytical Services - Charlotte							
Tetrachloroethene	ND	ug/L	1.0	1		11/18/21 19:13	127-18-4	
Toluene	ND	ug/L	1.0	1		11/18/21 19:13	108-88-3	
1,2,3-Trichlorobenzene	ND	ug/L	1.0	1		11/18/21 19:13	87-61-6	
1,2,4-Trichlorobenzene	ND	ug/L	1.0	1		11/18/21 19:13	120-82-1	
1,1,1-Trichloroethane	**2.4**	ug/L	1.0	1		11/18/21 19:13	71-55-6	
1,1,2-Trichloroethane	ND	ug/L	1.0	1		11/18/21 19:13	79-00-5	
Trichloroethene	ND	ug/L	1.0	1		11/18/21 19:13	79-01-6	
Trichlorofluoromethane	ND	ug/L	1.0	1		11/18/21 19:13	75-69-4	
1,2,3-Trichloropropane	ND	ug/L	1.0	1		11/18/21 19:13	96-18-4	
Vinyl acetate	ND	ug/L	2.0	1		11/18/21 19:13	108-05-4	
Vinyl chloride	ND	ug/L	1.0	1		11/18/21 19:13	75-01-4	
Xylene (Total)	ND	ug/L	1.0	1		11/18/21 19:13	1330-20-7	
m&p-Xylene	ND	ug/L	2.0	1		11/18/21 19:13	179601-23-1	
o-Xylene	ND	ug/L	1.0	1		11/18/21 19:13	95-47-6	
Surrogates								
4-Bromofluorobenzene (S)	97	%	70-130	1		11/18/21 19:13	460-00-4	
1,2-Dichloroethane-d4 (S)	109	%	70-130	1		11/18/21 19:13	17060-07-0	
Toluene-d8 (S)	99	%	70-130	1		11/18/21 19:13	2037-26-5	
8260D MSV SIM	Analytical Method: EPA 8260D Mod. Pace Analytical Services - Charlotte							
1,4-Dioxane (p-Dioxane)	**12.0**	ug/L	2.0	1		11/17/21 21:55	123-91-1	
Surrogates								
1,2-Dichloroethane-d4 (S)	92	%	70-130	1		11/17/21 21:55	17060-07-0	
Toluene-d8 (S)	87	%	66-133	1		11/17/21 21:55	2037-26-5	

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ANALYTICAL RESULTS

Project: KOP FLEX OFFSITE 31401545.010
Pace Project No.: 92572915

Sample: MW-44 **Lab ID: 92572915010** Collected: 11/14/21 11:40 Received: 11/17/21 10:15 Matrix: Water

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8260D MSV Low Level	Analytical Method: EPA 8260D Pace Analytical Services - Charlotte							
Acetone	ND	ug/L	25.0	1		11/18/21 19:31	67-64-1	
Benzene	ND	ug/L	1.0	1		11/18/21 19:31	71-43-2	
Bromobenzene	ND	ug/L	1.0	1		11/18/21 19:31	108-86-1	
Bromochloromethane	ND	ug/L	1.0	1		11/18/21 19:31	74-97-5	
Bromodichloromethane	ND	ug/L	1.0	1		11/18/21 19:31	75-27-4	
Bromoform	ND	ug/L	1.0	1		11/18/21 19:31	75-25-2	IK
Bromomethane	ND	ug/L	2.0	1		11/18/21 19:31	74-83-9	
2-Butanone (MEK)	ND	ug/L	5.0	1		11/18/21 19:31	78-93-3	
Carbon tetrachloride	ND	ug/L	1.0	1		11/18/21 19:31	56-23-5	
Chlorobenzene	ND	ug/L	1.0	1		11/18/21 19:31	108-90-7	
Chloroethane	ND	ug/L	1.0	1		11/18/21 19:31	75-00-3	IK,v1
Chloroform	ND	ug/L	1.0	1		11/18/21 19:31	67-66-3	
Chloromethane	ND	ug/L	1.0	1		11/18/21 19:31	74-87-3	
2-Chlorotoluene	ND	ug/L	1.0	1		11/18/21 19:31	95-49-8	
4-Chlorotoluene	ND	ug/L	1.0	1		11/18/21 19:31	106-43-4	
1,2-Dibromo-3-chloropropane	ND	ug/L	2.0	1		11/18/21 19:31	96-12-8	
Dibromochloromethane	ND	ug/L	1.0	1		11/18/21 19:31	124-48-1	
1,2-Dibromoethane (EDB)	ND	ug/L	1.0	1		11/18/21 19:31	106-93-4	
Dibromomethane	ND	ug/L	1.0	1		11/18/21 19:31	74-95-3	
1,2-Dichlorobenzene	ND	ug/L	1.0	1		11/18/21 19:31	95-50-1	
1,3-Dichlorobenzene	ND	ug/L	1.0	1		11/18/21 19:31	541-73-1	
1,4-Dichlorobenzene	ND	ug/L	1.0	1		11/18/21 19:31	106-46-7	
Dichlorodifluoromethane	ND	ug/L	1.0	1		11/18/21 19:31	75-71-8	
1,1-Dichloroethane	**3.8**	ug/L	1.0	1		11/18/21 19:31	75-34-3	
1,2-Dichloroethane	ND	ug/L	1.0	1		11/18/21 19:31	107-06-2	
1,1-Dichloroethene	**7.2**	ug/L	1.0	1		11/18/21 19:31	75-35-4	
cis-1,2-Dichloroethene	ND	ug/L	1.0	1		11/18/21 19:31	156-59-2	
trans-1,2-Dichloroethene	ND	ug/L	1.0	1		11/18/21 19:31	156-60-5	
1,2-Dichloropropane	ND	ug/L	1.0	1		11/18/21 19:31	78-87-5	
1,3-Dichloropropane	ND	ug/L	1.0	1		11/18/21 19:31	142-28-9	
2,2-Dichloropropane	ND	ug/L	1.0	1		11/18/21 19:31	594-20-7	
1,1-Dichloropropene	ND	ug/L	1.0	1		11/18/21 19:31	563-58-6	
cis-1,3-Dichloropropene	ND	ug/L	1.0	1		11/18/21 19:31	10061-01-5	
trans-1,3-Dichloropropene	ND	ug/L	1.0	1		11/18/21 19:31	10061-02-6	
Diisopropyl ether	ND	ug/L	1.0	1		11/18/21 19:31	108-20-3	
Ethylbenzene	ND	ug/L	1.0	1		11/18/21 19:31	100-41-4	
Hexachloro-1,3-butadiene	ND	ug/L	2.0	1		11/18/21 19:31	87-68-3	
2-Hexanone	ND	ug/L	5.0	1		11/18/21 19:31	591-78-6	
p-Isopropyltoluene	ND	ug/L	1.0	1		11/18/21 19:31	99-87-6	
Methylene Chloride	ND	ug/L	5.0	1		11/18/21 19:31	75-09-2	
4-Methyl-2-pentanone (MIBK)	ND	ug/L	5.0	1		11/18/21 19:31	108-10-1	
Methyl-tert-butyl ether	ND	ug/L	1.0	1		11/18/21 19:31	1634-04-4	
Naphthalene	ND	ug/L	1.0	1		11/18/21 19:31	91-20-3	
Styrene	ND	ug/L	1.0	1		11/18/21 19:31	100-42-5	
1,1,1,2-Tetrachloroethane	ND	ug/L	1.0	1		11/18/21 19:31	630-20-6	
1,1,2,2-Tetrachloroethane	ND	ug/L	1.0	1		11/18/21 19:31	79-34-5	

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ANALYTICAL RESULTS

Project: KOP FLEX OFFSITE 31401545.010
Pace Project No.: 92572915

Sample: MW-44 **Lab ID: 92572915010** Collected: 11/14/21 11:40 Received: 11/17/21 10:15 Matrix: Water

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8260D MSV Low Level	Analytical Method: EPA 8260D Pace Analytical Services - Charlotte							
Tetrachloroethene	ND	ug/L	1.0	1		11/18/21 19:31	127-18-4	
Toluene	ND	ug/L	1.0	1		11/18/21 19:31	108-88-3	
1,2,3-Trichlorobenzene	ND	ug/L	1.0	1		11/18/21 19:31	87-61-6	
1,2,4-Trichlorobenzene	ND	ug/L	1.0	1		11/18/21 19:31	120-82-1	
1,1,1-Trichloroethane	**15.4**	ug/L	1.0	1		11/18/21 19:31	71-55-6	
1,1,2-Trichloroethane	ND	ug/L	1.0	1		11/18/21 19:31	79-00-5	
Trichloroethene	ND	ug/L	1.0	1		11/18/21 19:31	79-01-6	
Trichlorofluoromethane	ND	ug/L	1.0	1		11/18/21 19:31	75-69-4	
1,2,3-Trichloropropane	ND	ug/L	1.0	1		11/18/21 19:31	96-18-4	
Vinyl acetate	ND	ug/L	2.0	1		11/18/21 19:31	108-05-4	
Vinyl chloride	ND	ug/L	1.0	1		11/18/21 19:31	75-01-4	
Xylene (Total)	ND	ug/L	1.0	1		11/18/21 19:31	1330-20-7	
m&p-Xylene	ND	ug/L	2.0	1		11/18/21 19:31	179601-23-1	
o-Xylene	ND	ug/L	1.0	1		11/18/21 19:31	95-47-6	
Surrogates								
4-Bromofluorobenzene (S)	96	%	70-130	1		11/18/21 19:31	460-00-4	
1,2-Dichloroethane-d4 (S)	109	%	70-130	1		11/18/21 19:31	17060-07-0	
Toluene-d8 (S)	102	%	70-130	1		11/18/21 19:31	2037-26-5	
8260D MSV SIM	Analytical Method: EPA 8260D Mod. Pace Analytical Services - Charlotte							
1,4-Dioxane (p-Dioxane)	**13.3**	ug/L	2.0	1		11/17/21 20:43	123-91-1	
Surrogates								
1,2-Dichloroethane-d4 (S)	103	%	70-130	1		11/17/21 20:43	17060-07-0	
Toluene-d8 (S)	101	%	66-133	1		11/17/21 20:43	2037-26-5	

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ANALYTICAL RESULTS

Project: KOP FLEX OFFSITE 31401545.010
Pace Project No.: 92572915

Sample: MW-21D **Lab ID: 92572915011** Collected: 11/14/21 11:55 Received: 11/17/21 10:15 Matrix: Water

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8260D MSV Low Level	Analytical Method: EPA 8260D Pace Analytical Services - Charlotte							
Acetone	ND	ug/L	25.0	1		11/18/21 19:49	67-64-1	
Benzene	ND	ug/L	1.0	1		11/18/21 19:49	71-43-2	
Bromobenzene	ND	ug/L	1.0	1		11/18/21 19:49	108-86-1	
Bromochloromethane	ND	ug/L	1.0	1		11/18/21 19:49	74-97-5	
Bromodichloromethane	ND	ug/L	1.0	1		11/18/21 19:49	75-27-4	
Bromoform	ND	ug/L	1.0	1		11/18/21 19:49	75-25-2	IK
Bromomethane	ND	ug/L	2.0	1		11/18/21 19:49	74-83-9	
2-Butanone (MEK)	ND	ug/L	5.0	1		11/18/21 19:49	78-93-3	
Carbon tetrachloride	ND	ug/L	1.0	1		11/18/21 19:49	56-23-5	
Chlorobenzene	ND	ug/L	1.0	1		11/18/21 19:49	108-90-7	
Chloroethane	ND	ug/L	1.0	1		11/18/21 19:49	75-00-3	IK,v1
Chloroform	ND	ug/L	1.0	1		11/18/21 19:49	67-66-3	
Chloromethane	ND	ug/L	1.0	1		11/18/21 19:49	74-87-3	
2-Chlorotoluene	ND	ug/L	1.0	1		11/18/21 19:49	95-49-8	
4-Chlorotoluene	ND	ug/L	1.0	1		11/18/21 19:49	106-43-4	
1,2-Dibromo-3-chloropropane	ND	ug/L	2.0	1		11/18/21 19:49	96-12-8	
Dibromochloromethane	ND	ug/L	1.0	1		11/18/21 19:49	124-48-1	
1,2-Dibromoethane (EDB)	ND	ug/L	1.0	1		11/18/21 19:49	106-93-4	
Dibromomethane	ND	ug/L	1.0	1		11/18/21 19:49	74-95-3	
1,2-Dichlorobenzene	ND	ug/L	1.0	1		11/18/21 19:49	95-50-1	
1,3-Dichlorobenzene	ND	ug/L	1.0	1		11/18/21 19:49	541-73-1	
1,4-Dichlorobenzene	ND	ug/L	1.0	1		11/18/21 19:49	106-46-7	
Dichlorodifluoromethane	ND	ug/L	1.0	1		11/18/21 19:49	75-71-8	
1,1-Dichloroethane	ND	ug/L	1.0	1		11/18/21 19:49	75-34-3	
1,2-Dichloroethane	ND	ug/L	1.0	1		11/18/21 19:49	107-06-2	
1,1-Dichloroethene	**18.7**	ug/L	1.0	1		11/18/21 19:49	75-35-4	
cis-1,2-Dichloroethene	ND	ug/L	1.0	1		11/18/21 19:49	156-59-2	
trans-1,2-Dichloroethene	ND	ug/L	1.0	1		11/18/21 19:49	156-60-5	
1,2-Dichloropropane	ND	ug/L	1.0	1		11/18/21 19:49	78-87-5	
1,3-Dichloropropane	ND	ug/L	1.0	1		11/18/21 19:49	142-28-9	
2,2-Dichloropropane	ND	ug/L	1.0	1		11/18/21 19:49	594-20-7	
1,1-Dichloropropene	ND	ug/L	1.0	1		11/18/21 19:49	563-58-6	
cis-1,3-Dichloropropene	ND	ug/L	1.0	1		11/18/21 19:49	10061-01-5	
trans-1,3-Dichloropropene	ND	ug/L	1.0	1		11/18/21 19:49	10061-02-6	
Diisopropyl ether	ND	ug/L	1.0	1		11/18/21 19:49	108-20-3	
Ethylbenzene	ND	ug/L	1.0	1		11/18/21 19:49	100-41-4	
Hexachloro-1,3-butadiene	ND	ug/L	2.0	1		11/18/21 19:49	87-68-3	
2-Hexanone	ND	ug/L	5.0	1		11/18/21 19:49	591-78-6	
p-Isopropyltoluene	ND	ug/L	1.0	1		11/18/21 19:49	99-87-6	
Methylene Chloride	ND	ug/L	5.0	1		11/18/21 19:49	75-09-2	
4-Methyl-2-pentanone (MIBK)	ND	ug/L	5.0	1		11/18/21 19:49	108-10-1	
Methyl-tert-butyl ether	**3.6**	ug/L	1.0	1		11/18/21 19:49	1634-04-4	
Naphthalene	ND	ug/L	1.0	1		11/18/21 19:49	91-20-3	
Styrene	ND	ug/L	1.0	1		11/18/21 19:49	100-42-5	
1,1,1,2-Tetrachloroethane	ND	ug/L	1.0	1		11/18/21 19:49	630-20-6	
1,1,2,2-Tetrachloroethane	ND	ug/L	1.0	1		11/18/21 19:49	79-34-5	

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ANALYTICAL RESULTS

Project: KOP FLEX OFFSITE 31401545.010
Pace Project No.: 92572915

Sample: MW-21D **Lab ID: 92572915011** Collected: 11/14/21 11:55 Received: 11/17/21 10:15 Matrix: Water

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8260D MSV Low Level	Analytical Method: EPA 8260D Pace Analytical Services - Charlotte							
Tetrachloroethene	ND	ug/L	1.0	1		11/18/21 19:49	127-18-4	
Toluene	ND	ug/L	1.0	1		11/18/21 19:49	108-88-3	
1,2,3-Trichlorobenzene	ND	ug/L	1.0	1		11/18/21 19:49	87-61-6	
1,2,4-Trichlorobenzene	ND	ug/L	1.0	1		11/18/21 19:49	120-82-1	
1,1,1-Trichloroethane	ND	ug/L	1.0	1		11/18/21 19:49	71-55-6	
1,1,2-Trichloroethane	ND	ug/L	1.0	1		11/18/21 19:49	79-00-5	
Trichloroethene	ND	ug/L	1.0	1		11/18/21 19:49	79-01-6	
Trichlorofluoromethane	ND	ug/L	1.0	1		11/18/21 19:49	75-69-4	
1,2,3-Trichloropropane	ND	ug/L	1.0	1		11/18/21 19:49	96-18-4	
Vinyl acetate	ND	ug/L	2.0	1		11/18/21 19:49	108-05-4	
Vinyl chloride	ND	ug/L	1.0	1		11/18/21 19:49	75-01-4	
Xylene (Total)	ND	ug/L	1.0	1		11/18/21 19:49	1330-20-7	
m&p-Xylene	ND	ug/L	2.0	1		11/18/21 19:49	179601-23-1	
o-Xylene	ND	ug/L	1.0	1		11/18/21 19:49	95-47-6	
Surrogates								
4-Bromofluorobenzene (S)	96	%	70-130	1		11/18/21 19:49	460-00-4	
1,2-Dichloroethane-d4 (S)	110	%	70-130	1		11/18/21 19:49	17060-07-0	
Toluene-d8 (S)	102	%	70-130	1		11/18/21 19:49	2037-26-5	
8260D MSV SIM	Analytical Method: EPA 8260D Mod. Pace Analytical Services - Charlotte							
1,4-Dioxane (p-Dioxane)	**12.9**	ug/L	2.0	1		11/17/21 22:14	123-91-1	
Surrogates								
1,2-Dichloroethane-d4 (S)	97	%	70-130	1		11/17/21 22:14	17060-07-0	
Toluene-d8 (S)	89	%	66-133	1		11/17/21 22:14	2037-26-5	

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ANALYTICAL RESULTS

Project: KOP FLEX OFFSITE 31401545.010
Pace Project No.: 92572915

Sample: MW-41D **Lab ID: 92572915012** Collected: 11/14/21 13:00 Received: 11/17/21 10:15 Matrix: Water

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8260D MSV Low Level	Analytical Method: EPA 8260D Pace Analytical Services - Charlotte							
Acetone	ND	ug/L	25.0	1		11/18/21 20:07	67-64-1	
Benzene	ND	ug/L	1.0	1		11/18/21 20:07	71-43-2	
Bromobenzene	ND	ug/L	1.0	1		11/18/21 20:07	108-86-1	
Bromochloromethane	ND	ug/L	1.0	1		11/18/21 20:07	74-97-5	
Bromodichloromethane	ND	ug/L	1.0	1		11/18/21 20:07	75-27-4	
Bromoform	ND	ug/L	1.0	1		11/18/21 20:07	75-25-2	IK
Bromomethane	ND	ug/L	2.0	1		11/18/21 20:07	74-83-9	
2-Butanone (MEK)	ND	ug/L	5.0	1		11/18/21 20:07	78-93-3	
Carbon tetrachloride	ND	ug/L	1.0	1		11/18/21 20:07	56-23-5	
Chlorobenzene	ND	ug/L	1.0	1		11/18/21 20:07	108-90-7	
Chloroethane	ND	ug/L	1.0	1		11/18/21 20:07	75-00-3	IK,v1
Chloroform	ND	ug/L	1.0	1		11/18/21 20:07	67-66-3	
Chloromethane	ND	ug/L	1.0	1		11/18/21 20:07	74-87-3	
2-Chlorotoluene	ND	ug/L	1.0	1		11/18/21 20:07	95-49-8	
4-Chlorotoluene	ND	ug/L	1.0	1		11/18/21 20:07	106-43-4	
1,2-Dibromo-3-chloropropane	ND	ug/L	2.0	1		11/18/21 20:07	96-12-8	
Dibromochloromethane	ND	ug/L	1.0	1		11/18/21 20:07	124-48-1	
1,2-Dibromoethane (EDB)	ND	ug/L	1.0	1		11/18/21 20:07	106-93-4	
Dibromomethane	ND	ug/L	1.0	1		11/18/21 20:07	74-95-3	
1,2-Dichlorobenzene	ND	ug/L	1.0	1		11/18/21 20:07	95-50-1	
1,3-Dichlorobenzene	ND	ug/L	1.0	1		11/18/21 20:07	541-73-1	
1,4-Dichlorobenzene	ND	ug/L	1.0	1		11/18/21 20:07	106-46-7	
Dichlorodifluoromethane	ND	ug/L	1.0	1		11/18/21 20:07	75-71-8	
1,1-Dichloroethane	ND	ug/L	1.0	1		11/18/21 20:07	75-34-3	
1,2-Dichloroethane	ND	ug/L	1.0	1		11/18/21 20:07	107-06-2	
1,1-Dichloroethene	ND	ug/L	1.0	1		11/18/21 20:07	75-35-4	
cis-1,2-Dichloroethene	ND	ug/L	1.0	1		11/18/21 20:07	156-59-2	
trans-1,2-Dichloroethene	ND	ug/L	1.0	1		11/18/21 20:07	156-60-5	
1,2-Dichloropropane	ND	ug/L	1.0	1		11/18/21 20:07	78-87-5	
1,3-Dichloropropane	ND	ug/L	1.0	1		11/18/21 20:07	142-28-9	
2,2-Dichloropropane	ND	ug/L	1.0	1		11/18/21 20:07	594-20-7	
1,1-Dichloropropene	ND	ug/L	1.0	1		11/18/21 20:07	563-58-6	
cis-1,3-Dichloropropene	ND	ug/L	1.0	1		11/18/21 20:07	10061-01-5	
trans-1,3-Dichloropropene	ND	ug/L	1.0	1		11/18/21 20:07	10061-02-6	
Diisopropyl ether	ND	ug/L	1.0	1		11/18/21 20:07	108-20-3	
Ethylbenzene	ND	ug/L	1.0	1		11/18/21 20:07	100-41-4	
Hexachloro-1,3-butadiene	ND	ug/L	2.0	1		11/18/21 20:07	87-68-3	
2-Hexanone	ND	ug/L	5.0	1		11/18/21 20:07	591-78-6	
p-Isopropyltoluene	ND	ug/L	1.0	1		11/18/21 20:07	99-87-6	
Methylene Chloride	ND	ug/L	5.0	1		11/18/21 20:07	75-09-2	
4-Methyl-2-pentanone (MIBK)	ND	ug/L	5.0	1		11/18/21 20:07	108-10-1	
Methyl-tert-butyl ether	ND	ug/L	1.0	1		11/18/21 20:07	1634-04-4	
Naphthalene	ND	ug/L	1.0	1		11/18/21 20:07	91-20-3	
Styrene	ND	ug/L	1.0	1		11/18/21 20:07	100-42-5	
1,1,1,2-Tetrachloroethane	ND	ug/L	1.0	1		11/18/21 20:07	630-20-6	
1,1,2,2-Tetrachloroethane	ND	ug/L	1.0	1		11/18/21 20:07	79-34-5	

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ANALYTICAL RESULTS

Project: KOP FLEX OFFSITE 31401545.010
Pace Project No.: 92572915

Sample: MW-41D **Lab ID: 92572915012** Collected: 11/14/21 13:00 Received: 11/17/21 10:15 Matrix: Water

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8260D MSV Low Level	Analytical Method: EPA 8260D Pace Analytical Services - Charlotte							
Tetrachloroethene	ND	ug/L	1.0	1		11/18/21 20:07	127-18-4	
Toluene	ND	ug/L	1.0	1		11/18/21 20:07	108-88-3	
1,2,3-Trichlorobenzene	ND	ug/L	1.0	1		11/18/21 20:07	87-61-6	
1,2,4-Trichlorobenzene	ND	ug/L	1.0	1		11/18/21 20:07	120-82-1	
1,1,1-Trichloroethane	ND	ug/L	1.0	1		11/18/21 20:07	71-55-6	
1,1,2-Trichloroethane	ND	ug/L	1.0	1		11/18/21 20:07	79-00-5	
Trichloroethene	ND	ug/L	1.0	1		11/18/21 20:07	79-01-6	
Trichlorofluoromethane	ND	ug/L	1.0	1		11/18/21 20:07	75-69-4	
1,2,3-Trichloropropane	ND	ug/L	1.0	1		11/18/21 20:07	96-18-4	
Vinyl acetate	ND	ug/L	2.0	1		11/18/21 20:07	108-05-4	
Vinyl chloride	ND	ug/L	1.0	1		11/18/21 20:07	75-01-4	
Xylene (Total)	ND	ug/L	1.0	1		11/18/21 20:07	1330-20-7	
m&p-Xylene	ND	ug/L	2.0	1		11/18/21 20:07	179601-23-1	
o-Xylene	ND	ug/L	1.0	1		11/18/21 20:07	95-47-6	
Surrogates								
4-Bromofluorobenzene (S)	96	%	70-130	1		11/18/21 20:07	460-00-4	
1,2-Dichloroethane-d4 (S)	108	%	70-130	1		11/18/21 20:07	17060-07-0	
Toluene-d8 (S)	103	%	70-130	1		11/18/21 20:07	2037-26-5	
8260D MSV SIM	Analytical Method: EPA 8260D Mod. Pace Analytical Services - Charlotte							
1,4-Dioxane (p-Dioxane)	ND	ug/L	2.0	1		11/17/21 22:33	123-91-1	
Surrogates								
1,2-Dichloroethane-d4 (S)	97	%	70-130	1		11/17/21 22:33	17060-07-0	
Toluene-d8 (S)	87	%	66-133	1		11/17/21 22:33	2037-26-5	

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ANALYTICAL RESULTS

Project: KOP FLEX OFFSITE 31401545.010
Pace Project No.: 92572915

Sample: MW-1 **Lab ID: 92572915013** Collected: 11/14/21 13:15 Received: 11/17/21 10:15 Matrix: Water

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8260D MSV Low Level	Analytical Method: EPA 8260D Pace Analytical Services - Charlotte							
Acetone	ND	ug/L	25.0	1		11/18/21 20:25	67-64-1	
Benzene	ND	ug/L	1.0	1		11/18/21 20:25	71-43-2	
Bromobenzene	ND	ug/L	1.0	1		11/18/21 20:25	108-86-1	
Bromochloromethane	ND	ug/L	1.0	1		11/18/21 20:25	74-97-5	
Bromodichloromethane	ND	ug/L	1.0	1		11/18/21 20:25	75-27-4	
Bromoform	ND	ug/L	1.0	1		11/18/21 20:25	75-25-2	IK
Bromomethane	ND	ug/L	2.0	1		11/18/21 20:25	74-83-9	
2-Butanone (MEK)	ND	ug/L	5.0	1		11/18/21 20:25	78-93-3	
Carbon tetrachloride	ND	ug/L	1.0	1		11/18/21 20:25	56-23-5	
Chlorobenzene	ND	ug/L	1.0	1		11/18/21 20:25	108-90-7	
Chloroethane	ND	ug/L	1.0	1		11/18/21 20:25	75-00-3	IK,v1
Chloroform	ND	ug/L	1.0	1		11/18/21 20:25	67-66-3	
Chloromethane	ND	ug/L	1.0	1		11/18/21 20:25	74-87-3	
2-Chlorotoluene	ND	ug/L	1.0	1		11/18/21 20:25	95-49-8	
4-Chlorotoluene	ND	ug/L	1.0	1		11/18/21 20:25	106-43-4	
1,2-Dibromo-3-chloropropane	ND	ug/L	2.0	1		11/18/21 20:25	96-12-8	
Dibromochloromethane	ND	ug/L	1.0	1		11/18/21 20:25	124-48-1	
1,2-Dibromoethane (EDB)	ND	ug/L	1.0	1		11/18/21 20:25	106-93-4	
Dibromomethane	ND	ug/L	1.0	1		11/18/21 20:25	74-95-3	
1,2-Dichlorobenzene	ND	ug/L	1.0	1		11/18/21 20:25	95-50-1	
1,3-Dichlorobenzene	ND	ug/L	1.0	1		11/18/21 20:25	541-73-1	
1,4-Dichlorobenzene	ND	ug/L	1.0	1		11/18/21 20:25	106-46-7	
Dichlorodifluoromethane	ND	ug/L	1.0	1		11/18/21 20:25	75-71-8	
1,1-Dichloroethane	ND	ug/L	1.0	1		11/18/21 20:25	75-34-3	
1,2-Dichloroethane	ND	ug/L	1.0	1		11/18/21 20:25	107-06-2	
1,1-Dichloroethene	ND	ug/L	1.0	1		11/18/21 20:25	75-35-4	
cis-1,2-Dichloroethene	ND	ug/L	1.0	1		11/18/21 20:25	156-59-2	
trans-1,2-Dichloroethene	ND	ug/L	1.0	1		11/18/21 20:25	156-60-5	
1,2-Dichloropropane	ND	ug/L	1.0	1		11/18/21 20:25	78-87-5	
1,3-Dichloropropane	ND	ug/L	1.0	1		11/18/21 20:25	142-28-9	
2,2-Dichloropropane	ND	ug/L	1.0	1		11/18/21 20:25	594-20-7	
1,1-Dichloropropene	ND	ug/L	1.0	1		11/18/21 20:25	563-58-6	
cis-1,3-Dichloropropene	ND	ug/L	1.0	1		11/18/21 20:25	10061-01-5	
trans-1,3-Dichloropropene	ND	ug/L	1.0	1		11/18/21 20:25	10061-02-6	
Diisopropyl ether	ND	ug/L	1.0	1		11/18/21 20:25	108-20-3	
Ethylbenzene	ND	ug/L	1.0	1		11/18/21 20:25	100-41-4	
Hexachloro-1,3-butadiene	ND	ug/L	2.0	1		11/18/21 20:25	87-68-3	
2-Hexanone	ND	ug/L	5.0	1		11/18/21 20:25	591-78-6	
p-Isopropyltoluene	ND	ug/L	1.0	1		11/18/21 20:25	99-87-6	
Methylene Chloride	ND	ug/L	5.0	1		11/18/21 20:25	75-09-2	
4-Methyl-2-pentanone (MIBK)	ND	ug/L	5.0	1		11/18/21 20:25	108-10-1	
Methyl-tert-butyl ether	ND	ug/L	1.0	1		11/18/21 20:25	1634-04-4	
Naphthalene	ND	ug/L	1.0	1		11/18/21 20:25	91-20-3	
Styrene	ND	ug/L	1.0	1		11/18/21 20:25	100-42-5	
1,1,1,2-Tetrachloroethane	ND	ug/L	1.0	1		11/18/21 20:25	630-20-6	
1,1,2,2-Tetrachloroethane	ND	ug/L	1.0	1		11/18/21 20:25	79-34-5	

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ANALYTICAL RESULTS

Project: KOP FLEX OFFSITE 31401545.010
Pace Project No.: 92572915

Sample: MW-1 **Lab ID: 92572915013** Collected: 11/14/21 13:15 Received: 11/17/21 10:15 Matrix: Water

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8260D MSV Low Level	Analytical Method: EPA 8260D Pace Analytical Services - Charlotte							
Tetrachloroethene	ND	ug/L	1.0	1		11/18/21 20:25	127-18-4	
Toluene	ND	ug/L	1.0	1		11/18/21 20:25	108-88-3	
1,2,3-Trichlorobenzene	ND	ug/L	1.0	1		11/18/21 20:25	87-61-6	
1,2,4-Trichlorobenzene	ND	ug/L	1.0	1		11/18/21 20:25	120-82-1	
1,1,1-Trichloroethane	ND	ug/L	1.0	1		11/18/21 20:25	71-55-6	
1,1,2-Trichloroethane	ND	ug/L	1.0	1		11/18/21 20:25	79-00-5	
Trichloroethene	ND	ug/L	1.0	1		11/18/21 20:25	79-01-6	
Trichlorofluoromethane	ND	ug/L	1.0	1		11/18/21 20:25	75-69-4	
1,2,3-Trichloropropane	ND	ug/L	1.0	1		11/18/21 20:25	96-18-4	
Vinyl acetate	ND	ug/L	2.0	1		11/18/21 20:25	108-05-4	
Vinyl chloride	ND	ug/L	1.0	1		11/18/21 20:25	75-01-4	
Xylene (Total)	ND	ug/L	1.0	1		11/18/21 20:25	1330-20-7	
m&p-Xylene	ND	ug/L	2.0	1		11/18/21 20:25	179601-23-1	
o-Xylene	ND	ug/L	1.0	1		11/18/21 20:25	95-47-6	
Surrogates								
4-Bromofluorobenzene (S)	96	%	70-130	1		11/18/21 20:25	460-00-4	
1,2-Dichloroethane-d4 (S)	103	%	70-130	1		11/18/21 20:25	17060-07-0	
Toluene-d8 (S)	102	%	70-130	1		11/18/21 20:25	2037-26-5	
8260D MSV SIM	Analytical Method: EPA 8260D Mod. Pace Analytical Services - Charlotte							
1,4-Dioxane (p-Dioxane)	ND	ug/L	2.0	1		11/17/21 22:19	123-91-1	
Surrogates								
1,2-Dichloroethane-d4 (S)	101	%	70-130	1		11/17/21 22:19	17060-07-0	
Toluene-d8 (S)	101	%	66-133	1		11/17/21 22:19	2037-26-5	

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ANALYTICAL RESULTS

Project: KOP FLEX OFFSITE 31401545.010
Pace Project No.: 92572915

Sample: MW-1D **Lab ID: 92572915014** Collected: 11/14/21 13:25 Received: 11/17/21 10:15 Matrix: Water

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8260D MSV Low Level	Analytical Method: EPA 8260D Pace Analytical Services - Charlotte							
Acetone	ND	ug/L	25.0	1		11/18/21 20:43	67-64-1	
Benzene	ND	ug/L	1.0	1		11/18/21 20:43	71-43-2	
Bromobenzene	ND	ug/L	1.0	1		11/18/21 20:43	108-86-1	
Bromochloromethane	ND	ug/L	1.0	1		11/18/21 20:43	74-97-5	
Bromodichloromethane	ND	ug/L	1.0	1		11/18/21 20:43	75-27-4	
Bromoform	ND	ug/L	1.0	1		11/18/21 20:43	75-25-2	IK
Bromomethane	ND	ug/L	2.0	1		11/18/21 20:43	74-83-9	
2-Butanone (MEK)	ND	ug/L	5.0	1		11/18/21 20:43	78-93-3	
Carbon tetrachloride	ND	ug/L	1.0	1		11/18/21 20:43	56-23-5	
Chlorobenzene	ND	ug/L	1.0	1		11/18/21 20:43	108-90-7	
Chloroethane	ND	ug/L	1.0	1		11/18/21 20:43	75-00-3	IK,v1
Chloroform	ND	ug/L	1.0	1		11/18/21 20:43	67-66-3	
Chloromethane	ND	ug/L	1.0	1		11/18/21 20:43	74-87-3	
2-Chlorotoluene	ND	ug/L	1.0	1		11/18/21 20:43	95-49-8	
4-Chlorotoluene	ND	ug/L	1.0	1		11/18/21 20:43	106-43-4	
1,2-Dibromo-3-chloropropane	ND	ug/L	2.0	1		11/18/21 20:43	96-12-8	
Dibromochloromethane	ND	ug/L	1.0	1		11/18/21 20:43	124-48-1	
1,2-Dibromoethane (EDB)	ND	ug/L	1.0	1		11/18/21 20:43	106-93-4	
Dibromomethane	ND	ug/L	1.0	1		11/18/21 20:43	74-95-3	
1,2-Dichlorobenzene	ND	ug/L	1.0	1		11/18/21 20:43	95-50-1	
1,3-Dichlorobenzene	ND	ug/L	1.0	1		11/18/21 20:43	541-73-1	
1,4-Dichlorobenzene	ND	ug/L	1.0	1		11/18/21 20:43	106-46-7	
Dichlorodifluoromethane	ND	ug/L	1.0	1		11/18/21 20:43	75-71-8	
1,1-Dichloroethane	**3.8**	ug/L	1.0	1		11/18/21 20:43	75-34-3	
1,2-Dichloroethane	ND	ug/L	1.0	1		11/18/21 20:43	107-06-2	
1,1-Dichloroethene	**22.4**	ug/L	1.0	1		11/18/21 20:43	75-35-4	
cis-1,2-Dichloroethene	ND	ug/L	1.0	1		11/18/21 20:43	156-59-2	
trans-1,2-Dichloroethene	ND	ug/L	1.0	1		11/18/21 20:43	156-60-5	
1,2-Dichloropropane	ND	ug/L	1.0	1		11/18/21 20:43	78-87-5	
1,3-Dichloropropane	ND	ug/L	1.0	1		11/18/21 20:43	142-28-9	
2,2-Dichloropropane	ND	ug/L	1.0	1		11/18/21 20:43	594-20-7	
1,1-Dichloropropene	ND	ug/L	1.0	1		11/18/21 20:43	563-58-6	
cis-1,3-Dichloropropene	ND	ug/L	1.0	1		11/18/21 20:43	10061-01-5	
trans-1,3-Dichloropropene	ND	ug/L	1.0	1		11/18/21 20:43	10061-02-6	
Diisopropyl ether	ND	ug/L	1.0	1		11/18/21 20:43	108-20-3	
Ethylbenzene	ND	ug/L	1.0	1		11/18/21 20:43	100-41-4	
Hexachloro-1,3-butadiene	ND	ug/L	2.0	1		11/18/21 20:43	87-68-3	
2-Hexanone	ND	ug/L	5.0	1		11/18/21 20:43	591-78-6	
p-Isopropyltoluene	ND	ug/L	1.0	1		11/18/21 20:43	99-87-6	
Methylene Chloride	ND	ug/L	5.0	1		11/18/21 20:43	75-09-2	
4-Methyl-2-pentanone (MIBK)	ND	ug/L	5.0	1		11/18/21 20:43	108-10-1	
Methyl-tert-butyl ether	ND	ug/L	1.0	1		11/18/21 20:43	1634-04-4	
Naphthalene	ND	ug/L	1.0	1		11/18/21 20:43	91-20-3	
Styrene	ND	ug/L	1.0	1		11/18/21 20:43	100-42-5	
1,1,1,2-Tetrachloroethane	ND	ug/L	1.0	1		11/18/21 20:43	630-20-6	
1,1,2,2-Tetrachloroethane	ND	ug/L	1.0	1		11/18/21 20:43	79-34-5	

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ANALYTICAL RESULTS

Project: KOP FLEX OFFSITE 31401545.010
Pace Project No.: 92572915

Sample: MW-1D **Lab ID: 92572915014** Collected: 11/14/21 13:25 Received: 11/17/21 10:15 Matrix: Water

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8260D MSV Low Level	Analytical Method: EPA 8260D Pace Analytical Services - Charlotte							
Tetrachloroethene	ND	ug/L	1.0	1		11/18/21 20:43	127-18-4	
Toluene	ND	ug/L	1.0	1		11/18/21 20:43	108-88-3	
1,2,3-Trichlorobenzene	ND	ug/L	1.0	1		11/18/21 20:43	87-61-6	
1,2,4-Trichlorobenzene	ND	ug/L	1.0	1		11/18/21 20:43	120-82-1	
1,1,1-Trichloroethane	**1.5**	ug/L	1.0	1		11/18/21 20:43	71-55-6	
1,1,2-Trichloroethane	ND	ug/L	1.0	1		11/18/21 20:43	79-00-5	
Trichloroethene	ND	ug/L	1.0	1		11/18/21 20:43	79-01-6	
Trichlorofluoromethane	ND	ug/L	1.0	1		11/18/21 20:43	75-69-4	
1,2,3-Trichloropropane	ND	ug/L	1.0	1		11/18/21 20:43	96-18-4	
Vinyl acetate	ND	ug/L	2.0	1		11/18/21 20:43	108-05-4	
Vinyl chloride	ND	ug/L	1.0	1		11/18/21 20:43	75-01-4	
Xylene (Total)	ND	ug/L	1.0	1		11/18/21 20:43	1330-20-7	
m&p-Xylene	ND	ug/L	2.0	1		11/18/21 20:43	179601-23-1	
o-Xylene	ND	ug/L	1.0	1		11/18/21 20:43	95-47-6	
Surrogates								
4-Bromofluorobenzene (S)	94	%	70-130	1		11/18/21 20:43	460-00-4	
1,2-Dichloroethane-d4 (S)	105	%	70-130	1		11/18/21 20:43	17060-07-0	
Toluene-d8 (S)	103	%	70-130	1		11/18/21 20:43	2037-26-5	
8260D MSV SIM	Analytical Method: EPA 8260D Mod. Pace Analytical Services - Charlotte							
1,4-Dioxane (p-Dioxane)	**16.5**	ug/L	2.0	1		11/17/21 22:53	123-91-1	
Surrogates								
1,2-Dichloroethane-d4 (S)	95	%	70-130	1		11/17/21 22:53	17060-07-0	
Toluene-d8 (S)	88	%	66-133	1		11/17/21 22:53	2037-26-5	

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ANALYTICAL RESULTS

Project: KOP FLEX OFFSITE 31401545.010
Pace Project No.: 92572915

Sample: MW-22D **Lab ID: 92572915015** Collected: 11/14/21 13:40 Received: 11/17/21 10:15 Matrix: Water

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8260D MSV Low Level	Analytical Method: EPA 8260D Pace Analytical Services - Charlotte							
Acetone	ND	ug/L	25.0	1		11/18/21 21:01	67-64-1	
Benzene	ND	ug/L	1.0	1		11/18/21 21:01	71-43-2	
Bromobenzene	ND	ug/L	1.0	1		11/18/21 21:01	108-86-1	
Bromochloromethane	ND	ug/L	1.0	1		11/18/21 21:01	74-97-5	
Bromodichloromethane	ND	ug/L	1.0	1		11/18/21 21:01	75-27-4	
Bromoform	ND	ug/L	1.0	1		11/18/21 21:01	75-25-2	IK
Bromomethane	ND	ug/L	2.0	1		11/18/21 21:01	74-83-9	
2-Butanone (MEK)	ND	ug/L	5.0	1		11/18/21 21:01	78-93-3	
Carbon tetrachloride	ND	ug/L	1.0	1		11/18/21 21:01	56-23-5	
Chlorobenzene	ND	ug/L	1.0	1		11/18/21 21:01	108-90-7	
Chloroethane	ND	ug/L	1.0	1		11/18/21 21:01	75-00-3	IK,v1
Chloroform	ND	ug/L	1.0	1		11/18/21 21:01	67-66-3	
Chloromethane	ND	ug/L	1.0	1		11/18/21 21:01	74-87-3	
2-Chlorotoluene	ND	ug/L	1.0	1		11/18/21 21:01	95-49-8	
4-Chlorotoluene	ND	ug/L	1.0	1		11/18/21 21:01	106-43-4	
1,2-Dibromo-3-chloropropane	ND	ug/L	2.0	1		11/18/21 21:01	96-12-8	
Dibromochloromethane	ND	ug/L	1.0	1		11/18/21 21:01	124-48-1	
1,2-Dibromoethane (EDB)	ND	ug/L	1.0	1		11/18/21 21:01	106-93-4	
Dibromomethane	ND	ug/L	1.0	1		11/18/21 21:01	74-95-3	
1,2-Dichlorobenzene	ND	ug/L	1.0	1		11/18/21 21:01	95-50-1	
1,3-Dichlorobenzene	ND	ug/L	1.0	1		11/18/21 21:01	541-73-1	
1,4-Dichlorobenzene	ND	ug/L	1.0	1		11/18/21 21:01	106-46-7	
Dichlorodifluoromethane	ND	ug/L	1.0	1		11/18/21 21:01	75-71-8	
1,1-Dichloroethane	ND	ug/L	1.0	1		11/18/21 21:01	75-34-3	
1,2-Dichloroethane	ND	ug/L	1.0	1		11/18/21 21:01	107-06-2	
1,1-Dichloroethene	**6.2**	ug/L	1.0	1		11/18/21 21:01	75-35-4	
cis-1,2-Dichloroethene	ND	ug/L	1.0	1		11/18/21 21:01	156-59-2	
trans-1,2-Dichloroethene	ND	ug/L	1.0	1		11/18/21 21:01	156-60-5	
1,2-Dichloropropane	ND	ug/L	1.0	1		11/18/21 21:01	78-87-5	
1,3-Dichloropropane	ND	ug/L	1.0	1		11/18/21 21:01	142-28-9	
2,2-Dichloropropane	ND	ug/L	1.0	1		11/18/21 21:01	594-20-7	
1,1-Dichloropropene	ND	ug/L	1.0	1		11/18/21 21:01	563-58-6	
cis-1,3-Dichloropropene	ND	ug/L	1.0	1		11/18/21 21:01	10061-01-5	
trans-1,3-Dichloropropene	ND	ug/L	1.0	1		11/18/21 21:01	10061-02-6	
Diisopropyl ether	ND	ug/L	1.0	1		11/18/21 21:01	108-20-3	
Ethylbenzene	ND	ug/L	1.0	1		11/18/21 21:01	100-41-4	
Hexachloro-1,3-butadiene	ND	ug/L	2.0	1		11/18/21 21:01	87-68-3	
2-Hexanone	ND	ug/L	5.0	1		11/18/21 21:01	591-78-6	
p-Isopropyltoluene	ND	ug/L	1.0	1		11/18/21 21:01	99-87-6	
Methylene Chloride	ND	ug/L	5.0	1		11/18/21 21:01	75-09-2	
4-Methyl-2-pentanone (MIBK)	ND	ug/L	5.0	1		11/18/21 21:01	108-10-1	
Methyl-tert-butyl ether	ND	ug/L	1.0	1		11/18/21 21:01	1634-04-4	
Naphthalene	ND	ug/L	1.0	1		11/18/21 21:01	91-20-3	
Styrene	ND	ug/L	1.0	1		11/18/21 21:01	100-42-5	
1,1,1,2-Tetrachloroethane	ND	ug/L	1.0	1		11/18/21 21:01	630-20-6	
1,1,2,2-Tetrachloroethane	ND	ug/L	1.0	1		11/18/21 21:01	79-34-5	

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ANALYTICAL RESULTS

Project: KOP FLEX OFFSITE 31401545.010
Pace Project No.: 92572915

Sample: MW-22D **Lab ID: 92572915015** Collected: 11/14/21 13:40 Received: 11/17/21 10:15 Matrix: Water

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8260D MSV Low Level	Analytical Method: EPA 8260D Pace Analytical Services - Charlotte							
Tetrachloroethene	ND	ug/L	1.0	1		11/18/21 21:01	127-18-4	
Toluene	ND	ug/L	1.0	1		11/18/21 21:01	108-88-3	
1,2,3-Trichlorobenzene	ND	ug/L	1.0	1		11/18/21 21:01	87-61-6	
1,2,4-Trichlorobenzene	ND	ug/L	1.0	1		11/18/21 21:01	120-82-1	
1,1,1-Trichloroethane	ND	ug/L	1.0	1		11/18/21 21:01	71-55-6	
1,1,2-Trichloroethane	ND	ug/L	1.0	1		11/18/21 21:01	79-00-5	
Trichloroethene	ND	ug/L	1.0	1		11/18/21 21:01	79-01-6	
Trichlorofluoromethane	ND	ug/L	1.0	1		11/18/21 21:01	75-69-4	
1,2,3-Trichloropropane	ND	ug/L	1.0	1		11/18/21 21:01	96-18-4	
Vinyl acetate	ND	ug/L	2.0	1		11/18/21 21:01	108-05-4	
Vinyl chloride	ND	ug/L	1.0	1		11/18/21 21:01	75-01-4	
Xylene (Total)	ND	ug/L	1.0	1		11/18/21 21:01	1330-20-7	
m&p-Xylene	ND	ug/L	2.0	1		11/18/21 21:01	179601-23-1	
o-Xylene	ND	ug/L	1.0	1		11/18/21 21:01	95-47-6	
Surrogates								
4-Bromofluorobenzene (S)	93	%	70-130	1		11/18/21 21:01	460-00-4	
1,2-Dichloroethane-d4 (S)	100	%	70-130	1		11/18/21 21:01	17060-07-0	
Toluene-d8 (S)	101	%	70-130	1		11/18/21 21:01	2037-26-5	
8260D MSV SIM	Analytical Method: EPA 8260D Mod. Pace Analytical Services - Charlotte							
1,4-Dioxane (p-Dioxane)	**5.2**	ug/L	2.0	1		11/17/21 19:45	123-91-1	
Surrogates								
1,2-Dichloroethane-d4 (S)	102	%	70-130	1		11/17/21 19:45	17060-07-0	
Toluene-d8 (S)	102	%	66-133	1		11/17/21 19:45	2037-26-5	

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ANALYTICAL RESULTS

Project: KOP FLEX OFFSITE 31401545.010
Pace Project No.: 92572915

Sample: MW-4 **Lab ID: 92572915016** Collected: 11/14/21 13:50 Received: 11/17/21 10:15 Matrix: Water

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8260D MSV Low Level	Analytical Method: EPA 8260D Pace Analytical Services - Charlotte							
Acetone	ND	ug/L	25.0	1		11/19/21 22:26	67-64-1	
Benzene	ND	ug/L	1.0	1		11/19/21 22:26	71-43-2	
Bromobenzene	ND	ug/L	1.0	1		11/19/21 22:26	108-86-1	
Bromochloromethane	ND	ug/L	1.0	1		11/19/21 22:26	74-97-5	
Bromodichloromethane	ND	ug/L	1.0	1		11/19/21 22:26	75-27-4	
Bromoform	ND	ug/L	1.0	1		11/19/21 22:26	75-25-2	
Bromomethane	ND	ug/L	2.0	1		11/19/21 22:26	74-83-9	v2
2-Butanone (MEK)	ND	ug/L	5.0	1		11/19/21 22:26	78-93-3	
Carbon tetrachloride	ND	ug/L	1.0	1		11/19/21 22:26	56-23-5	
Chlorobenzene	ND	ug/L	1.0	1		11/19/21 22:26	108-90-7	
Chloroethane	ND	ug/L	1.0	1		11/19/21 22:26	75-00-3	
Chloroform	**3.1**	ug/L	1.0	1		11/19/21 22:26	67-66-3	
Chloromethane	ND	ug/L	1.0	1		11/19/21 22:26	74-87-3	
2-Chlorotoluene	ND	ug/L	1.0	1		11/19/21 22:26	95-49-8	
4-Chlorotoluene	ND	ug/L	1.0	1		11/19/21 22:26	106-43-4	
1,2-Dibromo-3-chloropropane	ND	ug/L	2.0	1		11/19/21 22:26	96-12-8	
Dibromochloromethane	ND	ug/L	1.0	1		11/19/21 22:26	124-48-1	
1,2-Dibromoethane (EDB)	ND	ug/L	1.0	1		11/19/21 22:26	106-93-4	
Dibromomethane	ND	ug/L	1.0	1		11/19/21 22:26	74-95-3	
1,2-Dichlorobenzene	ND	ug/L	1.0	1		11/19/21 22:26	95-50-1	
1,3-Dichlorobenzene	ND	ug/L	1.0	1		11/19/21 22:26	541-73-1	
1,4-Dichlorobenzene	ND	ug/L	1.0	1		11/19/21 22:26	106-46-7	
Dichlorodifluoromethane	ND	ug/L	1.0	1		11/19/21 22:26	75-71-8	v1
1,1-Dichloroethane	**82.7**	ug/L	1.0	1		11/19/21 22:26	75-34-3	
1,2-Dichloroethane	**1.2**	ug/L	1.0	1		11/19/21 22:26	107-06-2	
1,1-Dichloroethene	**175**	ug/L	1.0	1		11/19/21 22:26	75-35-4	
cis-1,2-Dichloroethene	ND	ug/L	1.0	1		11/19/21 22:26	156-59-2	
trans-1,2-Dichloroethene	ND	ug/L	1.0	1		11/19/21 22:26	156-60-5	
1,2-Dichloropropane	ND	ug/L	1.0	1		11/19/21 22:26	78-87-5	
1,3-Dichloropropane	ND	ug/L	1.0	1		11/19/21 22:26	142-28-9	
2,2-Dichloropropane	ND	ug/L	1.0	1		11/19/21 22:26	594-20-7	
1,1-Dichloropropene	ND	ug/L	1.0	1		11/19/21 22:26	563-58-6	
cis-1,3-Dichloropropene	ND	ug/L	1.0	1		11/19/21 22:26	10061-01-5	
trans-1,3-Dichloropropene	ND	ug/L	1.0	1		11/19/21 22:26	10061-02-6	
Diisopropyl ether	ND	ug/L	1.0	1		11/19/21 22:26	108-20-3	
Ethylbenzene	ND	ug/L	1.0	1		11/19/21 22:26	100-41-4	
Hexachloro-1,3-butadiene	ND	ug/L	2.0	1		11/19/21 22:26	87-68-3	
2-Hexanone	ND	ug/L	5.0	1		11/19/21 22:26	591-78-6	
p-Isopropyltoluene	ND	ug/L	1.0	1		11/19/21 22:26	99-87-6	
Methylene Chloride	ND	ug/L	5.0	1		11/19/21 22:26	75-09-2	
4-Methyl-2-pentanone (MIBK)	ND	ug/L	5.0	1		11/19/21 22:26	108-10-1	
Methyl-tert-butyl ether	ND	ug/L	1.0	1		11/19/21 22:26	1634-04-4	
Naphthalene	ND	ug/L	1.0	1		11/19/21 22:26	91-20-3	
Styrene	ND	ug/L	1.0	1		11/19/21 22:26	100-42-5	
1,1,1,2-Tetrachloroethane	ND	ug/L	1.0	1		11/19/21 22:26	630-20-6	
1,1,2,2-Tetrachloroethane	ND	ug/L	1.0	1		11/19/21 22:26	79-34-5	

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ANALYTICAL RESULTS

Project: KOP FLEX OFFSITE 31401545.010
Pace Project No.: 92572915

Sample: MW-4 **Lab ID: 92572915016** Collected: 11/14/21 13:50 Received: 11/17/21 10:15 Matrix: Water

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8260D MSV Low Level	Analytical Method: EPA 8260D Pace Analytical Services - Charlotte							
Tetrachloroethene	ND	ug/L	1.0	1		11/19/21 22:26	127-18-4	
Toluene	ND	ug/L	1.0	1		11/19/21 22:26	108-88-3	
1,2,3-Trichlorobenzene	ND	ug/L	1.0	1		11/19/21 22:26	87-61-6	
1,2,4-Trichlorobenzene	ND	ug/L	1.0	1		11/19/21 22:26	120-82-1	
1,1,1-Trichloroethane	ND	ug/L	1.0	1		11/19/21 22:26	71-55-6	
1,1,2-Trichloroethane	ND	ug/L	1.0	1		11/19/21 22:26	79-00-5	
Trichloroethene	**1.5**	ug/L	1.0	1		11/19/21 22:26	79-01-6	
Trichlorofluoromethane	ND	ug/L	1.0	1		11/19/21 22:26	75-69-4	
1,2,3-Trichloropropane	ND	ug/L	1.0	1		11/19/21 22:26	96-18-4	
Vinyl acetate	ND	ug/L	2.0	1		11/19/21 22:26	108-05-4	
Vinyl chloride	ND	ug/L	1.0	1		11/19/21 22:26	75-01-4	
Xylene (Total)	ND	ug/L	1.0	1		11/19/21 22:26	1330-20-7	
m&p-Xylene	ND	ug/L	2.0	1		11/19/21 22:26	179601-23-1	
o-Xylene	ND	ug/L	1.0	1		11/19/21 22:26	95-47-6	
Surrogates								
4-Bromofluorobenzene (S)	95	%	70-130	1		11/19/21 22:26	460-00-4	
1,2-Dichloroethane-d4 (S)	86	%	70-130	1		11/19/21 22:26	17060-07-0	
Toluene-d8 (S)	100	%	70-130	1		11/19/21 22:26	2037-26-5	
8260D MSV SIM	Analytical Method: EPA 8260D Mod. Pace Analytical Services - Charlotte							
1,4-Dioxane (p-Dioxane)	**134**	ug/L	4.0	2		11/17/21 22:39	123-91-1	
Surrogates								
1,2-Dichloroethane-d4 (S)	101	%	70-130	2		11/17/21 22:39	17060-07-0	
Toluene-d8 (S)	100	%	66-133	2		11/17/21 22:39	2037-26-5	

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ANALYTICAL RESULTS

Project: KOP FLEX OFFSITE 31401545.010
Pace Project No.: 92572915

Sample: MW-20 **Lab ID: 92572915017** Collected: 11/14/21 14:00 Received: 11/17/21 10:15 Matrix: Water

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8260D MSV Low Level	Analytical Method: EPA 8260D Pace Analytical Services - Charlotte							
Acetone	ND	ug/L	50.0	2		11/23/21 03:47	67-64-1	
Benzene	ND	ug/L	2.0	2		11/23/21 03:47	71-43-2	
Bromobenzene	ND	ug/L	2.0	2		11/23/21 03:47	108-86-1	
Bromochloromethane	ND	ug/L	2.0	2		11/23/21 03:47	74-97-5	
Bromodichloromethane	ND	ug/L	2.0	2		11/23/21 03:47	75-27-4	
Bromoform	ND	ug/L	2.0	2		11/23/21 03:47	75-25-2	
Bromomethane	ND	ug/L	4.0	2		11/23/21 03:47	74-83-9	
2-Butanone (MEK)	ND	ug/L	10.0	2		11/23/21 03:47	78-93-3	
Carbon tetrachloride	ND	ug/L	2.0	2		11/23/21 03:47	56-23-5	
Chlorobenzene	ND	ug/L	2.0	2		11/23/21 03:47	108-90-7	
Chloroethane	ND	ug/L	2.0	2		11/23/21 03:47	75-00-3	v1
Chloroform	ND	ug/L	2.0	2		11/23/21 03:47	67-66-3	
Chloromethane	ND	ug/L	2.0	2		11/23/21 03:47	74-87-3	
2-Chlorotoluene	ND	ug/L	2.0	2		11/23/21 03:47	95-49-8	
4-Chlorotoluene	ND	ug/L	2.0	2		11/23/21 03:47	106-43-4	
1,2-Dibromo-3-chloropropane	ND	ug/L	4.0	2		11/23/21 03:47	96-12-8	
Dibromochloromethane	ND	ug/L	2.0	2		11/23/21 03:47	124-48-1	
1,2-Dibromoethane (EDB)	ND	ug/L	2.0	2		11/23/21 03:47	106-93-4	
Dibromomethane	ND	ug/L	2.0	2		11/23/21 03:47	74-95-3	
1,2-Dichlorobenzene	ND	ug/L	2.0	2		11/23/21 03:47	95-50-1	
1,3-Dichlorobenzene	ND	ug/L	2.0	2		11/23/21 03:47	541-73-1	
1,4-Dichlorobenzene	ND	ug/L	2.0	2		11/23/21 03:47	106-46-7	
Dichlorodifluoromethane	ND	ug/L	2.0	2		11/23/21 03:47	75-71-8	
1,1-Dichloroethane	**256**	ug/L	2.0	2		11/23/21 03:47	75-34-3	
1,2-Dichloroethane	**8.7**	ug/L	2.0	2		11/23/21 03:47	107-06-2	
1,1-Dichloroethene	**321**	ug/L	2.0	2		11/23/21 03:47	75-35-4	
cis-1,2-Dichloroethene	ND	ug/L	2.0	2		11/23/21 03:47	156-59-2	
trans-1,2-Dichloroethene	ND	ug/L	2.0	2		11/23/21 03:47	156-60-5	
1,2-Dichloropropane	ND	ug/L	2.0	2		11/23/21 03:47	78-87-5	
1,3-Dichloropropane	ND	ug/L	2.0	2		11/23/21 03:47	142-28-9	
2,2-Dichloropropane	ND	ug/L	2.0	2		11/23/21 03:47	594-20-7	
1,1-Dichloropropene	ND	ug/L	2.0	2		11/23/21 03:47	563-58-6	
cis-1,3-Dichloropropene	ND	ug/L	2.0	2		11/23/21 03:47	10061-01-5	
trans-1,3-Dichloropropene	ND	ug/L	2.0	2		11/23/21 03:47	10061-02-6	
Diisopropyl ether	ND	ug/L	2.0	2		11/23/21 03:47	108-20-3	
Ethylbenzene	ND	ug/L	2.0	2		11/23/21 03:47	100-41-4	
Hexachloro-1,3-butadiene	ND	ug/L	4.0	2		11/23/21 03:47	87-68-3	
2-Hexanone	ND	ug/L	10.0	2		11/23/21 03:47	591-78-6	
p-Isopropyltoluene	ND	ug/L	2.0	2		11/23/21 03:47	99-87-6	
Methylene Chloride	ND	ug/L	10.0	2		11/23/21 03:47	75-09-2	
4-Methyl-2-pentanone (MIBK)	ND	ug/L	10.0	2		11/23/21 03:47	108-10-1	
Methyl-tert-butyl ether	ND	ug/L	2.0	2		11/23/21 03:47	1634-04-4	
Naphthalene	ND	ug/L	2.0	2		11/23/21 03:47	91-20-3	
Styrene	ND	ug/L	2.0	2		11/23/21 03:47	100-42-5	
1,1,1,2-Tetrachloroethane	ND	ug/L	2.0	2		11/23/21 03:47	630-20-6	
1,1,2,2-Tetrachloroethane	ND	ug/L	2.0	2		11/23/21 03:47	79-34-5	

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ANALYTICAL RESULTS

Project: KOP FLEX OFFSITE 31401545.010
Pace Project No.: 92572915

Sample: MW-20 **Lab ID: 92572915017** Collected: 11/14/21 14:00 Received: 11/17/21 10:15 Matrix: Water

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8260D MSV Low Level	Analytical Method: EPA 8260D Pace Analytical Services - Charlotte							
Tetrachloroethene	ND	ug/L	2.0	2		11/23/21 03:47	127-18-4	
Toluene	ND	ug/L	2.0	2		11/23/21 03:47	108-88-3	
1,2,3-Trichlorobenzene	ND	ug/L	2.0	2		11/23/21 03:47	87-61-6	
1,2,4-Trichlorobenzene	ND	ug/L	2.0	2		11/23/21 03:47	120-82-1	
1,1,1-Trichloroethane	ND	ug/L	2.0	2		11/23/21 03:47	71-55-6	
1,1,2-Trichloroethane	ND	ug/L	2.0	2		11/23/21 03:47	79-00-5	
Trichloroethene	ND	ug/L	2.0	2		11/23/21 03:47	79-01-6	
Trichlorofluoromethane	ND	ug/L	2.0	2		11/23/21 03:47	75-69-4	
1,2,3-Trichloropropane	ND	ug/L	2.0	2		11/23/21 03:47	96-18-4	
Vinyl acetate	ND	ug/L	4.0	2		11/23/21 03:47	108-05-4	
Vinyl chloride	ND	ug/L	2.0	2		11/23/21 03:47	75-01-4	
Xylene (Total)	ND	ug/L	2.0	2		11/23/21 03:47	1330-20-7	
m&p-Xylene	ND	ug/L	4.0	2		11/23/21 03:47	179601-23-1	
o-Xylene	ND	ug/L	2.0	2		11/23/21 03:47	95-47-6	
Surrogates								
4-Bromofluorobenzene (S)	93	%	70-130	2		11/23/21 03:47	460-00-4	
1,2-Dichloroethane-d4 (S)	98	%	70-130	2		11/23/21 03:47	17060-07-0	
Toluene-d8 (S)	109	%	70-130	2		11/23/21 03:47	2037-26-5	
8260D MSV SIM	Analytical Method: EPA 8260D Mod. Pace Analytical Services - Charlotte							
1,4-Dioxane (p-Dioxane)	**1210**	ug/L	40.0	20		11/17/21 22:58	123-91-1	
Surrogates								
1,2-Dichloroethane-d4 (S)	106	%	70-130	20		11/17/21 22:58	17060-07-0	
Toluene-d8 (S)	102	%	66-133	20		11/17/21 22:58	2037-26-5	

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ANALYTICAL RESULTS

Project: KOP FLEX OFFSITE 31401545.010
Pace Project No.: 92572915

Sample: MW-9 **Lab ID: 92572915018** Collected: 11/14/21 14:15 Received: 11/17/21 10:15 Matrix: Water

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8260D MSV Low Level	Analytical Method: EPA 8260D Pace Analytical Services - Charlotte							
Acetone	ND	ug/L	25.0	1		11/18/21 21:19	67-64-1	
Benzene	ND	ug/L	1.0	1		11/18/21 21:19	71-43-2	
Bromobenzene	ND	ug/L	1.0	1		11/18/21 21:19	108-86-1	
Bromochloromethane	ND	ug/L	1.0	1		11/18/21 21:19	74-97-5	
Bromodichloromethane	ND	ug/L	1.0	1		11/18/21 21:19	75-27-4	
Bromoform	ND	ug/L	1.0	1		11/18/21 21:19	75-25-2	IK
Bromomethane	ND	ug/L	2.0	1		11/18/21 21:19	74-83-9	
2-Butanone (MEK)	ND	ug/L	5.0	1		11/18/21 21:19	78-93-3	
Carbon tetrachloride	ND	ug/L	1.0	1		11/18/21 21:19	56-23-5	
Chlorobenzene	ND	ug/L	1.0	1		11/18/21 21:19	108-90-7	
Chloroethane	ND	ug/L	1.0	1		11/18/21 21:19	75-00-3	IK,v1
Chloroform	ND	ug/L	1.0	1		11/18/21 21:19	67-66-3	
Chloromethane	ND	ug/L	1.0	1		11/18/21 21:19	74-87-3	
2-Chlorotoluene	ND	ug/L	1.0	1		11/18/21 21:19	95-49-8	
4-Chlorotoluene	ND	ug/L	1.0	1		11/18/21 21:19	106-43-4	
1,2-Dibromo-3-chloropropane	ND	ug/L	2.0	1		11/18/21 21:19	96-12-8	
Dibromochloromethane	ND	ug/L	1.0	1		11/18/21 21:19	124-48-1	
1,2-Dibromoethane (EDB)	ND	ug/L	1.0	1		11/18/21 21:19	106-93-4	
Dibromomethane	ND	ug/L	1.0	1		11/18/21 21:19	74-95-3	
1,2-Dichlorobenzene	ND	ug/L	1.0	1		11/18/21 21:19	95-50-1	
1,3-Dichlorobenzene	ND	ug/L	1.0	1		11/18/21 21:19	541-73-1	
1,4-Dichlorobenzene	ND	ug/L	1.0	1		11/18/21 21:19	106-46-7	
Dichlorodifluoromethane	ND	ug/L	1.0	1		11/18/21 21:19	75-71-8	
1,1-Dichloroethane	**2.5**	ug/L	1.0	1		11/18/21 21:19	75-34-3	
1,2-Dichloroethane	ND	ug/L	1.0	1		11/18/21 21:19	107-06-2	
1,1-Dichloroethene	**53.3**	ug/L	1.0	1		11/18/21 21:19	75-35-4	M1
cis-1,2-Dichloroethene	ND	ug/L	1.0	1		11/18/21 21:19	156-59-2	
trans-1,2-Dichloroethene	ND	ug/L	1.0	1		11/18/21 21:19	156-60-5	
1,2-Dichloropropane	ND	ug/L	1.0	1		11/18/21 21:19	78-87-5	
1,3-Dichloropropane	ND	ug/L	1.0	1		11/18/21 21:19	142-28-9	
2,2-Dichloropropane	ND	ug/L	1.0	1		11/18/21 21:19	594-20-7	
1,1-Dichloropropene	ND	ug/L	1.0	1		11/18/21 21:19	563-58-6	
cis-1,3-Dichloropropene	ND	ug/L	1.0	1		11/18/21 21:19	10061-01-5	
trans-1,3-Dichloropropene	ND	ug/L	1.0	1		11/18/21 21:19	10061-02-6	
Diisopropyl ether	ND	ug/L	1.0	1		11/18/21 21:19	108-20-3	
Ethylbenzene	ND	ug/L	1.0	1		11/18/21 21:19	100-41-4	
Hexachloro-1,3-butadiene	ND	ug/L	2.0	1		11/18/21 21:19	87-68-3	
2-Hexanone	ND	ug/L	5.0	1		11/18/21 21:19	591-78-6	
p-Isopropyltoluene	ND	ug/L	1.0	1		11/18/21 21:19	99-87-6	
Methylene Chloride	ND	ug/L	5.0	1		11/18/21 21:19	75-09-2	
4-Methyl-2-pentanone (MIBK)	ND	ug/L	5.0	1		11/18/21 21:19	108-10-1	
Methyl-tert-butyl ether	ND	ug/L	1.0	1		11/18/21 21:19	1634-04-4	
Naphthalene	ND	ug/L	1.0	1		11/18/21 21:19	91-20-3	
Styrene	ND	ug/L	1.0	1		11/18/21 21:19	100-42-5	
1,1,1,2-Tetrachloroethane	ND	ug/L	1.0	1		11/18/21 21:19	630-20-6	
1,1,2,2-Tetrachloroethane	ND	ug/L	1.0	1		11/18/21 21:19	79-34-5	

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ANALYTICAL RESULTS

Project: KOP FLEX OFFSITE 31401545.010
Pace Project No.: 92572915

Sample: MW-9 **Lab ID: 92572915018** Collected: 11/14/21 14:15 Received: 11/17/21 10:15 Matrix: Water

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8260D MSV Low Level	Analytical Method: EPA 8260D Pace Analytical Services - Charlotte							
Tetrachloroethene	ND	ug/L	1.0	1		11/18/21 21:19	127-18-4	
Toluene	ND	ug/L	1.0	1		11/18/21 21:19	108-88-3	
1,2,3-Trichlorobenzene	ND	ug/L	1.0	1		11/18/21 21:19	87-61-6	
1,2,4-Trichlorobenzene	ND	ug/L	1.0	1		11/18/21 21:19	120-82-1	
1,1,1-Trichloroethane	ND	ug/L	1.0	1		11/18/21 21:19	71-55-6	
1,1,2-Trichloroethane	ND	ug/L	1.0	1		11/18/21 21:19	79-00-5	
Trichloroethene	ND	ug/L	1.0	1		11/18/21 21:19	79-01-6	
Trichlorofluoromethane	ND	ug/L	1.0	1		11/18/21 21:19	75-69-4	
1,2,3-Trichloropropane	ND	ug/L	1.0	1		11/18/21 21:19	96-18-4	
Vinyl acetate	ND	ug/L	2.0	1		11/18/21 21:19	108-05-4	
Vinyl chloride	ND	ug/L	1.0	1		11/18/21 21:19	75-01-4	
Xylene (Total)	ND	ug/L	1.0	1		11/18/21 21:19	1330-20-7	
m&p-Xylene	ND	ug/L	2.0	1		11/18/21 21:19	179601-23-1	
o-Xylene	ND	ug/L	1.0	1		11/18/21 21:19	95-47-6	
Surrogates								
4-Bromofluorobenzene (S)	96	%	70-130	1		11/18/21 21:19	460-00-4	
1,2-Dichloroethane-d4 (S)	106	%	70-130	1		11/18/21 21:19	17060-07-0	
Toluene-d8 (S)	102	%	70-130	1		11/18/21 21:19	2037-26-5	
8260D MSV SIM	Analytical Method: EPA 8260D Mod. Pace Analytical Services - Charlotte							
1,4-Dioxane (p-Dioxane)	**22.6**	ug/L	2.0	1		11/17/21 21:02	123-91-1	
Surrogates								
1,2-Dichloroethane-d4 (S)	106	%	70-130	1		11/17/21 21:02	17060-07-0	
Toluene-d8 (S)	102	%	66-133	1		11/17/21 21:02	2037-26-5	

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ANALYTICAL RESULTS

Project: KOP FLEX OFFSITE 31401545.010
Pace Project No.: 92572915

Sample: MW-23D **Lab ID: 92572915019** Collected: 11/14/21 14:45 Received: 11/17/21 10:15 Matrix: Water

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8260D MSV Low Level	Analytical Method: EPA 8260D Pace Analytical Services - Charlotte							
Acetone	ND	ug/L	25.0	1		11/19/21 12:09	67-64-1	
Benzene	ND	ug/L	1.0	1		11/19/21 12:09	71-43-2	
Bromobenzene	ND	ug/L	1.0	1		11/19/21 12:09	108-86-1	
Bromochloromethane	ND	ug/L	1.0	1		11/19/21 12:09	74-97-5	
Bromodichloromethane	ND	ug/L	1.0	1		11/19/21 12:09	75-27-4	
Bromoform	ND	ug/L	1.0	1		11/19/21 12:09	75-25-2	
Bromomethane	ND	ug/L	2.0	1		11/19/21 12:09	74-83-9	v2
2-Butanone (MEK)	ND	ug/L	5.0	1		11/19/21 12:09	78-93-3	
Carbon tetrachloride	ND	ug/L	1.0	1		11/19/21 12:09	56-23-5	
Chlorobenzene	ND	ug/L	1.0	1		11/19/21 12:09	108-90-7	
Chloroethane	ND	ug/L	1.0	1		11/19/21 12:09	75-00-3	IK,IL
Chloroform	ND	ug/L	1.0	1		11/19/21 12:09	67-66-3	
Chloromethane	ND	ug/L	1.0	1		11/19/21 12:09	74-87-3	
2-Chlorotoluene	ND	ug/L	1.0	1		11/19/21 12:09	95-49-8	
4-Chlorotoluene	ND	ug/L	1.0	1		11/19/21 12:09	106-43-4	
1,2-Dibromo-3-chloropropane	ND	ug/L	2.0	1		11/19/21 12:09	96-12-8	
Dibromochloromethane	ND	ug/L	1.0	1		11/19/21 12:09	124-48-1	
1,2-Dibromoethane (EDB)	ND	ug/L	1.0	1		11/19/21 12:09	106-93-4	
Dibromomethane	ND	ug/L	1.0	1		11/19/21 12:09	74-95-3	
1,2-Dichlorobenzene	ND	ug/L	1.0	1		11/19/21 12:09	95-50-1	
1,3-Dichlorobenzene	ND	ug/L	1.0	1		11/19/21 12:09	541-73-1	
1,4-Dichlorobenzene	ND	ug/L	1.0	1		11/19/21 12:09	106-46-7	
Dichlorodifluoromethane	ND	ug/L	1.0	1		11/19/21 12:09	75-71-8	
1,1-Dichloroethane	**28.5**	ug/L	1.0	1		11/19/21 12:09	75-34-3	
1,2-Dichloroethane	**1.1**	ug/L	1.0	1		11/19/21 12:09	107-06-2	
1,1-Dichloroethene	**110**	ug/L	1.0	1		11/19/21 12:09	75-35-4	
cis-1,2-Dichloroethene	ND	ug/L	1.0	1		11/19/21 12:09	156-59-2	
trans-1,2-Dichloroethene	ND	ug/L	1.0	1		11/19/21 12:09	156-60-5	
1,2-Dichloropropane	ND	ug/L	1.0	1		11/19/21 12:09	78-87-5	
1,3-Dichloropropane	ND	ug/L	1.0	1		11/19/21 12:09	142-28-9	
2,2-Dichloropropane	ND	ug/L	1.0	1		11/19/21 12:09	594-20-7	
1,1-Dichloropropene	ND	ug/L	1.0	1		11/19/21 12:09	563-58-6	
cis-1,3-Dichloropropene	ND	ug/L	1.0	1		11/19/21 12:09	10061-01-5	
trans-1,3-Dichloropropene	ND	ug/L	1.0	1		11/19/21 12:09	10061-02-6	
Diisopropyl ether	ND	ug/L	1.0	1		11/19/21 12:09	108-20-3	
Ethylbenzene	ND	ug/L	1.0	1		11/19/21 12:09	100-41-4	
Hexachloro-1,3-butadiene	ND	ug/L	2.0	1		11/19/21 12:09	87-68-3	
2-Hexanone	ND	ug/L	5.0	1		11/19/21 12:09	591-78-6	
p-Isopropyltoluene	ND	ug/L	1.0	1		11/19/21 12:09	99-87-6	
Methylene Chloride	ND	ug/L	5.0	1		11/19/21 12:09	75-09-2	
4-Methyl-2-pentanone (MIBK)	ND	ug/L	5.0	1		11/19/21 12:09	108-10-1	
Methyl-tert-butyl ether	ND	ug/L	1.0	1		11/19/21 12:09	1634-04-4	
Naphthalene	ND	ug/L	1.0	1		11/19/21 12:09	91-20-3	
Styrene	ND	ug/L	1.0	1		11/19/21 12:09	100-42-5	
1,1,1,2-Tetrachloroethane	ND	ug/L	1.0	1		11/19/21 12:09	630-20-6	
1,1,2,2-Tetrachloroethane	ND	ug/L	1.0	1		11/19/21 12:09	79-34-5	

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ANALYTICAL RESULTS

Project: KOP FLEX OFFSITE 31401545.010
Pace Project No.: 92572915

Sample: MW-23D **Lab ID: 92572915019** Collected: 11/14/21 14:45 Received: 11/17/21 10:15 Matrix: Water

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8260D MSV Low Level	Analytical Method: EPA 8260D Pace Analytical Services - Charlotte							
Tetrachloroethene	ND	ug/L	1.0	1		11/19/21 12:09	127-18-4	
Toluene	ND	ug/L	1.0	1		11/19/21 12:09	108-88-3	
1,2,3-Trichlorobenzene	ND	ug/L	1.0	1		11/19/21 12:09	87-61-6	
1,2,4-Trichlorobenzene	ND	ug/L	1.0	1		11/19/21 12:09	120-82-1	
1,1,1-Trichloroethane	**9.2**	ug/L	1.0	1		11/19/21 12:09	71-55-6	
1,1,2-Trichloroethane	ND	ug/L	1.0	1		11/19/21 12:09	79-00-5	
Trichloroethene	ND	ug/L	1.0	1		11/19/21 12:09	79-01-6	
Trichlorofluoromethane	ND	ug/L	1.0	1		11/19/21 12:09	75-69-4	
1,2,3-Trichloropropane	ND	ug/L	1.0	1		11/19/21 12:09	96-18-4	
Vinyl acetate	ND	ug/L	2.0	1		11/19/21 12:09	108-05-4	
Vinyl chloride	ND	ug/L	1.0	1		11/19/21 12:09	75-01-4	
Xylene (Total)	ND	ug/L	1.0	1		11/19/21 12:09	1330-20-7	
m&p-Xylene	ND	ug/L	2.0	1		11/19/21 12:09	179601-23-1	
o-Xylene	ND	ug/L	1.0	1		11/19/21 12:09	95-47-6	
Surrogates								
4-Bromofluorobenzene (S)	100	%	70-130	1		11/19/21 12:09	460-00-4	
1,2-Dichloroethane-d4 (S)	101	%	70-130	1		11/19/21 12:09	17060-07-0	
Toluene-d8 (S)	103	%	70-130	1		11/19/21 12:09	2037-26-5	
8260D MSV SIM	Analytical Method: EPA 8260D Mod. Pace Analytical Services - Charlotte							
1,4-Dioxane (p-Dioxane)	**92.4**	ug/L	2.0	1		11/17/21 21:21	123-91-1	
Surrogates								
1,2-Dichloroethane-d4 (S)	102	%	70-130	1		11/17/21 21:21	17060-07-0	
Toluene-d8 (S)	101	%	66-133	1		11/17/21 21:21	2037-26-5	

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ANALYTICAL RESULTS

Project: KOP FLEX OFFSITE 31401545.010
Pace Project No.: 92572915

Sample: DUP-111421 **Lab ID: 92572915020** Collected: 11/14/21 12:00 Received: 11/17/21 10:15 Matrix: Water

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8260D MSV Low Level	Analytical Method: EPA 8260D Pace Analytical Services - Charlotte							
Acetone	ND	ug/L	25.0	1		11/19/21 22:44	67-64-1	
Benzene	ND	ug/L	1.0	1		11/19/21 22:44	71-43-2	
Bromobenzene	ND	ug/L	1.0	1		11/19/21 22:44	108-86-1	
Bromochloromethane	ND	ug/L	1.0	1		11/19/21 22:44	74-97-5	
Bromodichloromethane	ND	ug/L	1.0	1		11/19/21 22:44	75-27-4	
Bromoform	ND	ug/L	1.0	1		11/19/21 22:44	75-25-2	
Bromomethane	ND	ug/L	2.0	1		11/19/21 22:44	74-83-9	v2
2-Butanone (MEK)	ND	ug/L	5.0	1		11/19/21 22:44	78-93-3	
Carbon tetrachloride	ND	ug/L	1.0	1		11/19/21 22:44	56-23-5	
Chlorobenzene	ND	ug/L	1.0	1		11/19/21 22:44	108-90-7	
Chloroethane	ND	ug/L	1.0	1		11/19/21 22:44	75-00-3	
Chloroform	ND	ug/L	1.0	1		11/19/21 22:44	67-66-3	
Chloromethane	ND	ug/L	1.0	1		11/19/21 22:44	74-87-3	
2-Chlorotoluene	ND	ug/L	1.0	1		11/19/21 22:44	95-49-8	
4-Chlorotoluene	ND	ug/L	1.0	1		11/19/21 22:44	106-43-4	
1,2-Dibromo-3-chloropropane	ND	ug/L	2.0	1		11/19/21 22:44	96-12-8	
Dibromochloromethane	ND	ug/L	1.0	1		11/19/21 22:44	124-48-1	
1,2-Dibromoethane (EDB)	ND	ug/L	1.0	1		11/19/21 22:44	106-93-4	
Dibromomethane	ND	ug/L	1.0	1		11/19/21 22:44	74-95-3	
1,2-Dichlorobenzene	ND	ug/L	1.0	1		11/19/21 22:44	95-50-1	
1,3-Dichlorobenzene	ND	ug/L	1.0	1		11/19/21 22:44	541-73-1	
1,4-Dichlorobenzene	ND	ug/L	1.0	1		11/19/21 22:44	106-46-7	
Dichlorodifluoromethane	ND	ug/L	1.0	1		11/19/21 22:44	75-71-8	v1
1,1-Dichloroethane	**17.0**	ug/L	1.0	1		11/19/21 22:44	75-34-3	
1,2-Dichloroethane	ND	ug/L	1.0	1		11/19/21 22:44	107-06-2	
1,1-Dichloroethene	**67.2**	ug/L	1.0	1		11/19/21 22:44	75-35-4	
cis-1,2-Dichloroethene	ND	ug/L	1.0	1		11/19/21 22:44	156-59-2	
trans-1,2-Dichloroethene	ND	ug/L	1.0	1		11/19/21 22:44	156-60-5	
1,2-Dichloropropane	ND	ug/L	1.0	1		11/19/21 22:44	78-87-5	
1,3-Dichloropropane	ND	ug/L	1.0	1		11/19/21 22:44	142-28-9	
2,2-Dichloropropane	ND	ug/L	1.0	1		11/19/21 22:44	594-20-7	
1,1-Dichloropropene	ND	ug/L	1.0	1		11/19/21 22:44	563-58-6	
cis-1,3-Dichloropropene	ND	ug/L	1.0	1		11/19/21 22:44	10061-01-5	
trans-1,3-Dichloropropene	ND	ug/L	1.0	1		11/19/21 22:44	10061-02-6	
Diisopropyl ether	ND	ug/L	1.0	1		11/19/21 22:44	108-20-3	
Ethylbenzene	ND	ug/L	1.0	1		11/19/21 22:44	100-41-4	
Hexachloro-1,3-butadiene	ND	ug/L	2.0	1		11/19/21 22:44	87-68-3	
2-Hexanone	ND	ug/L	5.0	1		11/19/21 22:44	591-78-6	
p-Isopropyltoluene	ND	ug/L	1.0	1		11/19/21 22:44	99-87-6	
Methylene Chloride	ND	ug/L	5.0	1		11/19/21 22:44	75-09-2	
4-Methyl-2-pentanone (MIBK)	ND	ug/L	5.0	1		11/19/21 22:44	108-10-1	
Methyl-tert-butyl ether	ND	ug/L	1.0	1		11/19/21 22:44	1634-04-4	
Naphthalene	ND	ug/L	1.0	1		11/19/21 22:44	91-20-3	
Styrene	ND	ug/L	1.0	1		11/19/21 22:44	100-42-5	
1,1,1,2-Tetrachloroethane	ND	ug/L	1.0	1		11/19/21 22:44	630-20-6	
1,1,2,2-Tetrachloroethane	ND	ug/L	1.0	1		11/19/21 22:44	79-34-5	

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ANALYTICAL RESULTS

Project: KOP FLEX OFFSITE 31401545.010
Pace Project No.: 92572915

Sample: DUP-111421 **Lab ID: 92572915020** Collected: 11/14/21 12:00 Received: 11/17/21 10:15 Matrix: Water

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8260D MSV Low Level	Analytical Method: EPA 8260D Pace Analytical Services - Charlotte							
Tetrachloroethene	ND	ug/L	1.0	1		11/19/21 22:44	127-18-4	
Toluene	ND	ug/L	1.0	1		11/19/21 22:44	108-88-3	
1,2,3-Trichlorobenzene	ND	ug/L	1.0	1		11/19/21 22:44	87-61-6	
1,2,4-Trichlorobenzene	ND	ug/L	1.0	1		11/19/21 22:44	120-82-1	
1,1,1-Trichloroethane	**5.3**	ug/L	1.0	1		11/19/21 22:44	71-55-6	
1,1,2-Trichloroethane	ND	ug/L	1.0	1		11/19/21 22:44	79-00-5	
Trichloroethene	ND	ug/L	1.0	1		11/19/21 22:44	79-01-6	
Trichlorofluoromethane	ND	ug/L	1.0	1		11/19/21 22:44	75-69-4	
1,2,3-Trichloropropane	ND	ug/L	1.0	1		11/19/21 22:44	96-18-4	
Vinyl acetate	ND	ug/L	2.0	1		11/19/21 22:44	108-05-4	
Vinyl chloride	ND	ug/L	1.0	1		11/19/21 22:44	75-01-4	
Xylene (Total)	ND	ug/L	1.0	1		11/19/21 22:44	1330-20-7	
m&p-Xylene	ND	ug/L	2.0	1		11/19/21 22:44	179601-23-1	
o-Xylene	ND	ug/L	1.0	1		11/19/21 22:44	95-47-6	
Surrogates								
4-Bromofluorobenzene (S)	95	%	70-130	1		11/19/21 22:44	460-00-4	
1,2-Dichloroethane-d4 (S)	86	%	70-130	1		11/19/21 22:44	17060-07-0	
Toluene-d8 (S)	101	%	70-130	1		11/19/21 22:44	2037-26-5	
8260D MSV SIM	Analytical Method: EPA 8260D Mod. Pace Analytical Services - Charlotte							
1,4-Dioxane (p-Dioxane)	**84.2**	ug/L	2.0	1		11/18/21 18:26	123-91-1	
Surrogates								
1,2-Dichloroethane-d4 (S)	96	%	70-130	1		11/18/21 18:26	17060-07-0	
Toluene-d8 (S)	87	%	66-133	1		11/18/21 18:26	2037-26-5	

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ANALYTICAL RESULTS

Project: KOP FLEX OFFSITE 31401545.010
Pace Project No.: 92572915

Sample: MW-16 **Lab ID: 92572915021** Collected: 11/14/21 15:00 Received: 11/17/21 10:15 Matrix: Water

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8260D MSV Low Level	Analytical Method: EPA 8260D Pace Analytical Services - Charlotte							
Acetone	ND	ug/L	312	12.5		11/23/21 19:08	67-64-1	
Benzene	ND	ug/L	12.5	12.5		11/23/21 19:08	71-43-2	
Bromobenzene	ND	ug/L	12.5	12.5		11/23/21 19:08	108-86-1	
Bromochloromethane	ND	ug/L	12.5	12.5		11/23/21 19:08	74-97-5	
Bromodichloromethane	ND	ug/L	12.5	12.5		11/23/21 19:08	75-27-4	
Bromoform	ND	ug/L	12.5	12.5		11/23/21 19:08	75-25-2	
Bromomethane	ND	ug/L	25.0	12.5		11/23/21 19:08	74-83-9	
2-Butanone (MEK)	ND	ug/L	62.5	12.5		11/23/21 19:08	78-93-3	
Carbon tetrachloride	ND	ug/L	12.5	12.5		11/23/21 19:08	56-23-5	
Chlorobenzene	ND	ug/L	12.5	12.5		11/23/21 19:08	108-90-7	
Chloroethane	ND	ug/L	12.5	12.5		11/23/21 19:08	75-00-3	
Chloroform	ND	ug/L	12.5	12.5		11/23/21 19:08	67-66-3	
Chloromethane	ND	ug/L	12.5	12.5		11/23/21 19:08	74-87-3	
2-Chlorotoluene	ND	ug/L	12.5	12.5		11/23/21 19:08	95-49-8	
4-Chlorotoluene	ND	ug/L	12.5	12.5		11/23/21 19:08	106-43-4	
1,2-Dibromo-3-chloropropane	ND	ug/L	25.0	12.5		11/23/21 19:08	96-12-8	
Dibromochloromethane	ND	ug/L	12.5	12.5		11/23/21 19:08	124-48-1	
1,2-Dibromoethane (EDB)	ND	ug/L	12.5	12.5		11/23/21 19:08	106-93-4	
Dibromomethane	ND	ug/L	12.5	12.5		11/23/21 19:08	74-95-3	
1,2-Dichlorobenzene	ND	ug/L	12.5	12.5		11/23/21 19:08	95-50-1	
1,3-Dichlorobenzene	ND	ug/L	12.5	12.5		11/23/21 19:08	541-73-1	
1,4-Dichlorobenzene	ND	ug/L	12.5	12.5		11/23/21 19:08	106-46-7	
Dichlorodifluoromethane	ND	ug/L	12.5	12.5		11/23/21 19:08	75-71-8	
1,1-Dichloroethane	**1350**	ug/L	12.5	12.5		11/23/21 19:08	75-34-3	
1,2-Dichloroethane	ND	ug/L	12.5	12.5		11/23/21 19:08	107-06-2	
1,1-Dichloroethene	**1630**	ug/L	12.5	12.5		11/23/21 19:08	75-35-4	
cis-1,2-Dichloroethene	ND	ug/L	12.5	12.5		11/23/21 19:08	156-59-2	
trans-1,2-Dichloroethene	ND	ug/L	12.5	12.5		11/23/21 19:08	156-60-5	
1,2-Dichloropropane	ND	ug/L	12.5	12.5		11/23/21 19:08	78-87-5	
1,3-Dichloropropane	ND	ug/L	12.5	12.5		11/23/21 19:08	142-28-9	
2,2-Dichloropropane	ND	ug/L	12.5	12.5		11/23/21 19:08	594-20-7	
1,1-Dichloropropene	ND	ug/L	12.5	12.5		11/23/21 19:08	563-58-6	
cis-1,3-Dichloropropene	ND	ug/L	12.5	12.5		11/23/21 19:08	10061-01-5	
trans-1,3-Dichloropropene	ND	ug/L	12.5	12.5		11/23/21 19:08	10061-02-6	
Diisopropyl ether	ND	ug/L	12.5	12.5		11/23/21 19:08	108-20-3	
Ethylbenzene	ND	ug/L	12.5	12.5		11/23/21 19:08	100-41-4	
Hexachloro-1,3-butadiene	ND	ug/L	25.0	12.5		11/23/21 19:08	87-68-3	
2-Hexanone	ND	ug/L	62.5	12.5		11/23/21 19:08	591-78-6	
p-Isopropyltoluene	ND	ug/L	12.5	12.5		11/23/21 19:08	99-87-6	
Methylene Chloride	ND	ug/L	62.5	12.5		11/23/21 19:08	75-09-2	
4-Methyl-2-pentanone (MIBK)	ND	ug/L	62.5	12.5		11/23/21 19:08	108-10-1	
Methyl-tert-butyl ether	ND	ug/L	12.5	12.5		11/23/21 19:08	1634-04-4	
Naphthalene	ND	ug/L	12.5	12.5		11/23/21 19:08	91-20-3	
Styrene	ND	ug/L	12.5	12.5		11/23/21 19:08	100-42-5	
1,1,1,2-Tetrachloroethane	ND	ug/L	12.5	12.5		11/23/21 19:08	630-20-6	
1,1,2,2-Tetrachloroethane	ND	ug/L	12.5	12.5		11/23/21 19:08	79-34-5	

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ANALYTICAL RESULTS

Project: KOP FLEX OFFSITE 31401545.010
Pace Project No.: 92572915

Sample: MW-16 **Lab ID: 92572915021** Collected: 11/14/21 15:00 Received: 11/17/21 10:15 Matrix: Water

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8260D MSV Low Level	Analytical Method: EPA 8260D Pace Analytical Services - Charlotte							
Tetrachloroethene	ND	ug/L	12.5	12.5		11/23/21 19:08	127-18-4	
Toluene	ND	ug/L	12.5	12.5		11/23/21 19:08	108-88-3	
1,2,3-Trichlorobenzene	ND	ug/L	12.5	12.5		11/23/21 19:08	87-61-6	
1,2,4-Trichlorobenzene	ND	ug/L	12.5	12.5		11/23/21 19:08	120-82-1	
1,1,1-Trichloroethane	**1720**	ug/L	12.5	12.5		11/23/21 19:08	71-55-6	
1,1,2-Trichloroethane	ND	ug/L	12.5	12.5		11/23/21 19:08	79-00-5	
Trichloroethene	ND	ug/L	12.5	12.5		11/23/21 19:08	79-01-6	
Trichlorofluoromethane	ND	ug/L	12.5	12.5		11/23/21 19:08	75-69-4	
1,2,3-Trichloropropane	ND	ug/L	12.5	12.5		11/23/21 19:08	96-18-4	
Vinyl acetate	ND	ug/L	25.0	12.5		11/23/21 19:08	108-05-4	
Vinyl chloride	ND	ug/L	12.5	12.5		11/23/21 19:08	75-01-4	
Xylene (Total)	ND	ug/L	12.5	12.5		11/23/21 19:08	1330-20-7	
m&p-Xylene	ND	ug/L	25.0	12.5		11/23/21 19:08	179601-23-1	
o-Xylene	ND	ug/L	12.5	12.5		11/23/21 19:08	95-47-6	
Surrogates								
4-Bromofluorobenzene (S)	95	%	70-130	12.5		11/23/21 19:08	460-00-4	
1,2-Dichloroethane-d4 (S)	101	%	70-130	12.5		11/23/21 19:08	17060-07-0	
Toluene-d8 (S)	106	%	70-130	12.5		11/23/21 19:08	2037-26-5	
8260D MSV SIM	Analytical Method: EPA 8260D Mod. Pace Analytical Services - Charlotte							
1,4-Dioxane (p-Dioxane)	**76.0**	ug/L	2.0	1		11/18/21 18:45	123-91-1	
Surrogates								
1,2-Dichloroethane-d4 (S)	97	%	70-130	1		11/18/21 18:45	17060-07-0	
Toluene-d8 (S)	84	%	66-133	1		11/18/21 18:45	2037-26-5	

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ANALYTICAL RESULTS

Project: KOP FLEX OFFSITE 31401545.010
Pace Project No.: 92572915

Sample: MW-16D **Lab ID: 92572915022** Collected: 11/14/21 15:10 Received: 11/17/21 10:15 Matrix: Water

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8260D MSV Low Level	Analytical Method: EPA 8260D Pace Analytical Services - Charlotte							
Acetone	ND	ug/L	25.0	1		11/19/21 12:27	67-64-1	
Benzene	ND	ug/L	1.0	1		11/19/21 12:27	71-43-2	
Bromobenzene	ND	ug/L	1.0	1		11/19/21 12:27	108-86-1	
Bromochloromethane	ND	ug/L	1.0	1		11/19/21 12:27	74-97-5	
Bromodichloromethane	ND	ug/L	1.0	1		11/19/21 12:27	75-27-4	
Bromoform	ND	ug/L	1.0	1		11/19/21 12:27	75-25-2	
Bromomethane	ND	ug/L	2.0	1		11/19/21 12:27	74-83-9	v2
2-Butanone (MEK)	ND	ug/L	5.0	1		11/19/21 12:27	78-93-3	
Carbon tetrachloride	ND	ug/L	1.0	1		11/19/21 12:27	56-23-5	
Chlorobenzene	ND	ug/L	1.0	1		11/19/21 12:27	108-90-7	
Chloroethane	ND	ug/L	1.0	1		11/19/21 12:27	75-00-3	IK,IL
Chloroform	ND	ug/L	1.0	1		11/19/21 12:27	67-66-3	
Chloromethane	ND	ug/L	1.0	1		11/19/21 12:27	74-87-3	
2-Chlorotoluene	ND	ug/L	1.0	1		11/19/21 12:27	95-49-8	
4-Chlorotoluene	ND	ug/L	1.0	1		11/19/21 12:27	106-43-4	
1,2-Dibromo-3-chloropropane	ND	ug/L	2.0	1		11/19/21 12:27	96-12-8	
Dibromochloromethane	ND	ug/L	1.0	1		11/19/21 12:27	124-48-1	
1,2-Dibromoethane (EDB)	ND	ug/L	1.0	1		11/19/21 12:27	106-93-4	
Dibromomethane	ND	ug/L	1.0	1		11/19/21 12:27	74-95-3	
1,2-Dichlorobenzene	ND	ug/L	1.0	1		11/19/21 12:27	95-50-1	
1,3-Dichlorobenzene	ND	ug/L	1.0	1		11/19/21 12:27	541-73-1	
1,4-Dichlorobenzene	ND	ug/L	1.0	1		11/19/21 12:27	106-46-7	
Dichlorodifluoromethane	ND	ug/L	1.0	1		11/19/21 12:27	75-71-8	
1,1-Dichloroethane	**21.5**	ug/L	1.0	1		11/19/21 12:27	75-34-3	
1,2-Dichloroethane	**1.1**	ug/L	1.0	1		11/19/21 12:27	107-06-2	
1,1-Dichloroethene	**98.7**	ug/L	1.0	1		11/19/21 12:27	75-35-4	
cis-1,2-Dichloroethene	ND	ug/L	1.0	1		11/19/21 12:27	156-59-2	
trans-1,2-Dichloroethene	ND	ug/L	1.0	1		11/19/21 12:27	156-60-5	
1,2-Dichloropropane	ND	ug/L	1.0	1		11/19/21 12:27	78-87-5	
1,3-Dichloropropane	ND	ug/L	1.0	1		11/19/21 12:27	142-28-9	
2,2-Dichloropropane	ND	ug/L	1.0	1		11/19/21 12:27	594-20-7	
1,1-Dichloropropene	ND	ug/L	1.0	1		11/19/21 12:27	563-58-6	
cis-1,3-Dichloropropene	ND	ug/L	1.0	1		11/19/21 12:27	10061-01-5	
trans-1,3-Dichloropropene	ND	ug/L	1.0	1		11/19/21 12:27	10061-02-6	
Diisopropyl ether	ND	ug/L	1.0	1		11/19/21 12:27	108-20-3	
Ethylbenzene	ND	ug/L	1.0	1		11/19/21 12:27	100-41-4	
Hexachloro-1,3-butadiene	ND	ug/L	2.0	1		11/19/21 12:27	87-68-3	
2-Hexanone	ND	ug/L	5.0	1		11/19/21 12:27	591-78-6	
p-Isopropyltoluene	ND	ug/L	1.0	1		11/19/21 12:27	99-87-6	
Methylene Chloride	ND	ug/L	5.0	1		11/19/21 12:27	75-09-2	
4-Methyl-2-pentanone (MIBK)	ND	ug/L	5.0	1		11/19/21 12:27	108-10-1	
Methyl-tert-butyl ether	ND	ug/L	1.0	1		11/19/21 12:27	1634-04-4	
Naphthalene	ND	ug/L	1.0	1		11/19/21 12:27	91-20-3	
Styrene	ND	ug/L	1.0	1		11/19/21 12:27	100-42-5	
1,1,1,2-Tetrachloroethane	ND	ug/L	1.0	1		11/19/21 12:27	630-20-6	
1,1,2,2-Tetrachloroethane	ND	ug/L	1.0	1		11/19/21 12:27	79-34-5	

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ANALYTICAL RESULTS

Project: KOP FLEX OFFSITE 31401545.010
Pace Project No.: 92572915

Sample: MW-16D **Lab ID: 92572915022** Collected: 11/14/21 15:10 Received: 11/17/21 10:15 Matrix: Water

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8260D MSV Low Level	Analytical Method: EPA 8260D Pace Analytical Services - Charlotte							
Tetrachloroethene	ND	ug/L	1.0	1		11/19/21 12:27	127-18-4	
Toluene	ND	ug/L	1.0	1		11/19/21 12:27	108-88-3	
1,2,3-Trichlorobenzene	ND	ug/L	1.0	1		11/19/21 12:27	87-61-6	
1,2,4-Trichlorobenzene	ND	ug/L	1.0	1		11/19/21 12:27	120-82-1	
1,1,1-Trichloroethane	**6.9**	ug/L	1.0	1		11/19/21 12:27	71-55-6	
1,1,2-Trichloroethane	ND	ug/L	1.0	1		11/19/21 12:27	79-00-5	
Trichloroethene	ND	ug/L	1.0	1		11/19/21 12:27	79-01-6	
Trichlorofluoromethane	ND	ug/L	1.0	1		11/19/21 12:27	75-69-4	
1,2,3-Trichloropropane	ND	ug/L	1.0	1		11/19/21 12:27	96-18-4	
Vinyl acetate	ND	ug/L	2.0	1		11/19/21 12:27	108-05-4	
Vinyl chloride	ND	ug/L	1.0	1		11/19/21 12:27	75-01-4	
Xylene (Total)	ND	ug/L	1.0	1		11/19/21 12:27	1330-20-7	
m&p-Xylene	ND	ug/L	2.0	1		11/19/21 12:27	179601-23-1	
o-Xylene	ND	ug/L	1.0	1		11/19/21 12:27	95-47-6	
Surrogates								
4-Bromofluorobenzene (S)	98	%	70-130	1		11/19/21 12:27	460-00-4	
1,2-Dichloroethane-d4 (S)	100	%	70-130	1		11/19/21 12:27	17060-07-0	
Toluene-d8 (S)	104	%	70-130	1		11/19/21 12:27	2037-26-5	
8260D MSV SIM	Analytical Method: EPA 8260D Mod. Pace Analytical Services - Charlotte							
1,4-Dioxane (p-Dioxane)	**84.5**	ug/L	2.0	1		11/18/21 19:05	123-91-1	
Surrogates								
1,2-Dichloroethane-d4 (S)	94	%	70-130	1		11/18/21 19:05	17060-07-0	
Toluene-d8 (S)	84	%	66-133	1		11/18/21 19:05	2037-26-5	

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ANALYTICAL RESULTS

Project: KOP FLEX OFFSITE 31401545.010
Pace Project No.: 92572915

Sample: TRIP BLANK **Lab ID: 92572915023** Collected: 11/14/21 00:00 Received: 11/17/21 10:15 Matrix: Water

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8260D MSV Low Level	Analytical Method: EPA 8260D Pace Analytical Services - Charlotte							
Acetone	ND	ug/L	25.0	1		11/18/21 16:31	67-64-1	
Benzene	ND	ug/L	1.0	1		11/18/21 16:31	71-43-2	
Bromobenzene	ND	ug/L	1.0	1		11/18/21 16:31	108-86-1	
Bromochloromethane	ND	ug/L	1.0	1		11/18/21 16:31	74-97-5	
Bromodichloromethane	ND	ug/L	1.0	1		11/18/21 16:31	75-27-4	
Bromoform	ND	ug/L	1.0	1		11/18/21 16:31	75-25-2	IK
Bromomethane	ND	ug/L	2.0	1		11/18/21 16:31	74-83-9	
2-Butanone (MEK)	ND	ug/L	5.0	1		11/18/21 16:31	78-93-3	
Carbon tetrachloride	ND	ug/L	1.0	1		11/18/21 16:31	56-23-5	
Chlorobenzene	ND	ug/L	1.0	1		11/18/21 16:31	108-90-7	
Chloroethane	ND	ug/L	1.0	1		11/18/21 16:31	75-00-3	IK,v1
Chloroform	ND	ug/L	1.0	1		11/18/21 16:31	67-66-3	
Chloromethane	ND	ug/L	1.0	1		11/18/21 16:31	74-87-3	
2-Chlorotoluene	ND	ug/L	1.0	1		11/18/21 16:31	95-49-8	
4-Chlorotoluene	ND	ug/L	1.0	1		11/18/21 16:31	106-43-4	
1,2-Dibromo-3-chloropropane	ND	ug/L	2.0	1		11/18/21 16:31	96-12-8	
Dibromochloromethane	ND	ug/L	1.0	1		11/18/21 16:31	124-48-1	
1,2-Dibromoethane (EDB)	ND	ug/L	1.0	1		11/18/21 16:31	106-93-4	
Dibromomethane	ND	ug/L	1.0	1		11/18/21 16:31	74-95-3	
1,2-Dichlorobenzene	ND	ug/L	1.0	1		11/18/21 16:31	95-50-1	
1,3-Dichlorobenzene	ND	ug/L	1.0	1		11/18/21 16:31	541-73-1	
1,4-Dichlorobenzene	ND	ug/L	1.0	1		11/18/21 16:31	106-46-7	
Dichlorodifluoromethane	ND	ug/L	1.0	1		11/18/21 16:31	75-71-8	
1,1-Dichloroethane	ND	ug/L	1.0	1		11/18/21 16:31	75-34-3	
1,2-Dichloroethane	ND	ug/L	1.0	1		11/18/21 16:31	107-06-2	
1,1-Dichloroethene	ND	ug/L	1.0	1		11/18/21 16:31	75-35-4	
cis-1,2-Dichloroethene	ND	ug/L	1.0	1		11/18/21 16:31	156-59-2	
trans-1,2-Dichloroethene	ND	ug/L	1.0	1		11/18/21 16:31	156-60-5	
1,2-Dichloropropane	ND	ug/L	1.0	1		11/18/21 16:31	78-87-5	
1,3-Dichloropropane	ND	ug/L	1.0	1		11/18/21 16:31	142-28-9	
2,2-Dichloropropane	ND	ug/L	1.0	1		11/18/21 16:31	594-20-7	
1,1-Dichloropropene	ND	ug/L	1.0	1		11/18/21 16:31	563-58-6	
cis-1,3-Dichloropropene	ND	ug/L	1.0	1		11/18/21 16:31	10061-01-5	
trans-1,3-Dichloropropene	ND	ug/L	1.0	1		11/18/21 16:31	10061-02-6	
Diisopropyl ether	ND	ug/L	1.0	1		11/18/21 16:31	108-20-3	
Ethylbenzene	ND	ug/L	1.0	1		11/18/21 16:31	100-41-4	
Hexachloro-1,3-butadiene	ND	ug/L	2.0	1		11/18/21 16:31	87-68-3	
2-Hexanone	ND	ug/L	5.0	1		11/18/21 16:31	591-78-6	
p-Isopropyltoluene	ND	ug/L	1.0	1		11/18/21 16:31	99-87-6	
Methylene Chloride	ND	ug/L	5.0	1		11/18/21 16:31	75-09-2	
4-Methyl-2-pentanone (MIBK)	ND	ug/L	5.0	1		11/18/21 16:31	108-10-1	
Methyl-tert-butyl ether	ND	ug/L	1.0	1		11/18/21 16:31	1634-04-4	
Naphthalene	ND	ug/L	1.0	1		11/18/21 16:31	91-20-3	
Styrene	ND	ug/L	1.0	1		11/18/21 16:31	100-42-5	
1,1,1,2-Tetrachloroethane	ND	ug/L	1.0	1		11/18/21 16:31	630-20-6	
1,1,2,2-Tetrachloroethane	ND	ug/L	1.0	1		11/18/21 16:31	79-34-5	

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ANALYTICAL RESULTS

Project: KOP FLEX OFFSITE 31401545.010
Pace Project No.: 92572915

Sample: TRIP BLANK **Lab ID: 92572915023** Collected: 11/14/21 00:00 Received: 11/17/21 10:15 Matrix: Water

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8260D MSV Low Level	Analytical Method: EPA 8260D Pace Analytical Services - Charlotte							
Tetrachloroethene	ND	ug/L	1.0	1		11/18/21 16:31	127-18-4	
Toluene	ND	ug/L	1.0	1		11/18/21 16:31	108-88-3	
1,2,3-Trichlorobenzene	ND	ug/L	1.0	1		11/18/21 16:31	87-61-6	
1,2,4-Trichlorobenzene	ND	ug/L	1.0	1		11/18/21 16:31	120-82-1	
1,1,1-Trichloroethane	ND	ug/L	1.0	1		11/18/21 16:31	71-55-6	
1,1,2-Trichloroethane	ND	ug/L	1.0	1		11/18/21 16:31	79-00-5	
Trichloroethene	ND	ug/L	1.0	1		11/18/21 16:31	79-01-6	
Trichlorofluoromethane	ND	ug/L	1.0	1		11/18/21 16:31	75-69-4	
1,2,3-Trichloropropane	ND	ug/L	1.0	1		11/18/21 16:31	96-18-4	
Vinyl acetate	ND	ug/L	2.0	1		11/18/21 16:31	108-05-4	
Vinyl chloride	ND	ug/L	1.0	1		11/18/21 16:31	75-01-4	
Xylene (Total)	ND	ug/L	1.0	1		11/18/21 16:31	1330-20-7	
m&p-Xylene	ND	ug/L	2.0	1		11/18/21 16:31	179601-23-1	
o-Xylene	ND	ug/L	1.0	1		11/18/21 16:31	95-47-6	
Surrogates								
4-Bromofluorobenzene (S)	95	%	70-130	1		11/18/21 16:31	460-00-4	
1,2-Dichloroethane-d4 (S)	105	%	70-130	1		11/18/21 16:31	17060-07-0	
Toluene-d8 (S)	103	%	70-130	1		11/18/21 16:31	2037-26-5	
8260D MSV SIM	Analytical Method: EPA 8260D Mod. Pace Analytical Services - Charlotte							
1,4-Dioxane (p-Dioxane)	ND	ug/L	2.0	1		11/17/21 23:12	123-91-1	
Surrogates								
1,2-Dichloroethane-d4 (S)	98	%	70-130	1		11/17/21 23:12	17060-07-0	
Toluene-d8 (S)	89	%	66-133	1		11/17/21 23:12	2037-26-5	

REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL DATA

Project: KOP FLEX OFFSITE 31401545.010
Pace Project No.: 92572915

QC Batch: 660595 Analysis Method: EPA 8260D
QC Batch Method: EPA 8260D Analysis Description: 8260D MSV Low Level
Laboratory: Pace Analytical Services - Charlotte
Associated Lab Samples: 92572915001, 92572915002, 92572915003, 92572915004, 92572915005, 92572915006, 92572915007, 92572915008, 92572915009, 92572915010, 92572915011, 92572915012, 92572915013, 92572915014, 92572915015, 92572915018, 92572915023

METHOD BLANK: 3461382 Matrix: Water
Associated Lab Samples: 92572915001, 92572915002, 92572915003, 92572915004, 92572915005, 92572915006, 92572915007, 92572915008, 92572915009, 92572915010, 92572915011, 92572915012, 92572915013, 92572915014, 92572915015, 92572915018, 92572915023

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
1,1,1,2-Tetrachloroethane	ug/L	ND	1.0	11/18/21 16:13	
1,1,1-Trichloroethane	ug/L	ND	1.0	11/18/21 16:13	
1,1,2,2-Tetrachloroethane	ug/L	ND	1.0	11/18/21 16:13	
1,1,2-Trichloroethane	ug/L	ND	1.0	11/18/21 16:13	
1,1-Dichloroethane	ug/L	ND	1.0	11/18/21 16:13	
1,1-Dichloroethene	ug/L	ND	1.0	11/18/21 16:13	
1,1-Dichloropropene	ug/L	ND	1.0	11/18/21 16:13	
1,2,3-Trichlorobenzene	ug/L	ND	1.0	11/18/21 16:13	
1,2,3-Trichloropropane	ug/L	ND	1.0	11/18/21 16:13	
1,2,4-Trichlorobenzene	ug/L	ND	1.0	11/18/21 16:13	
1,2-Dibromo-3-chloropropane	ug/L	ND	2.0	11/18/21 16:13	
1,2-Dibromoethane (EDB)	ug/L	ND	1.0	11/18/21 16:13	
1,2-Dichlorobenzene	ug/L	ND	1.0	11/18/21 16:13	
1,2-Dichloroethane	ug/L	ND	1.0	11/18/21 16:13	
1,2-Dichloropropane	ug/L	ND	1.0	11/18/21 16:13	
1,3-Dichlorobenzene	ug/L	ND	1.0	11/18/21 16:13	
1,3-Dichloropropane	ug/L	ND	1.0	11/18/21 16:13	
1,4-Dichlorobenzene	ug/L	ND	1.0	11/18/21 16:13	
2,2-Dichloropropane	ug/L	ND	1.0	11/18/21 16:13	
2-Butanone (MEK)	ug/L	ND	5.0	11/18/21 16:13	
2-Chlorotoluene	ug/L	ND	1.0	11/18/21 16:13	
2-Hexanone	ug/L	ND	5.0	11/18/21 16:13	
4-Chlorotoluene	ug/L	ND	1.0	11/18/21 16:13	
4-Methyl-2-pentanone (MIBK)	ug/L	ND	5.0	11/18/21 16:13	
Acetone	ug/L	ND	25.0	11/18/21 16:13	
Benzene	ug/L	ND	1.0	11/18/21 16:13	
Bromobenzene	ug/L	ND	1.0	11/18/21 16:13	
Bromochloromethane	ug/L	ND	1.0	11/18/21 16:13	
Bromodichloromethane	ug/L	ND	1.0	11/18/21 16:13	
Bromoform	ug/L	ND	1.0	11/18/21 16:13	IK
Bromomethane	ug/L	ND	2.0	11/18/21 16:13	
Carbon tetrachloride	ug/L	ND	1.0	11/18/21 16:13	
Chlorobenzene	ug/L	ND	1.0	11/18/21 16:13	
Chloroethane	ug/L	ND	1.0	11/18/21 16:13	IK,v1
Chloroform	ug/L	ND	1.0	11/18/21 16:13	
Chloromethane	ug/L	ND	1.0	11/18/21 16:13	
cis-1,2-Dichloroethene	ug/L	ND	1.0	11/18/21 16:13	

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QUALITY CONTROL DATA

Project: KOP FLEX OFFSITE 31401545.010
Pace Project No.: 92572915

METHOD BLANK: 3461382 Matrix: Water

Associated Lab Samples: 92572915001, 92572915002, 92572915003, 92572915004, 92572915005, 92572915006, 92572915007, 92572915008, 92572915009, 92572915010, 92572915011, 92572915012, 92572915013, 92572915014, 92572915015, 92572915018, 92572915023

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
cis-1,3-Dichloropropene	ug/L	ND	1.0	11/18/21 16:13	
Dibromochloromethane	ug/L	ND	1.0	11/18/21 16:13	
Dibromomethane	ug/L	ND	1.0	11/18/21 16:13	
Dichlorodifluoromethane	ug/L	ND	1.0	11/18/21 16:13	
Diisopropyl ether	ug/L	ND	1.0	11/18/21 16:13	
Ethylbenzene	ug/L	ND	1.0	11/18/21 16:13	
Hexachloro-1,3-butadiene	ug/L	ND	2.0	11/18/21 16:13	
m&p-Xylene	ug/L	ND	2.0	11/18/21 16:13	
Methyl-tert-butyl ether	ug/L	ND	1.0	11/18/21 16:13	
Methylene Chloride	ug/L	ND	5.0	11/18/21 16:13	
Naphthalene	ug/L	ND	1.0	11/18/21 16:13	
o-Xylene	ug/L	ND	1.0	11/18/21 16:13	
p-Isopropyltoluene	ug/L	ND	1.0	11/18/21 16:13	
Styrene	ug/L	ND	1.0	11/18/21 16:13	
Tetrachloroethene	ug/L	ND	1.0	11/18/21 16:13	
Toluene	ug/L	ND	1.0	11/18/21 16:13	
trans-1,2-Dichloroethene	ug/L	ND	1.0	11/18/21 16:13	
trans-1,3-Dichloropropene	ug/L	ND	1.0	11/18/21 16:13	
Trichloroethene	ug/L	ND	1.0	11/18/21 16:13	
Trichlorofluoromethane	ug/L	ND	1.0	11/18/21 16:13	
Vinyl acetate	ug/L	ND	2.0	11/18/21 16:13	
Vinyl chloride	ug/L	ND	1.0	11/18/21 16:13	
Xylene (Total)	ug/L	ND	1.0	11/18/21 16:13	
1,2-Dichloroethane-d4 (S)	%	105	70-130	11/18/21 16:13	
4-Bromofluorobenzene (S)	%	96	70-130	11/18/21 16:13	
Toluene-d8 (S)	%	102	70-130	11/18/21 16:13	

LABORATORY CONTROL SAMPLE: 3461383

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
1,1,1,2-Tetrachloroethane	ug/L	50	55.3	111	70-130	
1,1,1-Trichloroethane	ug/L	50	54.4	109	70-130	
1,1,2,2-Tetrachloroethane	ug/L	50	51.1	102	70-130	
1,1,2-Trichloroethane	ug/L	50	53.2	106	70-130	
1,1-Dichloroethane	ug/L	50	54.3	109	70-130	
1,1-Dichloroethene	ug/L	50	55.9	112	70-132	
1,1-Dichloropropene	ug/L	50	53.6	107	70-131	
1,2,3-Trichlorobenzene	ug/L	50	55.0	110	70-134	
1,2,3-Trichloropropane	ug/L	50	47.8	96	70-130	
1,2,4-Trichlorobenzene	ug/L	50	54.4	109	70-130	
1,2-Dibromo-3-chloropropane	ug/L	50	55.9	112	70-132	
1,2-Dibromoethane (EDB)	ug/L	50	54.9	110	70-130	

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QUALITY CONTROL DATA

Project: KOP FLEX OFFSITE 31401545.010
Pace Project No.: 92572915

LABORATORY CONTROL SAMPLE: 3461383

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
1,2-Dichlorobenzene	ug/L	50	53.8	108	70-130	
1,2-Dichloroethane	ug/L	50	50.2	100	70-130	
1,2-Dichloropropane	ug/L	50	53.0	106	70-130	
1,3-Dichlorobenzene	ug/L	50	53.9	108	70-130	
1,3-Dichloropropane	ug/L	50	51.7	103	70-130	
1,4-Dichlorobenzene	ug/L	50	53.5	107	70-130	
2,2-Dichloropropane	ug/L	50	56.3	113	70-130	
2-Butanone (MEK)	ug/L	100	91.3	91	70-133	
2-Chlorotoluene	ug/L	50	54.3	109	70-130	
2-Hexanone	ug/L	100	103	103	70-130	
4-Chlorotoluene	ug/L	50	53.3	107	70-130	
4-Methyl-2-pentanone (MIBK)	ug/L	100	98.0	98	70-130	
Acetone	ug/L	100	98.5	98	70-144	
Benzene	ug/L	50	52.9	106	70-130	
Bromobenzene	ug/L	50	54.1	108	70-130	
Bromochloromethane	ug/L	50	54.2	108	70-130	
Bromodichloromethane	ug/L	50	56.1	112	70-130	
Bromoform	ug/L	50	47.9	96	70-131	IK
Bromomethane	ug/L	50	50.5	101	30-177	
Carbon tetrachloride	ug/L	50	56.0	112	70-130	
Chlorobenzene	ug/L	50	53.9	108	70-130	
Chloroethane	ug/L	50	62.9	126	46-131	IK,v1
Chloroform	ug/L	50	52.9	106	70-130	
Chloromethane	ug/L	50	53.4	107	49-130	
cis-1,2-Dichloroethene	ug/L	50	53.2	106	70-130	
cis-1,3-Dichloropropene	ug/L	50	55.5	111	70-130	
Dibromochloromethane	ug/L	50	58.9	118	70-130	
Dibromomethane	ug/L	50	53.3	107	70-130	
Dichlorodifluoromethane	ug/L	50	50.8	102	52-134	
Diisopropyl ether	ug/L	50	50.0	100	70-131	
Ethylbenzene	ug/L	50	52.9	106	70-130	
Hexachloro-1,3-butadiene	ug/L	50	57.6	115	70-131	
m&p-Xylene	ug/L	100	108	108	70-130	
Methyl-tert-butyl ether	ug/L	50	49.9	100	70-130	
Methylene Chloride	ug/L	50	49.8	100	68-130	
Naphthalene	ug/L	50	54.4	109	70-133	
o-Xylene	ug/L	50	54.3	109	70-130	
p-Isopropyltoluene	ug/L	50	54.7	109	70-130	
Styrene	ug/L	50	56.2	112	70-130	
Tetrachloroethene	ug/L	50	54.3	109	70-130	
Toluene	ug/L	50	51.5	103	70-130	
trans-1,2-Dichloroethene	ug/L	50	55.8	112	70-130	
trans-1,3-Dichloropropene	ug/L	50	54.7	109	70-130	
Trichloroethene	ug/L	50	53.3	107	70-130	
Trichlorofluoromethane	ug/L	50	52.8	106	61-130	
Vinyl acetate	ug/L	100	109	109	70-140	
Vinyl chloride	ug/L	50	53.8	108	59-142	

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QUALITY CONTROL DATA

Project: KOP FLEX OFFSITE 31401545.010
Pace Project No.: 92572915

LABORATORY CONTROL SAMPLE: 3461383

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Xylene (Total)	ug/L	150	162	108	70-130	
1,2-Dichloroethane-d4 (S)	%			94	70-130	
4-Bromofluorobenzene (S)	%			101	70-130	
Toluene-d8 (S)	%			100	70-130	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3461384 3461385

Parameter	Units	92572915018 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
1,1,1,2-Tetrachloroethane	ug/L	ND	20	20	23.2	23.5	116	118	70-135	1	30	
1,1,1-Trichloroethane	ug/L	ND	20	20	23.6	25.0	118	125	70-148	6	30	
1,1,2,2-Tetrachloroethane	ug/L	ND	20	20	21.9	22.1	110	110	70-131	1	30	
1,1,2-Trichloroethane	ug/L	ND	20	20	22.1	24.4	110	122	70-136	10	30	
1,1-Dichloroethane	ug/L	2.5	20	20	26.7	28.1	121	128	70-147	5	30	
1,1-Dichloroethene	ug/L	53.3	20	20	75.6	99.5	111	231	70-158	27	30	M1
1,1-Dichloropropene	ug/L	ND	20	20	24.6	24.9	123	125	70-149	1	30	
1,2,3-Trichlorobenzene	ug/L	ND	20	20	22.2	22.4	111	112	68-140	1	30	
1,2,3-Trichloropropane	ug/L	ND	20	20	19.9	21.9	99	109	67-137	9	30	
1,2,4-Trichlorobenzene	ug/L	ND	20	20	21.0	22.4	105	112	70-139	7	30	
1,2-Dibromo-3-chloropropane	ug/L	ND	20	20	22.2	22.8	111	114	69-136	3	30	
1,2-Dibromoethane (EDB)	ug/L	ND	20	20	22.8	23.2	114	116	70-137	2	30	
1,2-Dichlorobenzene	ug/L	ND	20	20	20.3	21.5	102	107	70-133	6	30	
1,2-Dichloroethane	ug/L	ND	20	20	22.7	24.4	113	122	67-138	7	30	
1,2-Dichloropropane	ug/L	ND	20	20	22.9	24.4	115	122	70-138	7	30	
1,3-Dichlorobenzene	ug/L	ND	20	20	21.2	21.8	106	109	70-133	3	30	
1,3-Dichloropropane	ug/L	ND	20	20	22.4	22.7	112	113	70-136	1	30	
1,4-Dichlorobenzene	ug/L	ND	20	20	20.4	21.7	102	109	70-133	6	30	
2,2-Dichloropropane	ug/L	ND	20	20	24.7	25.1	123	125	52-155	2	30	
2-Butanone (MEK)	ug/L	ND	40	40	46.1	46.4	115	116	61-147	1	30	
2-Chlorotoluene	ug/L	ND	20	20	22.4	22.5	112	112	70-141	0	30	
2-Hexanone	ug/L	ND	40	40	45.2	45.3	113	113	67-139	0	30	
4-Chlorotoluene	ug/L	ND	20	20	21.0	21.3	105	106	70-135	1	30	
4-Methyl-2-pentanone (MIBK)	ug/L	ND	40	40	45.0	44.8	112	112	67-136	0	30	
Acetone	ug/L	ND	40	40	42.0	43.1	105	108	55-159	2	30	
Benzene	ug/L	ND	20	20	23.3	23.7	117	118	67-150	1	30	
Bromobenzene	ug/L	ND	20	20	21.7	22.5	108	112	70-134	4	30	
Bromochloromethane	ug/L	ND	20	20	22.8	23.6	114	118	70-146	4	30	
Bromodichloromethane	ug/L	ND	20	20	23.9	24.5	120	123	70-138	3	30	
Bromoform	ug/L	ND	20	20	20.2	20.1	101	100	57-138	0	30	IK
Bromomethane	ug/L	ND	20	20	25.5	27.2	127	136	10-200	6	30	
Carbon tetrachloride	ug/L	ND	20	20	24.4	25.2	122	126	70-147	3	30	
Chlorobenzene	ug/L	ND	20	20	22.7	23.1	113	116	70-137	2	30	
Chloroethane	ug/L	ND	20	20	30.9	30.1	155	150	51-166	3	30	IK
Chloroform	ug/L	ND	20	20	24.5	25.1	119	122	70-144	2	30	

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QUALITY CONTROL DATA

Project: KOP FLEX OFFSITE 31401545.010
Pace Project No.: 92572915

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3461384 3461385

Parameter	Units	92572915018 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Chloromethane	ug/L	ND	20	20	23.1	23.6	116	118	24-161	2	30	
cis-1,2-Dichloroethene	ug/L	ND	20	20	23.9	24.8	119	124	67-148	4	30	
cis-1,3-Dichloropropene	ug/L	ND	20	20	22.7	24.1	113	121	70-142	6	30	
Dibromochloromethane	ug/L	ND	20	20	22.7	23.9	113	120	68-138	6	30	
Dibromomethane	ug/L	ND	20	20	22.9	22.6	115	113	70-134	2	30	
Dichlorodifluoromethane	ug/L	ND	20	20	21.3	21.4	106	107	43-155	1	30	
Diisopropyl ether	ug/L	ND	20	20	22.9	23.3	114	116	65-146	2	30	
Ethylbenzene	ug/L	ND	20	20	22.3	22.7	112	113	68-143	2	30	
Hexachloro-1,3-butadiene	ug/L	ND	20	20	23.2	23.6	116	118	62-151	2	30	
m&p-Xylene	ug/L	ND	40	40	44.0	45.8	110	114	53-157	4	30	
Methyl-tert-butyl ether	ug/L	ND	20	20	22.9	22.7	114	114	59-156	1	30	
Methylene Chloride	ug/L	ND	20	20	22.3	22.4	111	112	64-148	1	30	
Naphthalene	ug/L	ND	20	20	21.1	21.4	106	107	57-150	1	30	
o-Xylene	ug/L	ND	20	20	22.4	23.1	112	116	68-143	3	30	
p-Isopropyltoluene	ug/L	ND	20	20	22.0	22.4	110	112	70-141	2	30	
Styrene	ug/L	ND	20	20	21.5	22.4	108	112	70-136	4	30	
Tetrachloroethene	ug/L	ND	20	20	22.7	23.4	113	117	70-139	3	30	
Toluene	ug/L	ND	20	20	21.7	22.7	108	114	47-157	5	30	
trans-1,2-Dichloroethene	ug/L	ND	20	20	24.3	25.4	121	127	70-149	5	30	
trans-1,3-Dichloropropene	ug/L	ND	20	20	22.1	22.9	110	115	70-138	4	30	
Trichloroethene	ug/L	ND	20	20	23.6	24.4	118	122	70-149	3	30	
Trichlorofluoromethane	ug/L	ND	20	20	22.0	21.3	110	106	61-154	3	30	
Vinyl acetate	ug/L	ND	40	40	46.5	47.3	116	118	48-156	2	30	
Vinyl chloride	ug/L	ND	20	20	23.4	23.4	117	117	55-172	0	30	
Xylene (Total)	ug/L	ND	60	60	66.4	68.9	111	115	66-145	4	30	
1,2-Dichloroethane-d4 (S)	%						101	101	70-130			
4-Bromofluorobenzene (S)	%						99	99	70-130			
Toluene-d8 (S)	%						100	103	70-130			

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REPORT OF LABORATORY ANALYSIS

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Huntersville, NC 28078
(704)875-9092

QUALITY CONTROL DATA

Project: KOP FLEX OFFSITE 31401545.010
Pace Project No.: 92572915

QC Batch: 660597
QC Batch Method: EPA 8260D
Analysis Method: EPA 8260D
Analysis Description: 8260D MSV Low Level
Laboratory: Pace Analytical Services - Charlotte
Associated Lab Samples: 92572915019, 92572915022

METHOD BLANK: 3461390 Matrix: Water
Associated Lab Samples: 92572915019, 92572915022

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
1,1,1,2-Tetrachloroethane	ug/L	ND	1.0	11/19/21 07:53	
1,1,1-Trichloroethane	ug/L	ND	1.0	11/19/21 07:53	
1,1,2,2-Tetrachloroethane	ug/L	ND	1.0	11/19/21 07:53	
1,1,2-Trichloroethane	ug/L	ND	1.0	11/19/21 07:53	
1,1-Dichloroethane	ug/L	ND	1.0	11/19/21 07:53	
1,1-Dichloroethene	ug/L	ND	1.0	11/19/21 07:53	
1,1-Dichloropropene	ug/L	ND	1.0	11/19/21 07:53	
1,2,3-Trichlorobenzene	ug/L	ND	1.0	11/19/21 07:53	
1,2,3-Trichloropropane	ug/L	ND	1.0	11/19/21 07:53	
1,2,4-Trichlorobenzene	ug/L	ND	1.0	11/19/21 07:53	
1,2-Dibromo-3-chloropropane	ug/L	ND	2.0	11/19/21 07:53	
1,2-Dibromoethane (EDB)	ug/L	ND	1.0	11/19/21 07:53	
1,2-Dichlorobenzene	ug/L	ND	1.0	11/19/21 07:53	
1,2-Dichloroethane	ug/L	ND	1.0	11/19/21 07:53	
1,2-Dichloropropane	ug/L	ND	1.0	11/19/21 07:53	
1,3-Dichlorobenzene	ug/L	ND	1.0	11/19/21 07:53	
1,3-Dichloropropane	ug/L	ND	1.0	11/19/21 07:53	
1,4-Dichlorobenzene	ug/L	ND	1.0	11/19/21 07:53	
2,2-Dichloropropane	ug/L	ND	1.0	11/19/21 07:53	
2-Butanone (MEK)	ug/L	ND	5.0	11/19/21 07:53	
2-Chlorotoluene	ug/L	ND	1.0	11/19/21 07:53	
2-Hexanone	ug/L	ND	5.0	11/19/21 07:53	
4-Chlorotoluene	ug/L	ND	1.0	11/19/21 07:53	
4-Methyl-2-pentanone (MIBK)	ug/L	ND	5.0	11/19/21 07:53	
Acetone	ug/L	ND	25.0	11/19/21 07:53	
Benzene	ug/L	ND	1.0	11/19/21 07:53	
Bromobenzene	ug/L	ND	1.0	11/19/21 07:53	
Bromochloromethane	ug/L	ND	1.0	11/19/21 07:53	
Bromodichloromethane	ug/L	ND	1.0	11/19/21 07:53	
Bromoform	ug/L	ND	1.0	11/19/21 07:53	
Bromomethane	ug/L	ND	2.0	11/19/21 07:53	v2
Carbon tetrachloride	ug/L	ND	1.0	11/19/21 07:53	
Chlorobenzene	ug/L	ND	1.0	11/19/21 07:53	
Chloroethane	ug/L	ND	1.0	11/19/21 07:53	IK,IL
Chloroform	ug/L	ND	1.0	11/19/21 07:53	
Chloromethane	ug/L	ND	1.0	11/19/21 07:53	
cis-1,2-Dichloroethene	ug/L	ND	1.0	11/19/21 07:53	
cis-1,3-Dichloropropene	ug/L	ND	1.0	11/19/21 07:53	
Dibromochloromethane	ug/L	ND	1.0	11/19/21 07:53	
Dibromomethane	ug/L	ND	1.0	11/19/21 07:53	

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QUALITY CONTROL DATA

Project: KOP FLEX OFFSITE 31401545.010
Pace Project No.: 92572915

METHOD BLANK: 3461390 Matrix: Water
Associated Lab Samples: 92572915019, 92572915022

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Dichlorodifluoromethane	ug/L	ND	1.0	11/19/21 07:53	
Diisopropyl ether	ug/L	ND	1.0	11/19/21 07:53	
Ethylbenzene	ug/L	ND	1.0	11/19/21 07:53	
Hexachloro-1,3-butadiene	ug/L	ND	2.0	11/19/21 07:53	
m&p-Xylene	ug/L	ND	2.0	11/19/21 07:53	
Methyl-tert-butyl ether	ug/L	ND	1.0	11/19/21 07:53	
Methylene Chloride	ug/L	ND	5.0	11/19/21 07:53	
Naphthalene	ug/L	ND	1.0	11/19/21 07:53	
o-Xylene	ug/L	ND	1.0	11/19/21 07:53	
p-Isopropyltoluene	ug/L	ND	1.0	11/19/21 07:53	
Styrene	ug/L	ND	1.0	11/19/21 07:53	
Tetrachloroethene	ug/L	ND	1.0	11/19/21 07:53	
Toluene	ug/L	ND	1.0	11/19/21 07:53	
trans-1,2-Dichloroethene	ug/L	ND	1.0	11/19/21 07:53	
trans-1,3-Dichloropropene	ug/L	ND	1.0	11/19/21 07:53	
Trichloroethene	ug/L	ND	1.0	11/19/21 07:53	
Trichlorofluoromethane	ug/L	ND	1.0	11/19/21 07:53	
Vinyl acetate	ug/L	ND	2.0	11/19/21 07:53	
Vinyl chloride	ug/L	ND	1.0	11/19/21 07:53	
Xylene (Total)	ug/L	ND	1.0	11/19/21 07:53	
1,2-Dichloroethane-d4 (S)	%	99	70-130	11/19/21 07:53	
4-Bromofluorobenzene (S)	%	100	70-130	11/19/21 07:53	
Toluene-d8 (S)	%	103	70-130	11/19/21 07:53	

LABORATORY CONTROL SAMPLE: 3461391

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
1,1,1,2-Tetrachloroethane	ug/L	50	49.1	98	70-130	
1,1,1-Trichloroethane	ug/L	50	46.6	93	70-130	
1,1,2,2-Tetrachloroethane	ug/L	50	48.8	98	70-130	
1,1,2-Trichloroethane	ug/L	50	47.7	95	70-130	
1,1-Dichloroethane	ug/L	50	46.8	94	70-130	
1,1-Dichloroethene	ug/L	50	47.4	95	70-132	
1,1-Dichloropropene	ug/L	50	46.1	92	70-131	
1,2,3-Trichlorobenzene	ug/L	50	52.8	106	70-134	
1,2,3-Trichloropropane	ug/L	50	48.2	96	70-130	
1,2,4-Trichlorobenzene	ug/L	50	51.2	102	70-130	
1,2-Dibromo-3-chloropropane	ug/L	50	51.7	103	70-132	
1,2-Dibromoethane (EDB)	ug/L	50	50.1	100	70-130	
1,2-Dichlorobenzene	ug/L	50	48.2	96	70-130	
1,2-Dichloroethane	ug/L	50	44.9	90	70-130	
1,2-Dichloropropane	ug/L	50	47.4	95	70-130	
1,3-Dichlorobenzene	ug/L	50	48.7	97	70-130	
1,3-Dichloropropane	ug/L	50	48.1	96	70-130	

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QUALITY CONTROL DATA

Project: KOP FLEX OFFSITE 31401545.010
Pace Project No.: 92572915

LABORATORY CONTROL SAMPLE: 3461391

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
1,4-Dichlorobenzene	ug/L	50	49.1	98	70-130	
2,2-Dichloropropane	ug/L	50	51.4	103	70-130	
2-Butanone (MEK)	ug/L	100	93.3	93	70-133	
2-Chlorotoluene	ug/L	50	47.9	96	70-130	
2-Hexanone	ug/L	100	98.9	99	70-130	
4-Chlorotoluene	ug/L	50	47.0	94	70-130	
4-Methyl-2-pentanone (MIBK)	ug/L	100	94.5	94	70-130	
Acetone	ug/L	100	93.4	93	70-144	
Benzene	ug/L	50	47.1	94	70-130	
Bromobenzene	ug/L	50	48.6	97	70-130	
Bromochloromethane	ug/L	50	48.8	98	70-130	
Bromodichloromethane	ug/L	50	47.5	95	70-130	
Bromoform	ug/L	50	49.9	100	70-131	
Bromomethane	ug/L	50	46.8	94	30-177	v3
Carbon tetrachloride	ug/L	50	47.8	96	70-130	
Chlorobenzene	ug/L	50	48.5	97	70-130	
Chloroethane	ug/L	50	30.3	61	46-131	IK,IL
Chloroform	ug/L	50	47.4	95	70-130	
Chloromethane	ug/L	50	40.8	82	49-130	
cis-1,2-Dichloroethene	ug/L	50	46.7	93	70-130	
cis-1,3-Dichloropropene	ug/L	50	49.1	98	70-130	
Dibromochloromethane	ug/L	50	50.2	100	70-130	
Dibromomethane	ug/L	50	48.5	97	70-130	
Dichlorodifluoromethane	ug/L	50	43.1	86	52-134	
Diisopropyl ether	ug/L	50	45.2	90	70-131	
Ethylbenzene	ug/L	50	48.6	97	70-130	
Hexachloro-1,3-butadiene	ug/L	50	52.2	104	70-131	
m&p-Xylene	ug/L	100	98.8	99	70-130	
Methyl-tert-butyl ether	ug/L	50	46.3	93	70-130	
Methylene Chloride	ug/L	50	43.6	87	68-130	
Naphthalene	ug/L	50	52.6	105	70-133	
o-Xylene	ug/L	50	49.2	98	70-130	
p-Isopropyltoluene	ug/L	50	49.5	99	70-130	
Styrene	ug/L	50	50.3	101	70-130	
Tetrachloroethene	ug/L	50	46.2	92	70-130	
Toluene	ug/L	50	46.5	93	70-130	
trans-1,2-Dichloroethene	ug/L	50	47.9	96	70-130	
trans-1,3-Dichloropropene	ug/L	50	48.9	98	70-130	
Trichloroethene	ug/L	50	47.2	94	70-130	
Trichlorofluoromethane	ug/L	50	40.3	81	61-130	
Vinyl acetate	ug/L	100	108	108	70-140	
Vinyl chloride	ug/L	50	45.4	91	59-142	
Xylene (Total)	ug/L	150	148	99	70-130	
1,2-Dichloroethane-d4 (S)	%			94	70-130	
4-Bromofluorobenzene (S)	%			101	70-130	
Toluene-d8 (S)	%			97	70-130	

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QUALITY CONTROL DATA

Project: KOP FLEX OFFSITE 31401545.010
Pace Project No.: 92572915

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3461392 3461393

Parameter	Units	92572910001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
1,1,1,2-Tetrachloroethane	ug/L	ND	20	20	21.9	20.9	109	104	70-135	5	30	
1,1,1-Trichloroethane	ug/L	ND	20	20	22.3	22.0	111	110	70-148	1	30	
1,1,2,2-Tetrachloroethane	ug/L	ND	20	20	22.7	21.3	113	107	70-131	6	30	
1,1,2-Trichloroethane	ug/L	ND	20	20	22.3	21.5	111	107	70-136	4	30	
1,1-Dichloroethane	ug/L	ND	20	20	22.7	22.4	114	112	70-147	2	30	
1,1-Dichloroethene	ug/L	8.1	20	20	29.0	31.4	104	116	70-158	8	30	
1,1-Dichloropropene	ug/L	ND	20	20	22.4	21.9	112	109	70-149	2	30	
1,2,3-Trichlorobenzene	ug/L	ND	20	20	23.1	22.7	116	113	68-140	2	30	
1,2,3-Trichloropropane	ug/L	ND	20	20	22.5	21.7	112	109	67-137	3	30	
1,2,4-Trichlorobenzene	ug/L	ND	20	20	22.9	22.2	115	111	70-139	3	30	
1,2-Dibromo-3-chloropropane	ug/L	ND	20	20	22.1	21.4	110	107	69-136	3	30	
1,2-Dibromoethane (EDB)	ug/L	ND	20	20	22.7	21.5	113	107	70-137	5	30	
1,2-Dichlorobenzene	ug/L	ND	20	20	22.5	21.5	113	108	70-133	5	30	
1,2-Dichloroethane	ug/L	ND	20	20	21.2	20.2	106	101	67-138	5	30	
1,2-Dichloropropane	ug/L	ND	20	20	22.4	21.9	112	110	70-138	2	30	
1,3-Dichlorobenzene	ug/L	ND	20	20	23.1	21.4	115	107	70-133	8	30	
1,3-Dichloropropane	ug/L	ND	20	20	22.6	21.7	113	108	70-136	4	30	
1,4-Dichlorobenzene	ug/L	ND	20	20	23.2	22.1	116	110	70-133	5	30	
2,2-Dichloropropane	ug/L	ND	20	20	27.8	27.6	139	138	52-155	1	30	
2-Butanone (MEK)	ug/L	ND	40	40	44.2	42.6	111	107	61-147	4	30	
2-Chlorotoluene	ug/L	ND	20	20	24.2	23.1	121	116	70-141	5	30	
2-Hexanone	ug/L	ND	40	40	50.8	48.4	127	121	67-139	5	30	
4-Chlorotoluene	ug/L	ND	20	20	23.1	22.2	116	111	70-135	4	30	
4-Methyl-2-pentanone (MIBK)	ug/L	ND	40	40	47.2	45.9	118	115	67-136	3	30	
Acetone	ug/L	ND	40	40	43.1	42.1	108	105	55-159	2	30	
Benzene	ug/L	ND	20	20	23.0	22.0	115	110	67-150	4	30	
Bromobenzene	ug/L	ND	20	20	22.3	21.8	112	109	70-134	2	30	
Bromochloromethane	ug/L	ND	20	20	22.2	21.5	111	108	70-146	3	30	
Bromodichloromethane	ug/L	ND	20	20	21.7	21.0	108	105	70-138	3	30	
Bromoform	ug/L	ND	20	20	19.9	19.1	100	96	57-138	4	30	
Bromomethane	ug/L	ND	20	20	22.8	23.4	114	117	10-200	2	30	v3
Carbon tetrachloride	ug/L	ND	20	20	23.1	22.7	116	113	70-147	2	30	
Chlorobenzene	ug/L	ND	20	20	22.8	21.9	114	110	70-137	4	30	
Chloroethane	ug/L	ND	20	20	20.9	20.7	104	103	51-166	1	30	IK,IL
Chloroform	ug/L	ND	20	20	22.5	22.0	112	110	70-144	2	30	
Chloromethane	ug/L	ND	20	20	18.6	18.3	93	91	24-161	2	30	
cis-1,2-Dichloroethene	ug/L	ND	20	20	22.1	21.9	110	109	67-148	1	30	
cis-1,3-Dichloropropene	ug/L	ND	20	20	22.9	21.9	114	109	70-142	4	30	
Dibromochloromethane	ug/L	ND	20	20	21.8	20.8	109	104	68-138	5	30	
Dibromomethane	ug/L	ND	20	20	22.0	21.5	110	107	70-134	2	30	
Dichlorodifluoromethane	ug/L	ND	20	20	20.2	20.1	101	100	43-155	1	30	
Diisopropyl ether	ug/L	ND	20	20	21.2	20.5	106	102	65-146	3	30	
Ethylbenzene	ug/L	ND	20	20	23.4	22.5	117	113	68-143	4	30	
Hexachloro-1,3-butadiene	ug/L	ND	20	20	22.9	22.5	114	112	62-151	2	30	

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QUALITY CONTROL DATA

Project: KOP FLEX OFFSITE 31401545.010
Pace Project No.: 92572915

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3461392 3461393

Parameter	Units	92572910001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
m&p-Xylene	ug/L	ND	40	40	47.5	45.7	119	114	53-157	4	30	
Methyl-tert-butyl ether	ug/L	ND	20	20	21.3	20.3	106	102	59-156	5	30	
Methylene Chloride	ug/L	ND	20	20	20.3	19.8	101	99	64-148	2	30	
Naphthalene	ug/L	ND	20	20	23.3	22.3	116	112	57-150	4	30	
o-Xylene	ug/L	ND	20	20	23.2	21.9	116	110	68-143	6	30	
p-Isopropyltoluene	ug/L	ND	20	20	24.0	23.0	120	115	70-141	5	30	
Styrene	ug/L	ND	20	20	23.1	21.9	115	110	70-136	5	30	
Tetrachloroethene	ug/L	ND	20	20	21.1	20.4	106	102	70-139	3	30	
Toluene	ug/L	ND	20	20	22.7	22.0	114	110	47-157	3	30	
trans-1,2-Dichloroethene	ug/L	ND	20	20	23.1	21.7	115	108	70-149	6	30	
trans-1,3-Dichloropropene	ug/L	ND	20	20	23.3	22.8	116	114	70-138	2	30	
Trichloroethene	ug/L	ND	20	20	22.7	22.3	113	112	70-149	2	30	
Trichlorofluoromethane	ug/L	ND	20	20	20.2	20.3	101	101	61-154	0	30	
Vinyl acetate	ug/L	ND	40	40	47.5	45.3	119	113	48-156	5	30	
Vinyl chloride	ug/L	ND	20	20	22.5	22.2	112	111	55-172	1	30	
Xylene (Total)	ug/L	ND	60	60	70.6	67.7	118	113	66-145	4	30	
1,2-Dichloroethane-d4 (S)	%						96	93	70-130			
4-Bromofluorobenzene (S)	%						102	101	70-130			
Toluene-d8 (S)	%						100	100	70-130			

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QUALITY CONTROL DATA

Project: KOP FLEX OFFSITE 31401545.010
Pace Project No.: 92572915

QC Batch: 661304
QC Batch Method: EPA 8260D
Analysis Method: EPA 8260D
Analysis Description: 8260D MSV Low Level
Laboratory: Pace Analytical Services - Charlotte
Associated Lab Samples: 92572915016, 92572915020

METHOD BLANK: 3465080 Matrix: Water
Associated Lab Samples: 92572915016, 92572915020

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
1,1,1,2-Tetrachloroethane	ug/L	ND	1.0	11/19/21 17:19	
1,1,1-Trichloroethane	ug/L	ND	1.0	11/19/21 17:19	
1,1,2,2-Tetrachloroethane	ug/L	ND	1.0	11/19/21 17:19	
1,1,2-Trichloroethane	ug/L	ND	1.0	11/19/21 17:19	
1,1-Dichloroethane	ug/L	ND	1.0	11/19/21 17:19	
1,1-Dichloroethene	ug/L	ND	1.0	11/19/21 17:19	
1,1-Dichloropropene	ug/L	ND	1.0	11/19/21 17:19	
1,2,3-Trichlorobenzene	ug/L	ND	1.0	11/19/21 17:19	
1,2,3-Trichloropropane	ug/L	ND	1.0	11/19/21 17:19	
1,2,4-Trichlorobenzene	ug/L	ND	1.0	11/19/21 17:19	
1,2-Dibromo-3-chloropropane	ug/L	ND	2.0	11/19/21 17:19	
1,2-Dibromoethane (EDB)	ug/L	ND	1.0	11/19/21 17:19	
1,2-Dichlorobenzene	ug/L	ND	1.0	11/19/21 17:19	
1,2-Dichloroethane	ug/L	ND	1.0	11/19/21 17:19	
1,2-Dichloropropane	ug/L	ND	1.0	11/19/21 17:19	
1,3-Dichlorobenzene	ug/L	ND	1.0	11/19/21 17:19	
1,3-Dichloropropane	ug/L	ND	1.0	11/19/21 17:19	
1,4-Dichlorobenzene	ug/L	ND	1.0	11/19/21 17:19	
2,2-Dichloropropane	ug/L	ND	1.0	11/19/21 17:19	
2-Butanone (MEK)	ug/L	ND	5.0	11/19/21 17:19	
2-Chlorotoluene	ug/L	ND	1.0	11/19/21 17:19	
2-Hexanone	ug/L	ND	5.0	11/19/21 17:19	
4-Chlorotoluene	ug/L	ND	1.0	11/19/21 17:19	
4-Methyl-2-pentanone (MIBK)	ug/L	ND	5.0	11/19/21 17:19	
Acetone	ug/L	ND	25.0	11/19/21 17:19	
Benzene	ug/L	ND	1.0	11/19/21 17:19	
Bromobenzene	ug/L	ND	1.0	11/19/21 17:19	
Bromochloromethane	ug/L	ND	1.0	11/19/21 17:19	
Bromodichloromethane	ug/L	ND	1.0	11/19/21 17:19	
Bromoform	ug/L	ND	1.0	11/19/21 17:19	
Bromomethane	ug/L	ND	2.0	11/19/21 17:19	v2
Carbon tetrachloride	ug/L	ND	1.0	11/19/21 17:19	
Chlorobenzene	ug/L	ND	1.0	11/19/21 17:19	
Chloroethane	ug/L	ND	1.0	11/19/21 17:19	
Chloroform	ug/L	ND	1.0	11/19/21 17:19	
Chloromethane	ug/L	ND	1.0	11/19/21 17:19	
cis-1,2-Dichloroethene	ug/L	ND	1.0	11/19/21 17:19	
cis-1,3-Dichloropropene	ug/L	ND	1.0	11/19/21 17:19	
Dibromochloromethane	ug/L	ND	1.0	11/19/21 17:19	
Dibromomethane	ug/L	ND	1.0	11/19/21 17:19	

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(704)875-9092

QUALITY CONTROL DATA

Project: KOP FLEX OFFSITE 31401545.010
Pace Project No.: 92572915

METHOD BLANK: 3465080 Matrix: Water
Associated Lab Samples: 92572915016, 92572915020

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Dichlorodifluoromethane	ug/L	ND	1.0	11/19/21 17:19	v1
Diisopropyl ether	ug/L	ND	1.0	11/19/21 17:19	
Ethylbenzene	ug/L	ND	1.0	11/19/21 17:19	
Hexachloro-1,3-butadiene	ug/L	ND	2.0	11/19/21 17:19	
m&p-Xylene	ug/L	ND	2.0	11/19/21 17:19	
Methyl-tert-butyl ether	ug/L	ND	1.0	11/19/21 17:19	
Methylene Chloride	ug/L	ND	5.0	11/19/21 17:19	
Naphthalene	ug/L	ND	1.0	11/19/21 17:19	
o-Xylene	ug/L	ND	1.0	11/19/21 17:19	
p-Isopropyltoluene	ug/L	ND	1.0	11/19/21 17:19	
Styrene	ug/L	ND	1.0	11/19/21 17:19	
Tetrachloroethene	ug/L	ND	1.0	11/19/21 17:19	
Toluene	ug/L	ND	1.0	11/19/21 17:19	
trans-1,2-Dichloroethene	ug/L	ND	1.0	11/19/21 17:19	
trans-1,3-Dichloropropene	ug/L	ND	1.0	11/19/21 17:19	
Trichloroethene	ug/L	ND	1.0	11/19/21 17:19	
Trichlorofluoromethane	ug/L	ND	1.0	11/19/21 17:19	
Vinyl acetate	ug/L	ND	2.0	11/19/21 17:19	
Vinyl chloride	ug/L	ND	1.0	11/19/21 17:19	
Xylene (Total)	ug/L	ND	1.0	11/19/21 17:19	
1,2-Dichloroethane-d4 (S)	%	88	70-130	11/19/21 17:19	
4-Bromofluorobenzene (S)	%	97	70-130	11/19/21 17:19	
Toluene-d8 (S)	%	100	70-130	11/19/21 17:19	

LABORATORY CONTROL SAMPLE: 3465081

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
1,1,1,2-Tetrachloroethane	ug/L	50	50.1	100	70-130	
1,1,1-Trichloroethane	ug/L	50	48.3	97	70-130	
1,1,2,2-Tetrachloroethane	ug/L	50	52.4	105	70-130	
1,1,2-Trichloroethane	ug/L	50	51.6	103	70-130	
1,1-Dichloroethane	ug/L	50	50.3	101	70-130	
1,1-Dichloroethene	ug/L	50	46.0	92	70-132	
1,1-Dichloropropene	ug/L	50	50.2	100	70-131	
1,2,3-Trichlorobenzene	ug/L	50	55.1	110	70-134	
1,2,3-Trichloropropane	ug/L	50	47.8	96	70-130	
1,2,4-Trichlorobenzene	ug/L	50	54.4	109	70-130	
1,2-Dibromo-3-chloropropane	ug/L	50	57.5	115	70-132	
1,2-Dibromoethane (EDB)	ug/L	50	51.7	103	70-130	
1,2-Dichlorobenzene	ug/L	50	53.7	107	70-130	
1,2-Dichloroethane	ug/L	50	43.4	87	70-130	
1,2-Dichloropropane	ug/L	50	50.9	102	70-130	
1,3-Dichlorobenzene	ug/L	50	52.5	105	70-130	
1,3-Dichloropropane	ug/L	50	50.5	101	70-130	

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(704)875-9092

QUALITY CONTROL DATA

Project: KOP FLEX OFFSITE 31401545.010
Pace Project No.: 92572915

LABORATORY CONTROL SAMPLE: 3465081

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
1,4-Dichlorobenzene	ug/L	50	53.0	106	70-130	
2,2-Dichloropropane	ug/L	50	47.2	94	70-130	
2-Butanone (MEK)	ug/L	100	105	105	70-133	
2-Chlorotoluene	ug/L	50	52.8	106	70-130	
2-Hexanone	ug/L	100	94.9	95	70-130	
4-Chlorotoluene	ug/L	50	50.2	100	70-130	
4-Methyl-2-pentanone (MIBK)	ug/L	100	93.1	93	70-130	
Acetone	ug/L	100	118	118	70-144	
Benzene	ug/L	50	50.4	101	70-130	
Bromobenzene	ug/L	50	53.7	107	70-130	
Bromochloromethane	ug/L	50	51.8	104	70-130	
Bromodichloromethane	ug/L	50	47.5	95	70-130	
Bromoform	ug/L	50	49.7	99	70-131	
Bromomethane	ug/L	50	34.6	69	30-177	v3
Carbon tetrachloride	ug/L	50	46.5	93	70-130	
Chlorobenzene	ug/L	50	51.1	102	70-130	
Chloroethane	ug/L	50	30.3	61	46-131	
Chloroform	ug/L	50	49.6	99	70-130	
Chloromethane	ug/L	50	54.8	110	49-130	
cis-1,2-Dichloroethene	ug/L	50	49.1	98	70-130	
cis-1,3-Dichloropropene	ug/L	50	50.1	100	70-130	
Dibromochloromethane	ug/L	50	50.5	101	70-130	
Dibromomethane	ug/L	50	51.3	103	70-130	
Dichlorodifluoromethane	ug/L	50	56.2	112	52-134	v1
Diisopropyl ether	ug/L	50	46.6	93	70-131	
Ethylbenzene	ug/L	50	50.0	100	70-130	
Hexachloro-1,3-butadiene	ug/L	50	54.2	108	70-131	
m&p-Xylene	ug/L	100	102	102	70-130	
Methyl-tert-butyl ether	ug/L	50	49.3	99	70-130	
Methylene Chloride	ug/L	50	46.3	93	68-130	
Naphthalene	ug/L	50	57.1	114	70-133	
o-Xylene	ug/L	50	51.5	103	70-130	
p-Isopropyltoluene	ug/L	50	52.1	104	70-130	
Styrene	ug/L	50	53.0	106	70-130	
Tetrachloroethene	ug/L	50	51.3	103	70-130	
Toluene	ug/L	50	50.2	100	70-130	
trans-1,2-Dichloroethene	ug/L	50	50.0	100	70-130	
trans-1,3-Dichloropropene	ug/L	50	48.3	97	70-130	
Trichloroethene	ug/L	50	50.4	101	70-130	
Trichlorofluoromethane	ug/L	50	37.9	76	61-130	
Vinyl acetate	ug/L	100	95.0	95	70-140	
Vinyl chloride	ug/L	50	57.7	115	59-142	
Xylene (Total)	ug/L	150	153	102	70-130	
1,2-Dichloroethane-d4 (S)	%			85	70-130	
4-Bromofluorobenzene (S)	%			99	70-130	
Toluene-d8 (S)	%			100	70-130	

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QUALITY CONTROL DATA

Project: KOP FLEX OFFSITE 31401545.010
Pace Project No.: 92572915

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3465082 3465083

Parameter	Units	92573018002 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
1,1,1,2-Tetrachloroethane	ug/L	ND	400	400	457	450	114	112	70-135	2	30	
1,1,1-Trichloroethane	ug/L	ND	400	400	449	432	112	108	70-148	4	30	
1,1,2,2-Tetrachloroethane	ug/L	ND	400	400	463	467	116	117	70-131	1	30	
1,1,2-Trichloroethane	ug/L	ND	400	400	462	457	115	114	70-136	1	30	
1,1-Dichloroethane	ug/L	ND	400	400	460	445	115	111	70-147	3	30	
1,1-Dichloroethene	ug/L	ND	400	400	417	394	104	99	70-158	6	30	
1,1-Dichloropropene	ug/L	ND	400	400	464	449	116	112	70-149	3	30	
1,2,3-Trichlorobenzene	ug/L	ND	400	400	486	490	121	123	68-140	1	30	
1,2,3-Trichloropropane	ug/L	ND	400	400	429	423	107	106	67-137	1	30	
1,2,4-Trichlorobenzene	ug/L	ND	400	400	480	483	120	121	70-139	1	30	
1,2-Dibromo-3-chloropropane	ug/L	ND	400	400	472	480	118	120	69-136	2	30	
1,2-Dibromoethane (EDB)	ug/L	ND	400	400	476	458	119	115	70-137	4	30	
1,2-Dichlorobenzene	ug/L	ND	400	400	482	475	120	119	70-133	1	30	
1,2-Dichloroethane	ug/L	ND	400	400	388	375	97	94	67-138	3	30	
1,2-Dichloropropane	ug/L	ND	400	400	449	435	112	109	70-138	3	30	
1,3-Dichlorobenzene	ug/L	ND	400	400	488	473	122	118	70-133	3	30	
1,3-Dichloropropane	ug/L	ND	400	400	457	448	114	112	70-136	2	30	
1,4-Dichlorobenzene	ug/L	ND	400	400	481	475	120	119	70-133	1	30	
2,2-Dichloropropane	ug/L	ND	400	400	416	392	104	98	52-155	6	30	
2-Butanone (MEK)	ug/L	ND	800	800	845	798	106	100	61-147	6	30	
2-Chlorotoluene	ug/L	ND	400	400	484	472	121	118	70-141	3	30	
2-Hexanone	ug/L	ND	800	800	778	765	97	96	67-139	2	30	
4-Chlorotoluene	ug/L	ND	400	400	463	455	116	114	70-135	2	30	
4-Methyl-2-pentanone (MIBK)	ug/L	ND	800	800	775	759	97	95	67-136	2	30	
Acetone	ug/L	ND	800	800	810	789	101	99	55-159	3	30	
Benzene	ug/L	ND	400	400	472	456	118	114	67-150	3	30	
Bromobenzene	ug/L	ND	400	400	495	484	124	121	70-134	2	30	
Bromochloromethane	ug/L	ND	400	400	489	474	122	118	70-146	3	30	
Bromodichloromethane	ug/L	ND	400	400	409	402	102	100	70-138	2	30	
Bromoform	ug/L	ND	400	400	422	421	105	105	57-138	0	30	
Bromomethane	ug/L	ND	400	400	273	293	68	73	10-200	7	30	v3
Carbon tetrachloride	ug/L	ND	400	400	433	427	108	107	70-147	1	30	
Chlorobenzene	ug/L	ND	400	400	487	469	122	117	70-137	4	30	
Chloroethane	ug/L	ND	400	400	341	341	85	85	51-166	0	30	
Chloroform	ug/L	ND	400	400	496	471	119	113	70-144	5	30	
Chloromethane	ug/L	ND	400	400	478	447	120	112	24-161	7	30	
cis-1,2-Dichloroethene	ug/L	77.0	400	400	532	513	114	109	67-148	4	30	
cis-1,3-Dichloropropene	ug/L	ND	400	400	434	419	108	105	70-142	3	30	
Dibromochloromethane	ug/L	ND	400	400	443	436	111	109	68-138	2	30	
Dibromomethane	ug/L	ND	400	400	461	456	115	114	70-134	1	30	
Dichlorodifluoromethane	ug/L	ND	400	400	544	513	136	128	43-155	6	30	v1
Diisopropyl ether	ug/L	ND	400	400	414	382	104	96	65-146	8	30	
Ethylbenzene	ug/L	ND	400	400	471	461	118	115	68-143	2	30	
Hexachloro-1,3-butadiene	ug/L	ND	400	400	507	506	127	127	62-151	0	30	

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QUALITY CONTROL DATA

Project: KOP FLEX OFFSITE 31401545.010
Pace Project No.: 92572915

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3465082 3465083

Parameter	Units	92573018002 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
m&p-Xylene	ug/L	ND	800	800	954	929	119	116	53-157	3	30	
Methyl-tert-butyl ether	ug/L	ND	400	400	438	425	109	106	59-156	3	30	
Methylene Chloride	ug/L	ND	400	400	434	412	109	103	64-148	5	30	
Naphthalene	ug/L	ND	400	400	479	486	120	122	57-150	1	30	
o-Xylene	ug/L	ND	400	400	476	470	119	117	68-143	1	30	
p-Isopropyltoluene	ug/L	ND	400	400	480	470	120	118	70-141	2	30	
Styrene	ug/L	ND	400	400	495	479	124	120	70-136	3	30	
Tetrachloroethene	ug/L	2470	400	400	3020	3000	136	130	70-139	1	30	
Toluene	ug/L	ND	400	400	468	457	117	114	47-157	2	30	
trans-1,2-Dichloroethene	ug/L	ND	400	400	474	455	119	114	70-149	4	30	
trans-1,3-Dichloropropene	ug/L	ND	400	400	420	408	105	102	70-138	3	30	
Trichloroethene	ug/L	51.7	400	400	530	519	120	117	70-149	2	30	
Trichlorofluoromethane	ug/L	ND	400	400	393	380	98	95	61-154	3	30	
Vinyl acetate	ug/L	ND	800	800	844	799	105	100	48-156	5	30	
Vinyl chloride	ug/L	ND	400	400	536	494	134	123	55-172	8	30	
Xylene (Total)	ug/L	ND	1200	1200	1430	1400	119	117	66-145	2	30	
1,2-Dichloroethane-d4 (S)	%						81	82	70-130			
4-Bromofluorobenzene (S)	%						96	98	70-130			
Toluene-d8 (S)	%						99	99	70-130			

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QUALITY CONTROL DATA

Project: KOP FLEX OFFSITE 31401545.010
Pace Project No.: 92572915

QC Batch: 661552
QC Batch Method: EPA 8260D
Analysis Method: EPA 8260D
Analysis Description: 8260D MSV Low Level
Laboratory: Pace Analytical Services - Charlotte

Associated Lab Samples: 92572915017

METHOD BLANK: 3466240 Matrix: Water
Associated Lab Samples: 92572915017

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
1,1,1,2-Tetrachloroethane	ug/L	ND	1.0	11/23/21 00:26	
1,1,1-Trichloroethane	ug/L	ND	1.0	11/23/21 00:26	
1,1,2,2-Tetrachloroethane	ug/L	ND	1.0	11/23/21 00:26	
1,1,2-Trichloroethane	ug/L	ND	1.0	11/23/21 00:26	
1,1-Dichloroethane	ug/L	ND	1.0	11/23/21 00:26	
1,1-Dichloroethene	ug/L	ND	1.0	11/23/21 00:26	
1,1-Dichloropropene	ug/L	ND	1.0	11/23/21 00:26	
1,2,3-Trichlorobenzene	ug/L	ND	1.0	11/23/21 00:26	
1,2,3-Trichloropropane	ug/L	ND	1.0	11/23/21 00:26	
1,2,4-Trichlorobenzene	ug/L	ND	1.0	11/23/21 00:26	
1,2-Dibromo-3-chloropropane	ug/L	ND	2.0	11/23/21 00:26	
1,2-Dibromoethane (EDB)	ug/L	ND	1.0	11/23/21 00:26	
1,2-Dichlorobenzene	ug/L	ND	1.0	11/23/21 00:26	
1,2-Dichloroethane	ug/L	ND	1.0	11/23/21 00:26	
1,2-Dichloropropane	ug/L	ND	1.0	11/23/21 00:26	
1,3-Dichlorobenzene	ug/L	ND	1.0	11/23/21 00:26	
1,3-Dichloropropane	ug/L	ND	1.0	11/23/21 00:26	
1,4-Dichlorobenzene	ug/L	ND	1.0	11/23/21 00:26	
2,2-Dichloropropane	ug/L	ND	1.0	11/23/21 00:26	
2-Butanone (MEK)	ug/L	ND	5.0	11/23/21 00:26	
2-Chlorotoluene	ug/L	ND	1.0	11/23/21 00:26	
2-Hexanone	ug/L	ND	5.0	11/23/21 00:26	
4-Chlorotoluene	ug/L	ND	1.0	11/23/21 00:26	
4-Methyl-2-pentanone (MIBK)	ug/L	ND	5.0	11/23/21 00:26	
Acetone	ug/L	ND	25.0	11/23/21 00:26	
Benzene	ug/L	ND	1.0	11/23/21 00:26	
Bromobenzene	ug/L	ND	1.0	11/23/21 00:26	
Bromochloromethane	ug/L	ND	1.0	11/23/21 00:26	
Bromodichloromethane	ug/L	ND	1.0	11/23/21 00:26	
Bromoform	ug/L	ND	1.0	11/23/21 00:26	
Bromomethane	ug/L	ND	2.0	11/23/21 00:26	
Carbon tetrachloride	ug/L	ND	1.0	11/23/21 00:26	
Chlorobenzene	ug/L	ND	1.0	11/23/21 00:26	
Chloroethane	ug/L	ND	1.0	11/23/21 00:26	v1
Chloroform	ug/L	ND	1.0	11/23/21 00:26	
Chloromethane	ug/L	ND	1.0	11/23/21 00:26	
cis-1,2-Dichloroethene	ug/L	ND	1.0	11/23/21 00:26	
cis-1,3-Dichloropropene	ug/L	ND	1.0	11/23/21 00:26	
Dibromochloromethane	ug/L	ND	1.0	11/23/21 00:26	
Dibromomethane	ug/L	ND	1.0	11/23/21 00:26	

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QUALITY CONTROL DATA

Project: KOP FLEX OFFSITE 31401545.010
Pace Project No.: 92572915

METHOD BLANK: 3466240 Matrix: Water
Associated Lab Samples: 92572915017

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Dichlorodifluoromethane	ug/L	ND	1.0	11/23/21 00:26	
Diisopropyl ether	ug/L	ND	1.0	11/23/21 00:26	
Ethylbenzene	ug/L	ND	1.0	11/23/21 00:26	
Hexachloro-1,3-butadiene	ug/L	ND	2.0	11/23/21 00:26	
m&p-Xylene	ug/L	ND	2.0	11/23/21 00:26	
Methyl-tert-butyl ether	ug/L	ND	1.0	11/23/21 00:26	
Methylene Chloride	ug/L	ND	5.0	11/23/21 00:26	
Naphthalene	ug/L	ND	1.0	11/23/21 00:26	
o-Xylene	ug/L	ND	1.0	11/23/21 00:26	
p-Isopropyltoluene	ug/L	ND	1.0	11/23/21 00:26	
Styrene	ug/L	ND	1.0	11/23/21 00:26	
Tetrachloroethene	ug/L	ND	1.0	11/23/21 00:26	
Toluene	ug/L	ND	1.0	11/23/21 00:26	
trans-1,2-Dichloroethene	ug/L	ND	1.0	11/23/21 00:26	
trans-1,3-Dichloropropene	ug/L	ND	1.0	11/23/21 00:26	
Trichloroethene	ug/L	ND	1.0	11/23/21 00:26	
Trichlorofluoromethane	ug/L	ND	1.0	11/23/21 00:26	
Vinyl acetate	ug/L	ND	2.0	11/23/21 00:26	
Vinyl chloride	ug/L	ND	1.0	11/23/21 00:26	
Xylene (Total)	ug/L	ND	1.0	11/23/21 00:26	
1,2-Dichloroethane-d4 (S)	%	91	70-130	11/23/21 00:26	
4-Bromofluorobenzene (S)	%	96	70-130	11/23/21 00:26	
Toluene-d8 (S)	%	107	70-130	11/23/21 00:26	

LABORATORY CONTROL SAMPLE: 3466241

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
1,1,1,2-Tetrachloroethane	ug/L	50	50.8	102	70-130	
1,1,1-Trichloroethane	ug/L	50	50.4	101	70-130	
1,1,2,2-Tetrachloroethane	ug/L	50	50.2	100	70-130	
1,1,2-Trichloroethane	ug/L	50	51.3	103	70-130	
1,1-Dichloroethane	ug/L	50	50.7	101	70-130	
1,1-Dichloroethene	ug/L	50	49.1	98	70-132	
1,1-Dichloropropene	ug/L	50	54.0	108	70-131	
1,2,3-Trichlorobenzene	ug/L	50	45.3	91	70-134	
1,2,3-Trichloropropane	ug/L	50	48.5	97	70-130	
1,2,4-Trichlorobenzene	ug/L	50	45.2	90	70-130	
1,2-Dibromo-3-chloropropane	ug/L	50	45.2	90	70-132	
1,2-Dibromoethane (EDB)	ug/L	50	52.7	105	70-130	
1,2-Dichlorobenzene	ug/L	50	49.1	98	70-130	
1,2-Dichloroethane	ug/L	50	48.8	98	70-130	
1,2-Dichloropropane	ug/L	50	49.6	99	70-130	
1,3-Dichlorobenzene	ug/L	50	48.8	98	70-130	
1,3-Dichloropropane	ug/L	50	50.8	102	70-130	

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(704)875-9092

QUALITY CONTROL DATA

Project: KOP FLEX OFFSITE 31401545.010
Pace Project No.: 92572915

LABORATORY CONTROL SAMPLE: 3466241

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
1,4-Dichlorobenzene	ug/L	50	48.2	96	70-130	
2,2-Dichloropropane	ug/L	50	49.0	98	70-130	
2-Butanone (MEK)	ug/L	100	96.3	96	70-133	
2-Chlorotoluene	ug/L	50	51.2	102	70-130	
2-Hexanone	ug/L	100	94.7	95	70-130	
4-Chlorotoluene	ug/L	50	50.7	101	70-130	
4-Methyl-2-pentanone (MIBK)	ug/L	100	90.6	91	70-130	
Acetone	ug/L	100	87.7	88	70-144	
Benzene	ug/L	50	48.0	96	70-130	
Bromobenzene	ug/L	50	49.6	99	70-130	
Bromochloromethane	ug/L	50	49.4	99	70-130	
Bromodichloromethane	ug/L	50	49.1	98	70-130	
Bromoform	ug/L	50	52.3	105	70-131	
Bromomethane	ug/L	50	51.4	103	30-177	
Carbon tetrachloride	ug/L	50	47.4	95	70-130	
Chlorobenzene	ug/L	50	48.5	97	70-130	
Chloroethane	ug/L	50	61.8	124	46-131	v1
Chloroform	ug/L	50	50.9	102	70-130	
Chloromethane	ug/L	50	53.8	108	49-130	
cis-1,2-Dichloroethene	ug/L	50	48.9	98	70-130	
cis-1,3-Dichloropropene	ug/L	50	50.0	100	70-130	
Dibromochloromethane	ug/L	50	54.5	109	70-130	
Dibromomethane	ug/L	50	43.9	88	70-130	
Dichlorodifluoromethane	ug/L	50	52.0	104	52-134	
Diisopropyl ether	ug/L	50	50.4	101	70-131	
Ethylbenzene	ug/L	50	50.2	100	70-130	
Hexachloro-1,3-butadiene	ug/L	50	43.7	87	70-131	
m&p-Xylene	ug/L	100	101	101	70-130	
Methyl-tert-butyl ether	ug/L	50	49.4	99	70-130	
Methylene Chloride	ug/L	50	50.3	101	68-130	
Naphthalene	ug/L	50	45.8	92	70-133	
o-Xylene	ug/L	50	49.3	99	70-130	
p-Isopropyltoluene	ug/L	50	48.6	97	70-130	
Styrene	ug/L	50	50.4	101	70-130	
Tetrachloroethene	ug/L	50	49.2	98	70-130	
Toluene	ug/L	50	46.0	92	70-130	
trans-1,2-Dichloroethene	ug/L	50	49.7	99	70-130	
trans-1,3-Dichloropropene	ug/L	50	48.5	97	70-130	
Trichloroethene	ug/L	50	50.1	100	70-130	
Trichlorofluoromethane	ug/L	50	51.6	103	61-130	
Vinyl acetate	ug/L	100	102	102	70-140	
Vinyl chloride	ug/L	50	52.1	104	59-142	
Xylene (Total)	ug/L	150	150	100	70-130	
1,2-Dichloroethane-d4 (S)	%			98	70-130	
4-Bromofluorobenzene (S)	%			101	70-130	
Toluene-d8 (S)	%			94	70-130	

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(704)875-9092

QUALITY CONTROL DATA

Project: KOP FLEX OFFSITE 31401545.010
Pace Project No.: 92572915

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3466242 3466243

Parameter	Units	92573348004 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
1,1,1,2-Tetrachloroethane	ug/L	ND	250	250	279	266	112	106	70-135	5	30	
1,1,1-Trichloroethane	ug/L	ND	250	250	282	295	113	118	70-148	4	30	
1,1,2,2-Tetrachloroethane	ug/L	ND	250	250	258	234	103	94	70-131	10	30	
1,1,2-Trichloroethane	ug/L	ND	250	250	286	284	114	114	70-136	1	30	
1,1-Dichloroethane	ug/L	ND	250	250	287	288	115	115	70-147	0	30	
1,1-Dichloroethene	ug/L	ND	250	250	287	289	115	116	70-158	1	30	
1,1-Dichloropropene	ug/L	ND	250	250	297	292	119	117	70-149	2	30	
1,2,3-Trichlorobenzene	ug/L	ND	250	250	250	246	100	98	68-140	2	30	
1,2,3-Trichloropropane	ug/L	ND	250	250	241	238	96	95	67-137	1	30	
1,2,4-Trichlorobenzene	ug/L	ND	250	250	246	238	99	95	70-139	3	30	
1,2-Dibromo-3-chloropropane	ug/L	ND	250	250	225	214	90	86	69-136	5	30	
1,2-Dibromoethane (EDB)	ug/L	ND	250	250	281	264	112	106	70-137	6	30	
1,2-Dichlorobenzene	ug/L	ND	250	250	272	270	109	108	70-133	1	30	
1,2-Dichloroethane	ug/L	ND	250	250	269	271	108	108	67-138	1	30	
1,2-Dichloropropane	ug/L	ND	250	250	278	283	111	113	70-138	2	30	
1,3-Dichlorobenzene	ug/L	ND	250	250	270	279	108	112	70-133	3	30	
1,3-Dichloropropane	ug/L	ND	250	250	259	260	103	104	70-136	1	30	
1,4-Dichlorobenzene	ug/L	ND	250	250	265	271	106	108	70-133	2	30	
2,2-Dichloropropane	ug/L	ND	250	250	225	223	90	89	52-155	1	30	
2-Butanone (MEK)	ug/L	ND	500	500	534	440	107	88	61-147	19	30	
2-Chlorotoluene	ug/L	ND	250	250	281	293	112	117	70-141	4	30	
2-Hexanone	ug/L	ND	500	500	450	404	90	81	67-139	11	30	
4-Chlorotoluene	ug/L	ND	250	250	277	277	111	111	70-135	0	30	
4-Methyl-2-pentanone (MIBK)	ug/L	ND	500	500	480	424	96	85	67-136	12	30	
Acetone	ug/L	ND	500	500	533	449	107	90	55-159	17	30	
Benzene	ug/L	ND	250	250	281	265	112	106	67-150	6	30	
Bromobenzene	ug/L	ND	250	250	274	272	109	109	70-134	0	30	
Bromochloromethane	ug/L	ND	250	250	302	296	121	118	70-146	2	30	
Bromodichloromethane	ug/L	ND	250	250	269	270	107	108	70-138	0	30	
Bromoform	ug/L	ND	250	250	249	248	100	99	57-138	1	30	
Bromomethane	ug/L	ND	250	250	271	328	108	131	10-200	19	30	
Carbon tetrachloride	ug/L	ND	250	250	281	284	113	114	70-147	1	30	
Chlorobenzene	ug/L	ND	250	250	273	275	109	110	70-137	1	30	
Chloroethane	ug/L	ND	250	250	373	362	149	145	51-166	3	30	v1
Chloroform	ug/L	ND	250	250	301	280	119	110	70-144	7	30	
Chloromethane	ug/L	ND	250	250	286	291	114	117	24-161	2	30	
cis-1,2-Dichloroethene	ug/L	41.0	250	250	331	325	116	114	67-148	2	30	
cis-1,3-Dichloropropene	ug/L	ND	250	250	255	245	102	98	70-142	4	30	
Dibromochloromethane	ug/L	ND	250	250	276	272	110	109	68-138	2	30	
Dibromomethane	ug/L	ND	250	250	261	263	104	105	70-134	1	30	
Dichlorodifluoromethane	ug/L	ND	250	250	231	230	92	92	43-155	0	30	
Diisopropyl ether	ug/L	ND	250	250	263	254	105	102	65-146	4	30	
Ethylbenzene	ug/L	ND	250	250	280	284	112	113	68-143	1	30	
Hexachloro-1,3-butadiene	ug/L	ND	250	250	239	245	95	98	62-151	3	30	

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QUALITY CONTROL DATA

Project: KOP FLEX OFFSITE 31401545.010
Pace Project No.: 92572915

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3466242 3466243

Parameter	Units	92573348004 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
m&p-Xylene	ug/L	ND	500	500	559	565	112	113	53-157	1	30	
Methyl-tert-butyl ether	ug/L	ND	250	250	247	242	99	97	59-156	2	30	
Methylene Chloride	ug/L	ND	250	250	314	297	126	119	64-148	6	30	
Naphthalene	ug/L	ND	250	250	247	241	99	97	57-150	2	30	
o-Xylene	ug/L	ND	250	250	269	276	107	110	68-143	3	30	
p-Isopropyltoluene	ug/L	ND	250	250	258	263	103	105	70-141	2	30	
Styrene	ug/L	ND	250	250	268	272	107	109	70-136	1	30	
Tetrachloroethene	ug/L	1510	250	250	1790	1860	112	140	70-139	4	30	M1
Toluene	ug/L	ND	250	250	279	270	111	108	47-157	3	30	
trans-1,2-Dichloroethene	ug/L	ND	250	250	291	286	116	115	70-149	2	30	
trans-1,3-Dichloropropene	ug/L	ND	250	250	238	249	95	99	70-138	4	30	
Trichloroethene	ug/L	ND	250	250	297	308	115	119	70-149	4	30	
Trichlorofluoromethane	ug/L	ND	250	250	298	299	119	119	61-154	0	30	
Vinyl acetate	ug/L	ND	500	500	501	463	100	93	48-156	8	30	
Vinyl chloride	ug/L	ND	250	250	301	304	121	122	55-172	1	30	
Xylene (Total)	ug/L	ND	750	750	828	841	110	112	66-145	2	30	
1,2-Dichloroethane-d4 (S)	%						101	101	70-130			
4-Bromofluorobenzene (S)	%						96	99	70-130			
Toluene-d8 (S)	%						99	97	70-130			

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QUALITY CONTROL DATA

Project: KOP FLEX OFFSITE 31401545.010
Pace Project No.: 92572915

QC Batch: 661839
QC Batch Method: EPA 8260D
Analysis Method: EPA 8260D
Analysis Description: 8260D MSV Low Level
Laboratory: Pace Analytical Services - Charlotte

Associated Lab Samples: 92572915021

METHOD BLANK: 3467598 Matrix: Water
Associated Lab Samples: 92572915021

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
1,1,1,2-Tetrachloroethane	ug/L	ND	1.0	11/23/21 13:22	
1,1,1-Trichloroethane	ug/L	ND	1.0	11/23/21 13:22	
1,1,2,2-Tetrachloroethane	ug/L	ND	1.0	11/23/21 13:22	
1,1,2-Trichloroethane	ug/L	ND	1.0	11/23/21 13:22	
1,1-Dichloroethane	ug/L	ND	1.0	11/23/21 13:22	
1,1-Dichloroethene	ug/L	ND	1.0	11/23/21 13:22	
1,1-Dichloropropene	ug/L	ND	1.0	11/23/21 13:22	
1,2,3-Trichlorobenzene	ug/L	ND	1.0	11/23/21 13:22	
1,2,3-Trichloropropane	ug/L	ND	1.0	11/23/21 13:22	
1,2,4-Trichlorobenzene	ug/L	ND	1.0	11/23/21 13:22	
1,2-Dibromo-3-chloropropane	ug/L	ND	2.0	11/23/21 13:22	
1,2-Dibromoethane (EDB)	ug/L	ND	1.0	11/23/21 13:22	
1,2-Dichlorobenzene	ug/L	ND	1.0	11/23/21 13:22	
1,2-Dichloroethane	ug/L	ND	1.0	11/23/21 13:22	
1,2-Dichloropropane	ug/L	ND	1.0	11/23/21 13:22	
1,3-Dichlorobenzene	ug/L	ND	1.0	11/23/21 13:22	
1,3-Dichloropropane	ug/L	ND	1.0	11/23/21 13:22	
1,4-Dichlorobenzene	ug/L	ND	1.0	11/23/21 13:22	
2,2-Dichloropropane	ug/L	ND	1.0	11/23/21 13:22	
2-Butanone (MEK)	ug/L	ND	5.0	11/23/21 13:22	
2-Chlorotoluene	ug/L	ND	1.0	11/23/21 13:22	
2-Hexanone	ug/L	ND	5.0	11/23/21 13:22	
4-Chlorotoluene	ug/L	ND	1.0	11/23/21 13:22	
4-Methyl-2-pentanone (MIBK)	ug/L	ND	5.0	11/23/21 13:22	
Acetone	ug/L	ND	25.0	11/23/21 13:22	
Benzene	ug/L	ND	1.0	11/23/21 13:22	
Bromobenzene	ug/L	ND	1.0	11/23/21 13:22	
Bromochloromethane	ug/L	ND	1.0	11/23/21 13:22	
Bromodichloromethane	ug/L	ND	1.0	11/23/21 13:22	
Bromoform	ug/L	ND	1.0	11/23/21 13:22	
Bromomethane	ug/L	ND	2.0	11/23/21 13:22	
Carbon tetrachloride	ug/L	ND	1.0	11/23/21 13:22	
Chlorobenzene	ug/L	ND	1.0	11/23/21 13:22	
Chloroethane	ug/L	ND	1.0	11/23/21 13:22	
Chloroform	ug/L	ND	1.0	11/23/21 13:22	
Chloromethane	ug/L	ND	1.0	11/23/21 13:22	
cis-1,2-Dichloroethene	ug/L	ND	1.0	11/23/21 13:22	
cis-1,3-Dichloropropene	ug/L	ND	1.0	11/23/21 13:22	
Dibromochloromethane	ug/L	ND	1.0	11/23/21 13:22	
Dibromomethane	ug/L	ND	1.0	11/23/21 13:22	

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QUALITY CONTROL DATA

Project: KOP FLEX OFFSITE 31401545.010
Pace Project No.: 92572915

METHOD BLANK: 3467598 Matrix: Water
Associated Lab Samples: 92572915021

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Dichlorodifluoromethane	ug/L	ND	1.0	11/23/21 13:22	
Diisopropyl ether	ug/L	ND	1.0	11/23/21 13:22	
Ethylbenzene	ug/L	ND	1.0	11/23/21 13:22	
Hexachloro-1,3-butadiene	ug/L	ND	2.0	11/23/21 13:22	
m&p-Xylene	ug/L	ND	2.0	11/23/21 13:22	
Methyl-tert-butyl ether	ug/L	ND	1.0	11/23/21 13:22	
Methylene Chloride	ug/L	ND	5.0	11/23/21 13:22	
Naphthalene	ug/L	ND	1.0	11/23/21 13:22	
o-Xylene	ug/L	ND	1.0	11/23/21 13:22	
p-Isopropyltoluene	ug/L	ND	1.0	11/23/21 13:22	
Styrene	ug/L	ND	1.0	11/23/21 13:22	
Tetrachloroethene	ug/L	ND	1.0	11/23/21 13:22	
Toluene	ug/L	ND	1.0	11/23/21 13:22	
trans-1,2-Dichloroethene	ug/L	ND	1.0	11/23/21 13:22	
trans-1,3-Dichloropropene	ug/L	ND	1.0	11/23/21 13:22	
Trichloroethene	ug/L	ND	1.0	11/23/21 13:22	
Trichlorofluoromethane	ug/L	ND	1.0	11/23/21 13:22	
Vinyl acetate	ug/L	ND	2.0	11/23/21 13:22	
Vinyl chloride	ug/L	ND	1.0	11/23/21 13:22	
Xylene (Total)	ug/L	ND	1.0	11/23/21 13:22	
1,2-Dichloroethane-d4 (S)	%	102	70-130	11/23/21 13:22	
4-Bromofluorobenzene (S)	%	95	70-130	11/23/21 13:22	
Toluene-d8 (S)	%	108	70-130	11/23/21 13:22	

LABORATORY CONTROL SAMPLE: 3467599

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
1,1,1,2-Tetrachloroethane	ug/L	50	53.1	106	70-130	
1,1,1-Trichloroethane	ug/L	50	49.8	100	70-130	
1,1,2,2-Tetrachloroethane	ug/L	50	51.6	103	70-130	
1,1,2-Trichloroethane	ug/L	50	53.3	107	70-130	
1,1-Dichloroethane	ug/L	50	49.4	99	70-130	
1,1-Dichloroethene	ug/L	50	47.5	95	70-132	
1,1-Dichloropropene	ug/L	50	55.0	110	70-131	
1,2,3-Trichlorobenzene	ug/L	50	47.0	94	70-134	
1,2,3-Trichloropropane	ug/L	50	51.6	103	70-130	
1,2,4-Trichlorobenzene	ug/L	50	45.7	91	70-130	
1,2-Dibromo-3-chloropropane	ug/L	50	49.9	100	70-132	
1,2-Dibromoethane (EDB)	ug/L	50	55.3	111	70-130	
1,2-Dichlorobenzene	ug/L	50	49.6	99	70-130	
1,2-Dichloroethane	ug/L	50	48.9	98	70-130	
1,2-Dichloropropane	ug/L	50	51.3	103	70-130	
1,3-Dichlorobenzene	ug/L	50	49.4	99	70-130	
1,3-Dichloropropane	ug/L	50	51.6	103	70-130	

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QUALITY CONTROL DATA

Project: KOP FLEX OFFSITE 31401545.010
Pace Project No.: 92572915

LABORATORY CONTROL SAMPLE: 3467599

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
1,4-Dichlorobenzene	ug/L	50	49.1	98	70-130	
2,2-Dichloropropane	ug/L	50	50.5	101	70-130	
2-Butanone (MEK)	ug/L	100	108	108	70-133	
2-Chlorotoluene	ug/L	50	51.7	103	70-130	
2-Hexanone	ug/L	100	106	106	70-130	
4-Chlorotoluene	ug/L	50	51.4	103	70-130	
4-Methyl-2-pentanone (MIBK)	ug/L	100	98.0	98	70-130	
Acetone	ug/L	100	92.3	92	70-144	
Benzene	ug/L	50	48.5	97	70-130	
Bromobenzene	ug/L	50	50.7	101	70-130	
Bromochloromethane	ug/L	50	51.7	103	70-130	
Bromodichloromethane	ug/L	50	49.3	99	70-130	
Bromoform	ug/L	50	53.8	108	70-131	
Bromomethane	ug/L	50	52.1	104	30-177	
Carbon tetrachloride	ug/L	50	47.5	95	70-130	
Chlorobenzene	ug/L	50	50.5	101	70-130	
Chloroethane	ug/L	50	63.7	127	46-131	
Chloroform	ug/L	50	49.7	99	70-130	
Chloromethane	ug/L	50	55.1	110	49-130	
cis-1,2-Dichloroethene	ug/L	50	50.2	100	70-130	
cis-1,3-Dichloropropene	ug/L	50	52.6	105	70-130	
Dibromochloromethane	ug/L	50	57.4	115	70-130	
Dibromomethane	ug/L	50	47.0	94	70-130	
Dichlorodifluoromethane	ug/L	50	51.9	104	52-134	
Diisopropyl ether	ug/L	50	51.8	104	70-131	
Ethylbenzene	ug/L	50	51.5	103	70-130	
Hexachloro-1,3-butadiene	ug/L	50	45.1	90	70-131	
m&p-Xylene	ug/L	100	104	104	70-130	
Methyl-tert-butyl ether	ug/L	50	51.7	103	70-130	
Methylene Chloride	ug/L	50	52.2	104	68-130	
Naphthalene	ug/L	50	48.9	98	70-133	
o-Xylene	ug/L	50	49.1	98	70-130	
p-Isopropyltoluene	ug/L	50	48.9	98	70-130	
Styrene	ug/L	50	51.7	103	70-130	
Tetrachloroethene	ug/L	50	51.2	102	70-130	
Toluene	ug/L	50	46.8	94	70-130	
trans-1,2-Dichloroethene	ug/L	50	48.1	96	70-130	
trans-1,3-Dichloropropene	ug/L	50	50.6	101	70-130	
Trichloroethene	ug/L	50	51.3	103	70-130	
Trichlorofluoromethane	ug/L	50	52.8	106	61-130	
Vinyl acetate	ug/L	100	108	108	70-140	
Vinyl chloride	ug/L	50	52.3	105	59-142	
Xylene (Total)	ug/L	150	153	102	70-130	
1,2-Dichloroethane-d4 (S)	%			105	70-130	
4-Bromofluorobenzene (S)	%			100	70-130	
Toluene-d8 (S)	%			95	70-130	

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Huntersville, NC 28078
(704)875-9092

QUALITY CONTROL DATA

Project: KOP FLEX OFFSITE 31401545.010
Pace Project No.: 92572915

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3467600 3467601

Parameter	Units	92573187006 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
1,1,1,2-Tetrachloroethane	ug/L	ND	400	400	423	423	106	106	70-135	0	30	
1,1,1-Trichloroethane	ug/L	56.6	400	400	526	514	117	114	70-148	2	30	
1,1,2,2-Tetrachloroethane	ug/L	ND	400	400	396	403	99	101	70-131	2	30	
1,1,2-Trichloroethane	ug/L	ND	400	400	448	443	112	111	70-136	1	30	
1,1-Dichloroethane	ug/L	ND	400	400	449	439	112	110	70-147	2	30	
1,1-Dichloroethene	ug/L	ND	400	400	486	462	121	115	70-158	5	30	
1,1-Dichloropropene	ug/L	ND	400	400	484	468	121	117	70-149	3	30	
1,2,3-Trichlorobenzene	ug/L	ND	400	400	391	399	98	100	68-140	2	30	
1,2,3-Trichloropropane	ug/L	ND	400	400	386	394	97	98	67-137	2	30	
1,2,4-Trichlorobenzene	ug/L	ND	400	400	387	406	97	102	70-139	5	30	
1,2-Dibromo-3-chloropropane	ug/L	ND	400	400	350	392	88	98	69-136	11	30	
1,2-Dibromoethane (EDB)	ug/L	ND	400	400	436	439	109	110	70-137	1	30	
1,2-Dichlorobenzene	ug/L	ND	400	400	429	424	107	106	70-133	1	30	
1,2-Dichloroethane	ug/L	ND	400	400	434	417	109	104	67-138	4	30	
1,2-Dichloropropane	ug/L	ND	400	400	457	461	114	115	70-138	1	30	
1,3-Dichlorobenzene	ug/L	ND	400	400	424	435	106	109	70-133	3	30	
1,3-Dichloropropane	ug/L	ND	400	400	400	417	100	104	70-136	4	30	
1,4-Dichlorobenzene	ug/L	ND	400	400	422	423	106	106	70-133	0	30	
2,2-Dichloropropane	ug/L	ND	400	400	397	374	99	94	52-155	6	30	
2-Butanone (MEK)	ug/L	ND	800	800	830	827	104	103	61-147	0	30	
2-Chlorotoluene	ug/L	ND	400	400	446	460	112	115	70-141	3	30	
2-Hexanone	ug/L	ND	800	800	697	747	87	93	67-139	7	30	
4-Chlorotoluene	ug/L	ND	400	400	433	441	108	110	70-135	2	30	
4-Methyl-2-pentanone (MIBK)	ug/L	ND	800	800	714	726	89	91	67-136	2	30	
Acetone	ug/L	ND	800	800	769	776	96	97	55-159	1	30	
Benzene	ug/L	ND	400	400	447	433	112	108	67-150	3	30	
Bromobenzene	ug/L	ND	400	400	430	446	107	111	70-134	4	30	
Bromochloromethane	ug/L	ND	400	400	474	472	118	118	70-146	0	30	
Bromodichloromethane	ug/L	ND	400	400	450	430	112	107	70-138	5	30	
Bromoform	ug/L	ND	400	400	402	399	100	100	57-138	1	30	
Bromomethane	ug/L	ND	400	400	462	501	116	125	10-200	8	30	
Carbon tetrachloride	ug/L	ND	400	400	442	432	110	108	70-147	2	30	
Chlorobenzene	ug/L	ND	400	400	435	432	109	108	70-137	1	30	
Chloroethane	ug/L	ND	400	400	612	514	153	128	51-166	17	30	
Chloroform	ug/L	ND	400	400	439	459	110	115	70-144	4	30	
Chloromethane	ug/L	ND	400	400	500	490	125	122	24-161	2	30	
cis-1,2-Dichloroethene	ug/L	34.7	400	400	488	471	113	109	67-148	4	30	
cis-1,3-Dichloropropene	ug/L	ND	400	400	420	417	105	104	70-142	1	30	
Dibromochloromethane	ug/L	ND	400	400	456	437	114	109	68-138	4	30	
Dibromomethane	ug/L	ND	400	400	421	417	105	104	70-134	1	30	
Dichlorodifluoromethane	ug/L	ND	400	400	499	499	125	125	43-155	0	30	
Diisopropyl ether	ug/L	ND	400	400	401	398	100	99	65-146	1	30	
Ethylbenzene	ug/L	ND	400	400	447	435	112	109	68-143	3	30	
Hexachloro-1,3-butadiene	ug/L	ND	400	400	381	414	95	103	62-151	8	30	

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QUALITY CONTROL DATA

Project: KOP FLEX OFFSITE 31401545.010
Pace Project No.: 92572915

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3467600 3467601

Parameter	Units	92573187006 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
m&p-Xylene	ug/L	ND	800	800	907	866	113	108	53-157	5	30	
Methyl-tert-butyl ether	ug/L	ND	400	400	398	404	99	101	59-156	2	30	
Methylene Chloride	ug/L	ND	400	400	460	488	115	122	64-148	6	30	
Naphthalene	ug/L	ND	400	400	390	404	97	101	57-150	4	30	
o-Xylene	ug/L	ND	400	400	443	417	111	104	68-143	6	30	
p-Isopropyltoluene	ug/L	ND	400	400	418	431	105	108	70-141	3	30	
Styrene	ug/L	ND	400	400	440	426	110	107	70-136	3	30	
Tetrachloroethene	ug/L	21.9	400	400	461	448	110	106	70-139	3	30	
Toluene	ug/L	ND	400	400	437	430	109	108	47-157	2	30	
trans-1,2-Dichloroethene	ug/L	ND	400	400	450	448	113	112	70-149	1	30	
trans-1,3-Dichloropropene	ug/L	ND	400	400	389	381	97	95	70-138	2	30	
Trichloroethene	ug/L	1640	400	400	2260	2270	154	157	70-149	0	30	M1
Trichlorofluoromethane	ug/L	ND	400	400	500	493	125	123	61-154	1	30	
Vinyl acetate	ug/L	ND	800	800	800	830	100	104	48-156	4	30	
Vinyl chloride	ug/L	ND	400	400	509	512	127	128	55-172	1	30	
Xylene (Total)	ug/L	ND	1200	1200	1350	1280	112	107	66-145	5	30	
1,2-Dichloroethane-d4 (S)	%						101	102	70-130			
4-Bromofluorobenzene (S)	%						99	98	70-130			
Toluene-d8 (S)	%						98	97	70-130			

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QUALITY CONTROL DATA

Project: KOP FLEX OFFSITE 31401545.010
Pace Project No.: 92572915

QC Batch: 660613
QC Batch Method: EPA 8260D Mod.
Analysis Method: EPA 8260D Mod.
Analysis Description: 8260D MSV SIM
Laboratory: Pace Analytical Services - Charlotte
Associated Lab Samples: 92572915004, 92572915006, 92572915007, 92572915008, 92572915009, 92572915011, 92572915012, 92572915014

METHOD BLANK: 3461559 Matrix: Water
Associated Lab Samples: 92572915004, 92572915006, 92572915007, 92572915008, 92572915009, 92572915011, 92572915012, 92572915014

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
1,4-Dioxane (p-Dioxane)	ug/L	ND	2.0	11/17/21 16:11	
1,2-Dichloroethane-d4 (S)	%	94	70-130	11/17/21 16:11	
Toluene-d8 (S)	%	90	66-133	11/17/21 16:11	

LABORATORY CONTROL SAMPLE: 3461560

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
1,4-Dioxane (p-Dioxane)	ug/L	20	19.4	97	70-130	
1,2-Dichloroethane-d4 (S)	%			96	70-130	
Toluene-d8 (S)	%			91	66-133	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3461561 3461562

Parameter	Units	92572910001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
1,4-Dioxane (p-Dioxane)	ug/L	5.1	20	20	25.1	23.3	100	91	64-141	7	30	
1,2-Dichloroethane-d4 (S)	%						92	96	70-130		30	
Toluene-d8 (S)	%						85	87	66-133		30	

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QUALITY CONTROL DATA

Project: KOP FLEX OFFSITE 31401545.010
Pace Project No.: 92572915

QC Batch: 660615
QC Batch Method: EPA 8260D Mod.
Analysis Method: EPA 8260D Mod.
Analysis Description: 8260D MSV SIM
Laboratory: Pace Analytical Services - Charlotte
Associated Lab Samples: 92572915001, 92572915002, 92572915003, 92572915005, 92572915010, 92572915013, 92572915015, 92572915016, 92572915017, 92572915018, 92572915019

METHOD BLANK: 3461571 Matrix: Water
Associated Lab Samples: 92572915001, 92572915002, 92572915003, 92572915005, 92572915010, 92572915013, 92572915015, 92572915016, 92572915017, 92572915018, 92572915019

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
1,4-Dioxane (p-Dioxane)	ug/L	ND	2.0	11/17/21 16:12	
1,2-Dichloroethane-d4 (S)	%	102	70-130	11/17/21 16:12	
Toluene-d8 (S)	%	102	66-133	11/17/21 16:12	

LABORATORY CONTROL SAMPLE: 3461572

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
1,4-Dioxane (p-Dioxane)	ug/L	20	20.2	101	70-130	
1,2-Dichloroethane-d4 (S)	%			101	70-130	
Toluene-d8 (S)	%			102	66-133	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3461573 3461574

Parameter	Units	92572915001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
1,4-Dioxane (p-Dioxane)	ug/L	ND	20	20	20.8	19.5	104	98	64-141	6	30	
1,2-Dichloroethane-d4 (S)	%						101	98	70-130		30	
Toluene-d8 (S)	%						100	99	66-133		30	

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QUALITY CONTROL DATA

Project: KOP FLEX OFFSITE 31401545.010
Pace Project No.: 92572915

QC Batch: 660643
QC Batch Method: EPA 8260D Mod.
Analysis Method: EPA 8260D Mod.
Analysis Description: 8260D MSV SIM
Laboratory: Pace Analytical Services - Charlotte
Associated Lab Samples: 92572915023

METHOD BLANK: 3461865 Matrix: Water
Associated Lab Samples: 92572915023

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
1,4-Dioxane (p-Dioxane)	ug/L	ND	2.0	11/17/21 16:30	
1,2-Dichloroethane-d4 (S)	%	92	70-130	11/17/21 16:30	
Toluene-d8 (S)	%	91	66-133	11/17/21 16:30	

LABORATORY CONTROL SAMPLE: 3461866

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
1,4-Dioxane (p-Dioxane)	ug/L	20	22.0	110	70-130	
1,2-Dichloroethane-d4 (S)	%			82	70-130	
Toluene-d8 (S)	%			106	66-133	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3461867 3461868

Parameter	Units	92573022001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
1,4-Dioxane (p-Dioxane)	ug/L	ND	20	20	20.6	20.1	103	101	64-141	2	30	
1,2-Dichloroethane-d4 (S)	%						96	101	70-130		30	
Toluene-d8 (S)	%						86	90	66-133		30	

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QUALITY CONTROL DATA

Project: KOP FLEX OFFSITE 31401545.010
Pace Project No.: 92572915

QC Batch: 660958
QC Batch Method: EPA 8260D Mod.
Analysis Method: EPA 8260D Mod.
Analysis Description: 8260D MSV SIM
Laboratory: Pace Analytical Services - Charlotte
Associated Lab Samples: 92572915020, 92572915021, 92572915022

METHOD BLANK: 3463490 Matrix: Water
Associated Lab Samples: 92572915020, 92572915021, 92572915022

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
1,4-Dioxane (p-Dioxane)	ug/L	ND	2.0	11/18/21 18:07	
1,2-Dichloroethane-d4 (S)	%	96	70-130	11/18/21 18:07	
Toluene-d8 (S)	%	89	66-133	11/18/21 18:07	

LABORATORY CONTROL SAMPLE: 3463491

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
1,4-Dioxane (p-Dioxane)	ug/L	20	19.6	98	70-130	
1,2-Dichloroethane-d4 (S)	%			93	70-130	
Toluene-d8 (S)	%			88	66-133	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3463492 3463493

Parameter	Units	92572910015 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
1,4-Dioxane (p-Dioxane)	ug/L	396	200	200	669	656	137	130	64-141	2	30	
1,2-Dichloroethane-d4 (S)	%						100	102	70-130		30	
Toluene-d8 (S)	%						89	89	66-133		30	

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QUALIFIERS

Project: KOP FLEX OFFSITE 31401545.010
Pace Project No.: 92572915

DEFINITIONS

DF - Dilution Factor, if reported, represents the factor applied to the reported data due to dilution of the sample aliquot.

ND - Not Detected at or above adjusted reporting limit.

TNTC - Too Numerous To Count

J - Estimated concentration above the adjusted method detection limit and below the adjusted reporting limit.

MDL - Adjusted Method Detection Limit.

PQL - Practical Quantitation Limit.

RL - Reporting Limit - The lowest concentration value that meets project requirements for quantitative data with known precision and bias for a specific analyte in a specific matrix.

S - Surrogate

1,2-Diphenylhydrazine decomposes to and cannot be separated from Azobenzene using Method 8270. The result for each analyte is a combined concentration.

Consistent with EPA guidelines, unrounded data are displayed and have been used to calculate % recovery and RPD values.

LCS(D) - Laboratory Control Sample (Duplicate)

MS(D) - Matrix Spike (Duplicate)

DUP - Sample Duplicate

RPD - Relative Percent Difference

NC - Not Calculable.

SG - Silica Gel - Clean-Up

U - Indicates the compound was analyzed for, but not detected.

Acid preservation may not be appropriate for 2 Chloroethylvinyl ether.

A separate vial preserved to a pH of 4-5 is recommended in SW846 Chapter 4 for the analysis of Acrolein and Acrylonitrile by EPA Method 8260.

N-Nitrosodiphenylamine decomposes and cannot be separated from Diphenylamine using Method 8270. The result reported for each analyte is a combined concentration.

Reported results are not rounded until the final step prior to reporting. Therefore, calculated parameters that are typically reported as "Total" may vary slightly from the sum of the reported component parameters.

Pace Analytical is TNI accredited. Contact your Pace PM for the current list of accredited analytes.

TNI - The NELAC Institute.

ANALYTE QUALIFIERS

IK	The recalculated concentration of the calibration standard(s) did not meet method acceptance criteria; this result should be considered an estimated value.
IL	This analyte exceeded secondary source verification criteria low for the initial calibration. The reported results should be considered an estimated value.
M1	Matrix spike recovery exceeded QC limits. Batch accepted based on laboratory control sample (LCS) recovery.
v1	The continuing calibration verification was above the method acceptance limit. Any detection for the analyte in the associated samples may have a high bias.
v2	The continuing calibration verification was below the method acceptance limit. The analyte was not detected in the associated samples and the sensitivity of the instrument was verified with a reporting limit check standard.
v3	The continuing calibration verification was below the method acceptance limit. Any detection for the analyte in the associated samples may have low bias.

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QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: KOP FLEX OFFSITE 31401545.010
Pace Project No.: 92572915

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
92572915001	MW-3	EPA 8260D	660595		
92572915002	MW-27D	EPA 8260D	660595		
92572915003	MW-43	EPA 8260D	660595		
92572915004	MW-39	EPA 8260D	660595		
92572915005	MW-38R	EPA 8260D	660595		
92572915006	MW-42	EPA 8260D	660595		
92572915007	MW-18	EPA 8260D	660595		
92572915008	MW-40D	EPA 8260D	660595		
92572915009	MW-5R	EPA 8260D	660595		
92572915010	MW-44	EPA 8260D	660595		
92572915011	MW-21D	EPA 8260D	660595		
92572915012	MW-41D	EPA 8260D	660595		
92572915013	MW-1	EPA 8260D	660595		
92572915014	MW-1D	EPA 8260D	660595		
92572915015	MW-22D	EPA 8260D	660595		
92572915016	MW-4	EPA 8260D	661304		
92572915017	MW-20	EPA 8260D	661552		
92572915018	MW-9	EPA 8260D	660595		
92572915019	MW-23D	EPA 8260D	660597		
92572915020	DUP-111421	EPA 8260D	661304		
92572915021	MW-16	EPA 8260D	661839		
92572915022	MW-16D	EPA 8260D	660597		
92572915023	TRIP BLANK	EPA 8260D	660595		
92572915001	MW-3	EPA 8260D Mod.	660615		
92572915002	MW-27D	EPA 8260D Mod.	660615		
92572915003	MW-43	EPA 8260D Mod.	660615		
92572915004	MW-39	EPA 8260D Mod.	660613		
92572915005	MW-38R	EPA 8260D Mod.	660615		
92572915006	MW-42	EPA 8260D Mod.	660613		
92572915007	MW-18	EPA 8260D Mod.	660613		
92572915008	MW-40D	EPA 8260D Mod.	660613		
92572915009	MW-5R	EPA 8260D Mod.	660613		
92572915010	MW-44	EPA 8260D Mod.	660615		
92572915011	MW-21D	EPA 8260D Mod.	660613		
92572915012	MW-41D	EPA 8260D Mod.	660613		
92572915013	MW-1	EPA 8260D Mod.	660615		
92572915014	MW-1D	EPA 8260D Mod.	660613		
92572915015	MW-22D	EPA 8260D Mod.	660615		
92572915016	MW-4	EPA 8260D Mod.	660615		
92572915017	MW-20	EPA 8260D Mod.	660615		

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Huntersville, NC 28078
(704)875-9092

QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: KOP FLEX OFFSITE 31401545.010
Pace Project No.: 92572915

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
92572915018	**MW-9**	EPA 8260D Mod.	660615		
92572915019	**MW-23D**	EPA 8260D Mod.	660615		
92572915020	**DUP-111421**	EPA 8260D Mod.	660958		
92572915021	**MW-16**	EPA 8260D Mod.	660958		
92572915022	**MW-16D**	EPA 8260D Mod.	660958		
92572915023	**TRIP BLANK**	EPA 8260D Mod.	660643		

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Pace Analytical	Document Name: Sample Condition Upon Receipt (SCUR)	Document Revised: November 15, 2021 Page 1 of 2
	Document No.: F-CAR-CS-033-Rev.08	Issuing Authority: Pace Carolinas Quality Office

Laboratory receiving samples:
Asheville ☐ Eden ☐ Greenwood ☐ Huntersville ☑ Raleigh ☐ Mechanicsville ☐ Atlanta ☐ Kernersville ☐

Sample Condition Upon Receipt

Client Name: Herndon

Project WO#: 92572915

92572915

Courier: ☑ Fed Ex ☐ UPS ☐ USPS ☐ Client ☐ Commercial ☐ Pace ☐ Other:____

Custody Seal Present? ☐ Yes ☑ No **Seals Intact?** ☐ Yes ☑ No

Date/Initials Person Examining Contents: 11/17/21 KS

Packing Material: ☐ Bubble Wrap ☑ Bubble Bags ☐ None ☐ Other

Biological Tissue Frozen? ☐ Yes ☐ No ☑ N/A

Thermometer: ☑ IR Gun ID: 92T064

Type of Ice: ☑ Wet ☐ Blue ☐ None

Cooler Temp: 2.0 **Correction Factor:** Add/Subtract (°C) 0

Cooler Temp Corrected (°C): 2.0

Temp should be above freezing to 6°C
☐ Samples out of temp criteria. Samples on ice, cooling process has begun

USDA Regulated Soil (☑ N/A, water sample)

Did samples originate in a quarantine zone within the United States: CA, NY, or SC (check maps)? ☐ Yes ☐ No

Did samples originate from a foreign source (internationally, including Hawaii and Puerto Rico)? ☐ Yes ☐ No

				Comments/Discrepancy:
Chain of Custody Present?	☑ Yes	☐ No	☐ N/A	1.
Samples Arrived within Hold Time?	☑ Yes	☐ No	☐ N/A	2.
Short Hold Time Analysis (<72 hr.)?	☐ Yes	☑ No	☐ N/A	3.
Rush Turn Around Time Requested?	☐ Yes	☑ No	☐ N/A	4.
Sufficient Volume?	☑ Yes	☐ No	☐ N/A	5.
Correct Containers Used?	☑ Yes	☐ No	☐ N/A	6.
-Pace Containers Used?	☑ Yes	☐ No	☐ N/A	
Containers Intact?	☐ Yes	☑ No	☐ N/A	7.
Dissolved analysis: Samples Field Filtered?	☐ Yes	☐ No	☑ N/A	8.
Sample Labels Match COC?	☑ Yes	☐ No	☐ N/A	9.
-Includes Date/Time/ID/Analysis Matrix: WT				
Headspace in VOA Vials (>5-6mm)?	☐ Yes	☑ No	☐ N/A	10.
Trip Blank Present?	☑ Yes	☐ No	☐ N/A	11.
Trip Blank Custody Seals Present?	☑ Yes	☐ No	☐ N/A	

COMMENTS/SAMPLE DISCREPANCY

Field Data Required? ☐ Yes ☐ No

One DG9H "MW-41D" received broken

Lot ID of split containers:

CLIENT NOTIFICATION/RESOLUTION

Person contacted: _____ Date/Time: _____

Project Manager SCURF Review: _____ **Date:** _____

Project Manager SRF Review: _____ **Date:** _____

1/2

***Check mark top half of box if pH and/or dechlorination is verified and within the acceptance range for preservation samples.**

Exceptions: VOA, Coliform, TOC, Oil and Grease, DRO/8015 (water) DOC, LLHg

****Bottom half of box is to list number of bottles**

Proje

WO# : 92572915

PM: BV Due Date: 11/30/21

CLIENT: 92-WSP

Item#	BP4U-125 mL Plastic Unpreserved (N/A) (Cl-)	BP3U-250 mL Plastic Unpreserved (N/A)	BP2U-500 mL Plastic Unpreserved (N/A)	BP1U-1 liter Plastic Unpreserved (N/A)	BP4S-125 mL Plastic H2SO4 (pH < 2) (Cl-)	BP3N-250 mL plastic HNO3 (pH < 2)	BP4Z-125 mL Plastic ZN Acetate & NaOH (>9)	BP4B-125 mL Plastic NaOH (pH > 12) (Cl-)	WGFU-Wide-mouthed Glass jar Unpreserved	AG1U-1 liter Amber Unpreserved (N/A) (Cl-)	AG1H-1 liter Amber HCl (pH < 2)	AG3U-250 mL Amber Unpreserved (N/A) (Cl-)	AG1S-1 liter Amber H2SO4 (pH < 2)	AG3S-250 mL Amber H2SO4 (pH < 2)	AG3A(DG3A)-250 mL Amber NH4Cl (N/A)(Cl-)	DG9H-40 mL VOA HCl (N/A)	VG9T-40 mL VOA Na2S2O3 (N/A)	VG9U-40 mL VOA Unpreserved (N/A)	DG9P-40 mL VOA H3PO4 (N/A)	VOAK (3 vials per kit)-5035 kit (N/A)	V/GK (3 vials per kit)-VPH/Gas kit (N/A)	SP5T-125 mL Sterile Plastic (N/A – lab)	SP2T-250 mL Sterile Plastic (N/A – lab)		BP3A-250 mL Plastic (NH2)2SO4 (9.3-9.7)	AG0U-100 mL Amber Unpreserved vials (N/A)	VSGU-20 mL Scintillation vials (N/A)	DG9U-40 mL Amber Unpreserved vials (N/A)
1																6													
2																6													
3																6													
4																6													
5																6													
6																6													
7																6													
8																6													
9																6													
10																6													
11																6													
12																5													

pH Adjustment Log for Preserved Samples

Sample ID	Type of Preservative	pH upon receipt	Date preservation adjusted	Time preservation adjusted	Amount of Preservative added	Lot #

Note: Whenever there is a discrepancy affecting North Carolina compliance samples, a copy of this form will be sent to the North Carolina DEHNR Certification Office (i.e. Out of hold, incorrect preservative, out of temp, incorrect containers.

212

***Check mark top half of box if pH and/or dechlorination is verified and within the acceptance range for preservation samples.**

Exceptions: VOA, Coliform, TOC, Oil and Grease, DRO/8015 (water) DOC, LLHg

****Bottom half of box is to list number of bottles**

Project #

Item#	BP4U-125 mL Plastic Unpreserved (N/A) (Cl-)	BP3U-250 mL Plastic Unpreserved (N/A)	BP2U-500 mL Plastic Unpreserved (N/A)	BP1U-1 liter Plastic Unpreserved (N/A)	BP4S-125 mL Plastic H2SO4 (pH < 2) (Cl-)	BP3N-250 mL plastic HNO3 (pH < 2)	BP4Z-125 mL Plastic ZN Acetate & NaOH (>9)	BP4B-125 mL Plastic NaOH (pH > 12) (Cl-)	WGFU-Wide-mouthed Glass jar Unpreserved	AG1U-1 liter Amber Unpreserved (N/A) (Cl-)	AG1H-1 liter Amber HCl (pH < 2)	AG3U-250 mL Amber Unpreserved (N/A) (Cl-)	AG1S-1 liter Amber H2SO4 (pH < 2)	AG3S-250 mL Amber H2SO4 (pH < 2)	AG3A(DG3A)-250 mL Amber NH4Cl (N/A)(Cl-)	DG9H-40 mL VOA HCl (N/A)	VG9T-40 mL VOA Na2S2O3 (N/A)	VG9U-40 mL VOA Unpreserved (N/A)	DG9P-40 mL VOA H3PO4 (N/A)	VOAK (3 vials per kit)-5035 kit (N/A)	V/GK (3 vials per kit)-VPH/Gas kit (N/A)	SP5T-125 mL Sterile Plastic (N/A – lab)	SP2T-250 mL Sterile Plastic (N/A – lab)		BP3A-250 mL Plastic (NH2)2SO4 (9.3-9.7)	AG0U-100 mL Amber Unpreserved vials (N/A)	VSGU-20 mL Scintillation vials (N/A)	DG9U-40 mL Amber Unpreserved vials (N/A)
1																6													
2																6													
3																6													
4																6													
5																6													
6																6													
7																6													
8																6													
9																6													
10																6													
11																4													
12																													

pH Adjustment Log for Preserved Samples

Sample ID	Type of Preservative	pH upon receipt	Date preservation adjusted	Time preservation adjusted	Amount of Preservative added	Lot #

Note: Whenever there is a discrepancy affecting North Carolina compliance samples, a copy of this form will be sent to the North Carolina DEHNR Certification Office (i.e. Out of hold, incorrect preservative, out of temp, incorrect containers.

CHAIN-OF-CUSTODY RECORD

No. 10640 — WSP

WSP USA Office Address	13530 Dulles Technology Dr. Ste300 Herndon VA
Project Name	Kopflex Onsite
WSP USA Contact Name	Eric Johnson
Project Location	Hanover, MD
WSP USA Contact E-mail	Eric.Johnson@wsp.com
Project Number & Task	31401545.010
WSP USA Contact Phone	703 709 6500
Sampler(s) Name(s)	Molly Elliott
Sampler(s) Signature(s)	(signatures)
Laboratory Name & Location	Pace, NC
Laboratory Project Manager	Bonnie Vang
Requested Turn-Around-Time	[X] Standard [ ] 24 HR [ ] 48 HR [ ] 72 HR [ ] ___ HR

Requested Analyses & Preservatives: VOC 8260D; 8260D SIM 1,4-Dioxane

Sample Identification	Matrix	Collection Start* Date	Collection Start* Time	Collection Stop* Date	Collection Stop* Time	Number of Containers	VOC 8260D	8260D SIM 1,4-Dioxane	Sample Comments [illegible]
MW-3	AQ	11/14/21		09	35	6	X	X	001
MW-27D	|	|		10	00	6	X	X	002
MW-43	|	|		10	10	6	X	X	003
MW-39	|	|		10	25	6	X	X	004
MW-38R	|	|		10	35	6	X	X	005
MW-42	|	|		10	50	6	X	X	006
MW-18	|	|		11	00	6	X	X	007
MW-40D	|	|		11	15	6	X	X	008
MW-5R	|	|		11	25	6	X	X	009
MW-44	|	|		11	40	6	X	X	010
MW-21D	|	|		11	55	6	X	X	011
MW-41D	|	|		13	00	6	X	X	012
MW-1	|	|		13	15	6	X	X	013
MW-1D	|	|		13	25	6	X	X	014
MW-22D	|	|		13	40	6	X	X	015

Relinquished By (Signature)	Date	Time	Received By (Signature)	Date	Time	Shipment Method	Tracking Number(s)
(signature)	11/15/21	1426	KS Pace HVL	11/17/21	1015		

Relinquished By (Signature)	Date	Time	Received By (Signature)	Date	Time	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)

CHAIN-OF-CUSTODY RECORD

WSP USA Office Address: Herndon			No. 10641
Project Name: Kopflex Onsite	WSP USA Contact Name: Eric Johnson		Laboratory Name & Location: Pace NC
Project Location: Havre MD	WSP USA Contact E-mail: Eric.Johnson @wsp.com		Laboratory Project Manager: Bonnie Vang
Project Number & Task: 31401545.010	WSP USA Contact Phone		Requested Turn-Around-Time: (X) Standard ☐ 24 HR ☐ 48 HR ☐ 72 HR ☐ ___ HR
Sampler(s) Name(s): Molly Elliott Martynkiewicz	Sampler(s) Signature(s)		

Sample Identification	Matrix	Collection Start* Date	Collection Start* Time	Collection Stop* Date	Collection Stop* Time	Number of Containers	Requested Analyses & Preservatives: VOC 8260D	1,4-Dioxane 8260D SIM	Sample Comments
MW-4	GW	11/14/21		13	50	6	X	X	075-7415 016
MW-20				14	00	6	X	X	017
MW-9				14	15	6	X	X	018
MW-23D				14	45	6	X	X	019
DUP-111421				12	00	6	X	X	020
MW-16				~~14~~ 15	~~45~~ 00	6	X	X	021
MW-16D				15	10	6	X	X	022
Trip Blank	+	labprovided							023

Relinquished By (Signature)	Date	Time	Received By (Signature)	Date	Time	Shipment Method	Tracking Number(s)
	11/15/21	1426	KS Pace HVL	11/17/21	1015		
Relinquished By (Signature)	Date	Time	Received By (Signature)	Date	Time	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)

ENCLOSURE E - CERTIFIED LABORATORY ANALYTICAL REPORT FOR GROUNDWATER RECOVERY WELL DISCHARGE SAMPLES (DECEMBER 2021)

Pace Analytical Services, LLC
9800 Kincey Ave. Suite 100
Huntersville, NC 28078
(704)875-9092

January 05, 2022

Eric Johnson
WSP USA
13530 Dulles Technology Drive
Suite 300
Herndon, VA 20171

RE: Project: FORMER KOP-FLEX FACILITY SITE
Pace Project No.: 92580514

Dear Eric Johnson:

Enclosed are the analytical results for sample(s) received by the laboratory on December 30, 2021. The results relate only to the samples included in this report. Results reported herein conform to the applicable TNI/NELAC Standards and the laboratory's Quality Manual, where applicable, unless otherwise noted in the body of the report.

The test results provided in this final report were generated by each of the following laboratories within the Pace Network:

- Pace Analytical Services - Charlotte

If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Bonnie Vang
bonnie.vang@pacelabs.com
(704)875-9092
Project Manager

Enclosures

cc: Molly Long, WSP

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CERTIFICATIONS

Project: FORMER KOP-FLEX FACILITY SITE
Pace Project No.: 92580514

Pace Analytical Services Charlotte

South Carolina Laboratory ID: 99006
9800 Kincey Ave. Ste 100, Huntersville, NC 28078
North Carolina Drinking Water Certification #: 37706
North Carolina Field Services Certification #: 5342
North Carolina Wastewater Certification #: 12
South Carolina Laboratory ID: 99006
South Carolina Certification #: 99006001
South Carolina Drinking Water Cert. #: 99006003
Florida/NELAP Certification #: E87627
Kentucky UST Certification #: 84
Louisiana DoH Drinking Water #: LA029
Virginia/VELAP Certification #: 460221

REPORT OF LABORATORY ANALYSIS

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Huntersville, NC 28078
(704)875-9092

SAMPLE SUMMARY

Project: FORMER KOP-FLEX FACILITY SITE
Pace Project No.: 92580514

Lab ID	Sample ID	Matrix	Date Collected	Date Received
92580514001	**RW-1S**	Water	12/29/21 11:50	12/30/21 14:30
92580514002	**RW-2S**	Water	12/29/21 12:00	12/30/21 14:30
92580514003	**RW-3S**	Water	12/29/21 12:05	12/30/21 14:30
92580514004	**RW-1D**	Water	12/29/21 12:15	12/30/21 14:30
92580514005	**RW-2D**	Water	12/29/21 12:20	12/30/21 14:30
92580514006	**TRIP BLANK B**	Water	12/29/21 00:00	12/30/21 14:30

REPORT OF LABORATORY ANALYSIS

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Huntersville, NC 28078
(704)875-9092

SAMPLE ANALYTE COUNT

Project: FORMER KOP-FLEX FACILITY SITE
Pace Project No.: 92580514

Lab ID	Sample ID	Method	Analysts	Analytes Reported	Laboratory
92580514001	**RW-1S**	EPA 8260D	NSCQ	63	PASI-C
		EPA 8260D Mod.	CL	3	PASI-C
92580514002	**RW-2S**	EPA 8260D	CL	63	PASI-C
		EPA 8260D Mod.	CL	3	PASI-C
92580514003	**RW-3S**	EPA 8260D	NSCQ	63	PASI-C
		EPA 8260D Mod.	CL	3	PASI-C
92580514004	**RW-1D**	EPA 8260D	NSCQ	63	PASI-C
		EPA 8260D Mod.	CL	3	PASI-C
92580514005	**RW-2D**	EPA 8260D	NSCQ	63	PASI-C
		EPA 8260D Mod.	CL	3	PASI-C
92580514006	**TRIP BLANK B**	EPA 8260D	NSCQ	63	PASI-C

PASI-C = Pace Analytical Services - Charlotte

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9800 Kincey Ave. Suite 100
Huntersville, NC 28078
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ANALYTICAL RESULTS

Project: FORMER KOP-FLEX FACILITY SITE
Pace Project No.: 92580514

Sample: RW-1S **Lab ID: 92580514001** Collected: 12/29/21 11:50 Received: 12/30/21 14:30 Matrix: Water

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8260D MSV Low Level	Analytical Method: EPA 8260D Pace Analytical Services - Charlotte							
Acetone	ND	ug/L	62.5	2.5		12/31/21 00:32	67-64-1	
Benzene	ND	ug/L	2.5	2.5		12/31/21 00:32	71-43-2	
Bromobenzene	ND	ug/L	2.5	2.5		12/31/21 00:32	108-86-1	
Bromochloromethane	ND	ug/L	2.5	2.5		12/31/21 00:32	74-97-5	
Bromodichloromethane	ND	ug/L	2.5	2.5		12/31/21 00:32	75-27-4	
Bromoform	ND	ug/L	2.5	2.5		12/31/21 00:32	75-25-2	
Bromomethane	ND	ug/L	5.0	2.5		12/31/21 00:32	74-83-9	v2
2-Butanone (MEK)	ND	ug/L	12.5	2.5		12/31/21 00:32	78-93-3	
Carbon tetrachloride	ND	ug/L	2.5	2.5		12/31/21 00:32	56-23-5	
Chlorobenzene	ND	ug/L	2.5	2.5		12/31/21 00:32	108-90-7	
Chloroethane	**13.2**	ug/L	2.5	2.5		12/31/21 00:32	75-00-3	
Chloroform	ND	ug/L	2.5	2.5		12/31/21 00:32	67-66-3	
Chloromethane	ND	ug/L	2.5	2.5		12/31/21 00:32	74-87-3	
2-Chlorotoluene	ND	ug/L	2.5	2.5		12/31/21 00:32	95-49-8	
4-Chlorotoluene	ND	ug/L	2.5	2.5		12/31/21 00:32	106-43-4	
1,2-Dibromo-3-chloropropane	ND	ug/L	5.0	2.5		12/31/21 00:32	96-12-8	
Dibromochloromethane	ND	ug/L	2.5	2.5		12/31/21 00:32	124-48-1	
1,2-Dibromoethane (EDB)	ND	ug/L	2.5	2.5		12/31/21 00:32	106-93-4	
Dibromomethane	ND	ug/L	2.5	2.5		12/31/21 00:32	74-95-3	
1,2-Dichlorobenzene	ND	ug/L	2.5	2.5		12/31/21 00:32	95-50-1	
1,3-Dichlorobenzene	ND	ug/L	2.5	2.5		12/31/21 00:32	541-73-1	
1,4-Dichlorobenzene	ND	ug/L	2.5	2.5		12/31/21 00:32	106-46-7	
Dichlorodifluoromethane	ND	ug/L	2.5	2.5		12/31/21 00:32	75-71-8	
1,1-Dichloroethane	**99.4**	ug/L	2.5	2.5		12/31/21 00:32	75-34-3	
1,2-Dichloroethane	ND	ug/L	2.5	2.5		12/31/21 00:32	107-06-2	
1,1-Dichloroethene	**368**	ug/L	2.5	2.5		12/31/21 00:32	75-35-4	
cis-1,2-Dichloroethene	ND	ug/L	2.5	2.5		12/31/21 00:32	156-59-2	
trans-1,2-Dichloroethene	ND	ug/L	2.5	2.5		12/31/21 00:32	156-60-5	
1,2-Dichloropropane	ND	ug/L	2.5	2.5		12/31/21 00:32	78-87-5	
1,3-Dichloropropane	ND	ug/L	2.5	2.5		12/31/21 00:32	142-28-9	
2,2-Dichloropropane	ND	ug/L	2.5	2.5		12/31/21 00:32	594-20-7	
1,1-Dichloropropene	ND	ug/L	2.5	2.5		12/31/21 00:32	563-58-6	
cis-1,3-Dichloropropene	ND	ug/L	2.5	2.5		12/31/21 00:32	10061-01-5	
trans-1,3-Dichloropropene	ND	ug/L	2.5	2.5		12/31/21 00:32	10061-02-6	
Diisopropyl ether	ND	ug/L	2.5	2.5		12/31/21 00:32	108-20-3	
Ethylbenzene	ND	ug/L	2.5	2.5		12/31/21 00:32	100-41-4	
Hexachloro-1,3-butadiene	ND	ug/L	5.0	2.5		12/31/21 00:32	87-68-3	
2-Hexanone	ND	ug/L	12.5	2.5		12/31/21 00:32	591-78-6	
p-Isopropyltoluene	ND	ug/L	2.5	2.5		12/31/21 00:32	99-87-6	
Methylene Chloride	ND	ug/L	12.5	2.5		12/31/21 00:32	75-09-2	
4-Methyl-2-pentanone (MIBK)	ND	ug/L	12.5	2.5		12/31/21 00:32	108-10-1	
Methyl-tert-butyl ether	ND	ug/L	2.5	2.5		12/31/21 00:32	1634-04-4	
Naphthalene	ND	ug/L	2.5	2.5		12/31/21 00:32	91-20-3	
Styrene	ND	ug/L	2.5	2.5		12/31/21 00:32	100-42-5	
1,1,1,2-Tetrachloroethane	ND	ug/L	2.5	2.5		12/31/21 00:32	630-20-6	
1,1,2,2-Tetrachloroethane	ND	ug/L	2.5	2.5		12/31/21 00:32	79-34-5	

REPORT OF LABORATORY ANALYSIS

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Huntersville, NC 28078
(704)875-9092

ANALYTICAL RESULTS

Project: FORMER KOP-FLEX FACILITY SITE
Pace Project No.: 92580514

Sample: RW-1S **Lab ID: 92580514001** Collected: 12/29/21 11:50 Received: 12/30/21 14:30 Matrix: Water

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8260D MSV Low Level	Analytical Method: EPA 8260D Pace Analytical Services - Charlotte							
Tetrachloroethene	ND	ug/L	2.5	2.5		12/31/21 00:32	127-18-4	
Toluene	ND	ug/L	2.5	2.5		12/31/21 00:32	108-88-3	
1,2,3-Trichlorobenzene	ND	ug/L	2.5	2.5		12/31/21 00:32	87-61-6	
1,2,4-Trichlorobenzene	ND	ug/L	2.5	2.5		12/31/21 00:32	120-82-1	
1,1,1-Trichloroethane	**49.2**	ug/L	2.5	2.5		12/31/21 00:32	71-55-6	
1,1,2-Trichloroethane	ND	ug/L	2.5	2.5		12/31/21 00:32	79-00-5	
Trichloroethene	ND	ug/L	2.5	2.5		12/31/21 00:32	79-01-6	
Trichlorofluoromethane	ND	ug/L	2.5	2.5		12/31/21 00:32	75-69-4	
1,2,3-Trichloropropane	ND	ug/L	2.5	2.5		12/31/21 00:32	96-18-4	
Vinyl acetate	ND	ug/L	5.0	2.5		12/31/21 00:32	108-05-4	
Vinyl chloride	**3.8**	ug/L	2.5	2.5		12/31/21 00:32	75-01-4	
Xylene (Total)	ND	ug/L	2.5	2.5		12/31/21 00:32	1330-20-7	
m&p-Xylene	ND	ug/L	5.0	2.5		12/31/21 00:32	179601-23-1	
o-Xylene	ND	ug/L	2.5	2.5		12/31/21 00:32	95-47-6	
Surrogates								
4-Bromofluorobenzene (S)	103	%	70-130	2.5		12/31/21 00:32	460-00-4	
1,2-Dichloroethane-d4 (S)	88	%	70-130	2.5		12/31/21 00:32	17060-07-0	
Toluene-d8 (S)	106	%	70-130	2.5		12/31/21 00:32	2037-26-5	
8260D MSV SIM	Analytical Method: EPA 8260D Mod. Pace Analytical Services - Charlotte							
1,4-Dioxane (p-Dioxane)	**294**	ug/L	10.0	5		01/04/22 13:10	123-91-1	
Surrogates								
1,2-Dichloroethane-d4 (S)	95	%	70-130	5		01/04/22 13:10	17060-07-0	
Toluene-d8 (S)	94	%	66-133	5		01/04/22 13:10	2037-26-5	

REPORT OF LABORATORY ANALYSIS

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(704)875-9092

ANALYTICAL RESULTS

Project: FORMER KOP-FLEX FACILITY SITE
Pace Project No.: 92580514

Sample: RW-2S **Lab ID: 92580514002** Collected: 12/29/21 12:00 Received: 12/30/21 14:30 Matrix: Water

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8260D MSV Low Level	Analytical Method: EPA 8260D Pace Analytical Services - Charlotte							
Acetone	ND	ug/L	50.0	2		01/04/22 14:18	67-64-1	
Benzene	ND	ug/L	2.0	2		01/04/22 14:18	71-43-2	
Bromobenzene	ND	ug/L	2.0	2		01/04/22 14:18	108-86-1	
Bromochloromethane	ND	ug/L	2.0	2		01/04/22 14:18	74-97-5	
Bromodichloromethane	ND	ug/L	2.0	2		01/04/22 14:18	75-27-4	
Bromoform	ND	ug/L	2.0	2		01/04/22 14:18	75-25-2	
Bromomethane	ND	ug/L	4.0	2		01/04/22 14:18	74-83-9	v1
2-Butanone (MEK)	ND	ug/L	10.0	2		01/04/22 14:18	78-93-3	
Carbon tetrachloride	ND	ug/L	2.0	2		01/04/22 14:18	56-23-5	
Chlorobenzene	ND	ug/L	2.0	2		01/04/22 14:18	108-90-7	
Chloroethane	ND	ug/L	2.0	2		01/04/22 14:18	75-00-3	L1
Chloroform	ND	ug/L	2.0	2		01/04/22 14:18	67-66-3	
Chloromethane	ND	ug/L	2.0	2		01/04/22 14:18	74-87-3	
2-Chlorotoluene	ND	ug/L	2.0	2		01/04/22 14:18	95-49-8	
4-Chlorotoluene	ND	ug/L	2.0	2		01/04/22 14:18	106-43-4	
1,2-Dibromo-3-chloropropane	ND	ug/L	4.0	2		01/04/22 14:18	96-12-8	
Dibromochloromethane	ND	ug/L	2.0	2		01/04/22 14:18	124-48-1	
1,2-Dibromoethane (EDB)	ND	ug/L	2.0	2		01/04/22 14:18	106-93-4	
Dibromomethane	ND	ug/L	2.0	2		01/04/22 14:18	74-95-3	
1,2-Dichlorobenzene	ND	ug/L	2.0	2		01/04/22 14:18	95-50-1	
1,3-Dichlorobenzene	ND	ug/L	2.0	2		01/04/22 14:18	541-73-1	
1,4-Dichlorobenzene	ND	ug/L	2.0	2		01/04/22 14:18	106-46-7	
Dichlorodifluoromethane	ND	ug/L	2.0	2		01/04/22 14:18	75-71-8	
1,1-Dichloroethane	**32.7**	ug/L	2.0	2		01/04/22 14:18	75-34-3	
1,2-Dichloroethane	ND	ug/L	2.0	2		01/04/22 14:18	107-06-2	
1,1-Dichloroethene	**184**	ug/L	2.0	2		01/04/22 14:18	75-35-4	
cis-1,2-Dichloroethene	ND	ug/L	2.0	2		01/04/22 14:18	156-59-2	
trans-1,2-Dichloroethene	ND	ug/L	2.0	2		01/04/22 14:18	156-60-5	
1,2-Dichloropropane	ND	ug/L	2.0	2		01/04/22 14:18	78-87-5	
1,3-Dichloropropane	ND	ug/L	2.0	2		01/04/22 14:18	142-28-9	
2,2-Dichloropropane	ND	ug/L	2.0	2		01/04/22 14:18	594-20-7	
1,1-Dichloropropene	ND	ug/L	2.0	2		01/04/22 14:18	563-58-6	
cis-1,3-Dichloropropene	ND	ug/L	2.0	2		01/04/22 14:18	10061-01-5	
trans-1,3-Dichloropropene	ND	ug/L	2.0	2		01/04/22 14:18	10061-02-6	
Diisopropyl ether	ND	ug/L	2.0	2		01/04/22 14:18	108-20-3	
Ethylbenzene	ND	ug/L	2.0	2		01/04/22 14:18	100-41-4	
Hexachloro-1,3-butadiene	ND	ug/L	4.0	2		01/04/22 14:18	87-68-3	
2-Hexanone	ND	ug/L	10.0	2		01/04/22 14:18	591-78-6	
p-Isopropyltoluene	ND	ug/L	2.0	2		01/04/22 14:18	99-87-6	
Methylene Chloride	ND	ug/L	10.0	2		01/04/22 14:18	75-09-2	
4-Methyl-2-pentanone (MIBK)	ND	ug/L	10.0	2		01/04/22 14:18	108-10-1	
Methyl-tert-butyl ether	ND	ug/L	2.0	2		01/04/22 14:18	1634-04-4	
Naphthalene	ND	ug/L	2.0	2		01/04/22 14:18	91-20-3	
Styrene	ND	ug/L	2.0	2		01/04/22 14:18	100-42-5	
1,1,1,2-Tetrachloroethane	ND	ug/L	2.0	2		01/04/22 14:18	630-20-6	
1,1,2,2-Tetrachloroethane	ND	ug/L	2.0	2		01/04/22 14:18	79-34-5	

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ANALYTICAL RESULTS

Project: FORMER KOP-FLEX FACILITY SITE
Pace Project No.: 92580514

Sample: RW-2S **Lab ID: 92580514002** Collected: 12/29/21 12:00 Received: 12/30/21 14:30 Matrix: Water

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8260D MSV Low Level	Analytical Method: EPA 8260D Pace Analytical Services - Charlotte							
Tetrachloroethene	ND	ug/L	2.0	2		01/04/22 14:18	127-18-4	
Toluene	ND	ug/L	2.0	2		01/04/22 14:18	108-88-3	
1,2,3-Trichlorobenzene	ND	ug/L	2.0	2		01/04/22 14:18	87-61-6	
1,2,4-Trichlorobenzene	ND	ug/L	2.0	2		01/04/22 14:18	120-82-1	
1,1,1-Trichloroethane	**147**	ug/L	2.0	2		01/04/22 14:18	71-55-6	
1,1,2-Trichloroethane	ND	ug/L	2.0	2		01/04/22 14:18	79-00-5	
Trichloroethene	ND	ug/L	2.0	2		01/04/22 14:18	79-01-6	
Trichlorofluoromethane	ND	ug/L	2.0	2		01/04/22 14:18	75-69-4	
1,2,3-Trichloropropane	ND	ug/L	2.0	2		01/04/22 14:18	96-18-4	
Vinyl acetate	ND	ug/L	4.0	2		01/04/22 14:18	108-05-4	
Vinyl chloride	ND	ug/L	2.0	2		01/04/22 14:18	75-01-4	
Xylene (Total)	ND	ug/L	2.0	2		01/04/22 14:18	1330-20-7	
m&p-Xylene	ND	ug/L	4.0	2		01/04/22 14:18	179601-23-1	
o-Xylene	ND	ug/L	2.0	2		01/04/22 14:18	95-47-6	
Surrogates								
4-Bromofluorobenzene (S)	105	%	70-130	2		01/04/22 14:18	460-00-4	
1,2-Dichloroethane-d4 (S)	113	%	70-130	2		01/04/22 14:18	17060-07-0	
Toluene-d8 (S)	104	%	70-130	2		01/04/22 14:18	2037-26-5	
8260D MSV SIM	Analytical Method: EPA 8260D Mod. Pace Analytical Services - Charlotte							
1,4-Dioxane (p-Dioxane)	**207**	ug/L	8.0	4		01/04/22 12:51	123-91-1	
Surrogates								
1,2-Dichloroethane-d4 (S)	97	%	70-130	4		01/04/22 12:51	17060-07-0	
Toluene-d8 (S)	96	%	66-133	4		01/04/22 12:51	2037-26-5	

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ANALYTICAL RESULTS

Project: FORMER KOP-FLEX FACILITY SITE
Pace Project No.: 92580514

Sample: RW-3S **Lab ID: 92580514003** Collected: 12/29/21 12:05 Received: 12/30/21 14:30 Matrix: Water

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8260D MSV Low Level	Analytical Method: EPA 8260D Pace Analytical Services - Charlotte							
Acetone	ND	ug/L	25.0	1		12/30/21 22:48	67-64-1	
Benzene	ND	ug/L	1.0	1		12/30/21 22:48	71-43-2	
Bromobenzene	ND	ug/L	1.0	1		12/30/21 22:48	108-86-1	
Bromochloromethane	ND	ug/L	1.0	1		12/30/21 22:48	74-97-5	
Bromodichloromethane	ND	ug/L	1.0	1		12/30/21 22:48	75-27-4	
Bromoform	ND	ug/L	1.0	1		12/30/21 22:48	75-25-2	
Bromomethane	ND	ug/L	2.0	1		12/30/21 22:48	74-83-9	v2
2-Butanone (MEK)	ND	ug/L	5.0	1		12/30/21 22:48	78-93-3	
Carbon tetrachloride	ND	ug/L	1.0	1		12/30/21 22:48	56-23-5	
Chlorobenzene	ND	ug/L	1.0	1		12/30/21 22:48	108-90-7	
Chloroethane	ND	ug/L	1.0	1		12/30/21 22:48	75-00-3	
Chloroform	ND	ug/L	1.0	1		12/30/21 22:48	67-66-3	
Chloromethane	ND	ug/L	1.0	1		12/30/21 22:48	74-87-3	
2-Chlorotoluene	ND	ug/L	1.0	1		12/30/21 22:48	95-49-8	
4-Chlorotoluene	ND	ug/L	1.0	1		12/30/21 22:48	106-43-4	
1,2-Dibromo-3-chloropropane	ND	ug/L	2.0	1		12/30/21 22:48	96-12-8	
Dibromochloromethane	ND	ug/L	1.0	1		12/30/21 22:48	124-48-1	
1,2-Dibromoethane (EDB)	ND	ug/L	1.0	1		12/30/21 22:48	106-93-4	
Dibromomethane	ND	ug/L	1.0	1		12/30/21 22:48	74-95-3	
1,2-Dichlorobenzene	ND	ug/L	1.0	1		12/30/21 22:48	95-50-1	
1,3-Dichlorobenzene	ND	ug/L	1.0	1		12/30/21 22:48	541-73-1	
1,4-Dichlorobenzene	ND	ug/L	1.0	1		12/30/21 22:48	106-46-7	
Dichlorodifluoromethane	ND	ug/L	1.0	1		12/30/21 22:48	75-71-8	
1,1-Dichloroethane	**2.3**	ug/L	1.0	1		12/30/21 22:48	75-34-3	
1,2-Dichloroethane	ND	ug/L	1.0	1		12/30/21 22:48	107-06-2	
1,1-Dichloroethene	**3.2**	ug/L	1.0	1		12/30/21 22:48	75-35-4	
cis-1,2-Dichloroethene	ND	ug/L	1.0	1		12/30/21 22:48	156-59-2	
trans-1,2-Dichloroethene	ND	ug/L	1.0	1		12/30/21 22:48	156-60-5	
1,2-Dichloropropane	ND	ug/L	1.0	1		12/30/21 22:48	78-87-5	
1,3-Dichloropropane	ND	ug/L	1.0	1		12/30/21 22:48	142-28-9	
2,2-Dichloropropane	ND	ug/L	1.0	1		12/30/21 22:48	594-20-7	
1,1-Dichloropropene	ND	ug/L	1.0	1		12/30/21 22:48	563-58-6	
cis-1,3-Dichloropropene	ND	ug/L	1.0	1		12/30/21 22:48	10061-01-5	
trans-1,3-Dichloropropene	ND	ug/L	1.0	1		12/30/21 22:48	10061-02-6	
Diisopropyl ether	ND	ug/L	1.0	1		12/30/21 22:48	108-20-3	
Ethylbenzene	ND	ug/L	1.0	1		12/30/21 22:48	100-41-4	
Hexachloro-1,3-butadiene	ND	ug/L	2.0	1		12/30/21 22:48	87-68-3	
2-Hexanone	ND	ug/L	5.0	1		12/30/21 22:48	591-78-6	
p-Isopropyltoluene	ND	ug/L	1.0	1		12/30/21 22:48	99-87-6	
Methylene Chloride	ND	ug/L	5.0	1		12/30/21 22:48	75-09-2	
4-Methyl-2-pentanone (MIBK)	ND	ug/L	5.0	1		12/30/21 22:48	108-10-1	
Methyl-tert-butyl ether	ND	ug/L	1.0	1		12/30/21 22:48	1634-04-4	
Naphthalene	ND	ug/L	1.0	1		12/30/21 22:48	91-20-3	
Styrene	ND	ug/L	1.0	1		12/30/21 22:48	100-42-5	
1,1,1,2-Tetrachloroethane	ND	ug/L	1.0	1		12/30/21 22:48	630-20-6	
1,1,2,2-Tetrachloroethane	ND	ug/L	1.0	1		12/30/21 22:48	79-34-5	

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ANALYTICAL RESULTS

Project: FORMER KOP-FLEX FACILITY SITE
Pace Project No.: 92580514

Sample: RW-3S **Lab ID: 92580514003** Collected: 12/29/21 12:05 Received: 12/30/21 14:30 Matrix: Water

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8260D MSV Low Level	Analytical Method: EPA 8260D Pace Analytical Services - Charlotte							
Tetrachloroethene	ND	ug/L	1.0	1		12/30/21 22:48	127-18-4	
Toluene	ND	ug/L	1.0	1		12/30/21 22:48	108-88-3	
1,2,3-Trichlorobenzene	ND	ug/L	1.0	1		12/30/21 22:48	87-61-6	
1,2,4-Trichlorobenzene	ND	ug/L	1.0	1		12/30/21 22:48	120-82-1	
1,1,1-Trichloroethane	**5.2**	ug/L	1.0	1		12/30/21 22:48	71-55-6	
1,1,2-Trichloroethane	ND	ug/L	1.0	1		12/30/21 22:48	79-00-5	
Trichloroethene	ND	ug/L	1.0	1		12/30/21 22:48	79-01-6	
Trichlorofluoromethane	ND	ug/L	1.0	1		12/30/21 22:48	75-69-4	
1,2,3-Trichloropropane	ND	ug/L	1.0	1		12/30/21 22:48	96-18-4	
Vinyl acetate	ND	ug/L	2.0	1		12/30/21 22:48	108-05-4	
Vinyl chloride	ND	ug/L	1.0	1		12/30/21 22:48	75-01-4	
Xylene (Total)	ND	ug/L	1.0	1		12/30/21 22:48	1330-20-7	
m&p-Xylene	ND	ug/L	2.0	1		12/30/21 22:48	179601-23-1	
o-Xylene	ND	ug/L	1.0	1		12/30/21 22:48	95-47-6	
Surrogates								
4-Bromofluorobenzene (S)	99	%	70-130	1		12/30/21 22:48	460-00-4	
1,2-Dichloroethane-d4 (S)	89	%	70-130	1		12/30/21 22:48	17060-07-0	
Toluene-d8 (S)	106	%	70-130	1		12/30/21 22:48	2037-26-5	
8260D MSV SIM	Analytical Method: EPA 8260D Mod. Pace Analytical Services - Charlotte							
1,4-Dioxane (p-Dioxane)	**11.1**	ug/L	2.0	1		01/03/22 17:12	123-91-1	
Surrogates								
1,2-Dichloroethane-d4 (S)	97	%	70-130	1		01/03/22 17:12	17060-07-0	
Toluene-d8 (S)	100	%	66-133	1		01/03/22 17:12	2037-26-5	

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ANALYTICAL RESULTS

Project: FORMER KOP-FLEX FACILITY SITE
Pace Project No.: 92580514

Sample: RW-1D **Lab ID: 92580514004** Collected: 12/29/21 12:15 Received: 12/30/21 14:30 Matrix: Water

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8260D MSV Low Level	Analytical Method: EPA 8260D Pace Analytical Services - Charlotte							
Acetone	ND	ug/L	50.0	2		12/31/21 00:15	67-64-1	
Benzene	ND	ug/L	2.0	2		12/31/21 00:15	71-43-2	
Bromobenzene	ND	ug/L	2.0	2		12/31/21 00:15	108-86-1	
Bromochloromethane	ND	ug/L	2.0	2		12/31/21 00:15	74-97-5	
Bromodichloromethane	ND	ug/L	2.0	2		12/31/21 00:15	75-27-4	
Bromoform	ND	ug/L	2.0	2		12/31/21 00:15	75-25-2	
Bromomethane	ND	ug/L	4.0	2		12/31/21 00:15	74-83-9	v2
2-Butanone (MEK)	ND	ug/L	10.0	2		12/31/21 00:15	78-93-3	
Carbon tetrachloride	ND	ug/L	2.0	2		12/31/21 00:15	56-23-5	
Chlorobenzene	ND	ug/L	2.0	2		12/31/21 00:15	108-90-7	
Chloroethane	**5.8**	ug/L	2.0	2		12/31/21 00:15	75-00-3	
Chloroform	ND	ug/L	2.0	2		12/31/21 00:15	67-66-3	
Chloromethane	ND	ug/L	2.0	2		12/31/21 00:15	74-87-3	
2-Chlorotoluene	ND	ug/L	2.0	2		12/31/21 00:15	95-49-8	
4-Chlorotoluene	ND	ug/L	2.0	2		12/31/21 00:15	106-43-4	
1,2-Dibromo-3-chloropropane	ND	ug/L	4.0	2		12/31/21 00:15	96-12-8	
Dibromochloromethane	ND	ug/L	2.0	2		12/31/21 00:15	124-48-1	
1,2-Dibromoethane (EDB)	ND	ug/L	2.0	2		12/31/21 00:15	106-93-4	
Dibromomethane	ND	ug/L	2.0	2		12/31/21 00:15	74-95-3	
1,2-Dichlorobenzene	ND	ug/L	2.0	2		12/31/21 00:15	95-50-1	
1,3-Dichlorobenzene	ND	ug/L	2.0	2		12/31/21 00:15	541-73-1	
1,4-Dichlorobenzene	ND	ug/L	2.0	2		12/31/21 00:15	106-46-7	
Dichlorodifluoromethane	ND	ug/L	2.0	2		12/31/21 00:15	75-71-8	
1,1-Dichloroethane	**51.4**	ug/L	2.0	2		12/31/21 00:15	75-34-3	
1,2-Dichloroethane	ND	ug/L	2.0	2		12/31/21 00:15	107-06-2	
1,1-Dichloroethene	**202**	ug/L	2.0	2		12/31/21 00:15	75-35-4	
cis-1,2-Dichloroethene	ND	ug/L	2.0	2		12/31/21 00:15	156-59-2	
trans-1,2-Dichloroethene	ND	ug/L	2.0	2		12/31/21 00:15	156-60-5	
1,2-Dichloropropane	ND	ug/L	2.0	2		12/31/21 00:15	78-87-5	
1,3-Dichloropropane	ND	ug/L	2.0	2		12/31/21 00:15	142-28-9	
2,2-Dichloropropane	ND	ug/L	2.0	2		12/31/21 00:15	594-20-7	
1,1-Dichloropropene	ND	ug/L	2.0	2		12/31/21 00:15	563-58-6	
cis-1,3-Dichloropropene	ND	ug/L	2.0	2		12/31/21 00:15	10061-01-5	
trans-1,3-Dichloropropene	ND	ug/L	2.0	2		12/31/21 00:15	10061-02-6	
Diisopropyl ether	ND	ug/L	2.0	2		12/31/21 00:15	108-20-3	
Ethylbenzene	ND	ug/L	2.0	2		12/31/21 00:15	100-41-4	
Hexachloro-1,3-butadiene	ND	ug/L	4.0	2		12/31/21 00:15	87-68-3	
2-Hexanone	ND	ug/L	10.0	2		12/31/21 00:15	591-78-6	
p-Isopropyltoluene	ND	ug/L	2.0	2		12/31/21 00:15	99-87-6	
Methylene Chloride	ND	ug/L	10.0	2		12/31/21 00:15	75-09-2	
4-Methyl-2-pentanone (MIBK)	ND	ug/L	10.0	2		12/31/21 00:15	108-10-1	
Methyl-tert-butyl ether	ND	ug/L	2.0	2		12/31/21 00:15	1634-04-4	
Naphthalene	ND	ug/L	2.0	2		12/31/21 00:15	91-20-3	
Styrene	ND	ug/L	2.0	2		12/31/21 00:15	100-42-5	
1,1,1,2-Tetrachloroethane	ND	ug/L	2.0	2		12/31/21 00:15	630-20-6	
1,1,2,2-Tetrachloroethane	ND	ug/L	2.0	2		12/31/21 00:15	79-34-5	

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(704)875-9092

ANALYTICAL RESULTS

Project: FORMER KOP-FLEX FACILITY SITE
Pace Project No.: 92580514

Sample: RW-1D **Lab ID: 92580514004** Collected: 12/29/21 12:15 Received: 12/30/21 14:30 Matrix: Water

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8260D MSV Low Level	Analytical Method: EPA 8260D Pace Analytical Services - Charlotte							
Tetrachloroethene	ND	ug/L	2.0	2		12/31/21 00:15	127-18-4	
Toluene	ND	ug/L	2.0	2		12/31/21 00:15	108-88-3	
1,2,3-Trichlorobenzene	ND	ug/L	2.0	2		12/31/21 00:15	87-61-6	
1,2,4-Trichlorobenzene	ND	ug/L	2.0	2		12/31/21 00:15	120-82-1	
1,1,1-Trichloroethane	**4.5**	ug/L	2.0	2		12/31/21 00:15	71-55-6	
1,1,2-Trichloroethane	ND	ug/L	2.0	2		12/31/21 00:15	79-00-5	
Trichloroethene	ND	ug/L	2.0	2		12/31/21 00:15	79-01-6	
Trichlorofluoromethane	ND	ug/L	2.0	2		12/31/21 00:15	75-69-4	
1,2,3-Trichloropropane	ND	ug/L	2.0	2		12/31/21 00:15	96-18-4	
Vinyl acetate	ND	ug/L	4.0	2		12/31/21 00:15	108-05-4	
Vinyl chloride	ND	ug/L	2.0	2		12/31/21 00:15	75-01-4	
Xylene (Total)	ND	ug/L	2.0	2		12/31/21 00:15	1330-20-7	
m&p-Xylene	ND	ug/L	4.0	2		12/31/21 00:15	179601-23-1	
o-Xylene	ND	ug/L	2.0	2		12/31/21 00:15	95-47-6	
Surrogates								
4-Bromofluorobenzene (S)	102	%	70-130	2		12/31/21 00:15	460-00-4	
1,2-Dichloroethane-d4 (S)	89	%	70-130	2		12/31/21 00:15	17060-07-0	
Toluene-d8 (S)	106	%	70-130	2		12/31/21 00:15	2037-26-5	
8260D MSV SIM	Analytical Method: EPA 8260D Mod. Pace Analytical Services - Charlotte							
1,4-Dioxane (p-Dioxane)	**83.7**	ug/L	2.0	1		01/03/22 17:32	123-91-1	
Surrogates								
1,2-Dichloroethane-d4 (S)	101	%	70-130	1		01/03/22 17:32	17060-07-0	
Toluene-d8 (S)	99	%	66-133	1		01/03/22 17:32	2037-26-5	

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ANALYTICAL RESULTS

Project: FORMER KOP-FLEX FACILITY SITE
Pace Project No.: 92580514

Sample: RW-2D **Lab ID: 92580514005** Collected: 12/29/21 12:20 Received: 12/30/21 14:30 Matrix: Water

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8260D MSV Low Level	Analytical Method: EPA 8260D Pace Analytical Services - Charlotte							
Acetone	ND	ug/L	25.0	1		12/30/21 23:05	67-64-1	
Benzene	ND	ug/L	1.0	1		12/30/21 23:05	71-43-2	
Bromobenzene	ND	ug/L	1.0	1		12/30/21 23:05	108-86-1	
Bromochloromethane	ND	ug/L	1.0	1		12/30/21 23:05	74-97-5	
Bromodichloromethane	ND	ug/L	1.0	1		12/30/21 23:05	75-27-4	
Bromoform	ND	ug/L	1.0	1		12/30/21 23:05	75-25-2	
Bromomethane	ND	ug/L	2.0	1		12/30/21 23:05	74-83-9	v2
2-Butanone (MEK)	ND	ug/L	5.0	1		12/30/21 23:05	78-93-3	
Carbon tetrachloride	ND	ug/L	1.0	1		12/30/21 23:05	56-23-5	
Chlorobenzene	ND	ug/L	1.0	1		12/30/21 23:05	108-90-7	
Chloroethane	ND	ug/L	1.0	1		12/30/21 23:05	75-00-3	
Chloroform	ND	ug/L	1.0	1		12/30/21 23:05	67-66-3	
Chloromethane	ND	ug/L	1.0	1		12/30/21 23:05	74-87-3	
2-Chlorotoluene	ND	ug/L	1.0	1		12/30/21 23:05	95-49-8	
4-Chlorotoluene	ND	ug/L	1.0	1		12/30/21 23:05	106-43-4	
1,2-Dibromo-3-chloropropane	ND	ug/L	2.0	1		12/30/21 23:05	96-12-8	
Dibromochloromethane	ND	ug/L	1.0	1		12/30/21 23:05	124-48-1	
1,2-Dibromoethane (EDB)	ND	ug/L	1.0	1		12/30/21 23:05	106-93-4	
Dibromomethane	ND	ug/L	1.0	1		12/30/21 23:05	74-95-3	
1,2-Dichlorobenzene	ND	ug/L	1.0	1		12/30/21 23:05	95-50-1	
1,3-Dichlorobenzene	ND	ug/L	1.0	1		12/30/21 23:05	541-73-1	
1,4-Dichlorobenzene	ND	ug/L	1.0	1		12/30/21 23:05	106-46-7	
Dichlorodifluoromethane	ND	ug/L	1.0	1		12/30/21 23:05	75-71-8	
1,1-Dichloroethane	**20.2**	ug/L	1.0	1		12/30/21 23:05	75-34-3	
1,2-Dichloroethane	**1.1**	ug/L	1.0	1		12/30/21 23:05	107-06-2	
1,1-Dichloroethene	**120**	ug/L	1.0	1		12/30/21 23:05	75-35-4	
cis-1,2-Dichloroethene	ND	ug/L	1.0	1		12/30/21 23:05	156-59-2	
trans-1,2-Dichloroethene	ND	ug/L	1.0	1		12/30/21 23:05	156-60-5	
1,2-Dichloropropane	ND	ug/L	1.0	1		12/30/21 23:05	78-87-5	
1,3-Dichloropropane	ND	ug/L	1.0	1		12/30/21 23:05	142-28-9	
2,2-Dichloropropane	ND	ug/L	1.0	1		12/30/21 23:05	594-20-7	
1,1-Dichloropropene	ND	ug/L	1.0	1		12/30/21 23:05	563-58-6	
cis-1,3-Dichloropropene	ND	ug/L	1.0	1		12/30/21 23:05	10061-01-5	
trans-1,3-Dichloropropene	ND	ug/L	1.0	1		12/30/21 23:05	10061-02-6	
Diisopropyl ether	ND	ug/L	1.0	1		12/30/21 23:05	108-20-3	
Ethylbenzene	ND	ug/L	1.0	1		12/30/21 23:05	100-41-4	
Hexachloro-1,3-butadiene	ND	ug/L	2.0	1		12/30/21 23:05	87-68-3	
2-Hexanone	ND	ug/L	5.0	1		12/30/21 23:05	591-78-6	
p-Isopropyltoluene	ND	ug/L	1.0	1		12/30/21 23:05	99-87-6	
Methylene Chloride	ND	ug/L	5.0	1		12/30/21 23:05	75-09-2	
4-Methyl-2-pentanone (MIBK)	ND	ug/L	5.0	1		12/30/21 23:05	108-10-1	
Methyl-tert-butyl ether	ND	ug/L	1.0	1		12/30/21 23:05	1634-04-4	
Naphthalene	ND	ug/L	1.0	1		12/30/21 23:05	91-20-3	
Styrene	ND	ug/L	1.0	1		12/30/21 23:05	100-42-5	
1,1,1,2-Tetrachloroethane	ND	ug/L	1.0	1		12/30/21 23:05	630-20-6	
1,1,2,2-Tetrachloroethane	ND	ug/L	1.0	1		12/30/21 23:05	79-34-5	

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ANALYTICAL RESULTS

Project: FORMER KOP-FLEX FACILITY SITE
Pace Project No.: 92580514

Sample: RW-2D **Lab ID: 92580514005** Collected: 12/29/21 12:20 Received: 12/30/21 14:30 Matrix: Water

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8260D MSV Low Level	Analytical Method: EPA 8260D Pace Analytical Services - Charlotte							
Tetrachloroethene	ND	ug/L	1.0	1		12/30/21 23:05	127-18-4	
Toluene	ND	ug/L	1.0	1		12/30/21 23:05	108-88-3	
1,2,3-Trichlorobenzene	ND	ug/L	1.0	1		12/30/21 23:05	87-61-6	
1,2,4-Trichlorobenzene	ND	ug/L	1.0	1		12/30/21 23:05	120-82-1	
1,1,1-Trichloroethane	**4.0**	ug/L	1.0	1		12/30/21 23:05	71-55-6	
1,1,2-Trichloroethane	ND	ug/L	1.0	1		12/30/21 23:05	79-00-5	
Trichloroethene	ND	ug/L	1.0	1		12/30/21 23:05	79-01-6	
Trichlorofluoromethane	ND	ug/L	1.0	1		12/30/21 23:05	75-69-4	
1,2,3-Trichloropropane	ND	ug/L	1.0	1		12/30/21 23:05	96-18-4	
Vinyl acetate	ND	ug/L	2.0	1		12/30/21 23:05	108-05-4	
Vinyl chloride	ND	ug/L	1.0	1		12/30/21 23:05	75-01-4	
Xylene (Total)	ND	ug/L	1.0	1		12/30/21 23:05	1330-20-7	
m&p-Xylene	ND	ug/L	2.0	1		12/30/21 23:05	179601-23-1	
o-Xylene	ND	ug/L	1.0	1		12/30/21 23:05	95-47-6	
Surrogates								
4-Bromofluorobenzene (S)	102	%	70-130	1		12/30/21 23:05	460-00-4	
1,2-Dichloroethane-d4 (S)	90	%	70-130	1		12/30/21 23:05	17060-07-0	
Toluene-d8 (S)	106	%	70-130	1		12/30/21 23:05	2037-26-5	
8260D MSV SIM	Analytical Method: EPA 8260D Mod. Pace Analytical Services - Charlotte							
1,4-Dioxane (p-Dioxane)	**85.1**	ug/L	2.0	1		01/03/22 17:51	123-91-1	
Surrogates								
1,2-Dichloroethane-d4 (S)	98	%	70-130	1		01/03/22 17:51	17060-07-0	
Toluene-d8 (S)	99	%	66-133	1		01/03/22 17:51	2037-26-5	

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ANALYTICAL RESULTS

Project: FORMER KOP-FLEX FACILITY SITE
Pace Project No.: 92580514

Sample: TRIP BLANK B **Lab ID: 92580514006** Collected: 12/29/21 00:00 Received: 12/30/21 14:30 Matrix: Water

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8260D MSV Low Level	Analytical Method: EPA 8260D Pace Analytical Services - Charlotte							
Acetone	ND	ug/L	25.0	1		12/30/21 19:18	67-64-1	
Benzene	ND	ug/L	1.0	1		12/30/21 19:18	71-43-2	
Bromobenzene	ND	ug/L	1.0	1		12/30/21 19:18	108-86-1	
Bromochloromethane	ND	ug/L	1.0	1		12/30/21 19:18	74-97-5	
Bromodichloromethane	ND	ug/L	1.0	1		12/30/21 19:18	75-27-4	
Bromoform	ND	ug/L	1.0	1		12/30/21 19:18	75-25-2	
Bromomethane	ND	ug/L	2.0	1		12/30/21 19:18	74-83-9	v2
2-Butanone (MEK)	ND	ug/L	5.0	1		12/30/21 19:18	78-93-3	
Carbon tetrachloride	ND	ug/L	1.0	1		12/30/21 19:18	56-23-5	
Chlorobenzene	ND	ug/L	1.0	1		12/30/21 19:18	108-90-7	
Chloroethane	ND	ug/L	1.0	1		12/30/21 19:18	75-00-3	
Chloroform	ND	ug/L	1.0	1		12/30/21 19:18	67-66-3	
Chloromethane	ND	ug/L	1.0	1		12/30/21 19:18	74-87-3	
2-Chlorotoluene	ND	ug/L	1.0	1		12/30/21 19:18	95-49-8	
4-Chlorotoluene	ND	ug/L	1.0	1		12/30/21 19:18	106-43-4	
1,2-Dibromo-3-chloropropane	ND	ug/L	2.0	1		12/30/21 19:18	96-12-8	
Dibromochloromethane	ND	ug/L	1.0	1		12/30/21 19:18	124-48-1	
1,2-Dibromoethane (EDB)	ND	ug/L	1.0	1		12/30/21 19:18	106-93-4	
Dibromomethane	ND	ug/L	1.0	1		12/30/21 19:18	74-95-3	
1,2-Dichlorobenzene	ND	ug/L	1.0	1		12/30/21 19:18	95-50-1	
1,3-Dichlorobenzene	ND	ug/L	1.0	1		12/30/21 19:18	541-73-1	
1,4-Dichlorobenzene	ND	ug/L	1.0	1		12/30/21 19:18	106-46-7	
Dichlorodifluoromethane	ND	ug/L	1.0	1		12/30/21 19:18	75-71-8	
1,1-Dichloroethane	ND	ug/L	1.0	1		12/30/21 19:18	75-34-3	
1,2-Dichloroethane	ND	ug/L	1.0	1		12/30/21 19:18	107-06-2	
1,1-Dichloroethene	ND	ug/L	1.0	1		12/30/21 19:18	75-35-4	
cis-1,2-Dichloroethene	ND	ug/L	1.0	1		12/30/21 19:18	156-59-2	
trans-1,2-Dichloroethene	ND	ug/L	1.0	1		12/30/21 19:18	156-60-5	
1,2-Dichloropropane	ND	ug/L	1.0	1		12/30/21 19:18	78-87-5	
1,3-Dichloropropane	ND	ug/L	1.0	1		12/30/21 19:18	142-28-9	
2,2-Dichloropropane	ND	ug/L	1.0	1		12/30/21 19:18	594-20-7	
1,1-Dichloropropene	ND	ug/L	1.0	1		12/30/21 19:18	563-58-6	
cis-1,3-Dichloropropene	ND	ug/L	1.0	1		12/30/21 19:18	10061-01-5	
trans-1,3-Dichloropropene	ND	ug/L	1.0	1		12/30/21 19:18	10061-02-6	
Diisopropyl ether	ND	ug/L	1.0	1		12/30/21 19:18	108-20-3	
Ethylbenzene	ND	ug/L	1.0	1		12/30/21 19:18	100-41-4	
Hexachloro-1,3-butadiene	ND	ug/L	2.0	1		12/30/21 19:18	87-68-3	
2-Hexanone	ND	ug/L	5.0	1		12/30/21 19:18	591-78-6	
p-Isopropyltoluene	ND	ug/L	1.0	1		12/30/21 19:18	99-87-6	
Methylene Chloride	ND	ug/L	5.0	1		12/30/21 19:18	75-09-2	
4-Methyl-2-pentanone (MIBK)	ND	ug/L	5.0	1		12/30/21 19:18	108-10-1	
Methyl-tert-butyl ether	ND	ug/L	1.0	1		12/30/21 19:18	1634-04-4	
Naphthalene	ND	ug/L	1.0	1		12/30/21 19:18	91-20-3	
Styrene	ND	ug/L	1.0	1		12/30/21 19:18	100-42-5	
1,1,1,2-Tetrachloroethane	ND	ug/L	1.0	1		12/30/21 19:18	630-20-6	
1,1,2,2-Tetrachloroethane	ND	ug/L	1.0	1		12/30/21 19:18	79-34-5	

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ANALYTICAL RESULTS

Project: FORMER KOP-FLEX FACILITY SITE
Pace Project No.: 92580514

Sample: TRIP BLANK B **Lab ID: 92580514006** Collected: 12/29/21 00:00 Received: 12/30/21 14:30 Matrix: Water

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8260D MSV Low Level	Analytical Method: EPA 8260D Pace Analytical Services - Charlotte							
Tetrachloroethene	ND	ug/L	1.0	1		12/30/21 19:18	127-18-4	
Toluene	ND	ug/L	1.0	1		12/30/21 19:18	108-88-3	
1,2,3-Trichlorobenzene	ND	ug/L	1.0	1		12/30/21 19:18	87-61-6	
1,2,4-Trichlorobenzene	ND	ug/L	1.0	1		12/30/21 19:18	120-82-1	
1,1,1-Trichloroethane	ND	ug/L	1.0	1		12/30/21 19:18	71-55-6	
1,1,2-Trichloroethane	ND	ug/L	1.0	1		12/30/21 19:18	79-00-5	
Trichloroethene	ND	ug/L	1.0	1		12/30/21 19:18	79-01-6	
Trichlorofluoromethane	ND	ug/L	1.0	1		12/30/21 19:18	75-69-4	
1,2,3-Trichloropropane	ND	ug/L	1.0	1		12/30/21 19:18	96-18-4	
Vinyl acetate	ND	ug/L	2.0	1		12/30/21 19:18	108-05-4	
Vinyl chloride	ND	ug/L	1.0	1		12/30/21 19:18	75-01-4	
Xylene (Total)	ND	ug/L	1.0	1		12/30/21 19:18	1330-20-7	
m&p-Xylene	ND	ug/L	2.0	1		12/30/21 19:18	179601-23-1	
o-Xylene	ND	ug/L	1.0	1		12/30/21 19:18	95-47-6	
Surrogates								
4-Bromofluorobenzene (S)	101	%	70-130	1		12/30/21 19:18	460-00-4	
1,2-Dichloroethane-d4 (S)	85	%	70-130	1		12/30/21 19:18	17060-07-0	
Toluene-d8 (S)	107	%	70-130	1		12/30/21 19:18	2037-26-5	

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QUALITY CONTROL DATA

Project: FORMER KOP-FLEX FACILITY SITE
Pace Project No.: 92580514

QC Batch: 669320
QC Batch Method: EPA 8260D
Analysis Method: EPA 8260D
Analysis Description: 8260D MSV Low Level
Laboratory: Pace Analytical Services - Charlotte
Associated Lab Samples: 92580514001, 92580514003, 92580514004, 92580514005, 92580514006

METHOD BLANK: 3505103 Matrix: Water
Associated Lab Samples: 92580514001, 92580514003, 92580514004, 92580514005, 92580514006

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
1,1,1,2-Tetrachloroethane	ug/L	ND	1.0	12/30/21 16:23	
1,1,1-Trichloroethane	ug/L	ND	1.0	12/30/21 16:23	
1,1,2,2-Tetrachloroethane	ug/L	ND	1.0	12/30/21 16:23	
1,1,2-Trichloroethane	ug/L	ND	1.0	12/30/21 16:23	
1,1-Dichloroethane	ug/L	ND	1.0	12/30/21 16:23	
1,1-Dichloroethene	ug/L	ND	1.0	12/30/21 16:23	
1,1-Dichloropropene	ug/L	ND	1.0	12/30/21 16:23	
1,2,3-Trichlorobenzene	ug/L	ND	1.0	12/30/21 16:23	
1,2,3-Trichloropropane	ug/L	ND	1.0	12/30/21 16:23	
1,2,4-Trichlorobenzene	ug/L	ND	1.0	12/30/21 16:23	
1,2-Dibromo-3-chloropropane	ug/L	ND	2.0	12/30/21 16:23	
1,2-Dibromoethane (EDB)	ug/L	ND	1.0	12/30/21 16:23	
1,2-Dichlorobenzene	ug/L	ND	1.0	12/30/21 16:23	
1,2-Dichloroethane	ug/L	ND	1.0	12/30/21 16:23	
1,2-Dichloropropane	ug/L	ND	1.0	12/30/21 16:23	
1,3-Dichlorobenzene	ug/L	ND	1.0	12/30/21 16:23	
1,3-Dichloropropane	ug/L	ND	1.0	12/30/21 16:23	
1,4-Dichlorobenzene	ug/L	ND	1.0	12/30/21 16:23	
2,2-Dichloropropane	ug/L	ND	1.0	12/30/21 16:23	
2-Butanone (MEK)	ug/L	ND	5.0	12/30/21 16:23	
2-Chlorotoluene	ug/L	ND	1.0	12/30/21 16:23	
2-Hexanone	ug/L	ND	5.0	12/30/21 16:23	
4-Chlorotoluene	ug/L	ND	1.0	12/30/21 16:23	
4-Methyl-2-pentanone (MIBK)	ug/L	ND	5.0	12/30/21 16:23	
Acetone	ug/L	ND	25.0	12/30/21 16:23	
Benzene	ug/L	ND	1.0	12/30/21 16:23	
Bromobenzene	ug/L	ND	1.0	12/30/21 16:23	
Bromochloromethane	ug/L	ND	1.0	12/30/21 16:23	
Bromodichloromethane	ug/L	ND	1.0	12/30/21 16:23	
Bromoform	ug/L	ND	1.0	12/30/21 16:23	
Bromomethane	ug/L	ND	2.0	12/30/21 16:23	v2
Carbon tetrachloride	ug/L	ND	1.0	12/30/21 16:23	
Chlorobenzene	ug/L	ND	1.0	12/30/21 16:23	
Chloroethane	ug/L	ND	1.0	12/30/21 16:23	
Chloroform	ug/L	ND	1.0	12/30/21 16:23	
Chloromethane	ug/L	ND	1.0	12/30/21 16:23	
cis-1,2-Dichloroethene	ug/L	ND	1.0	12/30/21 16:23	
cis-1,3-Dichloropropene	ug/L	ND	1.0	12/30/21 16:23	
Dibromochloromethane	ug/L	ND	1.0	12/30/21 16:23	
Dibromomethane	ug/L	ND	1.0	12/30/21 16:23	

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QUALITY CONTROL DATA

Project: FORMER KOP-FLEX FACILITY SITE
Pace Project No.: 92580514

METHOD BLANK: 3505103 Matrix: Water
Associated Lab Samples: 92580514001, 92580514003, 92580514004, 92580514005, 92580514006

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Dichlorodifluoromethane	ug/L	ND	1.0	12/30/21 16:23	
Diisopropyl ether	ug/L	ND	1.0	12/30/21 16:23	
Ethylbenzene	ug/L	ND	1.0	12/30/21 16:23	
Hexachloro-1,3-butadiene	ug/L	ND	2.0	12/30/21 16:23	
m&p-Xylene	ug/L	ND	2.0	12/30/21 16:23	
Methyl-tert-butyl ether	ug/L	ND	1.0	12/30/21 16:23	
Methylene Chloride	ug/L	ND	5.0	12/30/21 16:23	
Naphthalene	ug/L	ND	1.0	12/30/21 16:23	
o-Xylene	ug/L	ND	1.0	12/30/21 16:23	
p-Isopropyltoluene	ug/L	ND	1.0	12/30/21 16:23	
Styrene	ug/L	ND	1.0	12/30/21 16:23	
Tetrachloroethene	ug/L	ND	1.0	12/30/21 16:23	
Toluene	ug/L	ND	1.0	12/30/21 16:23	
trans-1,2-Dichloroethene	ug/L	ND	1.0	12/30/21 16:23	
trans-1,3-Dichloropropene	ug/L	ND	1.0	12/30/21 16:23	
Trichloroethene	ug/L	ND	1.0	12/30/21 16:23	
Trichlorofluoromethane	ug/L	ND	1.0	12/30/21 16:23	
Vinyl acetate	ug/L	ND	2.0	12/30/21 16:23	
Vinyl chloride	ug/L	ND	1.0	12/30/21 16:23	
Xylene (Total)	ug/L	ND	1.0	12/30/21 16:23	
1,2-Dichloroethane-d4 (S)	%	85	70-130	12/30/21 16:23	
4-Bromofluorobenzene (S)	%	102	70-130	12/30/21 16:23	
Toluene-d8 (S)	%	107	70-130	12/30/21 16:23	

LABORATORY CONTROL SAMPLE: 3505104

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
1,1,1,2-Tetrachloroethane	ug/L	50	47.9	96	70-130	
1,1,1-Trichloroethane	ug/L	50	51.3	103	70-130	
1,1,2,2-Tetrachloroethane	ug/L	50	47.1	94	70-130	
1,1,2-Trichloroethane	ug/L	50	52.6	105	70-130	
1,1-Dichloroethane	ug/L	50	51.6	103	70-130	
1,1-Dichloroethene	ug/L	50	48.9	98	70-132	
1,1-Dichloropropene	ug/L	50	55.1	110	70-131	
1,2,3-Trichlorobenzene	ug/L	50	48.4	97	70-134	
1,2,3-Trichloropropane	ug/L	50	45.0	90	70-130	
1,2,4-Trichlorobenzene	ug/L	50	49.3	99	70-130	
1,2-Dibromo-3-chloropropane	ug/L	50	48.4	97	70-132	
1,2-Dibromoethane (EDB)	ug/L	50	47.6	95	70-130	
1,2-Dichlorobenzene	ug/L	50	46.7	93	70-130	
1,2-Dichloroethane	ug/L	50	48.0	96	70-130	
1,2-Dichloropropane	ug/L	50	54.8	110	70-130	
1,3-Dichlorobenzene	ug/L	50	46.3	93	70-130	
1,3-Dichloropropane	ug/L	50	47.7	95	70-130	

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(704)875-9092

QUALITY CONTROL DATA

Project: FORMER KOP-FLEX FACILITY SITE
Pace Project No.: 92580514

LABORATORY CONTROL SAMPLE: 3505104

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
1,4-Dichlorobenzene	ug/L	50	47.1	94	70-130	
2,2-Dichloropropane	ug/L	50	50.1	100	70-130	
2-Butanone (MEK)	ug/L	100	108	108	70-133	
2-Chlorotoluene	ug/L	50	45.1	90	70-130	
2-Hexanone	ug/L	100	84.5	84	70-130	
4-Chlorotoluene	ug/L	50	43.1	86	70-130	
4-Methyl-2-pentanone (MIBK)	ug/L	100	96.4	96	70-130	
Acetone	ug/L	100	99.4	99	70-144	
Benzene	ug/L	50	51.3	103	70-130	
Bromobenzene	ug/L	50	46.6	93	70-130	
Bromochloromethane	ug/L	50	57.5	115	70-130	
Bromodichloromethane	ug/L	50	50.1	100	70-130	
Bromoform	ug/L	50	50.7	101	70-131	
Bromomethane	ug/L	50	38.8	78	30-177	v2
Carbon tetrachloride	ug/L	50	49.0	98	70-130	
Chlorobenzene	ug/L	50	47.7	95	70-130	
Chloroethane	ug/L	50	41.6	83	46-131	
Chloroform	ug/L	50	51.6	103	70-130	
Chloromethane	ug/L	50	51.8	104	49-130	
cis-1,2-Dichloroethene	ug/L	50	51.4	103	70-130	
cis-1,3-Dichloropropene	ug/L	50	52.5	105	70-130	
Dibromochloromethane	ug/L	50	49.5	99	70-130	
Dibromomethane	ug/L	50	52.4	105	70-130	
Dichlorodifluoromethane	ug/L	50	45.5	91	52-134	
Diisopropyl ether	ug/L	50	51.3	103	70-131	
Ethylbenzene	ug/L	50	45.3	91	70-130	
Hexachloro-1,3-butadiene	ug/L	50	49.4	99	70-131	
m&p-Xylene	ug/L	100	90.5	90	70-130	
Methyl-tert-butyl ether	ug/L	50	54.5	109	70-130	
Methylene Chloride	ug/L	50	47.5	95	68-130	
Naphthalene	ug/L	50	47.1	94	70-133	
o-Xylene	ug/L	50	46.5	93	70-130	
p-Isopropyltoluene	ug/L	50	46.3	93	70-130	
Styrene	ug/L	50	47.1	94	70-130	
Tetrachloroethene	ug/L	50	47.9	96	70-130	
Toluene	ug/L	50	50.1	100	70-130	
trans-1,2-Dichloroethene	ug/L	50	52.4	105	70-130	
trans-1,3-Dichloropropene	ug/L	50	50.0	100	70-130	
Trichloroethene	ug/L	50	53.9	108	70-130	
Trichlorofluoromethane	ug/L	50	46.5	93	61-130	
Vinyl acetate	ug/L	100	116	116	70-140	
Vinyl chloride	ug/L	50	51.4	103	59-142	
Xylene (Total)	ug/L	150	137	91	70-130	
1,2-Dichloroethane-d4 (S)	%			89	70-130	
4-Bromofluorobenzene (S)	%			99	70-130	
Toluene-d8 (S)	%			101	70-130	

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QUALITY CONTROL DATA

Project: FORMER KOP-FLEX FACILITY SITE
Pace Project No.: 92580514

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3505105 3505106

Parameter	Units	92580519001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
1,1,1,2-Tetrachloroethane	ug/L	ND	20	20	14.0	19.1	70	95	70-135	30	30	
1,1,1-Trichloroethane	ug/L	3.3	20	20	21.2	27.0	89	118	70-148	24	30	
1,1,2,2-Tetrachloroethane	ug/L	ND	20	20	14.6	19.3	73	97	70-131	28	30	
1,1,2-Trichloroethane	ug/L	ND	20	20	16.3	21.6	82	108	70-136	28	30	
1,1-Dichloroethane	ug/L	3.0	20	20	21.0	26.7	90	119	70-147	24	30	
1,1-Dichloroethene	ug/L	45.5	20	20	64.3	70.0	94	122	70-158	9	30	
1,1-Dichloropropene	ug/L	ND	20	20	17.2	23.8	86	119	70-149	33	30	R1
1,2,3-Trichlorobenzene	ug/L	ND	20	20	15.8	19.1	79	96	68-140	19	30	
1,2,3-Trichloropropane	ug/L	ND	20	20	14.1	19.2	70	96	67-137	31	30	R1
1,2,4-Trichlorobenzene	ug/L	ND	20	20	15.5	19.3	77	97	70-139	22	30	
1,2-Dibromo-3-chloropropane	ug/L	ND	20	20	14.4	19.1	72	95	69-136	28	30	
1,2-Dibromoethane (EDB)	ug/L	ND	20	20	14.0	19.1	70	95	70-137	31	30	R1
1,2-Dichlorobenzene	ug/L	ND	20	20	14.6	18.9	73	95	70-133	26	30	
1,2-Dichloroethane	ug/L	ND	20	20	16.5	21.9	80	107	67-138	28	30	
1,2-Dichloropropane	ug/L	ND	20	20	17.2	22.9	86	115	70-138	29	30	
1,3-Dichlorobenzene	ug/L	ND	20	20	14.7	19.0	74	95	70-133	25	30	
1,3-Dichloropropane	ug/L	ND	20	20	14.0	18.9	70	94	70-136	30	30	
1,4-Dichlorobenzene	ug/L	ND	20	20	14.8	19.3	74	97	70-133	26	30	
2,2-Dichloropropane	ug/L	ND	20	20	16.8	22.6	84	113	52-155	29	30	
2-Butanone (MEK)	ug/L	ND	40	40	31.6	42.7	79	107	61-147	30	30	
2-Chlorotoluene	ug/L	ND	20	20	14.7	19.2	73	96	70-141	26	30	
2-Hexanone	ug/L	ND	40	40	27.3	35.8	68	90	67-139	27	30	
4-Chlorotoluene	ug/L	ND	20	20	14.2	18.5	71	92	70-135	26	30	
4-Methyl-2-pentanone (MIBK)	ug/L	ND	40	40	30.3	40.6	76	101	67-136	29	30	
Acetone	ug/L	ND	40	40	28.9	39.3	72	98	55-159	30	30	
Benzene	ug/L	ND	20	20	16.6	22.1	83	110	67-150	29	30	
Bromobenzene	ug/L	ND	20	20	14.6	19.1	73	96	70-134	26	30	
Bromochloromethane	ug/L	ND	20	20	18.1	24.5	91	122	70-146	30	30	
Bromodichloromethane	ug/L	ND	20	20	16.0	21.1	80	105	70-138	27	30	
Bromoform	ug/L	ND	20	20	14.6	20.0	73	100	57-138	31	30	R1
Bromomethane	ug/L	ND	20	20	17.1	21.9	86	110	10-200	25	30	
Carbon tetrachloride	ug/L	ND	20	20	16.4	21.7	82	108	70-147	28	30	
Chlorobenzene	ug/L	ND	20	20	15.1	20.1	76	100	70-137	28	30	
Chloroethane	ug/L	ND	20	20	20.7	26.6	104	133	51-166	25	30	
Chloroform	ug/L	ND	20	20	16.9	22.7	84	113	70-144	30	30	
Chloromethane	ug/L	ND	20	20	17.8	23.8	89	119	24-161	29	30	
cis-1,2-Dichloroethene	ug/L	ND	20	20	17.5	23.2	88	116	67-148	28	30	
cis-1,3-Dichloropropene	ug/L	ND	20	20	15.5	21.0	78	105	70-142	30	30	
Dibromochloromethane	ug/L	ND	20	20	14.1	18.9	71	95	68-138	29	30	
Dibromomethane	ug/L	ND	20	20	16.8	22.3	84	111	70-134	28	30	
Dichlorodifluoromethane	ug/L	ND	20	20	14.3	19.3	71	96	43-155	30	30	
Diisopropyl ether	ug/L	ND	20	20	15.6	21.1	78	106	65-146	30	30	
Ethylbenzene	ug/L	ND	20	20	15.0	19.4	75	97	68-143	26	30	
Hexachloro-1,3-butadiene	ug/L	ND	20	20	17.4	20.6	87	103	62-151	17	30	

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QUALITY CONTROL DATA

Project: FORMER KOP-FLEX FACILITY SITE
Pace Project No.: 92580514

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3505105 3505106

Parameter	Units	92580519001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
m&p-Xylene	ug/L	ND	40	40	29.8	39.4	75	98	53-157	28	30	
Methyl-tert-butyl ether	ug/L	ND	20	20	15.7	20.9	78	104	59-156	29	30	
Methylene Chloride	ug/L	ND	20	20	16.3	21.9	82	110	64-148	29	30	
Naphthalene	ug/L	ND	20	20	14.5	17.7	72	89	57-150	20	30	
o-Xylene	ug/L	ND	20	20	15.0	19.8	75	99	68-143	28	30	
p-Isopropyltoluene	ug/L	ND	20	20	15.1	19.1	76	96	70-141	23	30	
Styrene	ug/L	ND	20	20	14.9	19.5	75	98	70-136	27	30	
Tetrachloroethene	ug/L	ND	20	20	14.7	19.8	74	99	70-139	29	30	
Toluene	ug/L	ND	20	20	16.9	21.9	84	109	47-157	26	30	
trans-1,2-Dichloroethene	ug/L	ND	20	20	17.9	24.1	89	120	70-149	30	30	
trans-1,3-Dichloropropene	ug/L	ND	20	20	15.4	20.2	77	101	70-138	27	30	
Trichloroethene	ug/L	ND	20	20	17.0	22.5	85	113	70-149	28	30	
Trichlorofluoromethane	ug/L	ND	20	20	16.6	22.3	83	112	61-154	29	30	
Vinyl acetate	ug/L	ND	40	40	34.1	46.2	85	116	48-156	30	30	v1
Vinyl chloride	ug/L	ND	20	20	17.2	23.6	86	118	55-172	31	30	R1
Xylene (Total)	ug/L	ND	60	60	44.8	59.2	75	99	66-145	28	30	
1,2-Dichloroethane-d4 (S)	%						97	94	70-130			
4-Bromofluorobenzene (S)	%						102	101	70-130			
Toluene-d8 (S)	%						104	102	70-130			

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QUALITY CONTROL DATA

Project: FORMER KOP-FLEX FACILITY SITE
Pace Project No.: 92580514

QC Batch: 669651
QC Batch Method: EPA 8260D
Analysis Method: EPA 8260D
Analysis Description: 8260D MSV Low Level
Laboratory: Pace Analytical Services - Charlotte

Associated Lab Samples: 92580514002

METHOD BLANK: 3506312 Matrix: Water
Associated Lab Samples: 92580514002

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
1,1,1,2-Tetrachloroethane	ug/L	ND	1.0	01/04/22 12:30	
1,1,1-Trichloroethane	ug/L	ND	1.0	01/04/22 12:30	
1,1,2,2-Tetrachloroethane	ug/L	ND	1.0	01/04/22 12:30	
1,1,2-Trichloroethane	ug/L	ND	1.0	01/04/22 12:30	
1,1-Dichloroethane	ug/L	ND	1.0	01/04/22 12:30	
1,1-Dichloroethene	ug/L	ND	1.0	01/04/22 12:30	
1,1-Dichloropropene	ug/L	ND	1.0	01/04/22 12:30	
1,2,3-Trichlorobenzene	ug/L	ND	1.0	01/04/22 12:30	
1,2,3-Trichloropropane	ug/L	ND	1.0	01/04/22 12:30	
1,2,4-Trichlorobenzene	ug/L	ND	1.0	01/04/22 12:30	
1,2-Dibromo-3-chloropropane	ug/L	ND	2.0	01/04/22 12:30	
1,2-Dibromoethane (EDB)	ug/L	ND	1.0	01/04/22 12:30	
1,2-Dichlorobenzene	ug/L	ND	1.0	01/04/22 12:30	
1,2-Dichloroethane	ug/L	ND	1.0	01/04/22 12:30	
1,2-Dichloropropane	ug/L	ND	1.0	01/04/22 12:30	
1,3-Dichlorobenzene	ug/L	ND	1.0	01/04/22 12:30	
1,3-Dichloropropane	ug/L	ND	1.0	01/04/22 12:30	
1,4-Dichlorobenzene	ug/L	ND	1.0	01/04/22 12:30	
2,2-Dichloropropane	ug/L	ND	1.0	01/04/22 12:30	
2-Butanone (MEK)	ug/L	ND	5.0	01/04/22 12:30	
2-Chlorotoluene	ug/L	ND	1.0	01/04/22 12:30	
2-Hexanone	ug/L	ND	5.0	01/04/22 12:30	
4-Chlorotoluene	ug/L	ND	1.0	01/04/22 12:30	
4-Methyl-2-pentanone (MIBK)	ug/L	ND	5.0	01/04/22 12:30	
Acetone	ug/L	ND	25.0	01/04/22 12:30	
Benzene	ug/L	ND	1.0	01/04/22 12:30	
Bromobenzene	ug/L	ND	1.0	01/04/22 12:30	
Bromochloromethane	ug/L	ND	1.0	01/04/22 12:30	
Bromodichloromethane	ug/L	ND	1.0	01/04/22 12:30	
Bromoform	ug/L	ND	1.0	01/04/22 12:30	
Bromomethane	ug/L	ND	2.0	01/04/22 12:30	v1
Carbon tetrachloride	ug/L	ND	1.0	01/04/22 12:30	
Chlorobenzene	ug/L	ND	1.0	01/04/22 12:30	
Chloroethane	ug/L	ND	1.0	01/04/22 12:30	
Chloroform	ug/L	ND	1.0	01/04/22 12:30	
Chloromethane	ug/L	ND	1.0	01/04/22 12:30	
cis-1,2-Dichloroethene	ug/L	ND	1.0	01/04/22 12:30	
cis-1,3-Dichloropropene	ug/L	ND	1.0	01/04/22 12:30	
Dibromochloromethane	ug/L	ND	1.0	01/04/22 12:30	
Dibromomethane	ug/L	ND	1.0	01/04/22 12:30	

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REPORT OF LABORATORY ANALYSIS

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(704)875-9092

QUALITY CONTROL DATA

Project: FORMER KOP-FLEX FACILITY SITE
Pace Project No.: 92580514

METHOD BLANK: 3506312 Matrix: Water
Associated Lab Samples: 92580514002

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Dichlorodifluoromethane	ug/L	ND	1.0	01/04/22 12:30	
Diisopropyl ether	ug/L	ND	1.0	01/04/22 12:30	
Ethylbenzene	ug/L	ND	1.0	01/04/22 12:30	
Hexachloro-1,3-butadiene	ug/L	ND	2.0	01/04/22 12:30	
m&p-Xylene	ug/L	ND	2.0	01/04/22 12:30	
Methyl-tert-butyl ether	ug/L	ND	1.0	01/04/22 12:30	
Methylene Chloride	ug/L	ND	5.0	01/04/22 12:30	
Naphthalene	ug/L	ND	1.0	01/04/22 12:30	
o-Xylene	ug/L	ND	1.0	01/04/22 12:30	
p-Isopropyltoluene	ug/L	ND	1.0	01/04/22 12:30	
Styrene	ug/L	ND	1.0	01/04/22 12:30	
Tetrachloroethene	ug/L	ND	1.0	01/04/22 12:30	
Toluene	ug/L	ND	1.0	01/04/22 12:30	
trans-1,2-Dichloroethene	ug/L	ND	1.0	01/04/22 12:30	
trans-1,3-Dichloropropene	ug/L	ND	1.0	01/04/22 12:30	
Trichloroethene	ug/L	ND	1.0	01/04/22 12:30	
Trichlorofluoromethane	ug/L	ND	1.0	01/04/22 12:30	
Vinyl acetate	ug/L	ND	2.0	01/04/22 12:30	
Vinyl chloride	ug/L	ND	1.0	01/04/22 12:30	
Xylene (Total)	ug/L	ND	1.0	01/04/22 12:30	
1,2-Dichloroethane-d4 (S)	%	112	70-130	01/04/22 12:30	
4-Bromofluorobenzene (S)	%	104	70-130	01/04/22 12:30	
Toluene-d8 (S)	%	104	70-130	01/04/22 12:30	

LABORATORY CONTROL SAMPLE: 3506313

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
1,1,1,2-Tetrachloroethane	ug/L	50	47.1	94	70-130	
1,1,1-Trichloroethane	ug/L	50	51.1	102	70-130	
1,1,2,2-Tetrachloroethane	ug/L	50	47.7	95	70-130	
1,1,2-Trichloroethane	ug/L	50	48.4	97	70-130	
1,1-Dichloroethane	ug/L	50	50.5	101	70-130	
1,1-Dichloroethene	ug/L	50	49.7	99	70-132	
1,1-Dichloropropene	ug/L	50	51.9	104	70-131	
1,2,3-Trichlorobenzene	ug/L	50	46.1	92	70-134	
1,2,3-Trichloropropane	ug/L	50	44.0	88	70-130	
1,2,4-Trichlorobenzene	ug/L	50	46.2	92	70-130	
1,2-Dibromo-3-chloropropane	ug/L	50	49.0	98	70-132	
1,2-Dibromoethane (EDB)	ug/L	50	49.3	99	70-130	
1,2-Dichlorobenzene	ug/L	50	45.5	91	70-130	
1,2-Dichloroethane	ug/L	50	49.5	99	70-130	
1,2-Dichloropropane	ug/L	50	50.7	101	70-130	
1,3-Dichlorobenzene	ug/L	50	46.6	93	70-130	
1,3-Dichloropropane	ug/L	50	46.4	93	70-130	

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QUALITY CONTROL DATA

Project: FORMER KOP-FLEX FACILITY SITE
Pace Project No.: 92580514

LABORATORY CONTROL SAMPLE: 3506313

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
1,4-Dichlorobenzene	ug/L	50	46.3	93	70-130	
2,2-Dichloropropane	ug/L	50	53.8	108	70-130	
2-Butanone (MEK)	ug/L	100	99.5	100	70-133	
2-Chlorotoluene	ug/L	50	47.2	94	70-130	
2-Hexanone	ug/L	100	91.7	92	70-130	
4-Chlorotoluene	ug/L	50	45.8	92	70-130	
4-Methyl-2-pentanone (MIBK)	ug/L	100	94.0	94	70-130	
Acetone	ug/L	100	107	107	70-144	
Benzene	ug/L	50	47.2	94	70-130	
Bromobenzene	ug/L	50	46.9	94	70-130	
Bromochloromethane	ug/L	50	52.9	106	70-130	
Bromodichloromethane	ug/L	50	49.3	99	70-130	
Bromoform	ug/L	50	48.1	96	70-131	
Bromomethane	ug/L	50	67.7	135	30-177	v1
Carbon tetrachloride	ug/L	50	46.6	93	70-130	
Chlorobenzene	ug/L	50	46.6	93	70-130	
Chloroethane	ug/L	50	77.3	155	46-131	L1
Chloroform	ug/L	50	51.9	104	70-130	
Chloromethane	ug/L	50	47.8	96	49-130	
cis-1,2-Dichloroethene	ug/L	50	50.9	102	70-130	
cis-1,3-Dichloropropene	ug/L	50	49.0	98	70-130	
Dibromochloromethane	ug/L	50	48.9	98	70-130	
Dibromomethane	ug/L	50	43.2	86	70-130	
Dichlorodifluoromethane	ug/L	50	45.9	92	52-134	
Diisopropyl ether	ug/L	50	48.1	96	70-131	
Ethylbenzene	ug/L	50	46.8	94	70-130	
Hexachloro-1,3-butadiene	ug/L	50	50.1	100	70-131	
m&p-Xylene	ug/L	100	93.5	93	70-130	
Methyl-tert-butyl ether	ug/L	50	49.8	100	70-130	
Methylene Chloride	ug/L	50	51.1	102	68-130	
Naphthalene	ug/L	50	46.8	94	70-133	
o-Xylene	ug/L	50	46.5	93	70-130	
p-Isopropyltoluene	ug/L	50	46.9	94	70-130	
Styrene	ug/L	50	47.5	95	70-130	
Tetrachloroethene	ug/L	50	45.7	91	70-130	
Toluene	ug/L	50	47.4	95	70-130	
trans-1,2-Dichloroethene	ug/L	50	53.4	107	70-130	
trans-1,3-Dichloropropene	ug/L	50	48.2	96	70-130	
Trichloroethene	ug/L	50	47.1	94	70-130	
Trichlorofluoromethane	ug/L	50	51.6	103	61-130	
Vinyl acetate	ug/L	100	102	102	70-140	
Vinyl chloride	ug/L	50	49.9	100	59-142	
Xylene (Total)	ug/L	150	140	93	70-130	
1,2-Dichloroethane-d4 (S)	%			107	70-130	
4-Bromofluorobenzene (S)	%			104	70-130	
Toluene-d8 (S)	%			102	70-130	

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QUALITY CONTROL DATA

Project: FORMER KOP-FLEX FACILITY SITE
Pace Project No.: 92580514

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3506314 3506315

Parameter	Units	92580601016 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
1,1,1,2-Tetrachloroethane	ug/L	ND	200	200	205	201	103	101	70-135	2	30	
1,1,1-Trichloroethane	ug/L	ND	200	200	247	230	123	115	70-148	7	30	
1,1,2,2-Tetrachloroethane	ug/L	ND	200	200	213	206	107	103	70-131	4	30	
1,1,2-Trichloroethane	ug/L	ND	200	200	225	224	113	112	70-136	1	30	
1,1-Dichloroethane	ug/L	ND	200	200	237	228	118	114	70-147	3	30	
1,1-Dichloroethene	ug/L	ND	200	200	239	227	119	114	70-158	5	30	
1,1-Dichloropropene	ug/L	ND	200	200	254	238	127	119	70-149	7	30	
1,2,3-Trichlorobenzene	ug/L	ND	200	200	200	207	100	103	68-140	3	30	
1,2,3-Trichloropropane	ug/L	ND	200	200	203	198	101	99	67-137	3	30	
1,2,4-Trichlorobenzene	ug/L	ND	200	200	202	214	101	107	70-139	6	30	
1,2-Dibromo-3-chloropropane	ug/L	ND	200	200	199	203	99	101	69-136	2	30	
1,2-Dibromoethane (EDB)	ug/L	ND	200	200	219	211	109	105	70-137	4	30	
1,2-Dichlorobenzene	ug/L	ND	200	200	199	206	100	103	70-133	3	30	
1,2-Dichloroethane	ug/L	ND	200	200	229	218	114	109	67-138	5	30	
1,2-Dichloropropane	ug/L	ND	200	200	241	227	121	114	70-138	6	30	
1,3-Dichlorobenzene	ug/L	ND	200	200	206	213	103	106	70-133	3	30	
1,3-Dichloropropane	ug/L	ND	200	200	213	207	106	103	70-136	3	30	
1,4-Dichlorobenzene	ug/L	ND	200	200	209	210	105	105	70-133	0	30	
2,2-Dichloropropane	ug/L	ND	200	200	240	224	120	112	52-155	7	30	
2-Butanone (MEK)	ug/L	ND	400	400	502	499	126	125	61-147	1	30	
2-Chlorotoluene	ug/L	ND	200	200	254	254	127	127	70-141	0	30	
2-Hexanone	ug/L	ND	400	400	407	391	102	98	67-139	4	30	
4-Chlorotoluene	ug/L	ND	200	200	210	211	105	106	70-135	0	30	
4-Methyl-2-pentanone (MIBK)	ug/L	ND	400	400	425	421	106	105	67-136	1	30	
Acetone	ug/L	ND	400	400	673	631	168	158	55-159	6	30	M1
Benzene	ug/L	228	200	200	443	435	107	104	67-150	2	30	
Bromobenzene	ug/L	ND	200	200	210	217	105	109	70-134	3	30	
Bromochloromethane	ug/L	ND	200	200	243	237	121	118	70-146	3	30	
Bromodichloromethane	ug/L	ND	200	200	214	211	107	106	70-138	1	30	
Bromoform	ug/L	ND	200	200	185	185	92	92	57-138	0	30	
Bromomethane	ug/L	ND	200	200	301	285	146	138	10-200	5	30	v1
Carbon tetrachloride	ug/L	ND	200	200	222	220	111	110	70-147	1	30	
Chlorobenzene	ug/L	ND	200	200	211	210	106	105	70-137	1	30	
Chloroethane	ug/L	ND	200	200	311	231	156	115	51-166	30	30	
Chloroform	ug/L	ND	200	200	248	248	124	124	70-144	0	30	
Chloromethane	ug/L	ND	200	200	217	205	108	103	24-161	6	30	
cis-1,2-Dichloroethene	ug/L	ND	200	200	243	232	121	116	67-148	5	30	
cis-1,3-Dichloropropene	ug/L	ND	200	200	210	208	105	104	70-142	1	30	
Dibromochloromethane	ug/L	ND	200	200	203	202	102	101	68-138	1	30	
Dibromomethane	ug/L	ND	200	200	186	193	93	97	70-134	4	30	
Dichlorodifluoromethane	ug/L	ND	200	200	222	214	111	107	43-155	4	30	
Diisopropyl ether	ug/L	ND	200	200	232	216	116	108	65-146	7	30	
Ethylbenzene	ug/L	1230	200	200	1420	1390	92	78	68-143	2	30	
Hexachloro-1,3-butadiene	ug/L	ND	200	200	223	222	112	111	62-151	1	30	

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QUALITY CONTROL DATA

Project: FORMER KOP-FLEX FACILITY SITE
Pace Project No.: 92580514

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3506314 3506315

Parameter	Units	92580601016 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
m&p-Xylene	ug/L	1460	400	400	1860	1820	101	90	53-157	2	30	
Methyl-tert-butyl ether	ug/L	ND	200	200	228	220	114	110	59-156	4	30	
Methylene Chloride	ug/L	ND	200	200	245	231	122	116	64-148	6	30	
Naphthalene	ug/L	226	200	200	433	440	103	107	57-150	2	30	
o-Xylene	ug/L	376	200	200	590	574	107	99	68-143	3	30	
p-Isopropyltoluene	ug/L	38.6	200	200	264	267	113	114	70-141	1	30	
Styrene	ug/L	ND	200	200	219	215	109	108	70-136	2	30	
Tetrachloroethene	ug/L	ND	200	200	205	203	103	102	70-139	1	30	
Toluene	ug/L	10.8	200	200	229	224	109	107	47-157	2	30	
trans-1,2-Dichloroethene	ug/L	ND	200	200	248	240	124	120	70-149	3	30	
trans-1,3-Dichloropropene	ug/L	ND	200	200	208	211	104	105	70-138	2	30	
Trichloroethene	ug/L	ND	200	200	215	213	107	107	70-149	1	30	
Trichlorofluoromethane	ug/L	ND	200	200	223	217	111	108	61-154	3	30	
Vinyl acetate	ug/L	ND	400	400	465	442	116	110	48-156	5	30	
Vinyl chloride	ug/L	ND	200	200	244	233	122	117	55-172	4	30	
Xylene (Total)	ug/L	1840	600	600	2450	2390	103	93	66-145	2	30	
1,2-Dichloroethane-d4 (S)	%						103	99	70-130			
4-Bromofluorobenzene (S)	%						104	103	70-130			
Toluene-d8 (S)	%						101	102	70-130			

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QUALITY CONTROL DATA

Project: FORMER KOP-FLEX FACILITY SITE
Pace Project No.: 92580514

QC Batch: 669494
QC Batch Method: EPA 8260D Mod.
Analysis Method: EPA 8260D Mod.
Analysis Description: 8260D MSV SIM
Laboratory: Pace Analytical Services - Charlotte
Associated Lab Samples: 92580514003, 92580514004, 92580514005

METHOD BLANK: 3505593 Matrix: Water
Associated Lab Samples: 92580514003, 92580514004, 92580514005

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
1,4-Dioxane (p-Dioxane)	ug/L	ND	2.0	01/03/22 14:19	
1,2-Dichloroethane-d4 (S)	%	94	70-130	01/03/22 14:19	
Toluene-d8 (S)	%	92	66-133	01/03/22 14:19	

LABORATORY CONTROL SAMPLE: 3505594

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
1,4-Dioxane (p-Dioxane)	ug/L	20	19.8	99	70-130	
1,2-Dichloroethane-d4 (S)	%			91	70-130	
Toluene-d8 (S)	%			90	66-133	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3505595 3505596

Parameter	Units	92580514003 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
1,4-Dioxane (p-Dioxane)	ug/L	11.1	20	20	31.5	30.3	102	96	64-141	4	30	
1,2-Dichloroethane-d4 (S)	%						90	91	70-130		30	
Toluene-d8 (S)	%						92	92	66-133		30	

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QUALITY CONTROL DATA

Project: FORMER KOP-FLEX FACILITY SITE
Pace Project No.: 92580514

QC Batch: 669652
QC Batch Method: EPA 8260D Mod.
Analysis Method: EPA 8260D Mod.
Analysis Description: 8260D MSV SIM
Laboratory: Pace Analytical Services - Charlotte
Associated Lab Samples: 92580514001, 92580514002

METHOD BLANK: 3506319 Matrix: Water
Associated Lab Samples: 92580514001, 92580514002

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
1,4-Dioxane (p-Dioxane)	ug/L	ND	2.0	01/04/22 12:31	
1,2-Dichloroethane-d4 (S)	%	94	70-130	01/04/22 12:31	
Toluene-d8 (S)	%	95	66-133	01/04/22 12:31	

LABORATORY CONTROL SAMPLE: 3506320

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
1,4-Dioxane (p-Dioxane)	ug/L	20	20.0	100	70-130	
1,2-Dichloroethane-d4 (S)	%			98	70-130	
Toluene-d8 (S)	%			97	66-133	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3506321 3506322

Parameter	Units	92580514001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
1,4-Dioxane (p-Dioxane)	ug/L	294	100	100	382	405	88	111	64-141	6	30	
1,2-Dichloroethane-d4 (S)	%						92	90	70-130		30	
Toluene-d8 (S)	%						93	91	66-133		30	

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QUALIFIERS

Project: FORMER KOP-FLEX FACILITY SITE
Pace Project No.: 92580514

DEFINITIONS

DF - Dilution Factor, if reported, represents the factor applied to the reported data due to dilution of the sample aliquot.

ND - Not Detected at or above adjusted reporting limit.

TNTC - Too Numerous To Count

J - Estimated concentration above the adjusted method detection limit and below the adjusted reporting limit.

MDL - Adjusted Method Detection Limit.

PQL - Practical Quantitation Limit.

RL - Reporting Limit - The lowest concentration value that meets project requirements for quantitative data with known precision and bias for a specific analyte in a specific matrix.

S - Surrogate

1,2-Diphenylhydrazine decomposes to and cannot be separated from Azobenzene using Method 8270. The result for each analyte is a combined concentration.

Consistent with EPA guidelines, unrounded data are displayed and have been used to calculate % recovery and RPD values.

LCS(D) - Laboratory Control Sample (Duplicate)

MS(D) - Matrix Spike (Duplicate)

DUP - Sample Duplicate

RPD - Relative Percent Difference

NC - Not Calculable.

SG - Silica Gel - Clean-Up

U - Indicates the compound was analyzed for, but not detected.

Acid preservation may not be appropriate for 2 Chloroethylvinyl ether.

A separate vial preserved to a pH of 4-5 is recommended in SW846 Chapter 4 for the analysis of Acrolein and Acrylonitrile by EPA Method 8260.

N-Nitrosodiphenylamine decomposes and cannot be separated from Diphenylamine using Method 8270. The result reported for each analyte is a combined concentration.

Reported results are not rounded until the final step prior to reporting. Therefore, calculated parameters that are typically reported as "Total" may vary slightly from the sum of the reported component parameters.

Pace Analytical is TNI accredited. Contact your Pace PM for the current list of accredited analytes.

TNI - The NELAC Institute.

ANALYTE QUALIFIERS

L1	Analyte recovery in the laboratory control sample (LCS) was above QC limits. Results for this analyte in associated samples may be biased high.
M1	Matrix spike recovery exceeded QC limits. Batch accepted based on laboratory control sample (LCS) recovery.
R1	RPD value was outside control limits.
v1	The continuing calibration verification was above the method acceptance limit. Any detection for the analyte in the associated samples may have a high bias.
v2	The continuing calibration verification was below the method acceptance limit. The analyte was not detected in the associated samples and the sensitivity of the instrument was verified with a reporting limit check standard.

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QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: FORMER KOP-FLEX FACILITY SITE
Pace Project No.: 92580514

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
92580514001	**RW-1S**	EPA 8260D	669320		
92580514002	**RW-2S**	EPA 8260D	669651		
92580514003	**RW-3S**	EPA 8260D	669320		
92580514004	**RW-1D**	EPA 8260D	669320		
92580514005	**RW-2D**	EPA 8260D	669320		
92580514006	**TRIP BLANK B**	EPA 8260D	669320		
92580514001	**RW-1S**	EPA 8260D Mod.	669652		
92580514002	**RW-2S**	EPA 8260D Mod.	669652		
92580514003	**RW-3S**	EPA 8260D Mod.	669494		
92580514004	**RW-1D**	EPA 8260D Mod.	669494		
92580514005	**RW-2D**	EPA 8260D Mod.	669494		

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Pace Analytical®	Document Name: Sample Condition Upon Receipt (SCUR)	Document Revised: November 15, 2021 Page 1 of 2
	Document No.: F-CAR-CS-033-Rev.08	Issuing Authority: Pace Carolinas Quality Office

Laboratory receiving samples:

Asheville ☐ Eden ☐ Greenwood ☐ Huntersville ☒ Raleigh ☐ Mechanicsville ☐ Atlanta ☐ Kernersville ☐

Sample Condition Upon Receipt

Client Name: WSP Environmental Strategies

Project #: WO# : 92580514

92580514

Courier: ☐ Commercial ☒ Fed Ex ☐ UPS ☐ USPS ☐ Client ☐ Pace ☐ Other:____

Custody Seal Present? ☐ Yes ☒ No **Seals Intact?** ☐ Yes ☒ No

Date/Initials Person Examining Contents: 12-30-21 JC

Packing Material: ☒ Bubble Wrap ☒ Bubble Bags ☐ None ☐ Other

Biological Tissue Frozen? ☐ Yes ☐ No ☒ N/A

Thermometer: ☒ IR Gun ID: 92TD64 ☒ Wet ☐ Blue ☐ None

Type of Ice:

Cooler Temp: 3.1 **Correction Factor:** Add/Subtract (°C) 0.0

Cooler Temp Corrected (°C): 3.1

Temp should be above freezing to 6°C

☐ Samples out of temp criteria. Samples on ice, cooling process has begun

USDA Regulated Soil (☒ N/A, water sample)

Did samples originate in a quarantine zone within the United States: CA, NY, or SC (check maps)? ☐ Yes ☐ No

Did samples originate from a foreign source (internationally, including Hawaii and Puerto Rico)? ☐ Yes ☐ No

				Comments/Discrepancy:
Chain of Custody Present?	☒ Yes	☐ No	☐ N/A	1.
Samples Arrived within Hold Time?	☒ Yes	☐ No	☐ N/A	2.
Short Hold Time Analysis (<72 hr.)?	☐ Yes	☒ No	☐ N/A	3.
Rush Turn Around Time Requested?	☐ Yes	☒ No	☐ N/A	4.
Sufficient Volume?	☒ Yes	☐ No	☐ N/A	5.
Correct Containers Used?	☒ Yes	☐ No	☐ N/A	6.
-Pace Containers Used?	☒ Yes	☐ No	☐ N/A	
Containers Intact?	☒ Yes	☐ No	☐ N/A	7.
Dissolved analysis: Samples Field Filtered?	☐ Yes	☐ No	☒ N/A	8.
Sample Labels Match COC?	☒ Yes	☐ No	☐ N/A	9.
-Includes Date/Time/ID/Analysis Matrix: WT				
Headspace in VOA Vials (>5-6mm)?	☐ Yes	☒ No	☐ N/A	10.
Trip Blank Present?	☒ Yes	☐ No	☐ N/A	11.
Trip Blank Custody Seals Present?	☐ Yes	☒ No	☐ N/A	

COMMENTS/SAMPLE DISCREPANCY

Field Data Required? ☐ Yes ☐ No

Lot ID of split containers:

CLIENT NOTIFICATION/RESOLUTION

Person contacted: _____ Date/Time: _____

Project Manager SCURF Review: _____ **Date:** _____

Project Manager SRF Review: _____ **Date:** _____

***Check mark top half of box if pH and/or dechlorination is verified and within the acceptance range for preservation samples.**

Exceptions: VOA, Coliform, TOC, Oil and Grease, DRO/8015 (water) DOC, LLHg

****Bottom half of box is to list number of bottles**

Project # WO#: 92580514

PM: BV Due Date: 01/11/22

CLIENT: 92-WSP

Item#	BP4U-125 mL Plastic Unpreserved (N/A) (Cl-)	BP3U-250 mL Plastic Unpreserved (N/A)	BP2U-500 mL Plastic Unpreserved (N/A)	BP1U-1 liter Plastic Unpreserved (N/A)	BP4S-125 mL Plastic H2SO4 (pH < 2) (Cl-)	BP3N-250 mL plastic HNO3 (pH < 2)	BP4Z-125 mL Plastic ZN Acetate & NaOH (>9)	BP4B-125 mL Plastic NaOH (pH > 12) (Cl-)	WGFU-Wide-mouthed Glass jar Unpreserved	AG1U-1 liter Amber Unpreserved (N/A) (Cl-)	AG1H-1 liter Amber HCl (pH < 2)	AG3U-250 mL Amber Unpreserved (N/A) (Cl-)	AG1S-1 liter Amber H2SO4 (pH < 2)	AG3S-250 mL Amber H2SO4 (pH < 2)	AG3A(DG3A)-250 mL Amber NH4Cl (N/A)(Cl-)	DG9H-40 mL VOA HCl (N/A)	VG9T-40 mL VOA Na2S2O3 (N/A)	VG9U-40 mL VOA Unpreserved (N/A)	DG9P-40 mL VOA H3PO4 (N/A)	VOAK (3 vials per kit)-5035 kit (N/A)	V/GK (3 vials per kit)-VPH/Gas kit (N/A)	SP5T-125 mL Sterile Plastic (N/A – lab)	SP2T-250 mL Sterile Plastic (N/A – lab)		BP3A-250 mL Plastic (NH2)2SO4 (9.3-9.7)	AG0U-100 mL Amber Unpreserved vials (N/A)	VSGU-20 mL Scintillation vials (N/A)	DG9U-40 mL Amber Unpreserved vials (N/A)
1																6													
2																6													
3																6													
4																6													
5																6													
6																3													
7																													
8																													
9																													
10																													
11																													
12																													

pH Adjustment Log for Preserved Samples

Sample ID	Type of Preservative	pH upon receipt	Date preservation adjusted	Time preservation adjusted	Amount of Preservative added	Lot #

Note: Whenever there is a discrepancy affecting North Carolina compliance samples, a copy of this form will be sent to the North Carolina DEHNR Certification Office (I.e. Out of hold, incorrect preservative, out of temp, incorrect containers.

Pace Analytical
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CHAIN-OF-CUSTODY / Analytical Request Document

The Chain-of-Custody is a LEGAL DOCUMENT. All relevant fields must be completed accurately.

Submitting a sample via this chain of custody constitutes acknowledgment and acceptance of the Pace Terms and Conditions found at https://info.pacelabs.com/hubfs/pas-standard-terms.pdf.

Page : 1 Of 1

Section A Required Client Information:		Section B Required Project Information:		Section C Invoice Information:	
Company:	WSP Environmental Strategies	Report To:	Eric Johnson	Attention:	
Address:	13530 Dulles Technology Drive	Copy To:		Company Name:	
	Herndon, VA 20171			Address:	
Email:	eric.johnson@wsp.com	Purchase Order #:		Pace Quote:	31401545.010/3
Phone:	NONE Fax:	Project Name:	Former Kop-Flex Facility Site - Onsite	Pace Project Manager:	bonnie.vang@pacelabs.com,
Requested Due Date:		Project #:	31401545.010	Pace Profile #:	3610-8

Regulatory Agency	
State / Location	MD

ITEM #	SAMPLE ID One Character per box. (A-Z, 0-9 / , -) Sample Ids must be unique MATRIX / CODE: Drinking Water DW; Water WT; Waste Water WW; Product P; Soil/Solid SL; Oil OL; Wipe WP; Air AR; Other OT; Tissue TS	MATRIX CODE (see valid codes to left)	SAMPLE TYPE (G=GRAB C=COMP)	COLLECTED START DATE	COLLECTED START TIME	COLLECTED END DATE	COLLECTED END TIME	SAMPLE TEMP AT COLLECTION	# OF CONTAINERS	Preservatives: Unpreserved	H2SO4	HNO3	HCl	NaOH	Na2S2O3	Methanol	Other	Analyses Test Y/N	VOC by 8260	1,4-Dioxane	Trip BLANK	Residual Chlorine (Y/N)	92580514
1	RW-1S	WT	G			12/29/21	1150		6									X	X			001
2	RW-2S	WT	G			12/29/21	~~1155~~ 1200		6									X	X			002
3	RW-3S	WT	G			12/29/21	~~1200~~ 1205		6									X	X			003
4	RW-10	WT	G			12/29/21	1215		6									X	X			004
5	RW-2D	WT	G			12/29/21	1220		6									X	X			005
6	Trip Blank-B					12/29/21			3											X		006
7																						
8																						
9																						
10																						
11																						
12																						

ADDITIONAL COMMENTS	RELINQUISHED BY / AFFILIATION	DATE	TIME	ACCEPTED BY / AFFILIATION	DATE	TIME	SAMPLE CONDITIONS			
	Elliott Martynkiewicz	12/29/21	1335	Pace HVC	12/30/21	1430	3.1	Y	N	Y

SAMPLER NAME AND SIGNATURE

PRINT Name of SAMPLER: Elliott Martynkiewicz

SIGNATURE of SAMPLER: Elliott Martynkiewicz DATE Signed: 12/29/21

TEMP in C	Received on Ice (Y/N)	Custody Sealed Cooler (Y/N)	Samples Intact (Y/N)